Guidelines for the Management of Adult Patients with Gynaecological Cancers

2012
## Version Control

This is a controlled document please destroy all previous versions on receipt of a new version.

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**Review Date:** March 2014

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For the latest version of these guidelines please see the NEYHCA (Cancer) website  
Please press control and click on the link below

[www.hyccn.nhs.uk/NetworkGuidelinesAndPublications/GynaeOncologyNSSG.htm](http://www.hyccn.nhs.uk/NetworkGuidelinesAndPublications/GynaeOncologyNSSG.htm)
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1. Foreword

A guideline is “not a rigid constraint on clinical practice, but a concept of good practice against which the needs of the individual patient can be considered.” (RCR 1990)

It remains the responsibility of the practising Clinicians to interpret the application of guidelines, taking into account local service constraints, the needs and wishes of the patients.

In reviewing the summary guidelines, local clinicians and managers will be required to assess whether the guidance can be met, and if not what service developments need to be undertaken to achieve the ‘ideal service’ as defined by the available evidence. This must be agreed by the Chair of the Clinical Expert Group (CEG) and the Chair of the Cancer Management Group as part of the three year service development proposals.

All units should have policies or guidelines for care, with the guidelines developed through consultation between Diagnostic, Local and Specialist MDTs. These guidelines will form the basis for audit and evidence of relevant data collection should be demonstrated & reviewed annually. The main issues to monitor include clinical incidence, morbidity, pathology and monitoring of outcomes. The results will then be used to evaluate implementation of these guidelines and identify problem areas where further education and/or resources need to be targeted.

1.1 Objectives & Methodology

The Manual for Cancer Services states that CEGs should agree clinical and referral guidelines. Guidelines define structure, process and standards against which the development and quality of the service can be assessed through audit. They also allow the service to be reviewed against the ideal, in order to direct effective service development and investment, and ensure seamless care is delivered and maintained between primary, secondary and tertiary sectors.

1.2 NEYHCA (Cancer) Incidence & Survival

<table>
<thead>
<tr>
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<tbody>
<tr>
<td></td>
<td>England</td>
<td>NEYHCA (Cancer)</td>
<td>England</td>
<td>NEYHCA (Cancer)</td>
</tr>
<tr>
<td>C51-C58 all Female Genital Organs</td>
<td>42.73</td>
<td><strong>56.10</strong></td>
<td>16.35</td>
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<tr>
<td>C51 Vulva</td>
<td>2.37</td>
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<td><strong>14.11</strong></td>
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<td><strong>20.22</strong></td>
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<td>2.16</td>
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<td>17.65</td>
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Significantly worse than England rate
Significantly better than England rate

Data Source: NCIS, downloaded 29 Oct 2010
2. Service Organisation

2.1 Multidisciplinary Team Meetings (MDTs) - HEYHT & NLGHFT

*For a detailed outline of the Local & Specialist MDT services please see the National Cancer Action Team Measures.*

**Hull & East Yorkshire Hospitals NHS Trust** provides local, diagnostic and specialist Gynaecology services for the population of Hull and the East Riding. Hull also provides specialist cancer services to Scarborough and North East Yorkshire Healthcare NHS Trust and North Lincolnshire and Goole Hospitals NHS Foundation Trust.

The HEYHT Specialist MDT treats patients with high-risk endometrial carcinoma, patients with confirmed or highly suspected ovarian cancer, Cervical, Vaginal & Vulval cancers. The Local & Specialist Gynaecology Multi Disciplinary Team is held weekly at Castle Hill Hospital.

**Northern Lincolnshire and Goole Hospitals NHS Foundation Trust** provide local and diagnostic gynaecology cancer services for the population of Northern Lincolnshire and Goole, referring patients to specialist gynaecology teams for specialist care. The NLGHFT LMDT treats patients with low risk endometrial cancer and patients with low or medium risk of ovarian cancer.

The weekly Local Gynaecology Multi Disciplinary Team is video conferenced between the two South Bank Sites – Diana Princess of Wales & Scunthorpe General Hospital.

2.2 The Diagnostic Service - SNEYHT

**Scarborough and North East Yorkshire Healthcare NHS Trust** provides a stand-alone diagnostic service for the population of Scarborough and North East Yorkshire. The named lead clinician is a core member of & attends the Local / Specialist MDT in Hull. (This consultant is named in the table of key contacts on the following page.) There should also be at least one additional consultant gynaecologist who has at least one programmed activity devoted to the diagnostic service.

Written responsibilities for the named lead clinician / Scarborough Diagnostic service and the Hull MDT have been agreed. These can be found in the SNEYHT operational policy.

Patients in Scarborough may have an elective operation for removal of low risk endometrial carcinoma; as long as it is carried out **ONLY** by the named lead clinician in Scarborough, who is a core member of the Specialist MDT in Hull. In their absence patients will have surgery in Hull. Any other surgery must be carried out by the specialist MDT in Hull.

**The Diagnostic Service**
- Provides essential key clinical staff working under clear clinical leadership.
- Has clear guidelines covering the respective roles of the stand alone diagnostic service and the MDTs in the investigation and referral of gynaecology malignancy (see *figure 2 of Appendix ii*).
- The surgeon who undertakes the surgery for low risk endometrial carcinoma at the host hospital of the stand alone diagnostic service has agreed the role with NEYHCA (Cancer) and is a core surgical member of the local / specialist MDT in HEYHT.
- Has at least one specialist nurse with specified time in their job plan and an agreed list of responsibilities, including the provision of patient information.

*See Appendix (i) for MDT Meeting Arrangements / Referral PCTs / Catchment Populations and Appendix ii for flow charts resembling the shape of the service*
3. Patient Pathway

3.1 Referral for Suspected Cancer

Primary Care Referrals see also Appendix (ii) Patient Pathway Flowcharts from the Gynaecological Measures 2011 & Appendix (iv) GP Referral Guidelines.

3.11 Table of Key Contact Numbers for all Trusts

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Fax Number / MDT Coordinator</th>
<th>CNS</th>
<th>Consultant Gynaecologist</th>
</tr>
</thead>
</table>
| Hull and East Yorkshire Hospitals NHS Trust  
Local MDT & Specialist MDT | Urgent Referral (to be faxed) 01482 675505  
TBC 01482 674217 | Ms Lynn Holmes  
Ms Jean Sharpless  
01482 624033  
01482 622199  
Bleep Switchboard 01482 875875 | Mr. T Giannopoulos  
Dr M Flynn  
01482 875875  
Sec Pauline Holgate  
Ext 4098  
Fax Ext 4016 |
| Scarborough & NE Yorkshire Hospitals NHS Trust  
Diagnostic Service / Locality | Urgent Referral (to be faxed) 01723 342423  
Kirstin Hunter 01723 385186 | Ms Sue Thompson  
01723 385290  
Bleep Switchboard 01723 368111  
Extn 6370 | Mrs. S Ramaswamy  
Sec Sue Evans 01723 342083 |
| Northern Lincolnshire & Goole Hospitals Foundation Trust  
Local MDT | Urgent Referral (to be faxed)  
Grimsby 01472 302450  
Scunthorpe 01724 387704  
Sarah Middlecoate 01472 874111 x 3517  
Scunthorpe Joanne Palmer 01724 282282 x 5586 | Ms Sharon Prudhoe Scunthorpe 01724 282282 Ext 5904  
Ms Helen Ambler  
Grimsby 01472 874111 | Mr C. Gan  
Scunthorpe 01724 282282  
Sec Sally Beech  
Ext 5320  
Mr A Saha  
Grimsby  
Sec Sara Graves 01472 874111  
Ext 1077 |

3.2 General Recommendations

The Cancer Management Group have agreed, with the PCTs in NEYHCA (Cancer), a policy that primary care practitioners will refer all patients defined by the "urgent, suspicious of cancer" guidelines for gynaecology cancer to the contact point of a single stand alone diagnostic service or a gynaecology MDT (please see Table of Key Contacts above and the Primary Care Guidelines in Appendix (iii)).

The principles of a given primary care practice or PCT stating that patients will be referred to a given MDT is not intended to restrict patient or GP choice. A rational network of local and specialist MDTs can only be developed if there is an agreement on which MDT the patients will normally be referred to and the resulting referral catchment populations are counted once, for planning purposes. It is accepted that individual patients will, on occasion, be referred to different teams, depending on specific circumstances.
3.3 Fertility Issues

If requested or the patient expresses a concern regarding current or future fertility issues the patient will be referred to Professor Killick (Consultant Gynaecologist / Obstetrician, HEYHT).

3.4 Specific Recommendations
(NICE Referral Guidelines for Suspected Cancer 2005 / update 2011)

A patient who presents with symptoms suggesting gynaecological cancer should be referred to a team specialising in the management of gynaecological cancer, depending on local arrangements.

The first symptoms of gynaecological cancer may be
- Alterations in the menstrual cycle
- Inter menstrual bleeding
- Post coital bleeding
- Postmenopausal bleeding
- Vaginal discharge

When a patient presents with any of these symptoms, the primary healthcare professional should undertake a full pelvic examination, including speculum examination of the cervix. In patients found on examination of the cervix to have clinical features that raise the suspicion of cervical cancer, an urgent referral should be made. A cervical smear test is not required before referral, and a previous negative cervical smear result is not a reason to delay referral.

3.5 Ovarian Cancer

Ovarian cancer is particularly difficult to diagnose on clinical grounds as the presentation may be with vague, non-specific abdominal symptoms alone (bloating, constipation, abdominal or back pain, urinary symptoms).
- In a woman presenting with any unexplained abdominal or urinary symptoms, abdominal palpation should be carried out
- If there is significant concern, a pelvic examination should be considered if appropriate and acceptable to the patient
- Any woman with a palpable abdominal or pelvic mass on examination that is not obviously uterine fibroids or not of gastrointestinal or urological origin should have an urgent ultrasound scan. If the scan is suggestive of cancer, or if ultrasound is not available, an urgent referral should be made
- When a woman who is not on hormone replacement therapy presents with postmenopausal bleeding, an urgent referral should be made
- When a woman on hormone replacement therapy presents with persistent or unexplained postmenopausal bleeding after cessation of hormone replacement therapy for more than 8 weeks, an urgent referral should be made
- Tamoxifen can increase the risk of endometrial cancer. When a woman taking Tamoxifen presents with post menopausal bleeding, an urgent referral should be made
- An urgent referral should be considered in a patient with persistent intermenstrual bleeding and a negative pelvic examination
- GP to organise CA125 test

3.6 Vulval Cancer

- When a woman presents with vulval symptoms, a vulval examination should be offered. If an unexplained vulval lump is found, an urgent referral should be made
- Vulval cancer can also present with vulval bleeding due to ulceration. A patient with these features should be referred urgently
• Vulval cancer may also present with pruritus or pain. For a patient who presents with these symptoms, it is reasonable to use a period of ‘treat, watch and wait’ as a method of management

This should include active follow-up until symptoms resolve or a diagnosis is confirmed.

If symptoms persist, the referral may be urgent or non-urgent, depending on the symptoms and the degree of concern about cancer.

Where there is clinical suspicion that cancer may be present in a patient who does not easily fit into any of the above categories Consultant Gynaecologists or Clinical Nurse Specialists in Gynae-Onco may be contacted by phone for advice.

3.7 Secondary to Secondary Referrals

The Local Diagnostic service and LMDT should refer patients to the Specialist MDT coordinator in HEYHT via referral letter & copy of the MDT form.

Skin Specialist MDT (Section added to Skin Guidelines)

Patients with cancer of the external female genitalia, including mucosal melanoma
A patient that has initially been seen by the Skin / Specialist MDT will be referred by phone & / or fax to the Specialist Gynaecological MDT (HEYHT) for treatment, on the decision of the clinician involved. The Skin / Specialist MDT will inform the Specialist Gynaecological MDT lead (Dr M Flynn) and MDT Coordinator (Ms Chris Marshall).

Follow Up
Follow up information will be sent from Dr M Flynn to the referring clinician. In the rare case that a patient has initially been seen by the Specialist Gynaecological MDT and needs to be referred to the Skin / Specialist MDT for treatment, would be the decision of the clinician involved. If the patient has a malignant melanoma of the vulva, Dr M Flynn would inform the Skin / Specialist MDT lead (Dr Shernaz Walton) and MDT Coordinators (Ms Leanne Goldspink / Ms Victoria Frost) and would attend the Specialist MDT in order to discuss the patients treatment.

Follow up treatment will be discussed between the two MDT lead clinicians and an appropriate decision will be made.

Sarcoma MDT (Section added to Sarcoma Guidelines)

Sarcoma referrals are described in the Sarcoma Guidelines. Please see the NEYHCA (Cancer) website. Please press control and click on the link below

http://www.hyccn.nhs.uk/NetworkGuidelinesAndPublications/sarcoma.htm

3.8 Imaging

See the NEYHCA (Cancer) website for the latest version of the Imaging Guidelines and Appendix vii of these guidelines. Please press control and click on the link below

www.hyccn.nhs.uk/NetworkGuidelinesAndPublications/NetworkImagingGroup.htm
3.9 Pathology

All specimens should be handled and recorded in accordance with the Minimum Dataset RCP. See links below.

The Royal College's Standards and Datasets for Histopathology Reporting on Cancers and Tissue Pathways have been written to help pathologists work towards a consistent approach for the reporting of the more common cancers and to define the range of acceptable practice in handling pathology specimens.

The table below provides links to the cancer dataset documents and to the ‘tissue pathways’ for non-malignant diseases for Gynaecological cancers.

TNM 7: For advice from the SAC and the Working Group on Cancer Services on the implementation of TNM 7 classification, please press control and click on the following links:

[Link to advice]

<table>
<thead>
<tr>
<th>Cancer Datasets</th>
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<tr>
<td>Ovary (Nov 2010)</td>
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<td>Uterine (Mar 2011)</td>
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<tr>
<td>Vulva (Nov 2010)</td>
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</table>

3.91 General Pathology Guidance

- Histological confirmation should be sought for every lesion. Ideally, there should be pre-operative histological confirmation of the diagnosis and postoperative gross and microscopic assessment of the resected specimen. However, there will inevitably be some cases where this is not possible.
- The resection specimens should be sampled in order to confirm or establish the histological diagnosis and to provide prognostic information. The prognostic information should include all of the items detailed in the National Dataset for Gynaecological Cancer. This will also fulfil the requirements of the cancer registries. In addition, additional data items may be collected as part of local quality control, audit and research initiatives.
- Each Cancer Unit should have identified a Pathologist to whom they refer difficult histopathology specimens for a second opinion (also see Pathology Group Policy for Referral Outside of HYCCN v2 April 2007).
- Histopathologists reporting cancers should participate in appropriate EQA schemes, either a specialist scheme for the cancer site(s) of the team or a general EQA scheme which has a section covering the cancer sites of the team.
- Histopathology laboratories nominate a lead pathologist for each of the main cancers with responsibility for liaising with relevant local committees and clinicians and ensuring that the relevant cancers are examined, sampled and reported appropriately and in a consistent fashion.
- Cancer Centres and Units should be supported only by laboratories accredited to the standards of Clinical Pathology Accreditation (UK) Ltd, and staffed in accordance with the recommendations of The Royal College of Pathologists and the Association of Clinical Pathologists.
- All cancer networks should have easy access to appropriate immunophenotypic, molecular biological and cytogenetic facilities. Some of the latter are very specialised pathology services and may not be provided by pathology laboratories within the LSMDT or SSMDT. pg 88 IOG
3.10 Rehabilitation Pathway

In accordance with National Guidance NEYHCA (Cancer) has developed the Gynaecology specific rehabilitation pathway. This pathway is available via the NEYHCA (Cancer) website. Please press control and click on the link below

[link]

Cancer rehabilitation aims to maximise the patients’ ability to function, to promote their independence and to help the patient adapt to their condition. By optimising their quality of life and developing self-management skills, our patients can take an active role in adjusting to life with and after cancer.

Although rehabilitative interventions are often considered primarily in terms of their physical and functional impact on patients, they can also have major psychological, social, economic and spiritual benefits.

The benefits of good rehabilitation services delivered in a timely manner at appropriate points on the patient pathway can be the prevention, or reduction of problems that often lead to increased length of hospital stay or readmissions due to crisis at home. Maintaining or increasing the patient’s independence and ability to self manage reduces the need for alternative and possibly costly health and social service input.

For the purpose of this document rehabilitation refers to the interventions provided by the four allied Health Professions Occupational therapy, Physiotherapy, Speech & Language therapy, Dietetics and lymphoedema.

AHP services available locally
- Colorectal
- Gynaecology
- Head & Neck
- Brain & CNS
- Lung
- Sarcoma
- MSCC
- Upper GI, Pancreatic & Oesophageal

3.11 Chemotherapy Treatment Algorithms

The following treatment algorithms can be found in each relevant chapter of these guidelines.

- Endometrial
- Ovarian
- Cervical
- Vulva
4. Endometrial Cancer

4.1 Investigation & Diagnosis

In general, all initial investigations are carried out locally, by the individual trusts

- Initial investigation for post-menopausal bleeding should be carried out in a rapid assessment clinic where these have been established, by transvaginal ultrasound scan to assess the thickness of the endometrium
- At hysteroscopy an assessment should be made as to whether the tumour involves the cervix
- Biopsy by hysteroscopy, D&C or targeted endometrial biopsy should be carried out if the endometrial thickness is 5mm or more
- Early staging by assessing the biopsy samples, used in conjunction with MRI results, can be used to select the appropriate place for treatment
- Patients with G2 & G3 endometrioid endometrial cancer and all non endometrioid type cancers should have an MRI. However, patients with a suspicion of involvement of the cervix and / or beyond (independent of grade) should also be considered for an MRI

All patients should be discussed at the Local MDTs.

Women with low risk endometrial cancer (Stage IA, Grade 1 or 2, of endometrioid type) should be treated by the Local MDT / Diagnostic Service. (FIGO staging 2009)

Women with high-risk endometrial cancer (all cancers apart from low risk) should be referred to the Specialist MDT for treatment in the Centre.

4.2 Staging

_Carcinoma of the Corpus Uteri 2009: Stage grouping for Endometrial Cancer_

<table>
<thead>
<tr>
<th>Stage</th>
<th>Definition</th>
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<tbody>
<tr>
<td>Stage I*</td>
<td>Tumour confined to the corpus uteri</td>
</tr>
<tr>
<td>Stage IA*</td>
<td>No or less than half myometrial invasion</td>
</tr>
<tr>
<td>Stage IB*</td>
<td>Invasion equal to or more than half of the myometrium</td>
</tr>
<tr>
<td>Stage II*</td>
<td>Tumour invades cervical stroma, but does not extend beyond the uterus**</td>
</tr>
<tr>
<td>Stage III*</td>
<td>Local and / or regional spread of the tumour</td>
</tr>
<tr>
<td>Stage IIIA*</td>
<td>Tumour invades the serosa of the corpus uteri and/or adnexae#</td>
</tr>
<tr>
<td>Stage IIIB*</td>
<td>Vaginal and/or parametrial involvement*</td>
</tr>
<tr>
<td>Stage IIIC*</td>
<td>Metastases to pelvic and / or para-aortic lymph nodes*</td>
</tr>
<tr>
<td>Stage IIIC1*</td>
<td>Positive pelvic nodes</td>
</tr>
<tr>
<td>Stage IIIC2*</td>
<td>Positive para-aortic lymph nodes with or without positive pelvic lymph nodes</td>
</tr>
<tr>
<td>Stage IV*</td>
<td>Tumour invasion of bladder and/or bowel mucosa, and/or distant metastases</td>
</tr>
<tr>
<td>Stage IVA*</td>
<td>Tumour invasion of bladder and / or bowel mucosa</td>
</tr>
<tr>
<td>Stage IVB*</td>
<td>Distant metastases, including intra-abdominal metastasis and / or inguinal lymph nodes.</td>
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</tbody>
</table>

*Either G1, G2, or G3
**Endocervical glandular involvement only should be considered as Stage I and no longer as Stage II
#Positive cytology has to be reported separately without changing the stage
Endometrial cancer can be graded with regard to the degree of differentiation of the adenocarcinoma, as follows

- **G1**: 5% or less of a non-squamous or non-morular solid growth pattern
- **G2**: 6% to 50% of a non-squamous or non-morular solid growth pattern
- **G3**: more than 50% of a non-squamous or non-morular solid growth pattern

### 4.3 Management of Endometrial Carcinoma

Patients with low risk endometrial endometrioid carcinoma, Stage IA, Grade 1 or 2, (FIGO staging 2009) should normally be treated by total abdominal hysterectomy and bilateral salpingo-oophorectomy.

Patients with high-risk tumours (all cancers apart from low risk) should be treated at the Specialist MDT in Hull.

Adjuvant radiotherapy, where appropriate (see below), should be given by the Specialist MDT in Hull when the patient is transferred.

Lymphadenectomy is still accepted as treatment for Grade 3 Stage IB or Stage II disease. It may be utilised in individual cases and post-operative radiotherapy can be modified accordingly.

Progestogens should not be used routinely for adjuvant treatment. Oestrogen replacement therapy should be offered if indicated in low risk cases, a year after surgery.

### Recommendations for Adjuvant Radiotherapy

Adjuvant pelvic irradiation will be offered to patients as follows:

**Stage I**
- **Low risk**: Stage IA or IB; grade 1 or 2 — No further treatment
- **Intermediate risk**: Stage IA; grade 3 — Vaginal vault Brachytherapy only
- **High risk**: Stage IB; grade 1 or 2 — External beam pelvic RT +/- vaginal vault Brachytherapy

**Stage II**
- Grade 1 or 2 — Vaginal vault Brachytherapy Only
- Grade 3 — External beam pelvic RT with vaginal vault Brachytherapy

**Stage IIIA – IIIC**
- All grades — External beam pelvic RT with vaginal vault Brachytherapy and consider adjuvant chemotherapy

For recommended adjuvant chemotherapy regimens please see the regimens on the NEYHCA (Cancer) website. Please press control and click on the link below

[http://www.hyccn.nhs.uk/NetworkGuidelinesAndPublications/ChemotherapyAndPharmacy.htm#CR](http://www.hyccn.nhs.uk/NetworkGuidelinesAndPublications/ChemotherapyAndPharmacy.htm#CR)
4.4 Endometrial Cancer Treatment Algorithm

4.41 Stage IV and Recurrent Disease

These patients should be treated with appropriate individualised palliative treatments, including radiotherapy (if not previously given) and chemotherapy (if good performance status). Carboplatin and Paclitaxel will be first line, based on the above discussion under adjuvant chemotherapy. Single agent carboplatin is an alternative according to patient’s general condition.

Anthracyclines can be considered as 2nd line in fit patients.

Single agent medroxyprogesterone acetate may be considered in those patients who are not fit for above.

4.42 Uterine Serous Papillary & Clear Cell Histology

Patients with uterine serous papillary carcinoma and clear cell histology have a higher incidence of extra-uterine disease at diagnosis and lower 5 year survival rates compared to patients with endometrial carcinoma.
All patients within this category should have ovarian type laparotomy. Patients should be referred centrally for MRI.

In the case of uterine serous papillary carcinoma consideration should be given to pelvic lymphadenectomy and also selected para-aortic node sampling.
4.43 Post Operative Recommendations

All cases should be considered for Adjuvant chemotherapy followed by External beam pelvic RT with vaginal vault Brachytherapy.

For recommended adjuvant chemotherapy regimens please see the regimens on the NEYHCA (Cancer) website. Please press control and click on the link below

http://www.hyccn.nhs.uk/NetworkGuidelinesAndPublications/ChemotherapyAndPharmacy.htm#CR

4.5 Recurrent Disease

In selected cases surgery, progestogens and/or Radiotherapy will be considered for recurrent disease; however the majority of treatment is palliative. Women should be reassured that recurrence is unlikely 3 or more years after initial treatment. Vaginal vault smears should not be used to detect recurrent endometrial cancer.

Recurrence will usually cause vaginal bleeding and radiotherapy can be an effective treatment for women who have not previously received this treatment.

4.6 Management of Uterine Sarcomas

4.61 Carcinosarcomas (also known as Malignant Mixed Mullerian Tumours)

Carcinosarcomas should be staged as carcinomas of the endometrium.

* Simultaneous endometrial stromal sarcomas of the uterine corpus and ovary / pelvis in association with ovarian/pelvic endometriosis should be classified as independent primary tumours

- TAH, BSO, +/- node sampling

Recommendations
- Stage IA  No adjuvant RT to pelvis
- Stage IB and higher  Adjuvant RT to the pelvis +/- vaginal vault Brachytherapy

4.62 Endometrial Stromal Sarcomas

This is a low risk tumour. Account for between 10-20% of all uterine tumours and often have a relatively indolent behaviour, with a tendency to late relapse. Tumours are frequently ER and/or PR positive.

Recommendations
- Total Laparoscopic Hysterectomy, Bilateral Salpingo-Oophorectomy, +/-node sampling
- Adjuvant RT – Not recommended if macroscopic removal has occurred. Consider in relapse disease
- Hormonal therapy: Progestogens

4.63 Recurrent or Metastatic Endometrial Stromal Sarcoma

Hormonal treatment is first line. Chemotherapy may be used if more advanced or symptomatic.
4.64 Leiomyosarcomas

These tumours tend to metastasise distantly, with a lower incidence of lymph node metastases in the pelvis. They have an unpredictable behaviour, ranging from highly lethal tumours, which can cause death within 2 years to a subgroup with a delayed pattern of relapse.

The likelihood of recurrence can be associated with the number of mitoses per 10 high power fields (hpf)

- <10 mitoses / 10 hpf is usually low risk
- >20 mitoses / 10 hpf is more predictable for an early pattern of relapse

EORTC trial showed no significant effect of radiation on local control, and no survival advantage.

Some leiomyosarcomas have an indolent behaviour, and these tumours tend to be ER/PR positive. In such cases, hormonal treatment might be offered.

Recommendations
All leiomyosarcomas should be referred to the Sarcoma MDT.

Indications for adjuvant radiotherapy
- Complete microscopical removal – NO adjuvant radiotherapy
- Residual disease after surgery – consider adjuvant radiotherapy

Metastatic disease
Treat as soft tissue sarcomas. To be referred to the Sarcoma MDT (HEYHT) for management.

Staging for Leiomyosarcomas & Endometrial Stromal Sarcomas (ESS)

<table>
<thead>
<tr>
<th>Stage</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage I</td>
<td>Tumour limited to the uterus</td>
</tr>
<tr>
<td>Stage Ia</td>
<td>≤5cm</td>
</tr>
<tr>
<td>Stage Ib</td>
<td>&gt;5cm</td>
</tr>
<tr>
<td>Stage II</td>
<td>Tumour extends beyond the uterus, within the pelvis</td>
</tr>
<tr>
<td>Stage IIa</td>
<td>Adnexal involvement</td>
</tr>
<tr>
<td>Stage IIb</td>
<td>Involvement of other pelvic tissues</td>
</tr>
<tr>
<td>Stage III</td>
<td>Tumour invades abdominal tissues (not just protruding into the abdomen)</td>
</tr>
<tr>
<td>Stage IIIa</td>
<td>One site</td>
</tr>
<tr>
<td>Stage IIIb</td>
<td>&gt; one site</td>
</tr>
<tr>
<td>Stage IIIc</td>
<td>Metastasis to pelvis and / or para-aortic lymph nodes</td>
</tr>
<tr>
<td>Stage IVa</td>
<td>Tumour invades bladder and / or rectum</td>
</tr>
<tr>
<td>Stage IVb</td>
<td>Distant metastasis</td>
</tr>
</tbody>
</table>
5. Ovarian Cancer

5.1 Investigations & Diagnosis

**Hull and East Yorkshire Hospitals Trust** hosts the Local / Specialist Gynaecology MDT. All patients with confirmed or highly suspected ovarian cancer have to be discussed by the Specialist MDT in the Cancer Centre, according to the IOG guidance. The Specialist MDT will decide the patients’ treatment pathway.

**Northern Lincolnshire and Goole Hospitals Foundation Trust**
Diana Princess of Wales Hospital, Grimsby (DPOW) & Scunthorpe General Hospital (SGH) operate a joint Local MDT.

Patients with suspected ovarian cancer are seen in the Fast Track clinic at DPOW on a Tuesday afternoon and at SGH on a Monday afternoon where initial investigations will be undertaken: (Ultrasound scan and CA 125). Imaging will be undertaken with the aim of diagnosis and decision to treatment being made by day 31.

All patients with confirmed or highly suspected ovarian cancer will then be discussed at the specialist MDT in Hull.

**Scarborough and North East Yorkshire Healthcare NHS Trust**
Scarborough operates a diagnostic unit for gynaecological cancer. Patients with suspected ovarian cancer are fast tracked within Consultant Clinics. Initial investigations will be undertaken prior to clinic attendance where possible: (Ultrasound scan and CA 125) Imaging will be undertaken with the aim of diagnosis and decision to treatment being made by day 31.

All 2WW letters are reviewed by the Key Worker for Gynaecology
All patients with confirmed or highly suspected ovarian cancer will then be discussed at the specialist MDT in Hull.

5.2 Referral to Specialist MDT

All patients with confirmed or highly suspected ovarian cancer will be referred to the Friday HEYHT Specialist MDT meeting where treatment will be discussed.

An Inter Hospital Transfer (IHT) form will be completed by the Unit Tracker.

**However, if there is any suspicion of ovarian cancer, even if the RMI is less than 250, the patient must still be discussed by the Specialist MDT to decide the treatment pathway.**

In the unusual circumstance that a patient refuses to travel to the Centre for treatment, these cases will still be discussed at the Specialist MDT and every effort will be made to treat the patient according to the agreed guidelines.

5.3 Pre Assessment

Pre-assessment will be undertaken at the locality. This pre-assessment will include blood tests and a “group and save” to ensure the patient has no antibodies. If antibodies are present the Blood Bank at Hull must be informed to ensure that blood suitable will be ordered in time for date of surgery.

Once the pathology results are know, copies will be sent to the Specialist MDT at Hull.
5.4 Admission to Center

Patients will be admitted to the centre the day before surgery is planned and bloods will be sent as soon as possible for cross-matching at the Hull laboratory.

5.5 Treatment

Surgical treatment will be undertaken in HEYHT on the Monday, Wednesday or Thursday operating list at Castle Hill Hospital. Patients will normally be admitted the day before surgery. Chemotherapy will be undertaken in Scunthorpe / Grimsby and in Scarborough.

5.6 Epithelial Ovarian Cancer Investigation & Diagnosis

5.61 Primary Care

Refer the woman urgently* if physical examination identifies ascites and/or a pelvic or abdominal mass (which is not obviously uterine fibroids) **.

* An urgent referral means that the woman is referred to a gynaecological cancer service within the national target in England and Wales for referral for suspected cancer, which is currently 2 weeks.

** See also ‘Referral guidelines for suspected cancer’ (NICE clinical guideline 27; available at www.nice.org.uk/guidance/CG27) for recommendations about the support and information needs of people with suspected cancer.

Carry out tests in primary care if a woman (especially if 50 or over) reports having any of the following symptoms on a persistent or frequent basis – particularly more than 12 times per month*

- Persistent abdominal distension (women often refer to this as ‘bloating’)
- Feeling full (early satiety) and / or loss of appetite
- Pelvic or abdominal pain
- Increased urinary urgency and / or frequency
- If a woman reports unexplained weight loss, fatigue or changes in bowel habit

*See also ‘Referral guidelines for suspected cancer’ (NICE clinical guideline 27; available at www.nice.org.uk/guidance/CG27) for recommendations about the support and information needs of people with suspected cancer.

Carry out appropriate tests for ovarian cancer in any woman of 50 or over who has experienced symptoms within the last 12 months that suggest irritable bowel syndrome (IBS)*, because IBS rarely presents for the first time in women of this age.

* See ‘Irritable bowel syndrome in adults’ (NICE clinical guideline 61; available at www.nice.org.uk/guidance/CG61).

Preliminary assessment should include

- Full abdominal and vaginal examination
- CA125 assessment
- Ultrasound (if this does not delay referral)

CA125

- Measure serum CA125 in primary care in women with symptoms that suggest ovarian cancer
- If serum CA125 is 35 IU/ml or greater, arrange an ultrasound scan of the abdomen and pelvis
- For any woman who has normal serum CA125 (less than 35 IU/ml), or CA125 of 35 IU/ml or greater but a normal ultrasound
  - Assess her carefully for other clinical causes of her symptoms and investigate if appropriate
  - If no other clinical cause is apparent, advise her to return to her GP if her symptoms become more frequent and / or persistent.
If the ultrasound suggests ovarian cancer, refer the woman urgently for further investigation.

GPs should advise any woman who is not suspected of having ovarian cancer to return to her GP if her symptoms become more frequent and/or persistent.

5.62 Secondary Care

- Measure serum CA125 in women with symptoms that suggest ovarian cancer if not already done in primary care
- If patient is not symptomatic CA125 should not be carried out as this causes additional stress for the patient. Individual plans should be stated on MDT proforma for follow up CA125
- In women under 40 with suspected ovarian cancer, measure levels of alpha fetoprotein (AFP) and beta human chorionic gonadotrophin (beta-hCG) as well as serum CA125, to identify women who may not have epithelial ovarian cancer
- All women with confirmed or highly suspected ovarian cancer must be referred to the specialist MDT for discussion and treatment decision
- Women with pelvic masses considered likely to be malignant should be referred immediately to the Specialist MDT
- Women with suspected ovarian cancer that present as an emergency should be stabilised and if possible transferred to the Specialist MDT Team

5.63 Imaging

- Perform an ultrasound of the abdomen and pelvis as the first imaging test in secondary care for women with suspected ovarian cancer, if this has not already been done in primary care
- If the ultrasound, serum CA125 and clinical status suggest ovarian cancer, perform a CT or an MRI scan of the pelvis and abdomen to establish the extent of disease. Include the thorax if clinically indicated
(Please also see the CEG Imaging Guidelines – Appendix iv)

5.7 Risk of Malignancy Index (RMI)

After performing an ultrasound, for all patients, a Risk of Management Index (RMI) will be calculated according to the following formula.

RMI I is a product of the ultrasound scan score (U), menopausal status (M) and serum CA125 level

\[
RMI I = U \times M \times CA125
\]

- The ultrasound result is scored 1 point for each of the following characteristics: multilocular cysts, solid areas, metastases, ascites, bilateral lesions. \(U = 0\) for an ultrasound score of 0 points, \(U = 1\) for an ultrasound score of 1 point, \(U = 3\) for an ultrasound score of 2-5 points
- Menopausal status is scored as 1 = pre-menopausal and 3 = post-menopausal. The classification of ‘post-menopausal’ is a woman who has had no period for more than 1 year or a woman over 50 who has had a hysterectomy.
- Serum CA125 is measured in IU/ml

Patients will be categorized as Low, Medium & High Risk as per following table. Refer all women with an RMI score of 250 or greater to the specialist multidisciplinary team.

However, if there is any suspicion of ovarian cancer, even if the RMI is less than 250, the patient must still be discussed by the Specialist MDT to decide the treatment pathway.
<table>
<thead>
<tr>
<th>Risk</th>
<th>RMI</th>
<th>% of Patients</th>
<th>% Cancer Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>&lt;25</td>
<td>40</td>
<td>&lt;3</td>
</tr>
<tr>
<td>Medium</td>
<td>25 - 250</td>
<td>30</td>
<td>20</td>
</tr>
<tr>
<td>High</td>
<td>&gt;250</td>
<td>30</td>
<td>75</td>
</tr>
</tbody>
</table>

5.8 Initial Management According to Category

5.81 Low Risk (less than 3% risk)

Management by General Gynaecologist – Diagnostic SNEYHT / LMDT NLGHFT & HEYHT
- If simple cyst less than 5cm diameter, and normal Ca-125, repeat ultrasound scan 4 – monthly for 1 year, to allow spontaneous resolution
- There is no place for cyst aspiration alone in the majority of cases. In cases of extreme unfitness for surgery, aspiration may be agreed in MDT discussion
- Laparoscopic surgery may be acceptable, and in the post-menopausal should include removal of both ovaries, after obtaining peritoneal washings

5.82 Moderate Risk (approx. 20% risk)

Management by Local MDT lead – NLGHFT / HEYHT
- In cases where RMI is less than 250 the patient will be managed by the local MDT
- However, in cases where there is presence of ascites or clear evidence of metastatic disease, such as omental deposits, they should be referred to the Specialist MDT regardless of RMI
- Laparotomy would be the preferred treatment, although in selected cases laparoscopy may be appropriate

5.83 High Risk (greater than 75% risk)

Patients should be reviewed by Specialist MDT - HEYHT
Normally further imaging will be required – CT or MRI. Surgery to be done by Specialist MDT Gynaecologist unless decided otherwise by MDT, and if initially operable, should be full staging procedure, including
- Sampling of ascites or peritoneal washings
- Total hysterectomy and Bilateral salpingo-oophorectomy
- Omentectomy and biopsy of other suspicious lesions
- Peritoneal biopsies if appropriate
### 5.9 Staging


<table>
<thead>
<tr>
<th>Stage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Growth limited to the ovaries</td>
</tr>
<tr>
<td>IA</td>
<td>Growth limited to one ovary; no ascites. No tumour on the external surface; capsule intact</td>
</tr>
<tr>
<td>IB</td>
<td>Growth limited to both ovaries; no ascites. No tumour on the external surfaces; capsules intact</td>
</tr>
<tr>
<td>IC</td>
<td>Capsule ruptured, capsular involvement, positive peritoneal washings, or malignant ascites</td>
</tr>
<tr>
<td>II</td>
<td>Is growth involving one or both ovaries with pelvic extension</td>
</tr>
<tr>
<td>IIA</td>
<td>Extension and / or metastases to the uterus and / or tubes</td>
</tr>
<tr>
<td>IIB</td>
<td>Extension to other pelvic tissues</td>
</tr>
<tr>
<td>IIC</td>
<td>Tumour either stage IIA or IIB, but with tumour on the surface of one or both ovaries; or with capsule(s) ruptured; or with ascites present containing malignant cells or with positive peritoneal washings</td>
</tr>
</tbody>
</table>

Different criteria for allotting cases to stages IC and IIC have an impact on diagnosis. In order to evaluate this impact, it would be of value to know if rupture of the capsule was (1) spontaneous or (2) caused by the surgeon, and if the source malignant cells detected was (1) peritoneal washings or (2) ascites.

<table>
<thead>
<tr>
<th>Stage III</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tumour involving one or both ovaries with peritoneal implants outside the pelvis and/or positive retroperitoneal or inguinal nodes. Superficial liver metastasis equals stage III. Tumour is limited to the true pelvis but with histologically verified malignant extension to small bowel or omentum. No obvious parametrial involvement. Involvement of up to the upper two-thirds of the vagina</td>
</tr>
<tr>
<td>IIIA</td>
<td>Tumour grossly limited to the true pelvis with negative nodes but with histologically confirmed microscopic seeding of abdominal peritoneal surfaces</td>
</tr>
<tr>
<td>IIIB</td>
<td>Tumour of one or both ovaries with histologically confirmed implants of abdominal peritoneal surfaces, none exceeding 2cm diameter. Nodes negative</td>
</tr>
<tr>
<td>IIIC</td>
<td>Abdominal implants &gt;2cm diameter and/or positive retroperitoneal or inguinal nodes</td>
</tr>
<tr>
<td>IV</td>
<td>Growth involving one or both ovaries with distant metastasis. If pleural effusion is present, there must be positive cytology test results to allot a case to stage IV. Parenchymal liver metastasis equals stage IV</td>
</tr>
<tr>
<td>IVA</td>
<td>Spread of the tumour onto adjacent pelvic organs</td>
</tr>
<tr>
<td>IVB</td>
<td>Spread to distant organs</td>
</tr>
</tbody>
</table>

### 5.10 Management

Where possible, optimal debulking will be performed in patients with proven or clinically suspect ovarian carcinoma. That usually includes bilateral salpingo-oophorectomy, hysterectomy, omentectomy, washings, peritoneal biopsies and possibly lymphadenectomy (pelvic and para-aortic).

Surgery should be carried out by a Specialist MDT Gynae-oncologist.

An attempt should be made to remove all visible disease even if this involves extensive peritoneal and bowel resection (in suitable patients).

In all cases the minimum aim should be optimal debulking (any residual disease <1cm).
When optimal debulking is not possible at the time of initial surgery, a second attempt may be appropriate after 3 cycles of chemotherapy. Neoadjuvant chemotherapy will be considered in cases considered inoperable by clinical examination and MRI (after MDT review). Patients with Stage IA or IB ovarian cancer should not normally be offered chemotherapy unless there are indicators suggesting poor prognosis (such as clear cell pathology or Grade 3).

All patients with stage IC or greater disease should be offered an appropriate treatment regime. Paclitaxel plus carboplatin is standard unless there are concerns to the toxicity in relation to the individual patient’s fitness; in these cases, carboplatin alone may be advisable.

Intravenous chemotherapy will be given at an appropriate site by staff trained in its administration. Statutory regulations regarding its preparation, formulation and administration will be observed.

Women undergoing chemotherapy should have access to emergency care, information and advise from trained staff on a 24-hour basis. They should be given written information on appropriate action for dealing with side effects of chemotherapy, and of the particular risk of infection about 10-14 days after beginning chemotherapy. Patients with recurrence will be reviewed by the Local MDT and if appropriate referred to the Specialist MDT for consideration of second line chemotherapy or secondary debulking surgery.

Where the patient is fit for surgery, conventional treatment would be primary surgery +/- chemotherapy for all stages up to stage III. The management of stage IV disease has to be individualised. Stage IV disease due to pleural infusion, single supraclavicular node or a single cutaneous metastasis can be treated with primary surgery but patients with parenchymal liver or lung metastasis should probably be treated by neo-adjuvant chemotherapy.

5.101 Tissue Diagnosis

Requirement for tissue diagnosis
- If offering cytotoxic chemotherapy to women with suspected advanced ovarian cancer, first obtain a confirmed tissue diagnosis by histology (or by cytology if histology is not appropriate) in all but exceptional cases
- Offer cytotoxic chemotherapy without a tissue diagnosis (histology or cytology) only
  - In exceptional cases, after discussion at the multidisciplinary team and
  - After discussing with the woman the possible benefits and risks of starting chemotherapy without a tissue diagnosis

Methods of tissue diagnosis
- If surgery has not been performed, use histology rather than cytology to obtain a tissue diagnosis

To obtain tissue for histology
- Use percutaneous image-guided biopsy if feasible
- Consider laparoscopic biopsy if percutaneous image-guided biopsy is not feasible or has not produced an adequate sample
Use cytology if histology is not appropriate.

5.102 Pre-operative work-up
- RMI scoring
- Cross sectional imaging and review at MDT
- FBC, U+Es, LFTs
- Tumour markers: CA125, CEA
- If significant bowel symptoms consider involvement of colorectal surgeon
- CXR
- If significant ascites is present perform paracentesis to relieve symptoms and optimise image quality send fluid for cytology and microbiology & chemistry
5.103 Intra-operative Management

- Vertical incision
- Peritoneal washings
- Careful inspection and palpation of all peritoneal surfaces including appendix
- Biopsy of any suspected metastasis
- Directed peritoneal biopsies from tissues that look suspicious for malignancy.
- Wipe or resection of disease from diaphragm
- Palpation +/- sampling of enlarged pelvic and para-aortic nodes.
- TAH, BSO and omentectomy
- Bulk reduction of macroscopic tumour to <1cm
- Radical surgery only if complete resection of tumour possible

Careful documentation of size and site of residual disease.

5.104 Staging for Clinical Early Stage Disease

In clinical stage I disease, consider lymph node sampling and multiple peritoneal biopsies. The role of lymphadenectomy is unclear. Whereas it does not in itself influence survival, the presence of positive nodes in otherwise stage I disease may upstage the disease and results in the patient being offered chemotherapy.

5.105 Primary Surgery

- If performing surgery for women with ovarian cancer, whether before chemotherapy or after neoadjuvant chemotherapy, the objective should be complete resection of all macroscopic disease

Where surgery is unlikely to achieve optimal debulking

- Treat with neo-adjuvant chemotherapy (i.e. 3 cycles of standard chemotherapy prior to surgery). If response adequate and medically improved, recommend Delayed Primary Debulking Surgery followed by 3 cycles of chemotherapy
- If response to chemotherapy adequate but remain medically unfit, complete 6 cycles of chemotherapy
- If inadequate response to chemotherapy, cancel surgery and palliate with salvage chemotherapy

Definitions

- Interval Debulking surgery – hysterectomy / BSO / omentectomy and debulking of macroscopic tumour after chemotherapy x 3 cycles in patient sub optimally debulked at primary surgery
- Delayed primary debulking surgery – TAH / BSO / omentectomy + maximum debulking of macroscopic tumour in patients who were unstaged prior to neoadjuvant chemotherapy
- Optimal debulking surgery: <1 cm residual disease
- Adequate / Inadequate response to chemotherapy. >/< 1 log drop in level of CA125 +/- clinical response +/- partial CT response
- Diagnosis presumptive of ovarian cancer – Ascitic fluid cytology / Tru-cut biopsy of tumour deposit confirms adenocarcinoma, raised CA125, clinical syndrome suggests ovarian cancer
5.11 Borderline Ovarian Tumours

- Pre- and intra-operative management as for invasive tumours
- Conservative surgery in form of a unilateral oophorectomy may be considered in young patients with stage I disease and who wish to retain their fertility, providing they have been correctly staged according to the criteria stated above
- Restaging laparotomy is not indicated for patients treated conservatively for stage I disease
- In general chemotherapy not given regardless of stage
- Long term follow-up is essential if BSO has not been performed and discuss laparoscopic removal of remaining ovary after completion of family
- If TAH and BSO has been performed patients can be discharged from follow-up
- There is no evidence to suggest a survival benefit in treating patients who are symptom free but have either serological or radiological evidence of relapsed disease. It is preferable to treat patients once they develop symptoms of relapse, subsequently confirmed by investigations

5.12 The Management of Bowel Obstruction Due To Ovarian Cancer

Bowel obstruction due to end stage ovarian cancer is one of the most distressing syndromes to affect patients and their carers. It is characterised by intractable nausea and/or vomiting and has precipitated many well-intentioned but fruitless surgical ventures. Sadly it will affect between 30 and 40% of patients with ovarian cancer and is therefore a common phenomenon for those with this disease.

These guidelines will not address the management of patients who present with bowel obstruction due to previously undiagnosed ovarian cancer. Instead it will focus on the general approach to patients who have incurable and chemo-resistant ovarian cancer.

5.121 Surgery

Whilst this has to be considered in all patients with bowel obstruction, its role in patients with bowel obstruction due to end stage ovarian cancer is limited for the following reasons
- Mortality is common
- Failure to achieve anything is common
- Recurrence is common
- Medical alternatives exist

It should be reserved for fit patients who are likely to have a single focus of obstruction affecting large bowel although gastrostomy may be appropriate for someone with a very high obstruction and profuse vomiting.

5.122 Medical Management

- Opiate analgesia - morphine, diamorphine (more soluble so preferable in drivers), Fentanyl by patch
- Anti-emetics – Cyclizine, Haloperidol, Nozinan, 5-HT agonists
- Steroids - Dexamethasone
- Reducers of GIT secretions – octreotide, Buscopan
- Laxatives – glycerine suppositories, stool softeners
- Hydration – oral, subcutaneous
- Nasogastric suction – routinely uncomfortable, distressing and should be used sparingly
- Paracentesis
5.13 Chemotherapy for Epithelial Ovarian Cancer

Chemotherapy is appropriate after surgery for the majority of women with epithelial ovarian carcinoma for whom the following guidance applies. Patients should be given realistic information about expected benefits and adverse effects of chemotherapy and should be encouraged to contribute to decision-making unless they make it clear that they do not wish to be involved.

Intraperitoneal Chemotherapy

- Do not offer intraperitoneal chemotherapy to women with ovarian cancer, except as part of a clinical trial

Chemotherapy at Relapse

Between 55% and 75% of women whose tumours respond to first-line therapy, relapse within 2 years of completing treatment. Second-line chemotherapy is palliative and aims to reduce symptoms and prolong survival. Response to initial first-line therapy and time to relapse are predictive of future response to platinum-based therapy.

At relapse the following definitions are used

- **Platinum sensitive ovarian cancer**
  Disease that responds to first-line platinum-based therapy but relapses 12 months or more after completion of initial platinum-containing chemotherapy

- **Partially platinum sensitive ovarian cancer**
  Disease that responds to first-line platinum-based therapy but relapses between 6 and 12 months after completion of initial platinum-based chemotherapy

- **Platinum-resistant ovarian cancer**
  Disease that relapses within 6 months of completion of initial platinum-based chemotherapy

- **Platinum-refractory ovarian cancer**
  Disease that does not respond to initial platinum-based chemotherapy

The local / specialist gynaecology MDT should review all patients who develop recurrent disease. The majority of patients will be offered further chemotherapy; however a small percentage relapse with localised disease usually within the pelvis, and treatment with radiotherapy or surgery may be more appropriate.

(See treatment algorithm on previous page.) For specific dosing information see NEYHCA (Cancer) regimens for ovarian cancers on the NEYHCA (Cancer) website. Press control and click on the link below

[http://www.hyccn.nhs.uk/NetworkGuidelinesAndPublications/ChemotherapyAndPharmacy.htm#CR](http://www.hyccn.nhs.uk/NetworkGuidelinesAndPublications/ChemotherapyAndPharmacy.htm#CR)
5.14 Ovarian Cancer Treatment Algorithm

5.15 Recurrent Epithelial Ovarian Carcinoma

- <6 months after stopping combination first line chemo – second line options (Tamoxifen, Etoposide, Topotecan, liposomal Doxorubicin)
- >6 months after stopping chemo. If platinum fails, above second line options (Tamoxifen, Etoposide, Topotecan, liposomal Doxorubicin). If the disease appears localised and resectable, secondary cytoreduction followed by chemotherapy will be considered
- Rising CA125 without clinical or radiographic evidence of recurrence - assume recurrence, but only start chemotherapy when there are clinical signs and/or symptoms of disease, or radiological lesions >5 cm
- XRT can be used for isolated, symptomatic, chemo resistant recurrences
- Further surgery may be of benefit in some patients where the disease recurs 6 months or more from primary treatment
- Localised recurrence, particularly isolated pelvic recurrence that is symptomatic, may benefit from surgery or radiotherapy
5.16 Arrangements for the Ovarian Cancer Patient whose First Presentation is as an Emergency

The majority of patients with ovarian cancer will present in the outpatient clinic, as an “urgent” referral, and will be managed in a planned fashion according to NEYHCA (Cancer) guidelines.

First presentation as an emergency may not be to the Gynaecology Department. Common scenarios are

- Admitted as emergency with ascites
- Admitted as emergency with deep vein thrombosis. Pelvic mass ± ascites discovered after admission
- Patient admitted with various abdominal symptoms. Pelvic mass discovered after admission
- Ovarian carcinoma discovered unexpectedly at emergency gynaecological Laparoscopy / laparotomy, where another diagnosis was expected
- Ovarian carcinoma discovered unexpectedly at emergency surgical laparotomy for intestinal pathology e.g. acute obstruction

In many of these instances, there is a strong risk that the patient will suffer excessive delay in getting on to the correct treatment pathway, or that she will receive less than optimal surgical treatment.

Broadly, patients fall into two groups
1. Those admitted as emergency who have not yet undergone surgery
2. Those whose Ovarian Carcinoma is discovered for the first time at Laparotomy / Laparoscopy

5.17 Women Admitted as an Emergency who have not yet Undergone Surgery

- May not be admitted first to gynaecology; often admitted to Medicine or Surgery
- Women having ascites, spontaneous deep vein thrombosis, or a suspicious or pelvic mass, should have full pelvic examination on admission
- Where pelvic mass is confirmed (or merely suspected), pelvic ultrasound should be ordered, and blood taken for CA125
- Where pelvic mass is confirmed, patient should be seen by Consultant Gynaecologist within 24 – 48 hours
- Requiring ultrasound and CA125 should have their first gynaecological consultation urgently whilst still in hospital should all be done urgently whilst patient still in hospital. Arranging outpatient appointments for scan and first consultation with Gynaecologist is not acceptable
- Gynaecologist to arrange for patient to be taken over by Local / Specialist MDT Lead Clinician according to NEYHCA (Cancer) guidelines

5.18 Women where Ovarian Cancer is Discovered Unexpectedly at Laparoscopy / Laparotomy

- If discovered at laparoscopy, no further procedure should be carried out. Extent of disease should be assessed visually and recorded, and procedure terminated
- Patient should then be transferred to Specialist MDT Lead Gynaecologist for further investigation and management according to NEYHCA (Cancer) guidelines
• If discovered at laparotomy for other gynaecological or surgical condition, a Local MDT Gynaecologist should be asked to attend (Scunthorpe / Grimsby), or advice of Specialist MDT Gynaecologist should be sought (Hull)
• General principle should be to complete whatever procedure is required to deal with immediate surgical crisis (e.g. relief of intestinal obstruction, removal of twisted ovarian cyst), obtain tissue for histological diagnosis, make an assessment of the extent of abdominal disease, and then terminate the procedure
• Patient is then fully assessed with a view to planned treatment according to NEYHCA (Cancer) guidelines
• Where there is obvious widespread disease, attempts at optimal de-bulking surgery in the emergency situation may not be successful, and without full pre-operative assessment may not be appropriate
• It may be tempting, where there appears to be easily resectable disease to proceed to pelvic clearance, and omentectomy, but this is a hazardous course in a patient who has not been prepared for this, and in particular where prior consent to hysterectomy and removal of ovaries has not been obtained

5.19 Carcinosarcomas of the Ovary (Malignant Mixed Mullerian tumours or MMMT)

These are treated along the protocols for Epithelial Ovarian Cancer.

5.20 Non - Epithelial Ovarian Cancer

Staging

As per Epithelial Ovarian Cancer.

5.21 Ovarian Pure Sarcomas (Leiomyosarcoma and Endometrioid Stromal Sarcoma)

Ovarian pure sarcomas are comprised a sarcomatous element only and are considerably less common than ovarian carcinosarcoma. Primary ovarian LMS generally affects post-menopausal women and distant metastasis to the lung is not rare.

All patients should have a CT chest as part of their usual staging investigations after a histological diagnosis of ovarian sarcoma has been made. If resection is complete and in the absence of residual disease no further treatment is usually recommended for LMS. Advanced stage ovarian LMS should be discussed with the Sarcoma MDT for their opinion regarding the most suitable chemotherapy regimes. Most reported primary ovarian ESSs are low-grade and follow an indolent clinical course and long survival.

Debulking surgery is the mainstay of treatment. The role of post-operative adjuvant chemotherapy and radiotherapy has not yet been established although hormone therapy with progesterone has been suggested for the treatment of low-grade ovarian ESS where residual or recurrent disease is present.

5.22 Sex-cord Stromal Tumours

• Laparotomy and surgery as for epithelial tumours
• Consider chemotherapy (Platinum / Adriamycin / Cyclophosphamide) for any residual or recurrent disease
• Inhibin as a tumour marker
Adult granulosa cell tumour of the ovary is often a hormonally active neoplasm secreting sex steroids such as oestrogen. Patients therefore may present with vaginal bleeding, caused by endometrial hyperplasia or uterine cancer as a result of prolonged exposure to oestrogen. Surgery is required for definitive tissue diagnosis, staging and tumour debulking.

Stage is the most important prognostic factor; however large tumour size, mitotic count or tumour rupture may also indicate a higher risk of relapse in Stage 1 disease. Post-operative adjuvant chemotherapy has not been investigated by large clinical trials due to the rarity of the disease. If chemotherapy is to be considered for residual disease, paclitaxel and carboplatin combination therapy has demonstrated activity and may be less toxic than BEP.

5.23 Ovarian Germ Cell Tumours

Ovarian germ cell tumours (OGCTs) are derived from primordial germ cells of the ovary. They may be benign or malignant. These tumours comprise approximately 20 to 25 percent of ovarian neoplasms overall, but account for only about 5 percent of all malignant ovarian neoplasms.

The histological types of GCTs that arise from the ovary are similar to those developing in the testes of men.

The most common ovarian germ cell tumour is the benign mature cystic teratoma (dermoid cyst), which can be bilateral and has a characteristic ultrasound appearance. Approximately 1 percent contains a secondary malignancy arising from one of the components, usually a squamous cell cancer. Cystectomy provides definitive diagnosis and treatment.

5.231 Classification of Germ Cell Tumours

<table>
<thead>
<tr>
<th>Dysgerminoma</th>
<th>Endodermal sinus tumour (yolk sac tumour)</th>
<th>Embryonal carcinoma</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyembryoma</td>
<td>Choriocarcinoma</td>
<td></td>
</tr>
<tr>
<td>Teratoma</td>
<td>Immature (solid, cystic, both)</td>
<td></td>
</tr>
<tr>
<td>Mature</td>
<td>Solid</td>
<td></td>
</tr>
<tr>
<td>Cystic</td>
<td>Mature cystic teratoma (dermoid cyst)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mature cystic teratoma (dermoid cyst) with malignant transformation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Monodermal</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Struma ovarii</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Carcinoid</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Struma ovarii and carcinoid</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mixed forms</td>
<td></td>
</tr>
</tbody>
</table>

OGCTs arise primarily in young women and girls between 10 and 30 years of age. For unclear reasons, malignant OGCTs occur more frequently among Asian and black women than Caucasians (3:1).

Patients typically present with one or more of the following signs and symptoms

- Abdominal enlargement (from the mass itself or ascites)
- Abdominal pain (from rupture or torsion)
- Precocious puberty, abnormal vaginal bleeding (if the tumour is oestrogen-producing)
Symptoms of pregnancy (from hCG production) OGCTs are often associated with hormonal or enzymatic activity. As is the case in testicular cancer, some of these tumour products can be measured in the serum, providing a highly sensitive and specific marker for the presence of certain histologic components.

5.232 Serum Tumour Markers in Malignant Germ Cell Tumours of the Ovary

<table>
<thead>
<tr>
<th>Histology</th>
<th>Tumour marker</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AFP</td>
</tr>
<tr>
<td>Dysgerminoma</td>
<td>-</td>
</tr>
<tr>
<td>Endodermal sinus tumour (yolk sac)</td>
<td>+</td>
</tr>
<tr>
<td>Immature teratoma</td>
<td>±</td>
</tr>
<tr>
<td>Mixed germ cell tumour</td>
<td>±</td>
</tr>
<tr>
<td>Choriocarcinoma</td>
<td>-</td>
</tr>
<tr>
<td>Embryonal cancer</td>
<td>±</td>
</tr>
<tr>
<td>Polyembryoma</td>
<td>±</td>
</tr>
</tbody>
</table>

Malignant germ cell tumours are staged according to the International Federation of Gynaecologists and Obstetricians (FIGO) staging system for epithelial ovarian cancer. OGCT grow rapidly, yet most patients present with stage IA disease (limited to one ovary).

5.24 Diagnosis

A germ cell tumour of the ovary should be suspected in any young women with a pelvic mass. Investigations should include

- Pelvic ultrasound
- MRI
- αFP, βHCG and LDH

5.25 Management

5.251 Surgical

The majority of germ cell tumours are benign cystic teratomas and in most cases the diagnosis is not in doubt with simple surgery being the treatment of choice.

The majority of malignant germ cell tumours occur in the paediatric / adolescent age group and will require referral to the Principle Paediatric Treatment Centre in Leeds or Sheffield depending on where the patient lives. (See CYA / TYA section).

Surgery is required for diagnosis, staging, and treatment. As with EOC, the abdomen should be thoroughly explored, with complete surgical staging, and optimal cytoreduction when safe and feasible. However, in contrast to EOC, most OGCTs are stage I at initial presentation.

Therefore, most patients can be safely treated with fertility-preserving surgery rather than total abdominal hysterectomy and bilateral salpingo-oophorectomy which could be performed in women who have completed childbearing.
5.252 Non Surgical

Malignant OGCTs are more sensitive to platinum-based chemotherapy than are EOCs. This fact, coupled with the poor outcomes from surgery alone, has led to routine administration of adjuvant chemotherapy to most patients except those with stage I dysgerminoma and well-differentiated stage I immature teratoma. In contrast to advanced EOC, women with advanced stage OGCTs can often be cured.

5.26 Chemotherapy - Ovarian Germ Cell Treatment Algorithm

For specific dosing information see NEYHCA (Cancer) regimens for ovarian cancers on the NEYHCA (Cancer) website. Press control and click on the following link

http://www.hyccn.nhs.uk/NetworkGuidelinesAndPublications/ChemotherapyAndPharmacy.htm#CR

5.261 Salvage Chemotherapy

Options depend upon whether the disease is Platinum sensitive or Platinum resistant.
5.262 Platinum sensitive

Patients relapsing more than 6 to 8 weeks after completing Platinum based chemotherapy can be retreated with combination chemotherapy involving Cisplatin, Ifosfamide and Etoposide.

Etoposide 100mg/m^2 IV days 1, 3, 5  
Ifosfamide 1000mg/ m^2 (+mesna) IV days 1 – 5  
Cisplatin 20mg/m^2 IV days 1 – 5  
5 days cycle repeated after every 21 days, with total of 4 cycles

5.263 Platinum resistant

For patients relapsing less than 6 to 8 weeks after completing Platinum based chemotherapy, the prognosis is poor. There is no standard chemotherapy in this situation but high dose chemotherapy followed by autologous bone marrow transplant could be considered. However it is associated with significant morbidity and mortality.

5.27 Radiotherapy

Because of availability of very effective chemotherapy, even for advanced stage, radiotherapy is mainly used to palliate symptoms in advanced disease.
6. Cervical Cancer

6.1 Specialist Referral & Diagnosis

- Tumours detected through cervical screening or other general Gynaecology outpatient clinics should be referred to a specialist clinic and seen within 2 weeks.

- All patients with Stage IB or more will have the stage of their disease assessed and recorded at the Specialist MDT and should not be duplicated in the localities.

- Any specimens thought to be cervical cancers should be reviewed by the Specialist MDT.

- A cone biopsy may be sufficient for diagnosis and treatment and should be done in the Units where early invasion of Stage IA1 is suspected. If the biopsy suggests a higher stage tumour or there are poor prognostic factors, the patient should be referred to the Specialist MDT.

- All patients whose tumours appear to be more advanced than Stage IA1 should be referred to the Specialist MDT for management.

- MRI should be done to assess the local extent of early disease in all cases > Stage IA1.

6.2 Staging

_Carcinoma of the Cervix Uteri 2009_

<table>
<thead>
<tr>
<th>Stage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage I</td>
<td>The carcinoma is strictly confined to the cervix (extension to the corpus would be disregarded)</td>
</tr>
<tr>
<td>Stage Ia</td>
<td>Invasive carcinoma which can be diagnosed only by microscopy, with deepest invasion ≤5 mm &amp; largest extension ≥7 mm</td>
</tr>
<tr>
<td>Stage Ia1</td>
<td>Measured stromal invasion of ≤3 mm in depth &amp; extension of ≥7 mm</td>
</tr>
<tr>
<td>Stage Ia2</td>
<td>Measured stromal invasion of &gt;3 mm and not &gt;5 mm with an extension of not &gt;7 mm</td>
</tr>
<tr>
<td>Stage Ib</td>
<td>Clinically visible lesions limited to the cervix uteri or pre-clinical cancers greater than stage 1a*</td>
</tr>
<tr>
<td>Stage Ib1</td>
<td>Clinically visible lesion ≤4 cm in greatest dimension</td>
</tr>
<tr>
<td>Stage Ib2</td>
<td>Clinically visible lesion &gt;4 cm in greatest dimension</td>
</tr>
<tr>
<td>Stage II</td>
<td>Cervical Carcinoma invades beyond the uterus, but not to the pelvic wall or to the lower third of the vagina</td>
</tr>
<tr>
<td>Stage IIa</td>
<td>Without parametrial invasion</td>
</tr>
<tr>
<td>Stage IIa1</td>
<td>Clinically visible lesion ≤4 cm in greatest dimension</td>
</tr>
<tr>
<td>Stage IIa2</td>
<td>Clinically visible lesion &gt;4 cm in greatest dimension</td>
</tr>
<tr>
<td>Stage IIb</td>
<td>With obvious parametrial invasion</td>
</tr>
<tr>
<td>Stage III</td>
<td>The tumour extends to the pelvic wall and / or involves lower third of the vagina and / or causes hydronephrosis or non functioning kidney**</td>
</tr>
<tr>
<td>Stage IIIa</td>
<td>Tumour involves lower-third of the vagina, with no extension to the pelvic wall</td>
</tr>
<tr>
<td>Stage IIIb</td>
<td>Extension to pelvic wall and / or hydronephrosis or non functioning kidney</td>
</tr>
<tr>
<td>Stage IV</td>
<td>The carcinoma has extended beyond the true pelvis, or has involved (biopsy proven) the mucosa of the bladder or rectum. A bullous oedema as such, does not permit a case to be allotted to Stage IV</td>
</tr>
<tr>
<td>Stage IVa</td>
<td>Spread of growth to adjacent organs</td>
</tr>
<tr>
<td>Stage IVb</td>
<td>Spread to distant organs</td>
</tr>
</tbody>
</table>
*All macroscopically visible lesions—even with superficial invasion—are allotted to stage IB carcinomas. Invasion is limited to a measured stromal invasion with a maximal depth of 5.00 mm and a horizontal extension of not N7.00 mm. Depth of invasion should not be N5.00 mm taken from the base of the epithelium of the original tissue—superficial or glandular. The depth of invasion should always be reported in mm, even in those cases with “early (minimal) stromal invasion” (~1 mm). The involvement of vascular/lymphatic spaces should not change the stage allotment. ** On rectal examination, there is no cancer-free space between the tumour and the pelvic wall. All cases with hydronephrosis or non-functioning kidney are included, unless they are known to be due to another cause.

6.21 Additional Notes on Staging of Carcinoma of the Cervix

Patients with Stage IA1 disease should be told they have microscopic cancer, which does not behave like invasive cancer.

Stage IA carcinoma should include minimal macroscopically evident stromal invasion as well as small cancerous tumour of measurable size. The diagnosis of stages IA1 and IA2 should be based on microscopic examination of removed tissue, preferably a cone biopsy, which must include the entire lesion. The upper limit of Stage IA2 is given by measurement of the 2 largest dimensions in any given section.

The presence of bullous oedema of the bladder mucosa should not permit a case to be allotted to Stage IV. Malignant cells in cytological washings from the bladder require further examination and biopsy of the bladder.

6.3 Investigations

Biopsy / Cone biopsy
- For all clinically occult disease, pathology review at MDT is required

Colposcopy
- Stage IA

Magnetic Resonance Imaging (MRI)
- In NEYHCA (Cancer) MRI is the main modality of pelvic staging

MRI abdomen/pelvis if stage >IA1
- In search of parametrial status and nodal disease

Cystoscopy
- May be indicated if there is doubt on the MRI

Radiological
- X-ray chest
Selected skeletal films if clinical suspicion of skeletal metastases.

Laboratory
- FBC, Biochemistry

Special Procedures
- Occasionally EUA will be required for staging
6.4 Management

Surgery and radiotherapy are equally effective in terms of survival for early stage cancers. Surgery alone should be offered whenever possible, as it is less likely to impair sexual enjoyment, bowel or bladder problems.

Adjuvant radiotherapy should be avoided wherever possible; it may be necessary after surgery, if adverse prognostic factors are present, and this should always be discussed in the MDT. Risks and benefits of each option will then be discussed with the patient before treatment begins.

Radical chemo radiotherapy should be offered when surgery is unlikely to remove the tumour completely or in the presence of other risk factors. Chemotherapy may be offered in advanced disease and or metastatic disease with or without radiotherapy.

6.5 Cervical Cancer Treatment Algorithm

6.6 Treatment by FIGO Stage

6.61 Stage IA1

If fertility preservation
- Cone biopsy if not already performed
- Repeat cone biopsy if margins not clear
- Colposcopy follow-up if cone biopsy margins clear

Follow-up
Colposcopy and smear 6/12, 12/12, then annual smears for 9 years.

If family complete
- Simple total hysterectomy

Follow-up
Smear 6/12, 18/12, then discharge.
6.62 Stage IA1

LVSI present

- LVSI is unusual for IA1 disease but if present consider laparoscopic pelvic node dissection at centre

Follow-up

Colposcopy and smear 6/12, 12/12, then annual smears for 9 years. Women wishing to retain fertility should be informed of 3% risk of pelvic node metastases.

6.63 Stage IA2

- Total hysterectomy (abdominal or vaginal) + Pelvic Lymphadenectomy (consider laparoscopic) if cone margin clear and no vascular/lymphatic invasion. If there are adverse factors such as LVSI, high grade and high depth of invasion, a radical hysterectomy with Pelvic Lymphadenectomy should be considered.

_If fertility preservation is an issue and no adverse factors present, consider radical trachelectomy or cervical amputation plus laparoscopic pelvic node dissection._

Radiotherapy, if not surgical candidate.

**Adenocarcinoma**

Where depth of invasion can be accurately assessed, therapy should be the same as for squamous carcinoma. Where doubt exists, radical hysterectomy and Pelvic Lymphadenectomy.

Follow up

- **Follow-up for definitive surgery**  
  Clinical follow-up for 5 years

- **Follow-up after fertility sparing surgery**  
  Smear 6/12, 12/12, then annual smears for 9 years

6.63 Stage IB1

- Radical hysterectomy and Pelvic Lymphadenectomy. Individualise for age, obesity and co-existing medical conditions
- Continue surgery if pelvic nodes enlarged but resectable
- Discontinue hysterectomy if extra-cervical extension could compromise resection lines but remove enlarged resectable nodes
- Discontinue surgery if enlarged para-aortic nodes, or irresectable pelvic nodes
- External beam radiotherapy + intracavitary brachytherapy if medically unfit for surgery
- Radical trachelectomy + extraperitoneal / laparoscopic node dissection in selected women (tumour <2cm, no LVSI and histology squamous or adenocarcinoma only) wishing to preserve fertility

6.64 Stage IB2

- Surgical treatment as per stage IB1
- External beam chemo-radiotherapy followed by intra-uterine Brachytherapy

6.65 Stage IIA

- Primary chemo-radiotherapy with weekly cisplatin 40mg/m² followed by intra-uterine Brachytherapy
- Surgery is an alternative
6.66 Stage IIB

- Primary chemo-radiotherapy with weekly cisplatin 40mg/m² followed by intra-uterine Brachytherapy

6.67 Stage III

- Primary chemo-radiotherapy with weekly cisplatin 40mg/m² followed by intra-uterine Brachytherapy

6.68 Stage IV

1. Stage IVA
   Primary chemo-radiotherapy with weekly cisplatin 40mg/m² followed by intra-uterine Brachytherapy. Neo-adjuvant chemotherapy should be discussed where bulky disease cannot be encompassed by radiotherapy alone. Paclitaxel and carboplatin combination is our preferred chemotherapy choice as it is well tolerated. This combination is currently part of an ongoing neo-adjuvant chemotherapy trial in the UK (UCLCTC-BRD/05/22-CERVIX, NCT00462397) [1].

2. Stage IVB
   Palliative chemotherapy.
   Palliative radiotherapy for symptom control.

Indications for post-operative radiotherapy

- >1 positive lymph node, 1 node with extracapsular disease
- Involved or close (<5mm) surgical margin(s)

Management of Obstructed Ureter
Urgent referral to urologist for consideration of stenting prior to definitive treatment is recommended.

6.7 Cervical Cancer in Pregnancy

Dependent upon the woman’s desire to continue with the pregnancy and the gestation at which the diagnosis is made. Assuming the woman wishes to continue with the pregnancy and disease is confined to the cervix allow pregnancy to continue to 36 weeks and then deliver by caesarean section usually with simultaneous radical hysterectomy and pelvic lymphadenectomy. As this is an unusual state of affairs all cases to be discussed in detail at the Centre MDT and individual management plan agreed.

With the exception of pre-invasive disease, all patients will usually receive an initial follow-up visit in the Centre before being referred back to the Unit Cancer Lead for follow-up nearer home.

6.8 Metastatic / Recurrent disease

Patients will be investigated by MRI and other imaging modalities depending on the potential site of recurrence. Management of patients should be discussed jointly with the Gynaecological Oncologist and the Clinical Oncologist, either at the MDT or in the Gynaecological Oncology Combined Clinic. Further treatment will be initiated as appropriate utilising available skills in Clinical Oncology, surgical specialities or Gynaecological Oncology. Women, for whom salvage treatment may be possible, should be referred to the Cancer Centre for assessment and treatment. Exenterative surgery with reconstruction should be considered for motivated patients where MRI, PET-CT and EUA indicate that disease is confined to a central recurrence. Surgery should be conducted in the Cancer Centre.
7. Vulval Cancer

7.1 Investigation & Diagnosis

All women with vulval cancer should be referred to the Specialist MDT for treatment.

All clinically suspicious lesions of the vulva will be managed by biopsy of appropriate size and depth.

7.2 Staging

*Carcinoma of the Vulva 2009*

<table>
<thead>
<tr>
<th>Stage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage I</td>
<td>Tumour confined to vulva</td>
</tr>
<tr>
<td>Stage Ia</td>
<td>Lesions ≤2 cm in size, confined to the vulva or perineum and with stromal invasion ≤1mm*, no modal metastasis</td>
</tr>
<tr>
<td>Stage Ib</td>
<td>Lesions &gt;2 cm in size or with stromal invasion &gt;1mm*, confined to the vulva or perineum, with negative nodes</td>
</tr>
<tr>
<td>Stage II</td>
<td>Tumour of any size with extension to adjacent perineal structures (1/3 lower urethra, 1/3 lower vagina, anus) with negative nodes</td>
</tr>
<tr>
<td>Stage III</td>
<td>Tumour of any size with or without extension to adjacent perineal structures (1/3 lower urethra, 1/3 lower vagina, anus) with positive inguino-femoral lymph nodes</td>
</tr>
<tr>
<td>Stage IIIa</td>
<td>(i) With 1 lymph node metastasis (≤5 mm) or (ii) 1-2 lymph nodes metastasis(es) (&lt;5 mm)</td>
</tr>
<tr>
<td>Stage IIIb</td>
<td>(i) With 2 or more lymph node metastases (≥5 mm) or (ii) 1-2 lymph nodes metastasis(es) (&lt;5 mm)</td>
</tr>
<tr>
<td>Stage IIIc</td>
<td>With positive nodes of extracapsular spread</td>
</tr>
<tr>
<td>Stage IV</td>
<td>Tumour invades other regional (2/3 upper urethra, 2/3 upper vagina), or distant structures</td>
</tr>
<tr>
<td>Stage IVa</td>
<td>Tumour invades any of the following: (i) Upper urethral and / or vaginal mucosa, bladder mucosa, rectal mucosa or fixed to pelvic bone, or (ii) Fixed ulcerated inguino-femoral lymph nodes</td>
</tr>
<tr>
<td>Stage IVb</td>
<td>Any distant metastasis including pelvic lymph nodes</td>
</tr>
</tbody>
</table>

* The depth of invasion is defined as the measurement of the tumour from the epithelial-stromal junction of the adjacent most superficial dermal papilla to the deepest point of the invasion.

7.3 Management

Management of each patient will be formulated on an individual basis at the Specialist MDT, in general following the Royal College of Obstetricians and Gynaecologists Guideline “Management of Vulval Cancer”. Please press control and click on the link below


- The standard patient management for proven vulval carcinoma will be vulvectomy or wide local excision with inguinal node dissection
- Consideration will be given to Sentinel Node Biopsy
- Where the lesion involves the urinary tract or anal canal, consideration will be given to combined surgical therapy with appropriate surgical specialists and / or radiotherapy.
- For the small proportion of women who have advanced disease, chemotherapy or radiotherapy may be appropriate
- In all cases consideration will be given to the appropriateness of reconstructive surgery; this may involve other surgical specialities
More conservative treatment will be considered
- When the lesion is small, unilateral and where the depth of invasion is below 1mm
- Where major surgery is contraindicated by the patient’s medical condition
- Groin lymphadenectomy should normally be avoided when the cancer invades to a depth <1mm

7.4 Vulval Cancer Treatment Algorithm

7.41 Recurrent Vulval Cancer

Local recurrence
If there is local recurrence, then options of management include
- Surgical resection
- Chemoradiation
- Chemoradiation and resection of residual tumour
- If groin recurrence only and not previously irradiated – for inguinal radiotherapy

Groin recurrence within a previously irradiated area
If there is groin recurrence within a previously irradiated area, then options of management include
- Surgical resection
- Chemotherapy

7.42 Metastatic Vulval Cancer

Management options include
- Chemotherapy
- Palliative care

7.43 Adenocarcinoma of the Bartholin’s Gland

If the tumour is not fixed then
- MR imaging of the abdomen / pelvis advised
- Radical local excision and bilateral groin node resection
- Adjuvant treatment should be considered as per squamous cell carcinoma of the vulva
- Consideration will be given to Sentinel Node Biopsy.

If the tumour is fixed to the anal sphincter / anus / rectum, then
- Consider pre-operative chemoradiation, then
- Excision of residual tumour
Staging for Adenosarcoma

<table>
<thead>
<tr>
<th>Stage</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage I</td>
<td>Tumour limited to the uterus</td>
</tr>
<tr>
<td>Stage Ia</td>
<td>Tumour limited to endometrium / endocervix with no myometrial invasion</td>
</tr>
<tr>
<td>Stage Ib</td>
<td>Less or equal to half myometrial invasion</td>
</tr>
<tr>
<td>Stage Ic</td>
<td>More than half myometrial invasion</td>
</tr>
<tr>
<td>Stage II</td>
<td>Tumour extends beyond the uterus, within the pelvis</td>
</tr>
<tr>
<td>Stage IIa</td>
<td>Adnexal involvement</td>
</tr>
<tr>
<td>Stage IIb</td>
<td>Involvement of other pelvic tissues</td>
</tr>
<tr>
<td>Stage III</td>
<td>Tumour invades abdominal tissues (not just protruding into the abdomen)</td>
</tr>
<tr>
<td>Stage IIIa</td>
<td>One site</td>
</tr>
<tr>
<td>Stage IIIb</td>
<td>&gt; one site</td>
</tr>
<tr>
<td>Stage IIIc</td>
<td>Metastasis to pelvis and / or para-aortic lymph nodes</td>
</tr>
<tr>
<td>Stage IVa</td>
<td>Tumour invades bladder and / or rectum</td>
</tr>
<tr>
<td>Stage IVb</td>
<td>Distant metastasis</td>
</tr>
</tbody>
</table>

7.44 Basal Cell Carcinoma of the Vulva

If there is no squamous content on histopathological review, then management is
- Local excision or radiotherapy

If there is an area of squamous invasion seen within tumour, then
- Treat as for squamous cell tumour

7.45 Malignant Melanoma of the Vulva

After excision biopsy for histological confirmation.
Refer onto Melanoma MDT.
8. Vaginal Cancer

8.1 Investigation & Diagnosis

All women with vaginal cancer should be referred to the Specialist MDT for treatment.

8.2 Staging

Carcinoma of the Vagina

<table>
<thead>
<tr>
<th>Stage 0</th>
<th>Primary tumour cannot be assessed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No evidence of primary tumour</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stage I</th>
<th>Tumour confined to vagina</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tis0</td>
<td>Carcinoma in situ</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stage IA</th>
<th>Tumour invades paravaginal tissues but not to pelvic wall</th>
</tr>
</thead>
<tbody>
<tr>
<td>/I</td>
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<table>
<thead>
<tr>
<th>Stage IB</th>
<th>Tumour extends to the pelvic wall</th>
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<tbody>
<tr>
<td>/II</td>
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</table>

<table>
<thead>
<tr>
<th>Stage II</th>
<th>Tumour invades the mucosa of the bladder or rectum, and/or extends beyond true pelvis (Bullous oedema is not sufficient to classify a tumour as T4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>/IVA</td>
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</table>

*Note: If the bladder mucosa is not involved, the tumour is Stage III.

<table>
<thead>
<tr>
<th>Regional nodes (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage IVA</td>
</tr>
<tr>
<td>NX</td>
</tr>
<tr>
<td>NO</td>
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</table>

| Stage IVB | Regional lymph node metastasis |
| N1        |                                  |

<table>
<thead>
<tr>
<th>Distant metastasis (M)</th>
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<tbody>
<tr>
<td>MX</td>
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<tr>
<td>MO</td>
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<tr>
<td>M1</td>
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</table>

8.3 Management

Management of each patient will be formulated on an individual basis but the general framework is as follows.

- Upper 1/3rd Vaginal cancers: Treat as cervical cancer protocol
- Middle and lower 1/3rd vaginal cancer: Chemoradiotherapy to the pelvis followed by intra-vaginal brachytherapy +/- interstitial iridium implant

8.31 Recurrent Disease

Radical treatment by radiotherapy or surgery can be appropriate for a small number of women who develop recurrent disease.
9. Choriocarcinoma

9.1 Investigation & Diagnosis

All cases of choriocarcinoma will be referred to the Supra-Regional laboratory.

This highly malignant germ cell tumour differentiates towards trophoblastic structures and often contains other malignant germ cell elements. It is extremely rare as a primary ovarian tumour, with an estimated incidence of 1 in 369,000,000.

Primary gestational choriocarcinoma associated with normal pregnancy and non-gestational ovarian choriocarcinomas are histologically identical. The two entities can be distinguished by DNA analysis; the presence of paternal DNA within the tumour indicates a gestational (placental) origin.

All choriocarcinomas produce hCG, which may cause isosexual precocity in young girls, and irregular vaginal bleeding of uterine origin. Serum levels of hCG are useful for monitoring response to treatment.

Like gestational choriocarcinomas, those arising in the ovary tend to develop early haematogenous metastasis to several different sites including lung, liver, brain, bone, vagina, and other viscera. In contrast to gestational choriocarcinomas, ovarian tumours are highly unresponsive to chemotherapy and generally fatal.

- Appropriate samples from all aborted tissue and ectopic pregnancy will be submitted for histological evaluation and flow cytometry if deemed appropriate
- Abnormal results will be followed up and patients registered with the Supra-Regional Laboratory in Sheffield
- Management of patients with abnormal results following continuous screening will be discussed with the Supra-Regional Laboratory

10. Vaginal Preservation & Dilation

Vaginal preservation is an essential element of care, particularly following radiotherapy for cervical or vaginal cancer.

Specialist advice for all women, regarding vaginal preservation and health, should be available from diagnosis onwards and the psychological impact of the treatment on the woman, and where appropriate her partner, should be ascertained.

Nurse or specialist Radiographer support should be available on follow-up to evaluate progress made and to try to resolve any problems encountered.
11. Lymphoedema

Women who have undergone radical treatment should be informed about possible long term adverse effects such as lymphoedema and should have a clear access route to specialist help if symptoms develop.

11.1 HEYHT

Mandy Whittingham – Oncology Lymphoedema nurse specialist – Tel 01482 461084.

11.2 NLGHFT

Refer to
Lindsey Lodge Hospice, Burringham Road, Scunthorpe, North Lincolnshire, DN17 2AA – 01724 270835.

St Andrew Hospice, Peaks Lane, Grimsby, South Humberside DN32 9RP - 01472 350908.

11.3 SNEYHT

Refer to
St Catherine’s Hospice, Throxenby Lane, Scarborough, North Yorkshire, YO12 5RE – 01723 356043.
12. Follow Up

Education and information will be provided to the patients when they first attend a follow-up clinic in order to and ask for advice if they develop symptoms suggestive of recurrence. After discharge from follow up clinics, information will also be provided so the patients can gain quick access back into the service (CNS / consultants) if needed.

Frequency of Follow Up Appointments

12.1 Low Risk Endometrial Cancers (Stage 1a, Grade 1 / 2)

- 6 monthly appointments for 1st year
- Annually for 2 years
- Total 3 years

12.2 High Risk Endometrial Cancers (all cancers apart from low risk) and Uterine Carcinosarcomas

- 3 monthly appointments for 1st year
- 4 monthly for 2nd year
- 6 monthly for 3rd year
- Annually for 2 years
- Total 5 years

12.21 Endometrial Stromal Sarcomas

As per low risk endometrial cancers

12.3 Ovarian Cancer

All patients will usually receive on initial follow-up visit in HEYHT before being referred back to the Local MDT / Diagnostic Service for follow-up nearer home.

- 3 monthly appointments for 1st year
- 4 monthly for 2nd year
- 6 monthly for 3rd year
- Annually for 2 years
- Total 5 years

12.31 Post Operative Care

- Patients will be cared for post operatively at Castle Hill Hospital for the initial post operative period.
- Patients will be transferred to the referring hospital on a needs basis.
- Patients will be transferred to B1 at DPOW and to ward 19 at SGH where possible.
- Patients will be transferred to the Haldane Ward at SNEYHT.
- Transport will be arranged by Castle Hill Hospital.
12.32 CA125

Patients should not have CA125 unless symptomatic. Patients for clinical review only. If patient is not symptomatic CA125 should not be carried out as this causes additional stress for the patient.

12.4 Non Epithelial Ovarian Cancer

All patients will usually receive on initial follow-up visit in HEYHT before being referred back to the Local MDT / Diagnostic Service for follow-up nearer home.

- 3 monthly appointments for 1st year
- 6 monthly for 2nd year
- Annually for 3 years
- **Total 5 years**

12.5 Cervical Cancers

All patients will usually receive an initial follow-up visit either within HEYHT or the Local MDT / Diagnostic Service, by the Gynaecologists or Clinical Oncologists, depending which is most appropriate to the patient for follow-up nearer home.

Imaging investigations will be undertaken during follow-up, as judged necessary for careful observation.

- 3 monthly appointments for 1st year
- 4 monthly appointments for 2nd year
- 6 monthly for 3rd year
- Annually to year 5
- **Total 5 years**

The patient should have a speculum examination at each follow up appointment.

**Loop Lletz / cone / hysterectomy for cervical cancer** – Cancers treated in this way are invariably small and early stage. Clinician will indicate appropriate follow up as follows: sample at 6 and 12 months then 9 annual samples before returning to routine recall if all negative (total of 11 samples over 10 years). Management and recall of these patients is the responsibility of the clinician in charge and is now outside the scope of the NHS cervical screening programme.

**Radical hysterectomy or radiotherapy for cervical cancer** – No vault cytology indicated.

12.6 Vulval Cancer

All patients will usually receive an initial follow-up visit in HEYHT before being referred back to the Local MDT / Diagnostic Service for follow-up nearer home.

**Stage 1**

- 6 monthly appointments for 2 years
- Annual appointments for 3 years
- **Total 5 years**

**All other stages**

- 3 monthly for the first year
- 4 monthly for the second year
- 6 monthly for the third year
- Annually for a further 2 years
- **Total 5 years**
**12.7 Vaginal Cancer**

All patients will usually receive an initial follow-up visit in HEYHT before being referred back to the Local MDT / Diagnostic Service for follow-up nearer home.

<table>
<thead>
<tr>
<th>Stage</th>
<th>Follow-up Plan</th>
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<tbody>
<tr>
<td><strong>Stage 1</strong></td>
<td>6 monthly appointments for 2 years</td>
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<tr>
<td></td>
<td>Annual appointments for 3 years</td>
</tr>
<tr>
<td></td>
<td><strong>Total 5 years</strong></td>
</tr>
<tr>
<td><strong>All other stages</strong></td>
<td>3 months for the first year</td>
</tr>
<tr>
<td></td>
<td>4 months for the second year</td>
</tr>
<tr>
<td></td>
<td>6 monthly for the third year</td>
</tr>
<tr>
<td></td>
<td>Annually for a further 2 years</td>
</tr>
<tr>
<td></td>
<td><strong>Total 5 years</strong></td>
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</tbody>
</table>
13. Palliative Care Guidelines

Patients who will need a palliative care pathway are identified through the weekly Multidisciplinary Team (MDT). The reasons for curative treatment options not being appropriate are discussed and a management strategy is proposed.

Following discussions with patients and their families a plan of treatments and care will be organized. This may include singularly or in combination: surgery, radiotherapy or chemotherapy and symptom management, with referrals to specialist services including allied health professional services as appropriate. Referrals to community services would also be instigated as appropriate.

Patients will continue to be reviewed by the clinical team as required. Referral to specialist palliative care can be facilitated through any team member, but is often undertaken by the CNS as they have developed links with the community palliative care nurses throughout the region and the hospices in Hull, Grimsby, Scunthorpe and Scarborough.

Specialist Palliative Care Teams can provide access to a range of services including

- Day care
- Admission for symptom relief
- Rehabilitation
- Terminal care
- Bereavement counselling
- Pain clinics / Pain Management
- Complementary therapies (e.g. reflexology, aromatherapy)
- Lymphoedema Management services
- Psychological support
- Help with benefits and social care issues

(Plus, all patients have access to Specialist Palliative Care Advice via telephone support)

The Specialist Palliative Care Team are available to all health care professionals for telephone advice or will visit patients at home or in a hospice to offer clinical advice and guidance where needed. Patients are given contact numbers to gain direct access to the team.

13.1 Key Workers

The patient should be allocated a key worker, given their key workers contact details and the parameters of the key workers role. This should be clearly documented and communicated to the patient, carers and relevant professionals. The patient should be made aware if their key worker changes (which may well happen as the disease process develops).

The key worker can be either a specialist or generalist (e.g. GP or District Nurse) with whom the patient has regular contact and who has received the relevant training and been assessed as competent.

Patients can also be admitted to their local hospitals or hospices for palliative and terminal care if appropriate. The members of the multidisciplinary Specialist Palliative Care Team are available to visit and advise on specific clinical difficulties. Please press control & click on the links below

www.dovehouse.org.uk
www.lindseylodgehospice.org.uk
www.standrewshospice.com
13.2 Summary of Specialist Palliative Care Services Available Throughout the Region

13.21 Hull

- Marie Curie Nurses
- Out of Hours nursing (East and West Hull)
- AHP services
- Palliative Care Consultant / out patient clinic
- Lead Palliative Care Nurse
- Dove House Hospice (In Patients / Day Care / Lymphoedema)
- Community Palliative Care Macmillan / Clinical Nurse Specialists (CNS) - All PCTs
- Hospital-based Palliative CNS Specialists
- GP Macmillan Facilitators
- Macmillan Day Care
- Chaplain / spiritual worker

13.22 Grimsby

- St Andrew’s Hospice (In Patients / Day Care / Lymphoedema / out of hours for North East Lincs)
- Community Palliative Care Macmillan / CNS (All PCTs)
- AHP services
- Palliative Care Consultant
- Hospital-based Palliative Care Macmillan / CNS
- Marie Curie Nurses – home nursing
- Lead GP x 2 / Nurse in Palliative Care
- GP Macmillan Facilitator
- Out of Hours Sitting Service
- Chaplain / spiritual worker

13.23 Scunthorpe

- Lindsey Lodge Hospice (In Patients / Day Care / Lymphoedema / Breathlessness Clinic)
- Community Palliative Care Lead GP / CNS (All PCTs)
- AHP services
- Hospital based Palliative Care Macmillan / CNS
- Specialist Palliative Care Social Worker
- Dedicated Occupational Therapy Service
- Dedicated Dietician
- Dedicated Pharmacist
- Marie Curie Nursing – North Lincs
- Chaplain / spiritual worker
13.24 Scarborough

- St Catherine’s Hospice (In Patients / Day Care / Lymphoedema)
- AHP services
- Palliative Care Consultant / out patient clinic
- Community Palliative Care Macmillan / CNS (All PCTs)
- Hospital-based Palliative Care Macmillan / CNS (Scarborough District General Hospital)
- GP Macmillan Facilitator
- Marie Curie Nursing
- Bereavement Support Services
- Chaplain / spiritual worker

13.25 Bridlington

- Macmillan Unit with ‘GP’ beds
- Neighbourhood Care Team (AHP services)
- Palliative Care Clinic
- Community Palliative Care CNS (All PCTs)
- Chaplain / spiritual worker

*(Plus all sites have Specialist Palliative Care Multidisciplinary Teams and all patients have access to phone support & advice)*
14. Patient Information

14.1 General Guidance

“A higher priority should be placed on improving information for patients, face-to-face communication with health professionals and co-ordination and continuity of care. We also need to do more to support patients through their survivorship.”

Cancer Reform Strategy 2007

Patients should be offered a permanent record or summary of all consultations at which their treatment options are discussed, this should include clear verbal and written information about the following:

- The disease (on diagnosis)
- The nature and implications of diagnosis (where appropriate)
- The treatment options, and their effects (positive and adverse)
- Assessment of the outcome, and information on symptoms which may signify recurrence
- Relevant follow up (discharge) arrangements
- Information on patient involvement groups and support groups, including AHP support
- If necessary, the patient should be offered a tape of their consultation

MDTs should be involved in patient exercises, in conjunction with Peer Review measures, to ascertain if patients have been offered:

- A key worker
- Information for patients and carers (written or otherwise)
- The opportunity of a permanent record or summary of consultation at which their treatment options were discussed

These exercises should be presented and discussed at MDT meetings, the teams should implement actions resulting from their findings.

Patient Information from National Information Pathways and local information meeting National Standards should be made available to all patients. Information should be available in languages and formats understandable by relevant local minority groups including; ethnic groups, those with alternative sexuality, and people with disabilities.

Information offered should be appropriate to the patients’ needs at that point in their patient journey, (e.g. type of lesion, type of treatment, local services and any choice within them) and should be offered at all stages of the patient pathway. It should cover both physical and psychosocial issues. The information offered and given should be recorded in the patient notes.

Patient Information should include names and contact details of key personnel involved in the patients care. Upon diagnosis, every patient should be given the contact details of a key worker in line with local Key Worker Policy. A chemotherapy or oncology nurse should be available to advise, inform and support patients needing chemotherapy or radiotherapy.

Patients should have access to a team of professionals who have been trained in advanced communication skills. Emotional support should be available to the patient at any stage in their pathway of care.

Patients should be encouraged to bring someone with them to provide support at diagnostic clinics / appointments at which distressing news may be communicated. Patients should be given time and support to reflect on their treatment options before having to make a decision.
The service should have defined access to social workers, Allied Health professionals, chaplains, pain control and palliative care professionals, whether provided by hospital staff, the Hospices or within the Trust by the Specialist Palliative Care Team. Services should also aim to develop access to a range of psychological support and appropriate complimentary therapies.

Carers have a key role in supporting patients and may need information to enable them to fulfill this role optimally. However, patient-specific information should only be provided to carers within the context of protecting patient confidentiality and with the patient’s consent.

### CNSs Contact Details

<table>
<thead>
<tr>
<th>Name</th>
<th>Hospital</th>
<th>Telephone Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lynn Holmes &amp; Jean Sharpless</td>
<td>Castle Hill Hospital, Castle Road, Cottingham East Yorkshire, HU16 5JQ</td>
<td>01482 624033 / 622199, Bleep Switchboard 01482 875875</td>
</tr>
<tr>
<td>Sue Thompson</td>
<td>Scarborough Hospital, Woodlands Drive, Scarborough, North Yorkshire, YO12 6QL</td>
<td>01723 385290, Bleep Switchboard 01723 368111 # 6370</td>
</tr>
<tr>
<td>Helen Ambler</td>
<td>Diana Princess of Wales Hospital, Scartho Rd Grimsby, N E Lincs, DN33 2BA</td>
<td>01472 874111</td>
</tr>
<tr>
<td>Sharon Prudhoe</td>
<td>Scunthorpe General Hospital, Cliff Gardens Scunthorpe, North Lincs, DN15 7BH</td>
<td>01724 282282 Ext 5904</td>
</tr>
</tbody>
</table>

Patient Involvement Groups / Self Help Group information can be found on the NEYHCA (Cancer) website and in the Local Service Directory.

**Patient Information Pathway** – details can be found on the NEYHCA (Cancer) website (Includes Social Care & Benefit Advice in the Local Service Directory)

[www.hyccn.nhs.uk/PatientInformation/NationalPathways.htm](http://www.hyccn.nhs.uk/PatientInformation/NationalPathways.htm)

**Support Groups** – details can be found on the NEYHCA (Cancer) website / Local Service Directory
All patients with cancerous or precancerous lesions should be given advice on prevention and recognition of signs and symptoms of suspicious skin lesions and on how to re access the service.

**From the NICE ovarian guidance, April 2011**
**Support needs of women with newly diagnosed ovarian cancer.**

Offer all women with newly diagnosed ovarian cancer information about their disease, including psychosocial and psychosexual issues, that
- Is available at the time they want it
- Includes the amount of detail that they want and are able to deal with
- Is in a suitable format, including written information
Ensure that information is available about

- The stage of the disease, treatment options and prognosis
- How to manage the side effects of both the disease and its treatments in order to maximise wellbeing
- Sexuality and sexual activity
- Fertility and hormone treatment
- Symptoms and signs of disease recurrence
- Genetics, including the chances of family members developing ovarian cancer
- Self-help strategies to optimise independence and coping
- Where to go for support, including support groups
- How to deal with emotions such as sadness, depression, anxiety and a feeling of a lack of control
- Over the outcome of the disease and treatment
15. Audit and Research

15.1 Minimum Dataset

A minimum dataset should be agreed across NEYHCA (Cancer) and there should be a policy in place specifying which type of team should collect which portion of the MDS, when it will be collected and how it is to be stored. (E.g. cancer waiting times monitoring)

A data manager / MDT Co-ordinator should be employed to collect the agreed NEYHCA (Cancer) minimum dataset.

15.2 Audit

A NEYHCA (Cancer) audit project is related to the cancer site or sites of the Clinical Expert Group (CEG) and the activities of its Specialist & Local Multidisciplinary Teams (SMDT / LMDTs) within NEYHCA (Cancer).

The Manual for Cancer Services states that for cancer sites which have standards based on Improving Outcomes Guidance (IOG), the parameters to be audited should be drawn from the “Measurement” sections of the relevant IOG.

The Chair of the Gynaecology CEG and the Chair of the Cancer Management Group should agree and support audit of services.

The CEG, in consultation with the MDTs, will agree at least one audit project with the Cancer Management Group, with any necessary sources of funding agreed with commissioners or from elsewhere. The same audit project should be carried out by all MDTs for that cancer site in NEYHCA (Cancer), each team's results being separately identified. The progress of the audit should be reviewed annually / results discussed.

The individual MDTs should agree to participate in the audit. The MDT should annually review the progress of the project or present the results of the completed audit project to the CEG for discussion at one of their meetings.

15.3 Research

Through the CEG, MDTs should be encouraged to participate in surgical and non-surgical randomised controlled trials annually, particularly national trials.

The CEG should regularly receive reports regarding accrual of patients into trials and at least annually should receive and discuss a report from each of the MDTs in response to the CEG approved trials list.

Remedial actions required following these reports should be agreed between the CEG and the clinical lead of the research network.

There should be a single list of clinical trials and / or studies into which the MDTs should give priority for patient entry.

The MDT must provide a written response to the CEG clinical trials list & agree to carry out recruitment and remedial actions to assist NEYHCA (Cancer) recruitment.

NEYHCA (Cancer) is committed to high quality research. The number of clinical trials for patients with gynaecological cancers is low, but when trials are available suitable patients will be entered into the trials.
## Appendices

### Appendix (i) MDT meetings for Gynaecological Cancers / Referral PCTs / Catchment Populations

<table>
<thead>
<tr>
<th>Trust</th>
<th>Location</th>
<th>Arrangements for Specialist Care</th>
<th>Time</th>
<th>Lead Clinician / Phone Numbers</th>
<th>CNS Nurses</th>
<th>Referring PCT / Population Approx Total Population</th>
<th>MDT Co-ordinators Patient Trackers Data Administrators</th>
<th>Urgent Referral Fax</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northern Lincolnshire and Goole Foundation NHS Trust</td>
<td>Cancer Unit (LMDT)</td>
<td>Via video conferencing between Diana, Princess of Wales Hospital Grimsby and Scunthorpe General Hospital (&amp; Hull from 9/09)</td>
<td>HEYHT</td>
<td>Tuesday (weekly) 12 noon</td>
<td>Mr A Saha Grimsby Tel: 01472 874111 Ext 1077</td>
<td>MDT Co-ordinators Patient Trackers Data Administrators</td>
<td>Urgent Referral Fax</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Scarbrough General Hospital (Diagnostic Service / Colposcopy)</td>
<td>HEYHT</td>
<td>Monthly Colposcopy meeting</td>
<td>Mrs Ramsawamy attends Hull</td>
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<tr>
<td>Scarborough and North East Yorkshire NHS Trust</td>
<td>Cancer Unit (Diagnostic Locality)</td>
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<tr>
<td>Hull and East Yorkshire Hospitals NHS Trust</td>
<td>Cancer Centre / unit (SMDT)</td>
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**Guidelines for the Management of Adult Patients with Gynaecological Cancers Version 1.9 2012 | Page 54**
Appendix (ii) Patient Pathways (adapted from the Gynaecological 2011 Measures)

Shape of the Service
Fig 1. Team Relationships in NEYHCA (Cancer) Configuration

Local PCT Non Urgent Referral

Diagnostic service (Fig 2) 
HEYHT / NLGHFT / SNEYHT

Local PCT Non Urgent Referral

Local Gynae MDT for local care 
HEYHT / NLGHFT

Local PCT Non Urgent Referral

NLGHFT / SNEYHT

Refers by 2WW form / fax / phone call to Specialist Gynae MDT for
• High risk endometrial
• All cervix cancer histology review & management plan (Fig 2)
• Ovarian Cancer
• Vaginal Cancer
• Vulval Cancer
• Cyto reductive treatment of recurrent cancer

Local PCT Urgent Referral

Specialist Gynae MDT 
HEYHT for Specialist care
Local care for local catchment

Local PCT Urgent Referral

Specialist care referrals from other teams e.g. Skin MDT, by phone / fax / 2WW form
Fig 2. Patient Care Pathway, newly presenting patients – Diagnostic Service SNEYHT

**Patient Presents Gynaecology Malignancy**

- **Benign**

**Endometrial Cancer**
- Differentiate high vs low risk
- Methods of differentiation and site of investigation according to agreed CEG guidelines
- Case Discussion at Local or Specialist MDT

- **Confirmed high risk**

- **Confirmed low risk**

**Diagnostic Service SNEYHT**

**Cervical Cancer**
Colposcopy / biopsy

- **SCC st. IA1 or > Histology review by histopathology core member of specialist MDT. Where the specialist MDT considers a microinvasive squamous cancer is very low risk and indicates that cone biopsy alone is adequate management, the patient may be managed by the Local MDT**

- **SCC st 1A2 or > or non-squamous cancer**

**Other Cancers**
Including ovary, vagina, vulva

- **Management by agreed Diagnostic Service surgeon SNEYHT***

- **Incomplete excision biopsy? Higher stage**

- **Management by Specialist MDT HEYHT**

- **No further Treatment**

* Agreed in CEG Guidelines / named member of the diagnostic service / attend as core member of the local / specialist MDT / Operating in host hospital of the diagnostic service.
Endometrial Cancer
1. Differentiate high vs low risk
2. Methods of differentiation and site of investigation according to agreed CEG guidelines

Confirmed high risk

Confirmed low risk

Cervical Cancer
Colposcopy / biopsy

Stage IA1 Histology review by histopathology core member of specialist MDT. Where the specialist MDT considers a microinvasive squamous cancer is very low risk and indicates that cone biopsy alone is adequate management, the patient may be managed by the Local MDT

Complete excision biopsy by diagnostic team

Incomplete excision biopsy?
Higher Stage

Management by Local MDT NLGHFT / HEYHT

No further Treatment

Management by Specialist MDT HEYHT

Other Cancers
Including ovary, vagina, vulva

Stage 1A2 or more or non-squamous or adenocancer

Management by Local MDT NLGHFT / HEYHT

Diagnostic Service SNEYHT
Appendix (iii) NEYHCA (Cancer) GP Referral Guidelines for Suspected Gynaecological Cancers February 2012

This guideline is also available separately on the NEYHCA (Cancer) website.

Version Number: 2.0a  
Date Approved: February 2012  
Review Date: February 2014

GP Referral Guidelines for Gynaecological Cancers

General Recommendations

NEYHCA (Cancer) adheres to the Gynaecology Clinical Expert Group (CEG) Guidelines which incorporates NICE Guidance. The guidelines can be found on the NEYHCA (Cancer) website. Please press control and click on the link below to be taken to the website page

www.hyccn.nhs.uk/NetworkGuidelinesAndPublications/GynaeOncologyNSSG.htm

To access NICE guidance available please use the following links

Cervical Cancer  
http://guidance.nice.org.uk/Topic/Cancer/Cervical

Endometrial Cancer  
http://www.nice.org.uk/guidance/index.jsp?action=byTopic&o=9310&ht=7165

Ovarian Cancer  
http://guidance.nice.org.uk/Topic/Cancer/Ovarian

New Ovarian Guidance April 2011  
http://guidance.nice.org.uk/CG122

Physical Examination

The majority of gynaecological cancers can be detected by simple physical examination including speculum examination to visualise the cervix & bimanual. Suspicious symptoms should ALWAYS prompt a physical examination of the patient. These symptoms could include

Endometrial Cancer

• Bleeding after 1 year or more after cessation of regular periods  
• Bleeding after cessation of HRT for more than 6 weeks  
• When a woman taking Tamoxifen presents with postmenopausal bleeding. (Tamoxifen can increase the risk of endometrial cancer.)

Vulval Cancer

• Any patient with a lump or ulcer on the vulva  
• Any patient with persistent vulval pain or pruritus

Cervical Cancer

• Inter menstrual bleeding  
• Post coital bleeding  
• Vaginal discharge

NB:// A negative smear result does not exclude cervical cancer

Ovarian Cancer (symptoms are more vague)

• Bloating, indigestion, constipation, abdominal or back pain

These symptoms should prompt a PHYSICAL EXAM at an early stage
If the clinical examination reveals suspicions of pelvic mass, an **URGENT REFERRAL** should be made without waiting for ultrasonic scan or tumour markers.

Where there is clinical suspicion that cancer may be present in a patient who does not easily fit into any of the above categories, Consultant Gynaecologists and / or Clinical Nurse Specialists in Gynae-Oncology may be contacted directly by phone for advice.

**Urgent Referral**

A patient who presents with symptoms suggesting gynaecological cancer should be referred to a Gynae-oncologist within 24 hours (urgent referral). Refer the woman urgently¹ if physical examination identifies ascites and / or a pelvic or abdominal mass (which is not obviously uterine fibroids)²

The Gynae-oncologist will then liaise with the appropriate Multi Disciplinary Team (MDT) if the suspicion / diagnosis is confirmed.

**Urgent Referral Fax numbers**

- Hull and East Yorkshire Hospitals NHS Trust **Local / Specialist MDT** 01482 675505
- Northern Lincolnshire & Goole Hospitals Foundation Trust **Local MDT**
  - Grimsby 01472 302450
  - Scunthorpe 01724 387704
- Scarborough & NE Yorkshire Healthcare NHS Trust **Diagnostic Service**: 01723 342423

**Non Urgent Referral**

**Carry out appropriate tests in primary care**

If a woman (especially if 50 or over) reports having any of the following symptoms on a persistent or frequent basis – particularly more than 12 times per month²:

- Persistent abdominal distension (women often refer to this as ‘bloating’)
- Feeling full (early satiety) and / or loss of appetite
- Pelvic or abdominal pain
- Increased urinary urgency and / or frequency
- If a woman reports unexplained weight loss, fatigue or changes in bowel habit.

**Carry out appropriate tests in primary care for ovarian cancer**

In any woman of 50 or over who has experienced symptoms within the last 12 months that suggest irritable bowel syndrome (IBS)³. IBS rarely presents for the first time in women of this age.

Preliminary assessment should include

- Full abdominal and vaginal examination
- CA125 assessment
- Ultrasound (if this does not delay referral)

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¹ An urgent referral means that the woman is referred to a gynaecological cancer service within the national target in England and Wales for referral for suspected cancer, which is currently 2 weeks.

² See also ‘Referral guidelines for suspected cancer’ (NICE clinical guideline 27; available at www.nice.org.uk/guidance/CG27) for recommendations about the support and information needs of people with suspected cancer.

CA125

- Measure serum CA125 in primary care in women with symptoms that suggest ovarian cancer
- If serum CA125 is 35 IU/ml or greater, arrange an ultrasound scan of the abdomen and pelvis
- For any woman who has normal serum CA125 (less than 35 IU/ml), or CA125 of 35 IU/ml or greater but a normal ultrasound
  - Assess her carefully for other clinical causes of her symptoms and investigate if appropriate
  - If no other clinical cause is apparent, advise her to return to her GP if her symptoms become more frequent and / or persistent

Serum CA125 should be attached to the referral.

If the ultrasound suggests ovarian cancer, refer the woman urgently for further investigation.

GPs should advise any woman who is not suspected of having ovarian cancer to return to her GP if her symptoms become more frequent and / or persistent.

Table of key contact numbers for all NEYHCA (Cancer) Trusts

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Fax Number / MDT Coordinator</th>
<th>CNS</th>
<th>Consultant Gynaecologist</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hull and East Yorkshire Hospitals NHS Trust Local MDT &amp; Specialist MDT</td>
<td>Urgent Referral (to be faxed) 01482 675505 TBC 01482 674217</td>
<td>Ms Lynn Holmes Ms Jean Sharpless 01482 624033 01482 622199 Bleep Switchboard 01482 875875</td>
<td>Mr. T Giannopoulos Dr M Flynn 01482 875875 Sec Pauline Holgate Ext 4098 Fax Ext 4016</td>
</tr>
<tr>
<td>Scarborough &amp; NE Yorkshire Hospitals NHS Trust Diagnostic Service / Locality</td>
<td>Urgent Referral (to be faxed) 01723 342423 Kirstin Hunter 01723 385186</td>
<td>Ms Sue Thompson 01723 385290 Bleep Switchboard 01723 368111 Extn 6370</td>
<td>Mrs. S Ramaswamy Sec Sue Evans 01723 342083</td>
</tr>
<tr>
<td>Northern Lincolnshire &amp; Goole Hospitals Foundation Trust Local MDT</td>
<td>Urgent Referral (to be faxed) Grimsby 01472 302450 Scunthorpe 01724 387704 Grimsby Sarah Middlecoate 01472 874111 x 3517 Scunthorpe Joanne Palmer 01724 282282 x 5586</td>
<td>Ms Sharon Prudhoe Scunthorpe 01724 282282 Ext 5904 Ms Helen Ambler Grimsby 01472 874111</td>
<td>Mr. C. Gan Scunthorpe 01724 282282 Sec Sally Beech Ext 5320 Mr A Saha Grimsby Sec Sara Graves 01472 874111 Ext 1077</td>
</tr>
</tbody>
</table>
This guideline is also available separately on the NEYHCA (Cancer) website

[website_link]

Version: 4.2a  
Date Approved: February 2012  
Review Date: February 2014

1. Introduction

‘A Guideline is not a rigid constraint upon clinical practice, but a concept of good practice against which the requirements of the individual patient can be considered’. (RCR, 1990)

It therefore remains the responsibility of the practising Clinicians to interpret the application of guidelines, taking into account local service constraints and the needs and wishes of the patients.

This Guidance is based on the recommendations contained in

2. NEYHCA (Cancer) Guidelines for the Management of Gynaecological Cancers – March 2012

It is not intended to be prescriptive nor exhaustive, but a guide towards best practice. Imaging protocols may vary depending on local circumstances, and the quality of the imaging service should be supported by regular audit and by attendance at multidisciplinary meetings.

Services should be planned to minimise travelling times whilst maintaining the highest standards of specialist care using local expertise and agreed protocols (Calman Hine report, paragraph 4.1.4) Patients should be scanned locally where there is suitable equipment and expertise.

All clinical trials should be approved at the Gynaecological CEG and if a patient is within a clinical trial which requires a change to the routine performance of the investigation or the scan to be reported against specific criteria it is the responsibility of the clinician leading the trial to discuss and agree the scanning protocols (including frequency, techniques, coverage and reporting) with the appropriate department prior to the trial commencing.

2. MRI

For most MRI investigations of the female pelvis an empty bladder is preferable, unless bladder invasion is being investigated when some bladder filling may be advantageous. Bowel relaxant (Glucagon or Buscopan) should always be given immediately prior to the scan to reduce movement artefact. Secure fixation of surface coils also helps to minimize movement. Field of view, matrix size, slice thickness, number of acquisitions, and any other relevant scanning parameters should be chosen in order to maximize signal-to-noise and spatial resolution in the areas under investigation.
Parameter selection may require specialist radiographic input and should be changed to tailor the examination to the patient's body habitus and the pathology present. Sequences for the upper abdomen are not detailed, because there are many different sequences, which can be useful for demonstrating liver pathology, lymphadenopathy, omental and peritoneal disease. However consideration should be given to the use of respiratory triggering to reduce breathing artifact. Where MRI is used it should be of sufficient quality to demonstrate the relevant pathology clearly for staging and management purposes. Whether CT or MRI is performed the scan should extend from diaphragm to aortic bifurcation.

Occasionally dynamic contrast-enhanced (DCE-MRI) and post-gadolinium sequences, the later with fat-saturation may be helpful additions, and should be determined according to individual cases. 3D imaging post contrast is preferable.

MRI is the preferred imaging modality for the staging of gynaecological malignancy within NEYHCA (Cancer). NICE Guidance for Ovarian Cancer 2011 states that MRI should not be used routinely, but it does not exclude MRI from diagnosis. This decision should be made by the clinician, taking all factors into consideration.

3. Cervix, Vagina and Vulva

MRI should be done to assess the local extent of early disease where the patient is diagnosed > Stage 1a.
RCR guidance recommends an interval of 7 – 10 days between intervention (such as cone biopsy) and the MRI scan.

MRI protocol for Cervical Carcinoma

<table>
<thead>
<tr>
<th>Pelvis - Cervix</th>
<th>Sequence</th>
<th>Plane</th>
<th>Slice Thickness</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>T2W</td>
<td>Sagittal</td>
<td>2.5 - 3mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>T2W</td>
<td>Oblique</td>
<td>2.5 - 3mm</td>
<td>Perpendicular to long axis of cervix</td>
<td></td>
</tr>
<tr>
<td>T2W</td>
<td>Coronal</td>
<td>–3-5mm</td>
<td>Perpendicular to above if there is doubt about parametrial invasion</td>
<td></td>
</tr>
<tr>
<td>T1W or T2W</td>
<td>Axial</td>
<td>6 ± 1 mm</td>
<td>Cover the entire pelvic contents to examine pelvic lymphadenopathy</td>
<td></td>
</tr>
</tbody>
</table>

Abdominal imaging

<table>
<thead>
<tr>
<th>Sequence</th>
<th>Plane</th>
<th>Slice Thickness</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>T2W DWI Dynamic contrast-enhanced</td>
<td>Axial</td>
<td>6 ± 1 mm</td>
<td>Use of gating to be considered Dynamic scanning if metastatic disease suspected Consider coronal acquisition additionally for sub-diaphragmatic disease</td>
</tr>
</tbody>
</table>

Imaging Follow-up of Cervical Carcinoma

- Frequency depends on: form of treatment (surgical and / or radiotherapy) and size and histology of tumour at time of presentation,
- After chemo-radiotherapy and before brachytherapy to assess potential for applicator insertion,

Following radiotherapy: MRI at 6 months, 1 year, and 2 years,
Following surgery: MRI at 1 year, and 2 years.
MRI in Vaginal and Vulval Carcinoma
MRI should be performed where the patient is diagnosed > Stage 1a and present with histologically-proven carcinoma of the vagina or vulva.

MRI protocol for Vaginal Carcinoma

<table>
<thead>
<tr>
<th>Sequence</th>
<th>Plane</th>
<th>Slice Thickness</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>T2W</td>
<td>Sagittal</td>
<td>3 – 5 mm</td>
<td></td>
</tr>
<tr>
<td>T2W</td>
<td>Axial (oblique)</td>
<td>3 – 5 mm</td>
<td>Perpendicular to axis of vagina</td>
</tr>
<tr>
<td>T2W</td>
<td>Coronal (oblique)</td>
<td>3 – 5 mm</td>
<td>Perpendicular to above</td>
</tr>
<tr>
<td>T1W or T2W</td>
<td>Axial</td>
<td>6 ± 1 mm</td>
<td>To image pelvic lymphadenopathy May not be required if axial T2W imaging provides adequate coverage</td>
</tr>
<tr>
<td>Post Gd 3D T1W</td>
<td>Axial</td>
<td>&lt;1mm</td>
<td>Consider this sequence to aid loco-regional staging</td>
</tr>
</tbody>
</table>

MRI protocol for Vulval Carcinoma

<table>
<thead>
<tr>
<th>Sequence</th>
<th>Plane</th>
<th>Slice Thickness</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>T2W</td>
<td>Sagittal</td>
<td>3 – 5 mm</td>
<td></td>
</tr>
<tr>
<td>T2W</td>
<td>Axial</td>
<td>3 – 5 mm</td>
<td></td>
</tr>
<tr>
<td>T2W</td>
<td>Coronal</td>
<td>3 – 5 mm</td>
<td>Perpendicular to above</td>
</tr>
<tr>
<td>T1W or T2W</td>
<td>Axial</td>
<td>6 ± 1 mm</td>
<td>To image pelvic lymphadenopathy May not be required if axial T2W imaging provides adequate coverage</td>
</tr>
<tr>
<td>Post Gd 3D T1W</td>
<td>Axial</td>
<td>&lt;1mm</td>
<td>Consider this sequence to aid loco-regional staging</td>
</tr>
</tbody>
</table>

Imaging Follow-up of Vaginal and Vulval Carcinoma
If there is suspicion of clinical recurrence
- Frequency depends on: form of treatment (surgical and / or radiotherapy) and size and histology of tumour at time of presentation,
- After chemo-radiotherapy and before brachytherapy to assess potential for application insertion,

Following radiotherapy: MRI at 6 months, 1 year, and 2 years,
Following surgery: MRI at 1 year, and 2 years.

4. Endometrial

Initial investigation for post-menopausal bleeding should be carried out in a rapid assessment clinic, where these have been established, by transvaginal ultrasound scan to assess the thickness of the endometrium (the depth of myometrial invasion).

Ultrasound protocol for suspected Endometrial Cancer
Indications
See Appendix A

Preparation
No preparation is required in the post menopausal patient
TV scan should be performed in all cases. Menstrual state should be recorded, as well as any history of gynaecological surgery, IUCD and any medications such as Tamoxifen, HRT etc. If cyclical HRT is being taken, the scan should be timed for the withdrawal bleed.

**Scan procedure**
A transvaginal scan is essential to assess the endometrium and should always be performed. The transvaginal scan must be performed with the women in the lithotomy position using stirrups.

A transvaginal scan is a dynamic investigation in that the relative mobility of the pelvic structures can be assessed. The free hand can also be used to press gently on the lower abdomen to bring structures into view.

**Minimum imaging protocol of the endometrium**
Uterus in longitudinal and transverse sections (LS and TS) to include the cervix. Is the uterus mobile on scanning. Endometrium in LS and TS. Measure the endometrium in the true sagittal AP plane.
Measure the double layer thickness of endometrium in LS in the presence of endometrial cavity fluid.
Report on the symmetry of the measurement of the endometrium.
Both ovaries and adnexal lesion.

**Extended protocol if abnormality found**
- Is the endometrium uniformly or focally enlarged, is it cystic or not?
- Is the endometrium asymmetrical even if the measurement is less than 5 mm?
- Is there any fluid in the endometrial cavity?
- Are there any submucosal fibroids or endometrial polyps identifiable?
- Is the endometrium visualised, i.e. the non visualised endometrium is very important
- Search for distant spread in abdomen.

**Criteria**
A postmenopausal endometrial thickness of 5mm [single or double layer in the presence of fluid or less effectively excludes endometrial cancer

**Hard copy imaging**
This is recommended in all cases.

**Follow up imaging**
Hysteroscopy and guided biopsy are required for women with postmenopausal bleeding and a thickened endometrium.
If hysteroscopy is not readily available, then saline infusion sonohysterography and pipelle biopsy may help select those who need further intervention.

**Chest X-ray**
MRI can help with local spread but is not routinely indicated – please check local policy.

**Conclusion**
The main role of ultrasound, in women suspected of having endometrial cancer, is to identify those that do not require hysteroscopy and biopsy.

**MRI in Endometrial Carcinoma**
Patients with G2 & G3 endometrioid endometrial cancer and all non endometrioid type cancers should have an MRI. However, patients with a suspicion of involvement of the cervix and/or beyond (independent of grade) should also be considered for an MRI.
MRI Protocol for Endometrial Carcinoma

<table>
<thead>
<tr>
<th>Sequence</th>
<th>Plane</th>
<th>Slice Thickness</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pelvis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T2W</td>
<td>Sagittal</td>
<td>3 – 5 mm</td>
<td></td>
</tr>
<tr>
<td>T2W</td>
<td>Axial</td>
<td>3 – 5 mm</td>
<td>Perpendicular to axis of uterus</td>
</tr>
<tr>
<td>T2W</td>
<td>Coronal</td>
<td>3 – 5 mm</td>
<td>Perpendicular to above</td>
</tr>
<tr>
<td>T1W or T2W</td>
<td>Axial</td>
<td>6 ± 1 mm</td>
<td>To image pelvic lymphadenopathy. May not be required if axial T2W imaging provides adequate coverage</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T1W fat-sat post- gadolinium ± dynamic</td>
<td>Axial</td>
<td>6 ± 1 mm</td>
<td>To improve estimation of tumour invasion. Match plane and slice thickness to sequence which best demonstrates the lesion.</td>
</tr>
<tr>
<td>DWI</td>
<td>Axial</td>
<td>6 ± 1 mm</td>
<td>Consider including this sequence</td>
</tr>
</tbody>
</table>

Imaging Follow-up of Endometrial Carcinoma
Frequency: Depends on the stage and histology of the disease at presentation. More advanced disease of higher grade histology is reviewed every 6 months following surgery, for up to 2 years. If treated only with radiotherapy, then follow-up is to assess response.

5. Ovarian Carcinoma

Ultrasound protocol for suspected Ovarian Cancer

Indications
- Gynaecological symptoms
- Suspected mass or ascites
- Raised tumour markers
- Family history (within guidelines for screening only and referred by Geneticists)

Preparation
- Women should attend with a full bladder
- The stage of menstrual cycle should be recorded as well as any history of gynaecological surgery

Scan procedure
A transabdominal scan should always be done as well as a transvaginal scan. If the woman has attended with a full bladder the transabdominal scan is done first. This is so that large masses that extend out of the pelvis, omental cake or ascites are not overlooked.

However all of these features can be diagnosed with the TA approach even if the bladder is empty once ovarian pathology has been diagnosed or suspected on TV scan.

The kidneys should be examined as an integral part of any pelvic scan in which an abnormality is found, the kidneys do not need to be scanned if the pelvis is normal.

The woman then empties her bladder prior to a transvaginal scan. The woman should lie in the lithotomy position using stirrups.
A transvaginal scan is a dynamic investigation in that the relative mobility of the pelvic structures can be assessed. The free hand can also be used to press gently on the lower abdomen to bring structures into view.
Minimum imaging protocol
- Uterus, longitudinal section (LS) and transverse section (TS). Include view of endometrial thickness in LS
- Identify any free fluid and search the adnexae out to the iliac vessels
- Both ovaries, in both LS and TS. Measure size only if there appears to be a difference in size on visualization of the post menopausal ovary only if an abnormality is found
- If a mass is found, both kidneys

Extended protocol if abnormality found
- Lesion – location, is it ovarian or uterine or bowel in origin
- Cystic or solid
- Thickness of walls and septae if any
- Any nodules or echogenic shadowing plugs
- Mobile or adherent
- Tender or not
- Colour Doppler, describe distribution of any flow found (i.e. peripheral or central)
- Look for distant spread, ascites, pleural effusions, omental cake and serosal deposits around the liver and spleen

Hard copy imaging
This is recommended in all cases.

Follow up imaging
Ovarian cysts of less than 3.0cm in diameter in a woman still having menstrual cycles are regarded as normal physiological follicles or luteal in origin and are not reported.
Most isolated ovarian cysts larger than 3.0cm, even those that appear complicated, in a woman who is still having menstrual cycles will spontaneously resolve during the next two menstrual cycles.
Most complicated cysts are haemorrhagic cysts, endometriomas or dermoids. They should be characterized on initial scan by experienced sonographers / radiologists. Consequently, the best imaging strategy is to refer the patient to the local radiological expert. The patient should not be referred for MRI scan.

Simple ovarian cysts of less than 5cm in a postmenopausal woman can also be safely followed with further ultrasound exams. These lesions are often stable and do not regress for long periods of time. Please see local guidelines for further information.

Intervention
Ultrasound is ideally suited to guiding aspiration of pleural effusion or ascites. It also enables guided biopsies to be taken either transabdominally or transvaginally. Indications would be to determine the primary tumour in someone who otherwise is not suitable for surgery or to differentiate recurrent tumour from residual fibrosis in those on follow up.

Conclusion
Ultrasound should be readily available without restriction for gynaecological symptoms. It is an excellent first imaging tool that will often provide a diagnosis without recourse to other imaging tests. If an abnormality is found the ultrasound examination should be extended to look for other likely sites of disease. Time solves many problems.

MRI in Ovarian Carcinoma
Patients with known ovarian cancer should be imaged to stage extent of disease including the degree of peritoneal, mesenteric, porta hepatitis & omental involvement.
MRI is used to characterise indeterminate ovarian cysts or masses found on ultrasound, particularly in young patients or when CA -125 is normal or only slightly elevated.
MRI protocol for Ovarian Carcinoma

<table>
<thead>
<tr>
<th>Sequence Pelvis</th>
<th>Plane</th>
<th>Slice Thickness</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>T2W</td>
<td>Sagittal</td>
<td>3 – 5 mm</td>
<td>To image pelvic lymphadenopathy</td>
</tr>
<tr>
<td>T2W</td>
<td>Axial</td>
<td>3 – 5 mm</td>
<td>Optimize position to demonstrate ovarian pathology present</td>
</tr>
<tr>
<td>T2W</td>
<td>Oblique</td>
<td>3 – 5 mm</td>
<td></td>
</tr>
<tr>
<td>T1W or T2W</td>
<td>Axial</td>
<td>6 ± 1 mm</td>
<td></td>
</tr>
<tr>
<td>T1W with fat suppression</td>
<td></td>
<td>For characterizing ‘cyst-like’ lesions. Use of fat suppression to distinguish fat from haemorrhage</td>
<td></td>
</tr>
<tr>
<td>T1W post-gadolinium 3D</td>
<td></td>
<td>May be helpful in characterizing solid abnormalities and staging.</td>
<td></td>
</tr>
</tbody>
</table>

CT protocol for Ovarian Cancer

Indications
Staging at diagnosis to determine disease extent if patient is not having an MRI scan or is unable to tolerate MRI.

Technique
- Standard oral barium based contrast agent.
- 100-150 ml of intravenous iodinated contrast medium injected at 3-4 ml/sec.
- MDCT is commenced at 70-80 seconds post-injection.
- Using MDCT, slice thickness will depend on scanner capability. In general, sections are acquired at 1.25-2.5 mm and reformatted at 5 mm for viewing.

Values of CTDIvol should normally be below the relevant national reference dose for the region of scan and patient group

Imaging Follow-up of Ovarian Carcinoma

Follow-up is conducted
- To assess response to chemotherapy and is therefore performed at a frequency to correspond with the chemotherapy regimes.
- To assess the need for and extent of interval debulking surgery.
- When there is marked evidence of recurrent disease (i.e., elevation of CA-125) and it is then performed to provide a baseline prior to chemotherapy.
- Prior to salvage surgery for isolated recurrences.

6. Positron Emission Tomography (PET) Scan

- High risk cervical cancer staging, i.e. for patients with locally advanced disease or those with suspicious findings on conventional imaging, e.g. abnormal pelvic nodes on MR
- Detection of recurrence in cervical and endometrial cancer in selected patients where conventional imaging is equivocal or indeterminate
- Detection of recurrence in ovarian cancer in selected patients, e.g. rising CA-125 but negative or equivocal conventional imaging
- Re-staging prior to exenteration surgery
- Problem-solving role in selected cases

All cases to be referred for PET CT only after discussion in a Gynae MDT.
NEYHCA (Cancer) Imaging Guidelines Appendix A - Ultrasound protocol for suspected Endometrial Cancer

Initial investigation for post-menopausal bleeding should be carried out in a rapid assessment clinic, where these have been established, by transvaginal ultrasound scan to assess the thickness of the endometrium (the depth of myometrial invasion). No role in asymptomatic screening. There is also no role for ultrasound if the woman is going to have hysteroscopy and guided biopsy anyway.

Screening
Screening women for endometrial cancer is generally not warranted. Women at average or increased risk of developing endometrial cancer (except those with Lynch syndrome) be informed about their risks of developing the disease, educated about its symptoms (especially any unexpected bleeding) at the onset of menopause, and strongly encouraged to report such symptoms to their doctor promptly.

*This approach was based on expert opinion; there was insufficient evidence from high quality studies to recommend for or against screening asymptomatic women*

The cardinal symptom of endometrial carcinoma is abnormal uterine bleeding, which occurs in 90% of cases. Even one drop of blood in a postmenopausal woman not on hormone replacement constitutes a symptom and is an indication for diagnostic testing to exclude endometrial cancer.

Postmenopausal women
Measurement of the endometrial thickness using transvaginal ultrasound (TVUS) is a non-invasive method to evaluate for endometrial hyperplasia or cancer when the endometrium is homogeneous. Any focal endometrial lesion requires a biopsy.

Endometrial cancer screening in asymptomatic women with Lynch syndrome consists primarily of annual endometrial sampling, starting at age 30 to 35 or five to ten years prior to the earliest age of first diagnosis of Lynch-associated cancer of any kind in the family.

Transvaginal ultrasonography (TVUS) is also advised by experts, but likely does not improve screening efficacy when used in combination with sampling. The main role of TVUS in women with Lynch syndrome is ovarian cancer screening.

NEYHCA (Cancer) Imaging Guidelines Appendix B - Guidelines for Ovarian Screening 2012 (Adapted from the YCN Guidelines for Ovarian Screening 2009)

Introduction
Although developments in tumour marker and ultrasound technologies have provided tests which can detect the majority of ovarian cancers before they cause symptoms, there is as yet no evidence that routine screening will reduce mortality from this disease. Population screening is not therefore recommended at least until the results of clinical trials are known.

High risk women
Any survival advantage conferred by ovarian cancer screening is most likely to be evident in women known to be at high risk.

This high risk group can be identified by the following
- Women with a proven BRCA1, BRCA2, hMLH1 or hMSH2 mutation
- Two or more first or second degree relatives with ovarian cancer on the same side of the family
- One first or second degree relative with ovarian cancer, plus one or more first or second degree relatives on the same side of the family with breast cancer diagnosed under the age of 60 years
- One first or second degree relative with both breast and ovarian cancer
- One first or second degree relative with ovarian cancer, plus two first or second degree relatives with colorectal cancer, one of which was diagnosed under the age of 50 years
Asymptomatic women with a family history of ovarian cancer, particularly if they clearly fit into a high-risk group, should be referred the Consultant in Clinical Genetics at St James’s Hospital, Leeds. A risk assessment will then be carried out by questionnaire. Low risk women and their referrer will be informed that no screening is indicated. High risk women should be offered screening according to the protocol.

**Screening protocol**

Screening should consist of an annual serum CA125 combined with an annual transvaginal and transabdominal ultrasound scan.

- A normal CA125 and a normal scan - repeat the tests in one year
- An elevated CA125 or a doubling of the level within the normal range
  - If the scan is normal - repeat the serum tests in six weeks
  - If the scan is abnormal - refer to the lead gynaecologist in the appropriate cancer unit
- Simple cysts <5 cm in diameter with a normal CA125 - repeat the scan and CA125 in six weeks
  - If no changes - repeat in a further four months
  - If there is a doubling of the CA125 level, or if the cyst increases in size - refer to the lead gynaecologist at the local cancer unit
- All ‘positive’ scans - these patients should be referred regardless of CA125 level
- Where there is doubt as to whether a patient has ovarian malignancy and whether they require urgent management, it may be helpful to calculate their RMI (Please see Appendix C)

**Criteria for diagnosing a positive scan**

**Pre menopausal women - Ovaries**

- For screening purposes a TV scan only is required
- Simple ovarian cysts <2.5cm in diameter are regarded as normal and do not need to be rescanned
- Any non simple cyst >2.5cm in diameter requires a repeat scan in 6-8 weeks unless the local expert has viewed the images and is happy with the nature of the cyst.
- Haemorrhagic cysts do not need to be rescanned
- A persistent cyst >2.5 cm in diameter requires a morphological score and Doppler studies
- A score ≥3 should be considered a positive scan
- Expert radiological review is required to exclude diagnosis such as endometriosis or dermoid cysts

**Other findings**

The presence of pleural effusions, ascites, an omental cake and hydronephrosis should be actively looked for on the screening scan. If any of these are present the scan is considered positive regardless of the appearance of the ovaries.

**Postmenopausal women - Ovaries**

- TV scan of the ovaries only required
- Simple cysts >5cm in diameter, or cysts that show progressive enlargement, indicate a “positive scan”
- Simple, unilateral, unilocular ovarian cysts, less than 5 cm in diameter, have a low risk of malignancy. More than 50% of these cysts will resolve spontaneously within three months. Cysts of this nature are often stable for long periods of time and provided they do not enlarge, can be managed conservatively with a follow-up ultrasound scan for cysts of 3–5 cm after an interval of four months. This, of course, depends upon the gynaecologist’s clinical assessment
• Any cyst showing complexity (e.g. a thick wall and septae or nodular projections) indicates a “positive scan”. Doppler may help refine this group. Resistance indices of 0.5 or less obtained from central vessels within the lesion increase the likelihood of malignancy

• **Ovarian volume:** If a woman is not on HRT a difference in ovarian volume of over 9mls is abnormal and requires a repeat scan

**Other findings**

• The endometrial thickness should be routinely measured; if <4mm endometrial cancer is unlikely; if ≥8mm a biopsy should be considered (HRT and Tamoxifen notwithstanding).

**Non Simple Ovarian Cyst**

<table>
<thead>
<tr>
<th><strong>Solid component that is not hyperechoic with shadowing and is often nodular or papillary</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Septations, if present, that are thick (&gt;2 to 3 mm)</strong></td>
</tr>
<tr>
<td><strong>Colour or power Doppler demonstration of flow in the solid component</strong></td>
</tr>
<tr>
<td><strong>Presence of ascites (any peritoneal fluid in postmenopausal women and more than a small amount of peritoneal fluid in premenopausal women is abnormal) A moderate amount may be normal post ovulatory</strong></td>
</tr>
<tr>
<td><strong>Peritoneal masses, enlarged nodes, or matted bowel (may be difficult to detect)</strong></td>
</tr>
</tbody>
</table>

**Appendix C - Risk of Malignancy Index (RMI) in ovarian cancer**

This is included in the separate version of the imaging guidelines but please see section 5.7 of version these Guidelines.

**Appendix D - FIGO Staging**

This is included in the separate version of the imaging guidelines but the FIGO staging tables can be found in the relevant chapters of the NEYHCA (Cancer) Guidelines.

Carcinoma of the Corpus Uteri 2009, Stage grouping for endometrial cancer  Chapter 4

Uterine Sarcoma

Leiomyosarcomas, Endometrial Stromal Sarcoma & Carcinosarcoma  Chapter 4

Carcinoma of the Ovary 1988  Chapter 5

Carcinoma of the Cervix Uteri 2009  Chapter 6

Carcinoma of the Vulva 2009  Chapter 7

Adenosarcoma  Chapter 7

Carcinoma of the Vagina  Chapter 8
Appendix (v) Supportive Care Pathway

NEYHCA (Cancer) High Level Supportive Care Pathway

The pathway has four key components identified that would significantly improve the patient’s experience.

- Holistic Assessment
- Key Discussion Point
- Single Contact with the assigned Key Worker
- Patient/carer information

### Identified Key Components
- Information available and offered
- Key discussion point: Fast Track System on what happens next
- Information offered: Key contact identified to navigate investigations. Patient support may not be specialist CNS
- Key worker identified - CNS may be the CNS. Meet key contact details given. Holistic Assessment/Information offered. Key discussion point - diagnosis given next steps explained.
- Key worker change - contact / meet patient after MDT - Revisit Holistic Assessment. Information offered. Key discussion point - treatment options discussed.
- Consider change in Key worker depending on treatment modality. Meet Key worker & contact numbers given. Revisit Holistic Assessment beginning and end of each treatment information offered. Key discussion point - what happens next.
- Consider key worker change - may be in primary care. Meet Key worker & contact numbers given. Holistic Assessment Iinformation offered. Key discussion point - what happens next.

### Stage on Pathway
- Pre-referral and Screening Programmes
- PSG? Symptoms: Will include all access routes (A & E, Emergency Admission, GP Direct Access to tests etc)
- Diagnostics (MDT may occur after first test or later in the pathway)
- Diagnostics and staging: Patient will be presented at MDT.
- Treatment planning options: Decision to treat - patient may need ‘thinking time’
- Treatment: Surgery, Chemotherapy, Radiotherapy, Waterfall Wait
- Living with Cancer: Survivability. Remission, relapse suspected.

### Dependant On
- Accessible Health Promotion Information. Support and Advice from the Practice Nurse. (and Triage if required). GP following NICE guidelines for timely referral
- GP’s having the agreed time scale specific pathways using a symptom based approach to select the appropriate test / referral
- Direct Access resources so tests can be carried out before referral (not 28m). Requesting the appropriate test to inform diagnosis and practice staff having ability to offer support
- Coordination of tests to reduce delays and adherence to agreed time scales. Care member attendance at MDT to facilitate next steps – referral to oncology etc to happen at MDT. Development of the patient management plan.
- Timely patient hand-over of care with all relevant information. Communication with GP / Community Staff to enable timely & effective primary Care support
- Timely patient hand-over of care with all relevant information. Communication with Treatment Team & GP / Community Staff to enable primary Care support
- Rapid access into secondary care for investigation of possible recurrence / further symptom management. Primary care to be aware when to re-referral.

At any stage of the pathway the patient referral for specialist palliative care input should be considered based on assessed need. If and when patients are assessed to have 6 – 12 months to live they will move onto End of Life pathway.

adapted from YCN supportive care pathway
Appendix (vi) Teenagers & Young Adults

IOG Key Principles

Who does this apply to?
- All patients aged 16-24 with cancer
- (2 age groups 16-18 years and 19-24 years)

What needs to happen?
- All patients aged 16-18 years inclusive should be referred to a Principal Treatment Centre (Young People) for treatment
- All patients aged 19-24 years inclusive should be offered referral to a Principal Treatment Centre (Young People) for treatment
- All patients aged 16-24 years inclusive should be discussed at both a site-specific MDT meeting and a TYA MDT meeting
- Referral of patients to a PTC (Young People), or review by both a site-specific and a TYA MDT should not be allowed to delay the start of urgent cancer treatment
- For each patient, a lead medical clinician should to be identified, who will have overall responsibility for their treatment

Ref: Children & Young People’s Improving Outcomes Guidance - Implementation - August 2008

Why?
- The 2005 NICE IOG on Children and Young People mandates this model of decision-making and care (key principles)
- These young people have particular needs in terms of communication, supportive care and environment of care, that are best served by referral
- The particular spectrum of diseases between MDTs
- This is what young people want to happen, when asked

When does referral need to happen?
- As soon as you are aware of (or have a high suspicion of) a diagnosis of cancer & in time for the TYA team to be involved in decisions about pattern and place of care i.e. before the management plan is negotiated with the patient

How is this referral made?
- Referral to be made using process agreed in the Standard Operating Procedure (Set up in conjunction with the Yorkshire Cancer Network)

Standard Operating Procedure

To view a copy of the Standard Operating Procedure please check the NEYHCA (Cancer) website. Please press control and click on the following link

http://www.hyccn.nhs.uk/NetworkGuidelinesAndPublications/CYA.htm
Appendix (vii) Holistic Needs Assessment & Survivorship Pathway for Gynae Oncology 2011

**INITIAL HOLISTIC ASSESSMENT**
Offered at diagnosis

**POST TREATMENT HOLISTIC ASSESSMENT**

Patients request or referred by HCP

**SURVIVORSHIP / CONSEQUENCE OF TREATMENT PATHWAY**

- Bowels
- Bladder
- Sexual Health
- Bones
- Lymphoedema

**OTHER PROBLEMS**

- Breathing circulation
- Pain
- Vaginal discharge / bleeding
- Fatigue
- Eating & drinking
- Psychological
- Social / financial
- Mobility

**Dependant on problem**

- Welfare Rights
- Physiotherapy / Occupational Health
- Oncology Health Centre
- Dietitian
- Community Nursing – District or Macmillan
- GP
- Medical Review

No problems identified (can be repeated as required)

Suspicion of recurrence

Make appointment for combined Gynae-oncology clinic to see consultant
References

Royal College of Obstetricians and Gynaecologists Guideline “Management of Vulval Cancer”

NICE Ovarian Guidance 2011
http://guidance.nice.org.uk/CG122

IPG356 Laparoscopic hysterectomy (including laparoscopic total hysterectomy and laparoscopically assisted vaginal hysterectomy) for endometrial cancer: guidance

Gynaecological measures April 2011
http://www.cquins.nhs.uk/?menu=resources

FIGO COMMITTEE ON GYNECOLOGIC ONCOLOGY; Revised FIGO staging for carcinoma of the vulva, cervix, and endometrium
http://pathkids.com/gynae/FIGO%20staging%20revisions%202009.pdf
Guidelines Agreed (Clinical, Imaging & Pathology)

Agreement of the North East Yorkshire & Humber Clinical Alliance (Cancer) Guidelines for the Management of Adult Patients with gynaecological Cancers by the Gynaecology Clinical Expert Group.

These guidelines have been developed by the Gynaecology Clinical Expert Group, taking into account NICE Guidance and the IOG and are the standard for care for Gynaecology patients in NEYHCA (Cancer).

The guidelines are discussed and circulated within NEYHCA (Cancer) as per the agreed consultation process. All members are given the opportunity to assist in the publication of the guidelines / comment.

The guidelines have been formally agreed by the Gynaecology Clinical Expert Group at a quorate meeting. Those present at the meeting agree the document on behalf of the group. Those not present at the meeting accept the groups’ decision. The guidelines agreement sheet has been signed by the Chair, the NEYHCA (Cancer) Medical Director MDT Lead, Imaging Group Chair and Pathology Group Chair.

A reviewed version of the guidelines (version 1.7) was discussed further in November 2011 and final changes were made by the Chair of the CEG. Version 1.7 was sent for external review. Further amendments were made and version 1.8 was agreed by the CEG at the February 2012 meeting. These guidelines were reformatted in July 2012 with the new NEYHCA (Cancer) branding to become version 1.9. These guidelines will be due to be reviewed again from February 2014, unless new guidance is published before then.

Attendance at Gynaecological CEG 3rd February 2012

<table>
<thead>
<tr>
<th>Name</th>
<th>Title/Position</th>
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<tbody>
<tr>
<td>Mr A Ahmadat</td>
<td>Consultant Gynaecologist, SNEYHT</td>
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<tr>
<td>Mr D Bassenger</td>
<td>Business Manager, HEYHT</td>
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<tr>
<td>Ms C Chafer</td>
<td>Business Support Manager, NLGHFT</td>
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<tr>
<td>Dr M Dujardin</td>
<td>Consultant Radiologist, HEYHT</td>
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<tr>
<td>Dr N El-Mahdawi</td>
<td>Consultant Clinical Oncologist, HEYHT</td>
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<tr>
<td>Dr M Flynn</td>
<td>Consultant Gynaecologist, HEYHT</td>
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<tr>
<td>Mr C Hooi Gan</td>
<td>Consultant Gynaecologist, NLGHFT</td>
</tr>
<tr>
<td>Mr T Giannopoulos (Chair)</td>
<td>Consultant Gynaecologist, HEYHT</td>
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<tr>
<td>Ms C Hauff</td>
<td>Consultant Radiologist, HEYHT</td>
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<tr>
<td>Dr C Horton</td>
<td>Consultant Radiologist, NLGHFT</td>
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<tr>
<td>Dr M Iqbal</td>
<td>Medical Oncologist, HEYHT</td>
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<tr>
<td>Mrs S McKie (Scribe)</td>
<td>Admin Assistant, NEYHCA (Cancer)</td>
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<tr>
<td>Mr S Ljubojevic</td>
<td>Cancer Research Network Manager, HYCCRN</td>
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<tr>
<td>Dr P O'Neill</td>
<td>Consultant in Medical Oncology, HEYHT</td>
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<tr>
<td>Ms S Prudhoe</td>
<td>Clinical Nurse Specialist, NLGHFT</td>
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<tr>
<td>Mrs S Reid</td>
<td>Network Support Manager, NEYHCA (Cancer)</td>
</tr>
<tr>
<td>Ms N Tarbatt</td>
<td>Divisional General Manager, Family &amp; Womens Health Group, HEYHT</td>
</tr>
<tr>
<td>Mrs S Thompson</td>
<td>Lead Nurse for Gynae-oncology, SNEYHT</td>
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<tr>
<td>Miss D Whitehead</td>
<td>Macmillan Lead Cancer Nurse, NLGHFT</td>
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### Sign Off Sheet

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<tr>
<th>Title</th>
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<tr>
<td>Chair of NEYHCA Board / Cancer Management Group (CMG)</td>
<td>Mrs Allison Cooke</td>
<td>9/5/2012</td>
</tr>
<tr>
<td>NEYHCA (Cancer) Medical Director</td>
<td>Professor Mike Lind</td>
<td>9/5/2012</td>
</tr>
<tr>
<td>Chair of the NEYHCA (Cancer) Imaging Clinical Expert Group</td>
<td>Dr Ged Avery</td>
<td>3/2/2012</td>
</tr>
<tr>
<td>Chair of the NEYHCA (Cancer) Pathology Clinical Expert Group</td>
<td>Dr Carol Hunt</td>
<td>3/2/2012</td>
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<tr>
<td>Chair of the Gynaecology CEG</td>
<td>Mr T Giannopoulos</td>
<td>3/2/2012</td>
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<thead>
<tr>
<th>Role</th>
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<tbody>
<tr>
<td>Vice Chair of the Gynaecology CEG, MDT Lead – Diana, Princess of</td>
<td>Mr Chin Hooi Gan</td>
<td>3/2/2012</td>
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<tr>
<td>Wales Hospital / Scunthorpe General Hospital Northern Lincolnshire &amp;</td>
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<td>Goole Hospitals NHS Foundation Trust</td>
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<tr>
<td>Diagnostic Service Lead – Scarborough &amp; North East Yorkshire</td>
<td>Mrs S Ramaswamy</td>
<td>3/2/2012</td>
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<tr>
<td>Healthcare NHS Trust</td>
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<tr>
<td>These Guidelines have been agreed by the Gynaecology Clinical Expert</td>
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<td>3/2/2012</td>
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<td>Group</td>
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