Guidelines agreed by:

Gynae EAG members agreed the Guidelines on:

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GUIDELINES FOR THE MANAGEMENT OF
PATIENTS WITH GYNAECOLOGICAL MALIGNANCIES

INTRODUCTION
In the last decade there has been a change in the management of women diagnosed with gynaecological malignancy. These alterations were precipitated by the Calman Hine report followed by publication of the RCOG/BGCS Joint Working Group document and culminating in the NHS Improving Outcomes Guidance (IOG) document.

Implicit to all these developments has been the realisation that the best interests of patients are served by a multi-disciplinary approach to treatment that draws upon a team of medical, nursing and allied professionals.

This document will be a consensus drawn up and ratified by members of the North of England Network Gynaecological Site Specific Group to guide all clinicians and other healthcare professionals in the investigation and management of patients with gynaecological malignancy. Whilst it is usually feasible to treat the majority of patients according to the patterns of care described, this document is a guideline. Although evidence based this document is not intended to be prescriptive or serve as a textbook of gynaecological malignancy. Thus it provides a starting point outlining the best consensus agreed care pathways accessible at the time of writing. A minority of patients will still require different treatment to that described herein and these decisions should be reached during discussion at Centre MDT's.

Original document produced by Mr Jeremy Twigg and Mr Richard Edmondson on behalf of the Network Gynaecological Oncology Site Specific Group.
CARCINOMA OF THE VULVA  
FIGO STAGING 2009

Stage 0  
Carcinoma in situ - VIN III

Stage I  
Tumour confined to the vulva

IA  
Lesions ≤2 cm in size, confined to the vulva or perineum and with stromal invasion ≤1.0 mm*, no nodal metastasis

IB  
Lesions >2 cm in size or with stromal invasion >1.0 mm, confined to the vulva or perineum, with negative nodes

Stage II  
Tumour of any size with extension to adjacent perineal structures (1/3 lower urethra, 1/3 lower vagina, anus) with negative nodes

Stage III  
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

IIIA  
(i) With 1 lymph node metastasis (≥5 mm), or  
(ii) 1–2 lymph node metastasis(es) (<5 mm)

IIIB  
(i) With 2 or more lymph node metastases (≥5 mm), or  
(ii) 3 or more lymph node metastases (<5 mm)

IIIC  
With positive nodes with extracapsular spread

Stage IV  
Tumour invades other regional (2/3 upper urethra, 2/3 upper vagina), or distant structures

IVA  
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 or ulcerated inguino-femoral lymph nodes

IVB  
Any distant metastasis including pelvic lymph nodes

*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 invasion.

Pathology should be reported to the standards laid out by the Royal College of Pathologists (rcpath.org-vulva)

REFERRAL CRITERIA

A woman who presents with an unexplained vulval lump suspicious of malignancy should be referred to a rapid access gynaecology clinic under the 2-week rule.

In a woman who presents with vulval bleeding, pruritus, pain and ulceration, it is reasonable to use a period of “treat, watch and wait” as a method of management unless clinical examination suggests a possibility of a cancer. This should include the offer of active follow up until these symptoms resolve or a diagnosis is confirmed.

On referral to a rapid access clinic investigations such as colposcopy and non-excisional biopsy should be considered.

All women who have a histologically confirmed diagnosis of vulval cancer should be referred to the Gynaecological Oncology Centre MDT. The Unit Lead Gynaecologist is responsible for this and should ensure all relevant diagnostic / staging information is made available for MDT discussion.
INVESTIGATIONS
Pathology
• Diagnostic biopsy, preferentially an non-excisional biopsy
• Excision biopsy should be avoided if possible so that laterality of the lesion can be assessed if cancer is confirmed

Radiology
• CT chest abdo/pelvis if pelvic or para-aortic node involvement suspected

Haematology/biochemistry
• FBC, U&E, LFT
• Radical treatment should not be undertaken without prior biopsy confirmation of malignancy
• Review of pathology at MDT
• Check that patient is up to date with smears if appropriate
• If patients are reluctant to undergo node dissections, ultrasound or MRI may be used to monitor groin nodes with FNA where appropriate following discussion at central MDT

SITE OF TREATMENT
Patients with vulval cancer should be discussed at the central MDT and referred for treatment at the Centre.

TREATMENT
EARLY CENTRAL DISEASE
• Radical WLE / Radical vulvectomy and bilateral groin node dissection (GND)
• Groin node dissection should be omitted in stage 1a squamous, verrucous, basal cell carcinoma and melanoma
• GND may be ipsilateral. Where facilities and expertise exist patients may be considered for sentinel node biopsy in lieu of formal groin node dissection.
• Jeremy – please can you add info based upon GROINS2 here

EARLY LATERAL DISEASE
• Defined as disease > 1cm from the midline (see notes below)
• Radical WLE / radical vulvectomy & GND
• GND may be ipsilateral. Where facilities and expertise exist patients may be considered for sentinel node biopsy in lieu of formal groin node dissection.

ADVANCED LOCAL DISEASE INVOLVING THE ANAL SPHINCTER
Either:
- Radical anovulvectomy and BGND & formation of end colostomy

Or
- Concomitant chemoradiotherapy followed by consideration of radical surgery
- Neoadjuvant chemotherapy followed by radical surgery

**INDICATIONS FOR ADJUVANT TREATMENT**
- 2 involved inguino-femoral nodes
- Single nodal metastatic deposit >5mm or with extra capsular spread
- Macroscopic metastatic disease
- Extranodal metastatic disease

**ADVANCED / RECURRENT DISEASE**
- If inguinal nodes are histologically positive but unresectable and the primary tumour is resectable, give pelvic radiotherapy after radical vulvectomy. Vulva included in field if excision margins <1cm.
- Unresectable primary tumour is treated with concomitant chemo-radiotherapy. If nodes are clinically negative, consider nodal resection first.
- No inguinal or pelvic RT is necessary if nodes are histologically uninvolved.
- Large mobile malignant nodes can be debulked by simple resection before RT.
- Individualisation (according to age, obesity etc) is mandatory under these circumstances. Nodal areas, where necessary, are included in the radiation fields
- If both vulva and nodes are unresectable, treat with concomitant chemo-radiotherapy or downstaging chemotherapy first.
- Patients with advanced disease and poor performance status – may be offered palliative radiotherapy

**RADIOThERAPY / CHEMORadioThERAPY**

**RADIOThERAPY**
Radiotherapy is only rarely appropriate as a primary treatment as the vulva has a poor tolerance to radiation. It may be considered in patients unfit for surgery or in attempting to preserve anal sphincter function.

Standard post-operative radiotherapy for inguinal node positivity should consist of 44-45 Gy in 22-25 fractions +/- weekly cisplatin 40mg/m² chemotherapy ideally using an IMRT/VMAT radiotherapy solution to the ipsilateral inguinal and external iliac node areas on the involved side(s).

Radiotherapy can be considered as an adjuvant or salvage treatment option to the vulva if there is an involved surgical margin where further surgical excision would compromise anal sphincter function. An individualised IMRT/VMAT photon treatment plan or direct electron field should be considered.
Radiotherapy should be considered for the palliation of metastatic disease. Doses used include 8Gy single fraction, 20Gy in 5 fractions or 30Gy in 10 fractions using parallel opposed fields to help with symptoms including bleeding and pain.

Local recurrences not suitable for excision may be treated with radio-active implants.

CHEMORADIOOTHERAPY
Concurrent chemotherapy and radiotherapy may be considered as an option for locally advanced disease given either with curative intent or as a pre-operative treatment to enhance the prospect of successful surgical clearance. The external beam radiotherapy comprises 45 Gy in 25 fractions as described above and the concurrent chemotherapy may be either weekly Cisplatin (as per carcinoma of cervix), 2 cycles of Mitomycin-C and 5FU or 2 cycles of Cisplatin and 5FU. A phase two external beam treatment such as 12.6Gy in 7 fractions may be applied to residual disease after chemoradiation if surgery is not to be undertaken. Regarding management of the groins in patients with inoperable vulvar cancer; to help prevent unnecessary delays in proceeding with chemoradiotherapy, if there are no pathologically enlarged nodes, consider irradiating the groin and distal pelvic lymph nodes upto the common iliac bifurcation to 45Gy in 25 fractions using IMRT/VMAT. Surgically unresectable nodes could also be irradiated but consider boosting to 57.6Gy in 32 fractions. Lymphadenectomy could then be considered during clinical follow up if required on evidence of relapse.

Down staging chemotherapy
In patients who have large, bulky locally advanced tumours and/or bulky inoperable inguinal lymph nodes with performance status 0-1 and with adequate renal function (EDTA-GFR of ≥ 60ml/min) consider using 2-3 cycles of 3-weekly Cisplatin 70mg/m^2 and Paclitaxel 175mg/m^2 chemotherapy prior to radical surgical excision or chemoradiotherapy.

FOLLOW UP
Patients should be followed up according to local protocol but this should aim to be under the care of the Lead Unit Gynaecologist who initially referred the patient. Duration of follow up and intervals between follow up visits should be according to local protocol but generally should be for a period of five years disease free with intervals of 3 months for the first year, 4 months the second year, six months for the third year and then annually until the fifth anniversary of treatment. All patients should have the contact details of their key worker so that they can have early local review for unexpected symptoms.

All patients with recurrent cancer should be referred back to the specialist teams at the Queen Elizabeth Hospital / James Cook University Hospital. All patients should have the contact details of their key worker so that they can arrange early interval review for unexpected symptoms.
* Please note a Network wide review of follow-up guidelines is currently underway with new guidelines due to be finalised in January 2017 after which the guidelines will be updated

**NOTES**

- If excision margin is inadequate (<8 mm), re-operation is an option.
- Frozen section of inguinal nodes, if suspicious, may be useful to decide whether immediate contralateral node dissection should be performed in lateralised tumours. Contralateral node dissection should be performed if unilateral dissection confirms node positivity.
- Adenocarcinoma of vulva, look for underlying primary.
- Melanoma – treat as for melanoma elsewhere. Sentinel node sampling vs total groin node dissection is an option but guidance should be sought from the institutional melanoma MDT.
- Basal cell carcinoma – local excision.
- Superficial invasion - <1mm depth of invasion and ≤2cm in diameter.
- Centralised disease - Involves a midline structure or is too close to the midline to be cleared by a surgical margin of 1cm.
- Lateralised disease (see above) - Excision with a surgical margin of 1cm does not encroach on midline structures and is neither anterior to the clitoris or posterior to the posterior fourchette
- Unfavourable vulval primary - excision margins <1cm free of tumour.
- Wide local excision (WLE) - excision of lesion with 1cm normal skin margin.
- Radical wide local excision - excision extends down to deep perineal fascia and clears the tumour by a margin of at least 1cm in all directions.

**TRIALS**
CARCINOMA OF THE VAGINA

FIGO STAGING
Stage I  Confined to vaginal wall.
Stage II  Confined to subvaginal tissue.
Stage III Extension to pelvic sidewall.
Stage IVa Bladder or rectum involved.
Stage IVb Distant metastases.

REFERRAL CRITERIA
Any woman with a suspicious vaginal lesion should undergo histological biopsy under the care of the unit lead gynaecologist to exclude malignancy. If vaginal malignancy is confirmed referral should then be made to the Gynaecological Oncology Centre MDT for further management. The Unit Lead Gynaecologist is responsible for this and should ensure all relevant diagnostic / staging information is made available for MDT discussion.

INVESTIGATIONS
As for carcinoma of the cervix

SITE OF TREATMENT
Diagnosis can be made at Unit level. Treatment must be at the Centre

TREATMENT
Treatment of vaginal cancers must be at centres

STAGE I
- Surgery
  - if ≤1mm invasion - no further treatment.
  - If >1mm invasion – further excision or vaginal brachytherapy.

STAGE II + III:
- External beam radiotherapy + vaginal brachytherapy

RADIOTHERAPY / CHEMORADIOThERAPY

RADIOThERAPY
Radiotherapy is the most commonly used treatment for vaginal cancer and is effective with good cosmetic results in many patients.

Treatment will normally consist of external beam radiotherapy followed by brachytherapy. In patients with early stage I disease brachytherapy alone may be used.

For stages I, IIA and early IIB tumours, standard radical radiotherapy will consist of 44-45 Gy in 22-25 daily fractions to the pelvis using 4 fields. This will be followed by fractionated high dose rate vaginal brachytherapy to a dose of 10-21 Gy in 2-3 fractions.

For stages IIB, III and IVA tumours standard radical radiotherapy will consist of 45-50 Gy in 25 fractions including treatment to the groins for advanced disease involving the lower third of
the vagina. Phase two radiotherapy will be individualised and may require a second phase of external beam radiotherapy in addition to vaginal brachytherapy as above.

**CHEMOTHERAPY**
Chemotherapy is not part of standard treatment for carcinoma of vagina but is increasingly being considered as concurrent therapy with radical radiotherapy using a weekly Cisplatin regimen as per carcinoma of the cervix. Similarly, palliative chemotherapy as per carcinoma of cervix may be considered for recurrent or metastatic disease

**FOLLOW UP**
Patients should be followed up according to local protocol but this should aim to be under the care of the Lead Unit Gynaecologist who initially referred the patient. Duration of follow up and intervals between follow up visits should be according to local protocol but generally should be for a period of five years disease free with intervals of 3 months for the first year, 4 months the second year, six months for the third year and then annually until the fifth anniversary of treatment. All patients should have the contact details of their key worker so that they can have early local review for unexpected symptoms.

All patients with recurrent cancer should be referred to the specialist teams at the Queen Elizabeth Hospital / James Cook University Hospital.

* Please see note on page 10

**NOTES**
- Melanoma – treat as for melanoma in other locations. Management should be undertaken in conjunction with Melanoma MDT

**TRIALS**
Nil
CARCINOMA OF THE CERVIX
FIGO STAGING

Stage I
The carcinoma is strictly confined to the cervix (extension to the corpus would be disregarded)

IA
Invasive carcinoma which can be diagnosed only by microscopy, with deepest invasion ≤5 mm and largest extension ≥7 mm

IA1
Measured stromal invasion of ≤3.0 mm in depth and extension of ≤7.0 mm

IA2
Measured stromal invasion of >3.0 mm and not > 5.0 mm with an extension of not >7.0 mm

IB
Clinically visible lesions limited to the cervix uteri or pre-clinical cancers greater than stage IA*

IB1
Clinically visible lesion ≤4.0 cm in greatest dimension

IB2
Clinically visible lesion >4.0 cm in greatest dimension

Stage II
Cervical carcinoma invades beyond the uterus, but not to the pelvic wall or to the lower third of the vagina

IIA
Without parametrial invasion

IIA1
Clinically visible lesion ≤4.0 cm in greatest dimension

IIA2
Clinically visible lesion >4 cm in greatest dimension

IIB
With obvious parametrial invasion

Stage III
The tumour extends to the pelvic wall and/or involves lower third of the vagina and/or causes hydronephrosis or non-functioning kidney**

IIIA
Tumour involves lower third of the vagina, with no extension to the pelvic wall

IIIB
Extension to the pelvic wall and/or hydronephrosis or non-functioning kidney

Stage IV
The carcinoma has extended beyond the true pelvis or has involved (biopsy proven) the mucosa of the bladder or rectum. A bullous edema, as such, does not permit a case to be allotted to Stage IV

IVA
Spread of the growth to adjacent organs

IVB
Spread to distant organs

*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 5.0 mm and a horizontal extension of not >7.0 mm. Depth of invasion should not be >5.0 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.

Pathology should be reported to the standards laid out by the Royal College of Pathologists (rcpath.org-cervix)

REFERRAL CRITERIA
A woman who presents with a smear suggesting invasion should be seen in an appropriate clinic within 2 weeks. Women with high grade smear cytology should be seen under the timelines mandated by NICE guidelines.
All newly diagnosed patients (and those with recurrent cancer) should be referred to the Gynaecological Oncology Centre MDT. The Unit Lead Gynaecologist is responsible for this and should ensure all relevant diagnostic / staging information is made available for MDT discussion.

**INVESTIGATIONS**

Further investigations should be carried out at the Unit unless otherwise directed by the Gynaecological Oncology Centre MDT.

**Pathology**
- All pathology showing suspected / actual carcinoma of the cervix should be reviewed at MDT.
- LLETZ biopsy, attempt excise in 1 piece if small lesion so that accurate histological determination of tumour size can be made. Perform small loop if large lesion.

**Haematology / Biochemistry**
- FBC U+E LFT

**Radiology** (for stage 1A2 disease and beyond)
- CT Chest abdo and Pelvis
- MRI

**Surgical**
- EUA ± cystoscopy jointly by gynaecological oncologist with clinical oncologist if advanced disease anticipated. Cystoscopy may be omitted if lesions are small and are clinically & radiologically confined to the cervix. Perform EUA immediately prior to RHND if tumour considered to be confined to cervix.

**SITE OF TREATMENT**

Stage 1A1 disease can be managed locally in the Unit following discussion at the central MDT. Management of disease beyond this stage must be at the Centre.

**TREATMENT**

**STAGE IA1**
- Conization or Loop biopsy only, provided margins are negative of pre invasive and invasive disease
- Total hysterectomy (abdominal/ laparoscopic)
- Intracavitary brachytherapy if not a surgical candidate.

**STAGE IA2**
- Laparoscopic pelvic lymphadenectomy if cone/loop margin clear
- Total hysterectomy (abdominal laparoscopic or vaginal ) pelvic lymphadenectomy if the cone margin is clear
- Repeat a cone if the margins of the original loop were involved or uncertain or close or if original loop not considered adequate and re-stage according to results
▪ Radiotherapy

**STAGE IB1**

▪ Radical hysterectomy + pelvic lymphadenectomy (± BSO) individualised for age, obesity and co-existing medical conditions.
▪ For small volume disease adequate conisation with node dissection may be considered adequate
▪ Continue surgery if pelvic nodes enlarged but resectable.
▪ Consider discontinuing hysterectomy if extra-cervical extension could compromise resection lines but remove enlarged resectable nodes & consider removal of common iliac and lower para-aortic nodes
▪ Radical trachelectomy + node dissection in selected women wishing to preserve fertility and agreed by specialist MDT.
▪ PET/CT should be considered on a named patient basis for patients considering trachelectomy.
▪ Chemoradiotherapy if medically unfit for surgery

**STAGE IB2**

Either

▪ Radical hysterectomy + pelvic lymphadenectomy (± BSO) individualised for age, obesity and co-existing medical conditions.
▪ If patient prefers surgery, inform them of an 80% risk of requiring post-operative radiotherapy.

Or

▪ Chemoradiotherapy

**STAGE IIA**

Either

▪ Radical hysterectomy + pelvic lymphadenectomy (± BSO) individualised for age, obesity and co-existing medical conditions and minimal involvement of upper vagina.

Or

▪ Chemoradiotherapy

**STAGE IIB**

▪ Chemoradiotherapy

**STAGE III**

▪ Chemoradiotherapy

**STAGE IVA**

▪ Chemoradiotherapy
▪ Surgical diversion where indicated

**STAGE IVB**
Palliative radiotherapy or chemotherapy to symptomatic metastatic sites

**INDICATIONS FOR ADJUVANT TREATMENT**

Either

- 1 major risk factor
  - >1 positive node
  - 1 node with extracapsular disease or >5mm metastatic deposit
  - involved surgical margin(s)
  - simple hysterectomy performed in the presence of unrecognised invasive carcinoma showing parametrial infiltration

Or consider if

- 2 or more minor factors
  - excision margins within 5 mm
  - lymphovascular space invasion
  - primary tumour >4cm

**RADIOThERAPY / CHEMORadioThERAPY**

**PRIMARY CHEMORADIATION**

Stage IIA, IIB, III and IV (i.e. where the tumour is too extensive for complete surgical excision) is normally treated with a combination of external beam radiotherapy with weekly Cisplatin, followed by brachytherapy.

For patients with stage IA2 and IB1 tumours unsuitable for surgery or prolonged attendance for external beam treatment, therapy may be with intracavitary brachytherapy alone.

Radical radiotherapy will normally comprise external beam radiotherapy to the pelvis to a dose of 44-50 Gy in 22-25 fractions followed by a dose of 14-21 Gy in 2-3 fractions of high dose rate brachytherapy prescribed to Point A.

All patients undergoing primary radical radiotherapy should be considered for concurrent chemotherapy using single agent Cisplatin at a dose of 40 mg/m2 weekly during each of the 5 weeks of external beam radiotherapy.

**ADJUVANT CHEMORADIATION**

Postoperative external beam radiotherapy to the pelvis should be recommended for those who fulfil the criteria for adjuvant treatment above.

Standard post-operative radiotherapy consists of external beam radiotherapy with a 4-field technique to a dose of 44-45 Gy in 22-25 fractions and if no contraindications this should be given with concurrent weekly Cisplatin as above.

Weekly Cisplatin 40 mg/m2 should normally be capped at a maximum dose of 70-72 mg and should only be given if the GFR is >40 ml/min as measured by EDTA clearance or the Cockroft and Gault formula.
CHEMOTHERAPY
Neoadjuvant chemotherapy remains the subject of investigation and consideration of using such treatment should only be used in the context of a clinical trial.

Chemotherapy for metastases may be of value in palliation where there is pain from tumour pressure or infiltration following failed radiotherapy.

Recommended regimens include single agent Cisplatin (or Carboplatin) or combination treatments including Cisplatin plus Topotecan and Cisplatin (or Carboplatin) plus Taxol. Combination treatments may give a higher response rate but at the expense of significantly greater toxicity. Only Cisplatin plus Topotecan has shown a survival advantage over Cisplatin alone.

RECURRENT DISEASE
All patients with recurrent disease should be discussed at the MDT prior to planning further management.

Investigations
- Radiology
- MRI (pelvis) & CT (chest/abdomen) in the first instance
- PET CT when recurrent/persistent disease demonstrated on MRI/CT/histology and exenteration is being considered
- EUA if suggestive of central pelvic recurrence

Biochemistry
- Tumour markers (SCC Ag, CEA)

Management
- Chemotherapy: as per metastatic disease above
- Chemoradiotherapy if para-aortic node recurrence
- Surgery: Exenteration. Patients eligible for consideration of exenteration must be discussed at the Central MDT. Treatment must be individualised to the patient’s age, obesity and co-existing medical conditions. Specialty input from colorectal, urology and plastic surgery colleagues should be considered.
- Consider Laterally Extended Endopelvic Resection (LEER) for pelvic recurrence involving the side wall and treatment may be individualised as discussed as MDT.

FOLLOW UP
Patients should be followed up according to local protocol but this should aim to be under the care of the Lead Unit Gynaecologist who initially referred the patient. Duration of follow up and intervals between follow up visits should be according to local protocol but generally should be for a period of five years disease free with intervals of 3 months for the first year, 4 months the second year, six months for the third year and then annually until the fifth anniversary of treatment. All patients should have the contact details of their key worker so that they can have early local review for unexpected symptoms.
All patients suitable for cytoreductive treatment for recurring cancer should be referred to the specialist teams at the Queen Elizabeth Hospital / James Cook University Hospital.

* Please see note on page 10

**TRIALS**
SHAPE
CARCINOMA OF THE UTERINE CORPUS
FIGO STAGING 2009

Stage I*  Tumour confined to the corpus uteri
  IA* No or less than half myometrial invasion
  IB* Invasion equal to or more than half of the myometrium

Stage II*  Tumour invades cervical stroma, but does not extend beyond the uterus**

Stage III*  Local and/or regional spread of the Tumour
  IIIA* Tumour invades the serosa of the corpus uteri and/or adnexa#
  IIIB* Vaginal and/or parametrial involvement#
  IIIC* Metastases to pelvic and/or para-aortic lymph nodes#
  IIIC1* Positive pelvic nodes
  IIIC2* Positive para-aortic lymph nodes with or without positive pelvic lymph nodes

Stage IV*  Tumour invades bladder and/or bowel mucosa, and/or distant metastases
  IVA* Tumour invasion of bladder and/or bowel mucosa
  IVB* Distant metastases, including intra-abdominal metastases and/or inguinal lymph nodes

**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

Pathology should be reported to the standards laid out by the Royal College of Pathologists (rcpath.org)

REFERRAL CRITERIA
All women felt to be at risk of endometrial cancer should be referred to the local unit lead to be seen under the two week rule in a rapid access clinic.

All diagnosed cancers should be referred to the MDT for discussion and registration, even though treatment may occur solely in the Unit. Cases managed at unit level should be managed by the unit lead or nominated deputy. The Unit Lead Gynaecologist is responsible for ensuring all relevant diagnostic / staging information is made available for MDT discussion.

INVESTIGATIONS
Histology

- Endometrial biopsy
- All pathology should be reported by EQA participating Gynae pathologist.

Radiology

- Chest X-ray
- MRI it the preferred technique to estimate myometrial invasion for low risk histology (G1 G2 endometrioid type) to determine treatment at Unit or Centre
Consider CT chest abdomen pelvis if histological confirmed high grade cell type (to exclude extra uterine / nodal metastasis)

Haematology
- FBC

Biochemistry
- U&E LFT
- Consider CA125, CEA

SITE OF TREATMENT
All suspected low risk cancers (G1 G2 Stage IA Endometrioid type) may be treated at the Unit. Surgery should be performed by the designated surgeon who must be a core member of the central MDT. All high risk types (i.e. grade 3 endometrioid, clear cell and serous type) should be referred for treatment at the Centre.

TREATMENT
Surgery should be undertaken for all types of endometrial cancers regardless of type if there a likelihood of resecting the primary tumour. Primary surgical treatment offers a higher cure rate than radical radiotherapy specifically for the primary treatment of endometrioid endometrial cancer.

- Laparoscopic / Open assessment
  - Consider POD washings for cytological examination.
  - Careful assessment of abdominal cavity.
  - Type 1 Total Abdominal Hysterectomy, bilateral salpingo-oophorectomy (TAH, BSO) & assessment of pelvic & para-aortic nodes with removal of suspicious nodes
  - Consider Laparoscopic hysterectomy / BSO if no extrauterine disease
  - Routine pelvic lymphadenectomy is not associated with a survival benefit
  - Lymphadenectomy may be considered in the presence of bulky nodes or high grade cell types
  - Omental biopsy / omentectomy for high grade tumours such as clear cell, serous type

Patients Deemed Medically Unfit For Surgery
- External beam radiotherapy and brachytherapy but exact schedule will need to be individualised according to the extent of patient’s disease and their performance status.

RADIOThERAPY / CHEMOTHERAPY
EXTERNAL BEAM RADIOTHERAPY
Adjuvant external beam radiotherapy is recommended for endometrioid tumours if histologically they are:
- Stage IA (FIGO 2009) G3 with LVSI
- Stage IB with endocervical glandular involvement
- Stage II (G123) (additional vaginal brachytherapy also given)
- Stage IIIABC (G123)
- Stage IVA (G123)

Adjuvant external beam radiotherapy is recommended for unfavourable tumours (e.g. clear cell, serous carcinosarcoma) if histologically they are:

- Stage IB
- Stage II
- Stage III (± chemotherapy)
- Stage IVA (± chemotherapy)

External beam radiotherapy is given by a 4-field technique to a dose of 44-45 Gy in 22-25 fractions +/- brachytherapy

**ADJUVANT VAGINAL BRACHYTHERAPY ALONE**
Adjuvant vaginal brachytherapy should be offered to patients with endometrioid tumours if histologically they are:

- Stage IA G3 (without LVSI)
- Stage IB G1,2

A suitable treatment regimen would be 21 Gy in 3 fractions using the high dose-rate micro Selectron machine. Dose is prescribed at 0.5 cm from applicator surface, aiming to irradiate the upper one third of the vagina.

**RADIOTHERAPY AS PRIMARY TREATMENT**
This should be considered for patients who are deemed to be inoperable / of poor performance status after careful surgical/anaesthetic assessment. Ideally these patients should be treated with radical intent using a combination of external beam radiotherapy and brachytherapy but the exact schedule will need to be individualised according to the extent of disease and the performance status of the patient.

**RADIOTHERAPY FOR TREATMENT OF VAGINAL VAULT/ PELVIC SIDEWALL RECURRENCE**
Where clinical examination and imaging indicates a localised vaginal vault histologically proven recurrence in a previously un-irradiated patient, radical radiotherapy should be offered in the hope of eradicating the recurrence without resorting to exenterative surgery. A careful individualised treatment plan with external beam radiotherapy and brachytherapy will usually be required.

**PALLIATIVE RADIOTHERAPY**
Patients with recurrent or metastatic disease and localised symptoms should be considered for palliative radiotherapy.
HORMONE THERAPY
At present there is little role for hormone therapy in the primary or adjuvant treatment of endometrial cancer.

For patients unfit for surgery or radiotherapy at diagnosis or with recurrent or metastatic cancer, treatment with progestogens should be considered. Megestrol 160mg daily or medroxyprogesterone acetate (MPA) 200mg or 400mg daily are appropriate

Hormone therapy can lead to long term remission in endometrial cancer. GnRH analogues or aromatase inhibitors may be an effective second line hormonal therapy after progestogens have failed.

CHEMOTHERAPY
There is no routine role for adjuvant chemotherapy in the radical treatment of endometrioid endometrial cancer. A number of trials are currently being developed, some using chemotherapy in combination with radiotherapy (e.g. PORTEC-3).

Carboplatin/Cisplatin, Doxorubicin and Paclitaxel alone or in combination have previously been shown to produce response in patients diagnosed with endometrial cancer.

For high grade high stage tumours (IIIA and beyond; clear cell, uterine serous carcinoma and carcinosarcoma) the use of post-operative adjuvant Carboplatin and Taxol should be considered. Where disease is confined to the pelvis or pelvis and para-aortic nodes adjuvant radiotherapy should also be given.

Patients with recurrent or metastatic disease not palliated by radiotherapy or hormone treatment may be considered for single agent or combination cytotoxic chemotherapy

Surgery for recurrent disease
Patients eligible for consideration of exenteration must be discussed at the Central MDT. Treatment must be individualised to the patient’s age, obesity and co-existing medical conditions. Specialty input from colorectal, urology and plastic surgery colleagues should be considered

FOLLOW UP
Patients should be followed up according to local protocol but this should aim to be under the care of the Lead Unit Gynaecologist who initially referred the patient. Duration of follow up and intervals between follow up visits should be according to local protocol but generally should be for a period of five years disease free with intervals of 3 months for the first year, 4 months the second year, six months for the third year and then annually until the fifth anniversary of treatment. All patients should have the contact details of their key worker so that they can have early local review for unexpected symptoms.

All patients with recurrent cancer should be referred to the specialist teams at the Queen Elizabeth Hospital / James Cook University Hospital.

* Please see note on page 10
NOTES
The diagnosis of endometrial hyperplasia is difficult, and is not totally robust or reproducible. In some 25-30% of diagnoses of atypical hyperplasia there may be an underlying endometrial adenocarcinoma. It will be difficult for the centre pathologists to review every diagnosis of endometrial hyperplasia but a pragmatic approach would be to review cases of atypical hyperplasia or ones of malignancy to ensure that any possible high grade categories are suitably selected for procedures at the cancer centre.

FIGO staging has been updated in 2009 partly in response to changes in the understanding of the histology of uterine tumours. Carcinosarcoma is now staged as for epithelial tumours of the endometrium. The term MMT for carcinosarcoma has been dropped in these guidelines. Carcinosarcomas can have an element of any type of carcinoma (usually serous or endometrioid) and any type of sarcoma, usually homologous (either sarcoma NOS, leiomyosarcoma or stromal sarcoma but sometimes heterologous (such as rhabdomyosarcoma, chondrosarcoma, etc). Staging should be undertaken as laid out in FIGO 2009 recommendations.

UPSC / USPA is a misnomer and should be called uterine serous carcinoma since this histological type does not need to be papillary. This type of tumour has a well documented tendency for peritoneal disseminations and needs to be accurately staged. This means that at least omental sampling (if not an omentectomy) should be performed where this tumour is suspected pre-operatively even if the omentum is macroscopically normal so that microscopic involvement can be excluded.

TRIALS
- Nil
**UTERINE SARCOMAS**

**FIGO STAGING 2009**

(1) **Leiomyosarcomas and Endometrial Stromal Sarcomas (ESS)**

<table>
<thead>
<tr>
<th>Stage</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Tumour limited to uterus</td>
</tr>
<tr>
<td>IA</td>
<td>&lt;5 cm</td>
</tr>
<tr>
<td>IB</td>
<td>&gt;5 cm</td>
</tr>
<tr>
<td>II</td>
<td>Tumour extends to the pelvis</td>
</tr>
<tr>
<td>IIA</td>
<td>Adnexal involvement</td>
</tr>
<tr>
<td>IIB</td>
<td>Tumour extends to extrauterine pelvic tissue</td>
</tr>
<tr>
<td>III</td>
<td>Tumour invades abdominal tissues (not just protruding into the abdomen).</td>
</tr>
<tr>
<td>IIIA</td>
<td>one site</td>
</tr>
<tr>
<td>IIIB</td>
<td>&gt; one site</td>
</tr>
<tr>
<td>IIIC</td>
<td>Metastasis to pelvic and/or para-aortic lymph nodes</td>
</tr>
<tr>
<td>IV</td>
<td>Tumour invades bladder and/or rectum</td>
</tr>
<tr>
<td>IVA</td>
<td>Distant metastasis</td>
</tr>
</tbody>
</table>

(2) **Adenosarcomas**

<table>
<thead>
<tr>
<th>Stage</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Tumour limited to uterus</td>
</tr>
<tr>
<td>IA</td>
<td>Tumour limited to endometrium/endo cervix with no myometrial invasion</td>
</tr>
<tr>
<td>IB</td>
<td>Less than or equal to half myometrial invasion</td>
</tr>
<tr>
<td>IC</td>
<td>More than half myometrial invasion</td>
</tr>
<tr>
<td>II</td>
<td>Tumour extends to the pelvis</td>
</tr>
<tr>
<td>IIA</td>
<td>Adnexal involvement</td>
</tr>
<tr>
<td>IIB</td>
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<td>III</td>
<td>Tumour invades abdominal tissues (not just protruding into the abdomen).</td>
</tr>
<tr>
<td>IIIA</td>
<td>one site</td>
</tr>
<tr>
<td>IIIB</td>
<td>&gt; one site</td>
</tr>
<tr>
<td>IIIC</td>
<td>Metastasis to pelvic and/or para-aortic lymph nodes</td>
</tr>
<tr>
<td>IV</td>
<td>Tumour invades bladder and/or rectum</td>
</tr>
<tr>
<td>IVA</td>
<td>Distant metastasis</td>
</tr>
</tbody>
</table>

(3) **Carcinosarcomas**

Carcinosarcomas should be staged as carcinomas of the endometrium.

*Note: Simultaneous Tumours of the uterine corpus and ovary/pelvis in association with ovarian/pelvic endometriosis should be classified as independent primary Tumours.*
REFERAL CRITERIA
All newly diagnosed patients (and those with recurrent cancer) should be referred to the Gynaecological Oncology Centre MDT. The Unit Lead Gynaecologist is responsible for this and should ensure all relevant diagnostic / staging information is made available for MDT discussion. Uterine sarcomas are a heterogeneous group of tumours with no standardized treatment protocols and few controlled studies evaluating different therapeutic options. Treatment must therefore include reference to the Sarcoma MDT as detailed below:

Mr Craig Gerrand  MDT Co-ordinator
Freeman Hospital  Tel: 0191 2336161
High Heaton  Fax: 0191 2231328
Newcastle upon Tyne
NE7 7DN  Email: Craig.Gerrand@nuth.nhs.uk

INVESTIGATIONS
Histology
- Endometrial biopsy
- Histology may come from atypical sources e.g. uterine polyps, cervical fibroids
- All pathology should be reviewed by the Gynaecological Oncology Centre MDT.

Radiology
- Chest X-ray
- CT chest abdomen pelvis should be undertaken if histologically confirmed high grade cell type (to exclude extra uterine / nodal metastasis)
- MRI may be needed to determine extent of local tumour
- PET CT may have a role in the pre-operative workup of sarcoma patients. Use of this modality should be agreed at MDT

Haematology
- FBC

Biochemistry
- U&E LFT
- CA125/CEA

SITE OF TREATMENT
Patients with uterine sarcomas should be treated at the Centre.

TREATMENT
The only treatment of any proven curative value for uterine sarcomas is surgery.
- POD washings for cytological examination.
- Careful assessment of abdominal cavity.
- Type 1 Total Abdominal Hysterectomy, bilateral salpingo-oophorectomy (TAH, BSO)
- Pelvic / para-aortic lymphadenectomy should be considered if indicated by imaging or in the presence of clinically suspicious disease ± removal of other surgically resectable bulky disease
- BSO may be omitted for younger patients if tumour has arisen in a fibroid
Spread for leiomyosarcomas tends to be haematogenous so full surgical staging may not be required

**RADIOTHERAPY / CHEMOTHERAPY**

Adjuvant radiotherapy after complete resection of uterine sarcomas associated with a decreased risk of local recurrence but no benefit in overall survival has been demonstrated. For recurrent / metastatic disease, palliative radiotherapy or chemotherapy, should be considered. Approved chemotherapy regimens include either single agent Doxorubicin or Doxorubicin and Ifosfamide. For endometrial stromal sarcomas hormonal therapy with either a progestogen or an aromatase inhibitor should also be considered.

**FOLLOW UP**

Patients should be followed up according to local protocol but this should aim to be under the care of the Lead Unit Gynaecologist who initially referred the patient. Duration of follow up and intervals between follow up visits should be according to local protocol but generally should be for a period of five years disease free with intervals of 3 months for the first year, 4 months the second year, six months for the third year and then annually until the fifth anniversary of treatment. All patients should have the contact details of their key worker so that they can have early local review for unexpected symptoms.

All patients with recurrent cancer should be referred to the specialist teams at the Queen Elizabeth Hospital / James Cook University Hospital.

* Please see note on page 10

**NOTES**

- Carcinosarcomas are probably metaplastic carcinomas but the official term is still carcinosarcoma. They are by definition all high grade.
- Endometrial stromal sarcomas are no longer assigned a grade.
- Undifferentiated uterine sarcomas are high grade and come under a separate category.
- Leiomyosarcomas are subdivided into low and high grade.

The low grade sarcomas are:
- Endometrial stromal sarcoma
- Low grade leiomyosarcoma
- Adenosarcoma

The high grade sarcomas are:
- High grade leiomyosarcoma
- Adenosarcoma with sarcomatous overgrowth
- Undifferentiated uterine sarcoma

**TRIALS**

Nil
CARCINOMA OF THE OVARY

FIGO STAGING (2013)

I Tumour confined to ovaries or fallopian tube(s)

- IA: Tumour limited to 1 ovary (capsule intact) or fallopian tube; no tumour on ovarian or fallopian tube surface; no malignant cells in the ascites or peritoneal washings
- IB: Tumour limited to both ovaries (capsules intact) or fallopian tubes; no tumour on ovarian or fallopian tube surface; no malignant cells in the ascites or peritoneal washings
- IC: Tumour limited to 1 or both ovaries or fallopian tubes, with any of the following
  - IC1: Surgical spill
  - IC2: Capsule ruptured before surgery or tumour on ovarian or fallopian tube surface
  - IC3: Malignant cells in the ascites or peritoneal washings

II: Tumour involves 1 or both ovaries or fallopian tubes with pelvic extension (below pelvic brim) or primary peritoneal cancer

- IIA: Extension and/or implants on uterus and/or fallopian tubes and/or ovaries
- IIB: Extension to other pelvic intraperitoneal tissues

III: Tumour involves 1 or both ovaries or fallopian tubes, or primary peritoneal cancer, with cytologically or histologically confirmed spread to the peritoneum outside the pelvis and/or metastasis to the retroperitoneal lymph nodes

- IIIA1: Positive retroperitoneal lymph nodes only (cytologically or histologically proven)
  - IIIA1(i): Metastasis up to 10 mm in greatest dimension
  - IIIA1(ii): Metastasis more than 10 mm in greatest dimension
- IIIA2: Microscopic extrapelvic (above the pelvic brim) peritoneal involvement with or without positive retroperitoneal lymph nodes
- IIIB: Macroscopic peritoneal metastasis beyond the pelvis up to 2 cm in greatest dimension, with or without metastasis to the retroperitoneal lymph nodes
- IIIC: Macroscopic peritoneal metastasis beyond the pelvis more than 2 cm in greatest dimension, with or without metastasis to the retro-peritoneal lymph nodes (includes extension of tumour to capsule of liver and spleen without parenchymal involvement of either organ)

IV: Distant metastasis excluding peritoneal metastases

- IVA: Pleural effusion with positive cytology
- IVB: Parenchymal metastases and metastases to extra-abdominal organs (including inguinal lymph nodes and lymph nodes outside of the abdominal cavity)

Pathology should be reported to the standards laid out by the Royal College of Pathologists (rcpath.org-ovary)
**REFERAL CRITERIA**
All women felt to be at risk of ovarian cancer should be referred to the local unit lead to be seen under the two week rule in a rapid access clinic.

All patients who are calculated to have a high risk of malignancy index (RMI >200) or otherwise suspected to have ovarian or primary peritoneal cancer by virtue of symptoms / radiological / biochemical / cytological or histological evidence suggestive of ovarian malignancy/primary peritoneal cancer, or significant clinical suspicion, should be discussed at the Centre MDT. The Unit Lead Gynaecologist is responsible for this and should ensure all relevant diagnostic / staging information is made available for MDT discussion. All patients should ideally be discussed at the Centre MDT although it is acknowledged that because of the nature of the disease this may not always be possible pre-operatively.

**EMERGENCY ADMISSIONS**
Emergency admissions of patients with confirmed or suspected ovarian cancers should be notified to the unit lead clinician as soon as practically possible to facilitate further discussion in the appropriate central MDT.

**INVESTIGATIONS**
Investigations should be carried out at the Unit unless otherwise directed by the Gynaecological Oncology Centre MDT

**Pathology**
- If ascites/ fluid is drained it should always be sent for cytological analysis
- All histology / cytology showing suspected / actual carcinoma of the ovary should be reviewed at MDT

**Radiology**
- Transvaginal and abdominal ultrasound scans should be performed as a first line examination
- CT Chest Adbo Pelvis is considered first line imaging.
- Further imaging (CT/MRI) will be at the discretion of the unit lead and/or central MDT
- Following discussion at the centre MDT Image guided biopsy may be required to establish a histological organ of origin

**Haematology/biochemistry**
- FBC, U&E, LFT, CA125, CEA are mandatory. CA19-9, CA153, αFP, βHCG, LDH, oestradiol, Inhibin levels are at the discretion of the referring clinician / MDT discussion dependent on patient age and suspected alternative primary sources

**Other**
- Lower and upper endoscopy may be indicated if there is possibility of gastrointestinal malignancy.
- Laparoscopic guided biopsy may be required to establish the diagnosis
SITE OF TREATMENT
Any patient with an RMI > 200 should be referred for treatment at the Centre. Generally, patients with an RMI < 200 may be treated at the Unit in accordance with RCOG guideline 34, although there may be instances where, following discussion at the Centre MDT, treatment centrally may be offered.

Calculating the RMI (risk of malignancy index)

\[ U \]
1 point for each of the following

- Multilocular lesion
- Solid areas
- Bilateral lesions
- ascites
- Intra abdominal mets

\[ U=1 \]
If ultrasound score is 1

\[ U=3 \]
If ultrasound score is 2-5

\[ M \]

- M=1 premenopausal
- M=3 Postmenopausal (more than 1 year of amenorrhea or women over 50 who have had a previous hysterectomy

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

TREATMENT
Complete/Optimal surgical cytoreduction offers the patient the best chance of cure / prolonged remission.

- Vertical incision
- Peritoneal washing, careful inspection and palpation of all peritoneal surfaces and pelvic and para-aortic nodes, biopsy of any suspected metastasis
- TAH, BSO and omentectomy.
- Bulk reduction of any other macroscopic tumour aiming for complete resection (bowel surgery/ splenectomy / pancreatic tail resection, partial gastrectomy, paraaortic and coeliac node dissection, peritoneal / diaphragmatic stripping / resection if appropriate), careful documentation of size and site of residual disease
- or stage 1 consider fertility preserving treatment in conjunction with specialist MDT discussion.

Relative contraindications for surgery may include:

- Patient unfit for surgery.
- Stage IV disease or PPC where optimal or complete cytoreduction is unlikely to be achieved in primary surgery.
• Primary peritoneal carcinoma with no obvious pelvic mass or debulkable disease.

Where primary surgery is not appropriate, neoadjuvant chemotherapy followed by delayed debulking surgery (DDS) may be considered.

All cases who were treated with incomplete surgery resulting in sub-optimal cytoreduction particularly where this was carried out by a non gynaecological oncologist should be reassessed after 3 cycles and the role of interval debulking surgery considered.

RADIOThERAPY / CHEMOTHERAPY

Radiotherapy

There is no role for radiotherapy in the primary management of ovarian cancer although this modality may be beneficial for isolated metastases or symptomatic pelvic disease.

Chemotherapy

All appropriate patients should be offered platin based chemotherapy +/- paclitaxel. Post operative baseline CT imaging may be undertaken as determined by local protocol.

All patients receiving neoadjuvant chemotherapy will be rediscussed in the MDT after three cycles with assessment of tumour response (clinical/biochemical & radiological) to consider delayed / interval debulking surgery.

Chemotherapy should commence as soon after primary surgery as possible.

For patients whose tumour progresses during first line therapy or within six months following its completion should be considered for second line chemotherapeutic management. Options include topotecan, pegylated liposomal doxorubicin hydrochloride (Caelyx), oral etoposide or tamoxifen. Such patients care should continue to be reviewed by the multidisciplinary team.

All chemotherapy for ovarian cancer should be given under the direct supervision of a medical or clinical oncologist member of the multidisciplinary team (MDT)

BORDERLINE TUMOURS

Borderline ovarian tumours (BOTs) are a heterogeneous group of tumours ranging from tumours with a benign natural history to premalignant lesions capable of malignant transformation.

Where a BOT is diagnosed intra operatively (i.e. with frozen section) full staging should be carried out as for a malignant tumour to include appendicectomy for mucinous tumours.

If the diagnosis of BOT is made as an incidental finding following surgery then the case (but not the patient) should be referred to the centre MDT for histological review and discussion. Referral should include the operation note in addition to the histology.

MDT review and discussion should include a discussion of the role of further surgery dependent upon the histology, fertility desires and completeness of the primary surgery. If the patient is to be considered for further surgery then this should be carried out at the centre.
Patients may be followed up for 5 years. This should include the use of ultrasound where the contralateral ovary remains in situ, and consideration of tumour markers where these were raised at primary diagnosis.

The diagnosis of recurrent disease should always include histological confirmation.

In cases of tumours with pseudomyxoma peritonei/ intra abdominal mucinous tumour referral to the Manchester or Basingstoke pseudomyxoma centre should be considered.

**NON EPITHELIAL TUMOURS**

**Sex-cord Stromal Tumours**
- Laparotomy and surgery as for epithelial tumours
- Consider chemotherapy (Platinum/Adriamycin/Cyclophosphamide) for any residual or recurrent disease.
- Consider inhibin as a tumour marker

**Germ Cell Tumours**
- Tumour markers are CA125, \( \alpha \)FP, \( \beta \)HCG, LDH
- Paediatric cases should be referred to Paediatric Oncology at the Royal Victoria Infirmary for radiological guided biopsy
- In selected cases with bilateral ovarian involvement consider unilateral salpingo-oophorectomy (fertility sparing surgery)
- Post operative chemotherapy: Platinum, Etoposide, Bleomycin for 4 cycles or until tumour marker negative
RECURRENT OVARIAN CANCER

- If patient is < 6 months from stopping, combination first line treatment second line options include topotecan, liposomal doxorubicin tamoxifen, etoposide.
- If patient is >6 months from stopping chemo, re-expose to carboplatin +/- paclitaxel. If platinum fails above second line options should be used.
- 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.
- Radiotherapy may be used for isolated, symptomatic, chemoresistant recurrences.
- Surgery may be considered for patients who have isolated surgically resectable disease.
- Tamoxifen may be considered for patients considered unsuitable for cytotoxic therapy.

FOLLOW UP

Patients should be followed up according to local protocol but this should aim to be under the care of the Lead Unit Gynaecologist who initially referred the patient. Duration of follow up and intervals between follow up visits should be according to local protocol but generally should be for a period of five years disease free with intervals of 3 months for the first year, 4 months the second year, six months for the third year and then annually until the fifth anniversary of treatment. All patients should have the contact details of their key worker so that they can have early local review for unexpected symptoms.

All patients with recurrent cancer suitable for cytoreductive treatment for recurring cancer should be referred to the specialist teams at the Queen Elizabeth Hospital / James Cook University Hospital.

* Please see note on page 10

GENETIC RISK ASSESSMENT

Familial ovarian cancer accounts for 5%-10% of all cases.

Patients with a family history of breast or ovarian cancer should be referred for a risk assessment to the local genetics dept, Dr Fiona Douglas in Newcastle, Dr Paul Brennan in Teesside and Dr Alex Henderson in Cumbria.

Genetic testing

Mutation analysis of relevant known cancer predisposition genes can be undertaken in consenting affected individuals from families assessed to be at “high” risk (>20% lifetime risk of carcinoma of the ovary). Predictive genetic testing can be offered to at-risk first degree relatives of known mutation carriers following the identification of a pathogenic mutation in a cancer predisposition gene.

Surveillance/prophylaxis

For women assessed to be at high genetic risk of ovarian cancer there are three options:
- No intervention
- Ovarian surveillance in the form of annual transvaginal ultrasound scan combined with an annual CA125 blood test from the age of 35. Ovarian surveillance is unproven and
any surveillance should only take place within the context of the UK Familial Ovarian Cancer Screening Study (UKFOCSS).

- Prophylactic bilateral salpingo-oophorectomy and peritoneal washings. It is essential that this procedure includes removal of the Fallopian tubes since the relative risk of Fallopian tube carcinoma is high in BRCA1/2 – associated familial breast/ovarian cancer. There remains a small residual risk (<1%) of intra-peritoneal cancer that is histologically similar to carcinoma of the ovary following prophylactic bilateral salpingo-oophorectomy

**NOTES**

**DDS**  Delayed debulking surgery: this happens when the patient undergoes a course of neoadjuvant (upfront) chemotherapy before having primary surgery

**IDS**  Interval debulking surgery: this occurs where a patient who has previously had an attempt a primary debulking surgery undergoes a second attempt at debulking surgery during their primary chemotherapy course

Many cases have the possibility of a gynaecological malignancy raised in a cytology specimen (often of a possible ovarian origin on an ascitic fluid). Caution, however, must be used when ascribing a malignant/possible malignant process to an ovarian origin on grounds of morphology alone, except possibly in a serous type malignancy. The use of immunohistochemistry can be of help in such cases, if sufficient atypical cells are present to allow for separation from background cells and interpretation of patterns of staining.

Frozen section can be of use in the diagnosis of malignancy preoperatively. Whilst this can be of help to the surgeon, there must be sufficient throughput to ensure that the reporting pathologist has sufficient experience and exposure to cases to ensure a robust service and any such service must be subject to regular audit. A robust protocol for its use should also be agreed with clinical users before commencing.

**TRIALS**

- **ICON 8B**

**GESTATIONAL TROPHOBLASTIC DISEASE**
Gestational trophoblastic disease should be managed according to protocols issued by the National Trophoblastic centres. All cases should be registered with the national centres and in most cases this will not involve the regional centres.
1. Teenage and Young Adult Pathway for initial Management

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

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

The EAG has received the document named “NCA Teenage and Young Adult Cancer Pathway for follow up on completion of first line treatment” and aged to follow the generic TYA pathway. Please see Appendix 2 for pathway.

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

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

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

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

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

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

Review at TYA MDT

Communication & Liaison between MDTs

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

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

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

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

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

Relapse or recurrent disease

- Yes
- No

Long term follow up protocol

Further Treatment

Palliative Care

Abbreviations:
- TYA (Teenage and Young Adults)
- TYA DH (Teenage and Young Adult Designated Hospitals)
- PCT (Principal Treatment Centre: Newcastle upon Tyne hospitals)

TYA Cancer Ideal Pathway Map version 1.7
ELTHA/JUST and acknowledgement to Wessex Cancer Network
Appendix 2- TYA follow up on completion of first line treatment

Northern England Strategic Clinical Network CYPCG
Follow Up on Completion of First Line Treatment (19-24)

Principal Treatment Centre: Newcastle-upon-Tyne Hospitals NHS Foundation Trust
Gateshead Health NHS Foundation Trust at Queen Elizabeth Hospital
City Hospitals Sunderland NHS Foundation Trust at Sunderland Royal Infirmary
North Tees and Hartlepool NHS Foundation Trust at University Hospital of North Tees
South Tees Hospitals NHS Foundation Trust at James Cook University Hospital

Responsibilities of TYA MDT

- Review end of treatment summaries
- Continuing TYA team involvement according to identified needs
- Co-ordination of age appropriate clinical care and psychosocial support

Responsibilities of Specialist Palliative Care MDT

- Specialist Palliative Care representation as core member of TYA MDT
- Work with patients across the Northern England Strategic Clinical Network, link with other trusts and community palliative care services.

Responsibilities of Tumour Site Specific MDT

- Completion of End of Treatment Summary and Follow Up Care Plan produced by treating medical team within 6 months of completion of first line treatment, discussed with patient and copied to GP

Completion of first line treatment
Including surgery, radiotherapy, chemotherapy, biological or endocrine therapy. Patients aged 19-24 years should have been offered the choice between PTC NuTH and a TYA designated hospital

Unhindered access into TYA MDT if any member of the clinical teams involved with the patients care have concerns about patient following completion of first line treatment (or if patient wishes a targeted discussion to take place).

TYA updates will be sent to TSS MDT treating medical team and copy sent to GP following any discussion.

Clinical surveillance exceptions:
- Brain/CNS, Sarcoma, BMT and Testis.
- Long Term Follow Up, Late Effects of Treatment and Survivorship.
- Disease recurrence/progression refer back through TSS and TYA MDT’s
<table>
<thead>
<tr>
<th>Contact Information</th>
<th>TYA MDT</th>
<th>SPECIALIST PALLIATIVE CARE MDT</th>
<th>TUMOUR SITE SPECIFIC MDT</th>
<th>Transition to TYA Transition to Adult</th>
</tr>
</thead>
<tbody>
<tr>
<td>These are the trusts that are designated to treat TYA patients within the Northern Region Strategic Clinical Network</td>
<td>Location: NUTH Time: Thursdays, 12:00-14:00 Lead Clinician: Dr Emma Lebbridge Lead Nurse: Mr David Short Coordinator: Sharon Buckley Phone: 0191 339 6161 email: <a href="mailto:tmu.tr.tymdt@nhs.net">tmu.tr.tymdt@nhs.net</a></td>
<td>Location: NCC Freeman Hospital Time: Wednesdays, 09:30-11:30 Lead Clinician: Dr M. Comiskey Coordinator: Kerry Halliday Phone: 0191 2138606 email: <a href="mailto:kerry.halliday@nuth.nhs.uk">kerry.halliday@nuth.nhs.uk</a> 1. Specialist Palliative Care representation as core member of TYA MDT. 2. All site specific MDT outcomes notified to palliative care lead clinician. 3. Patients reviewed at any point along the pathway (diagnosis, relapse, long term follow up, end of life care). 4. Holistic needs assessment to include family/carer. 5. Work with patients across the Northern England Strategic Clinical Network, link with other trusts and community palliative care services. 6. MDT outcomes documented on Somerset.</td>
<td>Completion of end of treatment summary and follow up care plan produced by treating medical team within 6 months of completion of first line treatment, discussed with patient and copy to GP. Treatment Summaries should be assigned a level of care. 1. Level 1: Supported self-management with contact info about how to reconnect back into LTFU. 2. Level 2: Planned coordinated care with support from the primary treatment centre and local services. Low level care required such as monitoring with echocardiograms. 3. Level 3: Complex care requiring follow-up in the long-term follow up clinic usually requiring input from the multi-disciplinary team.</td>
<td>Transition into adult services is planned for and discussed with patients well in advance. Transition at a time of crisis e.g. relapse, intensive chemotherapy will be avoided wherever possible. Transition will be facilitated by the keyworkers.</td>
</tr>
<tr>
<td>PTC: Newcastle-upon-Tyne Hospitals NHS Foundation Trust 16-18 Great North Children’s Hospital 19-24 Freeman Hospital Switchboard 0191 2336161</td>
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## Appendix 3 – Contact Details

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<th>TYA Lead Nurse</th>
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<td>All MDTs:</td>
<td>Dr Emma Lethbridge</td>
<td>David Short</td>
<td>0191 2448858</td>
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<td></td>
<td>Breast</td>
<td></td>
<td><a href="mailto:david.short@nuth.nhs.uk">david.short@nuth.nhs.uk</a></td>
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<tr>
<td><strong>Gateshead Health NHS Foundation Trust - at</strong></td>
<td>Specialist Gynaeoncology</td>
<td>Ms Christine Ang</td>
<td><a href="mailto:rachel.mugnai@ghnt.nhs.uk">rachel.mugnai@ghnt.nhs.uk</a></td>
<td>0191 4456148</td>
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<td>Queen Elizabeth Hospital</td>
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<tr>
<td><strong>City Hospitals Sunderland NHS Foundation Trust - at Sunderland Royal Hospital</strong></td>
<td>Haematology</td>
<td>Dr Scott Marshall</td>
<td>Faye Lavercik</td>
<td>0191 5656256</td>
</tr>
<tr>
<td></td>
<td>Specialist Urology (testicular only)</td>
<td></td>
<td><a href="mailto:faye.armstrong@chsft.nhs.uk">faye.armstrong@chsft.nhs.uk</a></td>
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<tr>
<td><strong>North Tees and Hartlepool NHS Foundation Trust - at University Hospital of North Tees</strong></td>
<td>All MDTs:</td>
<td>Dr Padmaja Lokireddy</td>
<td>Kat Dawson</td>
<td>01642 617617 ext 24697</td>
</tr>
<tr>
<td></td>
<td>Haematology</td>
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<td><a href="mailto:Katherine.Dawson@nth.nhs.uk">Katherine.Dawson@nth.nhs.uk</a></td>
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<td><strong>South Tees Hospital NHS Foundation Trust - at</strong></td>
<td>All MDTs:</td>
<td>Dr Dianne Plews</td>
<td>Jill Linton</td>
<td>01642 854381</td>
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<tr>
<td>James Cook University Hospital</td>
<td>Specialist Gynaeoncology</td>
<td></td>
<td><a href="mailto:jill.linton@stees.nhs.uk">jill.linton@stees.nhs.uk</a></td>
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Appendix 4 – NHS Specialised Services Pathway

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

Paediatrician ➔ GP ➔ Radiology/Incidental Finding

Referral to Sarcoma Service at Freeman Hospital Newcastle (FRH)
See Sarcoma pathway for contact details

If age 16-18 years refer to PTC paediatric & adolescent MDT at RVI and Bone & Soft Tissue MDT at FRH

All patients to be discussed at the TYA MDT (see TYA pathway for contact details)

If age 19-24 years refer to Bone & Soft Tissue MDT at FRH

Necessary to refer to National Ewing’s Sarcoma MDT for discussion?

Yes ➔ Submit electronic MDT proforma and link in via WebEx.

Please see Bone & Soft tissue site specific pathway and/or paediatric & adolescent pathway for detail

No ➔ Please see Bone & Soft tissue site specific pathway and/or paediatric & adolescent pathway for detail

5 years post treatment for patients age 16-24 years

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

Age 19-24 yrs at time of diagnosis follow up on adult protocol

Primary Bone Cancer Pathway DRAFT
Toni Hunt NICE Version 0.3 Aug 2012
NHS Specialised Services
Referral Pathway for Hydatidiform Mole / Gestational Trophoblastic Neoplasm / Choriocarcinoma
Weston Park Hospital, Sheffield

Flowchart:
- Gynaecologist / Antenatal dept perform U/S or histology from failed pregnancy confirms hydatidiform mole
- Post Pregnancy, ectopic pregnancy or miscarriage confirms choriocarcinoma on histology or high clinical suspicion
- Patient referred to Weston Park Hospital Sheffield. Histology reviewed and patient registered on national programme

Hydatidiform mole diagnosis confirmed on histology
- hCG levels return to normal
  - Complete follow up protocol
  - Discharge

Choriocarcinoma diagnosis confirmed on histology or further staging needed to confirm
- Patient bloods & urine monitored by Sheffield copies to GP and referring gynaecologist
- hCG levels do not return to normal
  - Outpatient visit at Sheffield

Outpatient visit at Sheffield for staging and treatment plan
- Discuss at Sheffield GTN MDT
- Patients age 16-24 yrs ref to TYA MDT @ Sheffield
- Staging scan, blood tests, prognosis score, treatment plan at Sheffield

Low risk: methotrexate chemo can be given at local hospital under direction of Sheffield. If age 16-18 years this should be on teenage unit (RVI). If age 19-24 this should be on Young Adult unit at Newcastle (Freeman) or TYA Designated Unit at James Cook, Middlesbrough

All Treatment delivered at Sheffield
- All follow up carried out by Sheffield (OPC, phone, email & text)

hCG monitoring will be for life via Sheffield. Copies sent to GP and referring gynaecologist

Choriocarcinoma Pathway
Toni Hunt NECN Version 0.4 Aug 2012
APPENDIX 1 - 2ww REFERRAL FORM

Urgent Referral for suspected Cancer in Adults
GYNAECOLOGY
(Two-week wait)

Full Name  Date of Birth (Age)  NHS Number

If the patient has not heard back within 7 days, please contact the Department again
Attach this form to the e-referral within 24 hours
If the e-referral system is not available, please send BOTH the 'service form' AND the
'Referral header sheet' by secure email or FAX

☐ Patient has been informed that this is an urgent referral for suspected cancer
☐ The patient is available and willing to attend hospital for urgent tests/appointment
within the next 14 days
☐ The patient has been given the Fast Track leaflet

Link to: NICE GUIDANCE  2WW Patient Information Leaflet

☐ Lesions suspicious of cancer of cervix or vagina on speculum examination
☐ Postcoital bleeding [PCB] age >35 years that persists for more than 4 weeks
   (include date and results of last cervical screening; ensure triple swabs are taken)
   Single Code Entry: Cervical smear result
☐ Consider a suspected cancer pathway referral (for an appointment within 2 weeks) for
   vulval cancer in women with an unexplained vulval lump, ulceration or bleeding
☐ Palpable pelvic mass (new finding do not await scan)
   Check CA125
☐ CA125 >35 IU/ml and USS OR SYMPTOMS suggestive of ovarian cancer
   (as per NICE pathway on ovarian Cancer)
☐ Post-menopausal bleeding or blood stained discharge in women aged >55 years who are
   non HRT
☐ Consider urgent referral form women <55 years who have post-menopausal bleeding
   (post-menopausal =>12 months since LMP)
☐ Unexpected or prolonged bleeding persisting for more than 4 weeks after stopping HRT
   or whilst taking Tamoxifen

If you suspect a possible gynaecological cancer but symptoms do not fit the
criteria, please refer and include the clinical details in the section below.

Reason for Referral
The clinical information is essential to safe and effective care of your patient

(Note to Referrer: Extraneous/sensitive information MUST BE DELETED from the consultation/s
below).
### Additional Patient Information

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<th>Gender(full)</th>
<th>Date of Referral:</th>
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<td>Patient Contacts</td>
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<td>Work: Patient Work Telephone</td>
<td>Email: Patient E-mail Address</td>
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<td>Carer/Advocate:</td>
<td>The patient has confirmed the following person should be included in correspondence – Name:</td>
<td>Contact Details:</td>
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<td>Contact Consent:</td>
<td>□ Can leave message on answer machine</td>
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<td>□ Can contact by text</td>
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<td>Language: Single Code Entry: Main spoken language</td>
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<td>□ Deaf</td>
<td>□ Registered Blind</td>
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<td></td>
<td>Single Code Entry: Failed or difficult intubation</td>
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: Military veteran...
: Is a carer...

**Single Code Entry: Uses monitored dosage system**

### Additional Referrer Information

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<td>Organisation Name, Organisation Full Address (single line)</td>
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<td>Surgery Tel No:</td>
<td>Organisation Telephone Number</td>
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<tr>
<td>Surgery Fax:</td>
<td>Organisation Fax Number</td>
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2WW NE Urological Referral Form – EMIS Web V7 Gateshead October 2016
IF ANY CHANGES ARE NEEDED TO THIS FORM including contact details PLEASE EMAIL: Ngosp.informatics@nhs.net

To be completed by the Data Team: (Insert Dates)

Received: / /  First Appointment booked: / / |
First Appointment date: / /  1st seen: / / |
Specify reason if not seen on 1st appointment:

Diagnosis: Malignant □  Benign □
## Appendix 2  REFERRAL PATHWAYS and STRUCTURE OF SERVICE

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<th>Lead Clinician</th>
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<td>Royal Victoria Infirmary</td>
<td>Mr M Roberts 019 2336161</td>
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<tr>
<td>Northumberland</td>
<td>316</td>
<td>Wansbeck General Hospital</td>
<td>Mr A Sproston 0844 811 8111</td>
</tr>
<tr>
<td>North Tyneside</td>
<td>203</td>
<td>North Tyneside General Hospital</td>
<td>Mr A Sproston 0844 811 8111</td>
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<td>Gateshead</td>
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<td>Queen Elizabeth Hospital</td>
<td>Mr K A Godfrey 0191 4452872</td>
</tr>
<tr>
<td>South Tyneside</td>
<td>149</td>
<td>South Tyneside District Hospital</td>
<td>Mr H Fawzi 0191 4041000</td>
</tr>
<tr>
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<td>278</td>
<td>Sunderland Royal Hospital</td>
<td>Mr G MacNab 0191 5656256</td>
</tr>
<tr>
<td>Easington (60%)</td>
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</tr>
<tr>
<td>North Durham</td>
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<td>The University Hospital of North Durham/Shotley Bridge Hospital</td>
<td>Mr P Sengupta (N Durham) 0191 3332333</td>
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<tr>
<td>Durham Dales, Easington &amp; Sedgefield (excl Easington 60%)</td>
<td>219</td>
<td>Bishop Auckland Hospital/Darlington Memorial Hospital</td>
<td>Mr J MacDonald (S Durham) 01325 380100</td>
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<td>Darlington</td>
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<tr>
<td>Stockton</td>
<td>194</td>
<td>University Hospital of Hartlepool</td>
<td>Mr A Robertson 01429 266654</td>
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<td>Hartlepool</td>
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<td>University Hospital of North Tees</td>
<td>Ms M George 01642 617617</td>
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<td>South Tees</td>
<td>276</td>
<td>James Cook University Hospital NHS</td>
<td>Mr N Hebblethwaite 01642 850850</td>
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<td>Friarage Hospital, Northallerton</td>
<td>Mr N Hebblethwaite 01609 779911</td>
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<tr>
<td>Cumbria</td>
<td>#N/A</td>
<td>Cumberland Infirmary / West Cumberland Hospital</td>
<td>Ms S Pearson 01228 523444</td>
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Source - Mid-2016 Population Estimates for Clinical Commissioning Groups (CCGs) in England - ONS.gov.uk
APPENDIX 3 – NCA CHEMOTHERAPY ALGORITHM

NCA CHEMOTHERAPY TREATMENT ALGORITHM FOR GYNAE ONCOLOGY

“Quality and safety for every patient every time”

Document Control

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<th>Issue Date</th>
<th>Approved By</th>
<th>Review Date</th>
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<td>12.7.18</td>
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For more information regarding this document, please contact:
INTRODUCTION

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

Peer Review Definitions

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

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

In NCA Treatment Algorithms are included in each EAG’s Clinical Guidelines which can be found under the tumour specific page of the guidelines section of the website,

Cancer Alliance/Gynaecological Oncology Protocols and Prescriptions

SUPPORTING DOCUMENTS

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

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

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

Cancer Alliance/ Chemotherapy Expert Advisory Group

LIST OF APPROVED REGIMENS

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

CARCINOMA OF THE VULVA

CHEMORADIOThERAPY
Concurrent chemotherapy and radiotherapy may be considered as an option for locally advanced disease given either with curative intent or as a pre-operative treatment to enhance the prospect of successful surgical clearance. The external beam radiotherapy comprises 45 Gy in 25 fractions as described above and the concurrent chemotherapy may be either weekly Cisplatin (as per carcinoma of cervix), 2 cycles of Mitomycin-C and 5FU or 2 cycles of Cisplatin and 5FU. A phase two external beam treatment may be applied to residual disease after chemoradiation if surgery is not to be undertaken.

CARCINOMA OF THE VAGINA

CHEMOTHERAPY
Chemotherapy is not part of standard treatment for carcinoma of vagina but is increasingly being considered as concurrent therapy with radical radiotherapy using a weekly Cisplatin regimen as per carcinoma of the cervix. Similarly, palliative chemotherapy as per carcinoma of cervix may be considered for recurrent or metastatic disease.

CARCINOMA OF THE CERVIX

PRIMARY CHEMORADIATION
Stage IIA, IIB, III and IV (i.e. where the tumour is too extensive for complete surgical excision) is normally treated with a combination of external beam radiotherapy with weekly Cisplatin, followed by brachytherapy.

For patients with stage IA2 and IB1 tumours unsuitable for surgery or prolonged attendance for external beam treatment, therapy may be with intracavitary brachytherapy alone.

Radical radiotherapy will normally comprise external beam radiotherapy to the pelvis to a dose of 44-50 Gy in 22-25 fractions followed by a dose of 14-21 Gy in 2-3 fractions of high dose rate brachytherapy prescribed to Point A.

All patients undergoing primary radical radiotherapy should be considered for concurrent chemotherapy using single agent Cisplatin at a dose of 40 mg/m2 weekly during each of the 5 weeks of external beam radiotherapy.

ADJUVANT CHEMORADIATION
Postoperative external beam radiotherapy to the pelvis should be recommended for those who fulfil the criteria for adjuvant treatment above.

Standard post-operative radiotherapy consists of external beam radiotherapy with a 4-field technique to a dose of 44-45 Gy in 22-25 fractions and if no contraindications this should be given with concurrent weekly Cisplatin as above.

Weekly Cisplatin 40 mg/m2 should normally be capped at a maximum dose of 70-72 mg and should only be given if the GFR is >40 ml/min as measured by EDTA clearance or the Cockroft and Gault formula.
CHEMOTHERAPY
Neoadjuvant chemotherapy remains the subject of investigation and consideration of using such treatment should only be used in the context of a clinical trial.

Chemotherapy for metastases may be of value in palliation where there is pain from tumour pressure or infiltration following failed radiotherapy.

Recommended regimens include single agent Cisplatin (or Carboplatin) or combination treatments including Cisplatin plus Topotecan and Cisplatin (or Carboplatin) plus Taxol. Combination treatments may give a higher response rate but at the expense of significantly greater toxicity. Only Cisplatin plus Topotecan has shown a survival advantage over Cisplatin alone.

CARCINOMA OF THE UTERINE CORPUS

CHEMOTHERAPY
There is no routine role for adjuvant chemotherapy in the radical treatment of endometrioid endometrial cancer. A number of trials are currently being developed, some using chemotherapy in combination with radiotherapy (e.g., PORTEC-3).

Carboplatin/Cisplatin, Doxorubicin and Paclitaxel alone or in combination have previously been shown to produce response in patients diagnosed with endometrial cancer.

For high grade high stage tumours (IIIA and beyond; clear cell, uterine serous carcinoma and carcinosarcoma) the use of post-operative adjuvant Carboplatin and Taxol should be considered. Where disease is confined to the pelvis or pelvis and para-aortic nodes adjuvant radiotherapy should also be given.

Patients with recurrent or metastatic disease not palliated by radiotherapy or hormone treatment may be considered for single agent or combination cytotoxic chemotherapy.

Surgery for recurrent disease
Patients eligible for consideration of exenteration must be discussed at the Central MDT. Treatment must be individualised to the patient’s age, obesity and co-existing medical conditions. Specialty input from colorectal, urology and plastic surgery colleagues should be considered.

UTERINE SARCOMAS

RADIOThERAPY / CHEMOTHERAPY
Adjuvant radiotherapy after complete resection of uterine sarcomasis associated with a decreased risk of local recurrence but no benefit in overall survival has been demonstrated. For recurrent / metastatic disease, palliative radiotherapy or chemotherapy, should be considered. Approved chemotherapy regimens include either single agent Doxorubicin or Doxorubicin and Ifosfamide. For endometrial stromal sarcomas hormonal therapy with either a progestogen or an aromatase inhibitor should also be considered.
CARCINOMA OF THE OVARY

Chemotherapy

Post operative baseline CT imaging may be undertaken as determined by local protocol. All appropriate patients should be offered adjuvant platinum-based chemotherapy +/- paclitaxel as per NICE guidelines. Stage IV, IIIB & IIIC with suboptimal debulking should also be offered bevacizumab* in combination with chemotherapy (Paclitaxel plus Platinum) followed by a maintenance bevacizumab monotherapy. *Note Bevacizumab is funded by Cancer Drug Fund and will be reviewed.

All patients receiving neoadjuvant chemotherapy will be rediscussed in the MDT after three cycles with assessment of tumour response (clinical/biochemical & radiological) to consider delayed / interval debulking surgery. These patients should be offered bevacizumab therapy with their adjuvant chemotherapy as above.

Chemotherapy should commence as soon after primary surgery as possible.

All chemotherapy for ovarian cancer should be given under the direct supervision of a medical or clinical oncologist member of the multidisciplinary team (MDT)

RECURRENT OVARIAN CANCER

- If patient is < 6 months from stopping platinum-based first line treatment; second line options include, pegylated liposomal doxorubicin(caelyx), weekly taxol (if not used in the first line), docetaxel, weekly dose-dense paclitaxel and carboplatin, Cisplatin + etoposide (Roterdam regimen), oral etoposide. Ref NICE TA389 Published date: 27 April 2016.

- If patient is >6 months from stopping chemo, re expose to carboplatin +/- paclitaxel. If platinum fails above second line options should be used.

- 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

- Radiotherapy may be used for isolated, symptomatic, chemoresistant recurrences

- Surgery may be considered for patients who have isolated surgically resectable disease

- Tamoxifen or letrozole may be considered for patients considered unsuitable for cytotoxic therapy
APPENDIX ONE: NCA APPROVED LIST OF REGIMENS FOR GYNAECOLOGY

Approved regimens for Gynaecological cancers are those that have been released on to the Two Network Chemotherapy E-prescribing systems* and include those regimens that are either NICE approved, NHS England Baseline funding approved or approved on National Cancer Drugs Fund.

Note: One Trust is not part of Network Chemotherapy E prescribing systems and must therefore ensure the regimens it releases onto its electronic system are consistent with those released onto the Newcastle and Tee’s Chemocare Networks.