

National Disease Registration Service (NDRS)

Gynaecological tumours – Uterine & Endometrial
v5 July 2024

Welcome to this NDRS training module on Gynaecological Tumours – Uterine & endometrial. This module is designed to help Cancer Administration staff gain a better understanding of these tumours and the terminology used by the clinical teams.

Agenda

- Introduction
- Uterine & Endometrial tumours
- Summary
- Acknowledgements

This module may be paused at any time



In this module we'll give you a brief introduction to gynaecological tumours including some of the symptoms that patients might experience. We'll look at the relevant anatomy & physiology and will then go through the diagnosis, morphology & stage as well as the treatment options. Remember, this module can be paused at any time.

Introduction

In this section we will cover:

- Types of Gynaecological tumour

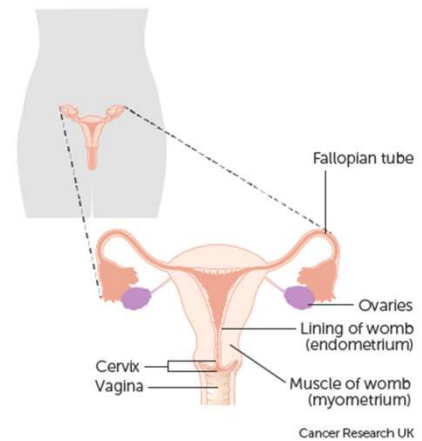
Firstly, we'll look at the various types of Gynaecological tumour...

Types of Gynaecological tumour

There are many systems within the gynaecological system that can give rise to different tumour types

- **Ovaries**
- **Cervix**
- **Uterus & Endometrium**
- Vagina
- Vulva
- Fallopian tubes
- Placenta

This module covers tumours of the Uterus & Endometrium (Corpus Uteri)



Tumours may arise in any part of the female reproductive system. Training modules are available for Ovarian, Cervical and Uterine tumour sites. This module covers Uterine & Endometrial tumours

Uterine & Endometrial tumours

In this section we will cover:

- Causes and Risk Factors
- Signs and Symptoms
- Anatomy & Physiology
- Regional Lymph Nodes
- Diagnosis
- Morphology
- Topography
- Grade
- Stage
- Treatment

In this section, we'll start by looking at the causes and risk factors for tumours of the Corpus Uteri...

Uterine & Endometrial – Causes & Risk Factors

- Increasing age
- Never having been pregnant
- More years of menstruation
- Obesity
- Hormone therapy
- Family history/genetics
- Diabetes
- Endometrial hyperplasia
- Polycystic ovary syndrome (PCOS)

... which are more common in women over the age of 40, meaning that increased age is a risk factor. Other risk factors include never having been pregnant, obesity and diabetes

Uterine & Endometrial – Signs & Symptoms

The most common symptoms are:

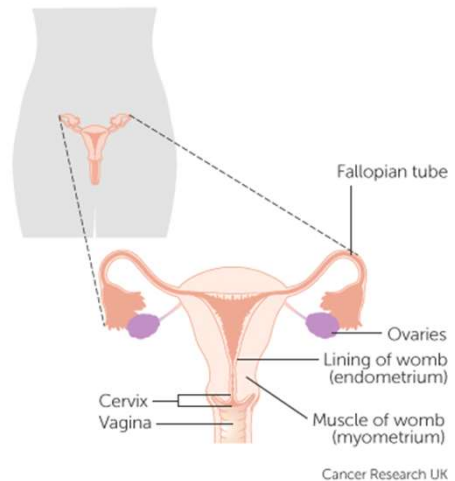
- Post-menopausal bleeding
- Heavy or bleeding between periods
- Vaginal discharge

Common symptoms include post menopausal bleeding and a vaginal discharge

Uterine & Endometrial – Anatomy & Physiology

The uterus part of the female reproductive system. It is the pear-shaped muscular cavity that holds and protects a growing baby during pregnancy.

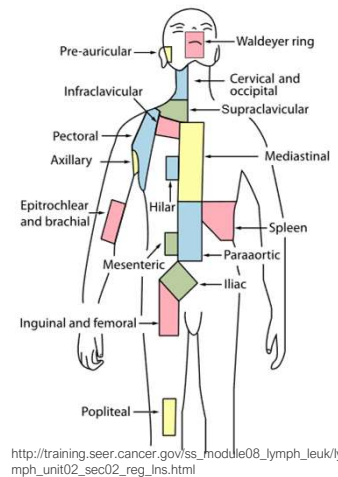
- The endometrium is the inner lining of the uterus. It has a rich blood supply and will thicken and renew itself as part of the menstrual cycle.
- The myometrium is a thick smooth muscle layer of the uterus. Its main function is to allow contractions during childbirth.
- The serosa is the outer layer of the uterus.



The uterus is the pear-shaped organ in which the fertilised egg implants at the beginning of pregnancy. In pre-menopausal women, the lining of the uterus, or endometrium, thickens as ovulation approaches in preparation for pregnancy. It will detach and shed around 2 weeks later if no pregnancy occurs. The muscular layer of the uterus is the myometrium and the outer layer is known as the serosa.

Uterine & Endometrial – Regional Lymph Nodes

- Pelvic nodes
 - Hypogastric – obturator (in the groin) and internal iliac nodes
 - Common iliac nodes
 - External iliac nodes
 - Parametrial nodes (in the area of the fibrous connective tissue surrounding the uterus)
 - Sacral nodes (at the base of the spine)
- Para-aortic nodes (located near the aorta, the main artery in the body)



During an MDT, clinical teams will often make reference to particular groups of regional lymph nodes. This may indicate that the stage of the cancer has been determined. Lymph nodes classified as “regional” for Uterine & Endometrial cancers include the iliac, sacral and para-aortic nodes

Uterine & Endometrial – Diagnosis

Diagnosis can take place by using any of the following methods:

- Transvaginal ultrasound (TVU)
- MRI scan
- CT scans
- PET scans
- Biopsy
- Hysterectomy

Diagnostic investigations may include radiological examination and a biopsy. Tumours are sometimes histologically confirmed only after a hysterectomy

Uterine & Endometrial – Morphology

- Endometrioid carcinoma – M8380/3
- Serous carcinoma – M8441/3
- Clear cell carcinoma- M8310/3
- Carcinosarcoma – M8980/3 - Even though carcinosarcoma has features of sarcoma it is classed as a type of endometrial carcinoma because they behave in a similar way and have similar risk factors
- Mucinous carcinoma, gastric (gastrointestinal)-type – M8144/3

Endometrial carcinoma is the most common type of uterine cancer, which arises in the epithelial cells of the endometrium

The most common type of uterine cancer found is Endometrial carcinoma. Carcinosarcoma, despite having some features of a sarcoma, is also classed as endometrial carcinoma due to its behaviour.

Uterine & Endometrial – Morphology

Leiomyosarcoma – M8890/3 - Leiomyosarcomas of the uterus are much less common than carcinomas

- They develop from cells in the smooth muscle layer of the uterus rather than the lining.

Endometrial stromal sarcoma, low grade – M8931/3

Endometrial stromal sarcoma, high grade – M8930/3

Adenosarcoma – M8933/3

Less common morphologies include Leiomyosarcoma which would develop within the muscle layer of the uterus, endometrial stromal sarcomas which may be low or high grade and adenosarcomas

Uterine & Endometrial – Topography - Invasive

Invasive tumours of the Corpus Uteri are classified as:

- **C54.0** - Isthmus Uteri (the lower part of the uterus immediately above the cervix)
- **C54.1** - Endometrium
- **C54.2** - Myometrium
- **C54.3** - Fundus Uteri (the top-most part of the uterus)
- **C54.8** - Overlapping lesion of Corpus Uteri
- **C54.9** - Corpus Uteri NOS

- **C55X** – Malignant neoplasm of uterus, part unspecified

- All invasive tumours must be recorded in your cancer data management system

ICD10 codes for invasive cancers of the corpus uteri are shown here...

Uterine & Endometrial – Topography - Invasive

Invasive tumours of associated areas include:

- C58X – Malignant neoplasm of placenta
- All invasive tumours must be recorded in your cancer data management system

... and the code for an invasive placental neoplasm is shown here. All invasive ICD 10 coded conditions must be recorded in your cancer data management system.

Uterine & Endometrial – Topography – In situ

In situ tumours of the Corpus Uteri are classified as:

- D07.0 – Endometrium
- While your clinical team may request that D07 in-situ endometrial tumours are recorded, these do not currently require a COSD submission from your cancer data management system

... while the code for an in situ endometrial tumour is D07.0

Uterine & Endometrial – Topography – Unknown or Uncertain Behaviour

Uterine tumours of unknown or uncertain behaviour are classified as:

- **D39.0** – Uterus
- While your clinical team may request that D39.0 tumours of unknown or uncertain behaviour are recorded, these do not currently require a COSD submission from your cancer data management system

If the tumour is deemed to be of uncertain or unknown behaviour, it's ICD10 coded as D39.0 ... It should be noted that while your clinical team may request that both in-situ and borderline tumours are recorded, these do not currently require a COSD submission from your cancer data management system – NDRS obtains this data direct from the pathology labs

Uterine & Endometrial – Grade

The FIGO (International Federation of Gynaecology and Obstetrics) grade is a grading system used for invasive endometrioid and mucinous tumours. FIGO grade is like any other grading system: ranging from 1 (well differentiated) to 3 (poorly differentiated)

The following carcinomas are not graded but by definition are regarded as high grade (grade 3) carcinomas:

- Serous carcinoma
- Clear cell carcinoma
- Undifferentiated carcinoma
- Carcinosarcoma

Endometrioid & mucinous carcinomas are graded according to the FIGO grade system. Serous-, Clear cell- and Undifferentiated carcinomas along with Carcinosarcomas are automatically graded as High grade or Grade 3.

Uterine & Endometrial – Stage

Uterine tumours are staged using the FIGO staging system

- There are different staging systems depending on the type of tumour
 - Endometrial Carcinoma (including carcinosarcoma)
 - Uterine Sarcoma (leiomyosarcoma & endometrial stromal sarcoma)
 - Uterine Sarcoma (adenosarcoma)
- Gestational trophoblastic tumours also have a separate staging data sheet
- Stage Date and Organisation must be recorded for all FIGO stages
- Staging data sheets for clinical use may be downloaded here:
<https://digital.nhs.uk/ndrs/data/cancer-data-training-materials/staging-sheets>
- Please refer to the NDRS Training Module: KPI – Gynaecology Staging 101
<https://digital.nhs.uk/ndrs/data/cancer-data-training-materials>

The tumours are staged using the FIGO staging system which, in the case of uterine tumours, is morphology specific. A link to detailed guidance on recording the FIGO stage is included in the module summary

Uterine & Endometrial – Treatment - Surgery

Surgery

The amount and type of surgery will depend on the stage, grade and type of cancer and general wellbeing of the patient. In most cases this will be:

- Hysterectomy, abdominal (TAH) or vaginal (TVH) – removal of the uterus +/- other organs **and**
- Bilateral salpingo-oophorectomy (BSO) – removal of both ovaries & fallopian tubes

If the cancer has spread further the patient may need:

- Omentectomy – removal of a fold of fatty tissue within the abdominal cavity

Most uterine tumours are treated with surgery. Surgery may involve the removal of one or both ovaries as well as the uterus and fallopian tubes, depending on the menopausal status of the patient. A radical hysterectomy may include removal of tissue surrounding the uterus and possibly part or all of the Omentum

Uterine & Endometrial – Treatment - Surgery

As part of surgical staging pelvic lymphadenectomy and/or para-aortic lymphadenectomy may be performed.

Pelvic lymphadenectomy is often performed for clinical stages 1 and 2 tumours to determine the need for post operative radiotherapy

Stage 1 patients may only require a hysterectomy +/- the removal of regional lymph nodes

The surgeon may decide to remove pelvic and/or para-aortic lymph nodes to determine the need for adjuvant radiotherapy. Patients at FIGO stage 1 may not need further treatment.

Uterine & Endometrial – Treatment - Surgery

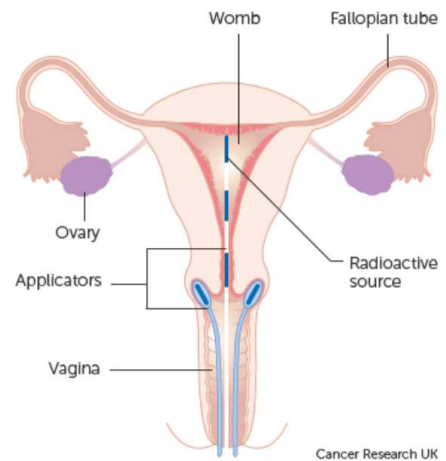
- **Stage 2 or 3** patients may have a total or radical hysterectomy as well as regional lymph node removal. They may also need radiotherapy, chemotherapy and/or hormone therapy
- **Stage 4** or advanced stage patients may need debulking surgery or excision of multiple pelvic organs to remove as much of the tumour as possible before starting radiotherapy, chemotherapy and/or hormone therapy. Secondary cancer removal surgery may also be needed if the cancer has spread to the lungs or liver

Stage 2 or 3 patients may need multiple adjuvant treatments while stage 4 patients may also need additional surgery to debulk or remove metastatic deposits

Uterine & Endometrial – Treatment - Radiotherapy

Brachytherapy

- Brachytherapy is delivered directly into the vagina via an applicator. A high dose is given to the top of the vagina, but only a little to surrounding tissues
- It may be given post-operatively to reduce the risk of recurrence in patients with high grade tumours



Brachytherapy – where the radioactive source is placed within the body - may be given as an adjuvant treatment after surgery to reduce the risk of recurrence.

Uterine & Endometrial – Treatment - Radiotherapy

External beam radiotherapy

- External beam radiotherapy may be given instead of surgery if the patient is not fit enough for surgery
- Radiotherapy may be given as the main treatment in advanced uterine cancer as a palliative treatment to reduce vaginal bleeding or pain
- Is given as adjuvant treatment to patients who have a high risk of recurrence
- Extended-field radiation is given to patients who have biopsy-proven metastases in regional lymph nodes



Cancer Research UK

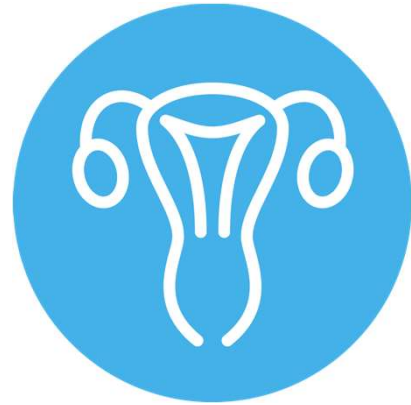
Where a patient is not fit for surgery, external beam radiotherapy may be offered instead. Extended-field radiotherapy may be given for confirmed regional lymph node involvement

Uterine & Endometrial – Treatment - Hormones

Hormone Therapy

Progesterone hormone therapy is used to treat advanced uterine cancers or for recurrences, sometimes in the form of a progesterone - releasing intra-uterine device (IUD). Up to 25% of patients respond well to this

This is mainly used to treat stage 3 and stage 4 tumours and can also be used for those patients who are not fit for surgery due to other co-existing medical conditions



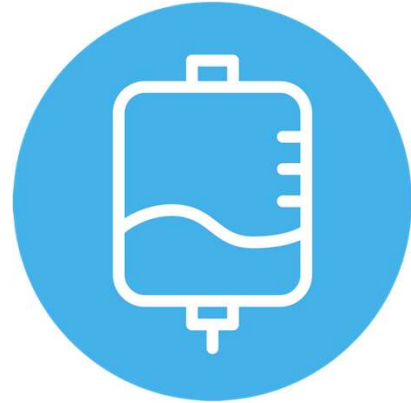
Progesterone therapy is used to treat later stage or recurring uterine cancers with up to a quarter of patients responding well to this treatment.

Uterine & Endometrial – Treatment - Chemotherapy

Chemotherapy

Adjuvant chemotherapy can sometimes be given after surgery

- High grade tumours
- Non-endometrial type, e.g. serous carcinoma and clear cell carcinoma
- Palliative intent in advanced disease or when there is a recurrence



And finally, Chemotherapy is sometimes administered after surgery and where the tumour is high grade or of certain morphology types. It may also be given in the case of advanced or recurrent disease.

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To summarise...

Summary

- There are multiple possible causes of uterine tumours. These include: age, obesity, never having been pregnant and prior hormone treatments.

Risk factors for uterine and endometrial tumours include increased age, never having been pregnant and prior hormone treatments

Summary

- There are multiple possible causes of uterine tumours. These include: age, obesity, never having been pregnant and prior hormone treatments.
- Signs and symptoms can include unusual bleeding and vaginal discharge

Symptoms of Uterine or endometrial tumours may include unusual bleeding or a vaginal discharge

Summary

- There are multiple possible causes of uterine tumours. These include: age, obesity, never having been pregnant and prior hormone treatments.
- Signs and symptoms can include: unusual bleeding and vaginal discharge
- Investigations will usually include radiological imaging +/- a biopsy

Investigations are normally via radiological imaging but may include a biopsy

Summary

- There are multiple possible causes of uterine tumours. These include: age, obesity, never having been pregnant and prior hormone treatments.
- Signs and symptoms can include unusual bleeding and vaginal discharge
- Investigations will usually include radiological imaging +/- a biopsy
- If a tumour is diagnosed it may be invasive, in situ or of unknown or uncertain behaviour. While all invasive tumours must be recorded, in situ tumours and tumours of uncertain or unknown behaviour do not need to be recorded on a cancer data management system for the purposes of COSD - NDRS obtains these records directly from pathology laboratories

If a tumour is diagnosed, it may or may not be invasive. All invasive tumours must be recorded in your cancer data management system and while the clinical team might request that in situ tumours and tumours of unknown or uncertain behaviour are recorded, these do not need to be recorded for the purposes of COSD – NDRS obtains these records directly from the pathology labs

Summary

- Additional guidance on recording COSD data including morphology, topography, staging and recording a diagnosis can be found at: <https://digital.nhs.uk/ndrs/data/cancer-data-training-materials>
- Staging data sheets can also be downloaded from the NDRS website for clinical use: <https://digital.nhs.uk/ndrs/data/cancer-data-training-materials/staging-sheets>

Additional training modules as well as Staging sheets for clinical use may be downloaded from the NDRS website.

Summary

- If in any doubt as to whether you should be recording a diagnosis, please refer to the latest COSD User Guide, Appendix A & Appendix B
- For guidance on the required staging system, please refer to the latest COSD User Guide, Appendix E
- <https://digital.nhs.uk/ndrs/data/data-sets/cosd#downloads>

Do please remember, guidance **is** available on our website. You can download the COSD User Guide by clicking on this link and selecting the COSD version appropriate to your trust.

Acknowledgements

Many thanks to Cancer Research UK for the use of their images within this training module



We'd like to thank Cancer Research UK for the use of their images within this training module.

Questions?

East Midlands: **Simon Cairnes** – simon.cairnes@nhs.net

Eastern: **Marianne Mollett** – marianne.mollett@nhs.net

London & South East: **Katrina Sung** – katrina.sung@nhs.net

London & South East: **Karen Graham** – karen.graham36@nhs.net

North West: **Paul Stacey** – p.stacey@nhs.net

Northern & Yorkshire: **Rachael Mann** – rachaelmann@nhs.net

Oxford: **Gemma Feeney** – gemma.feeney@nhs.net

South West: **James Withers** – james.withers@nhs.net

West Midlands: **Gemma Feeney** – gemma.feeney@nhs.net

If you have any questions on the information contained within this module or about COSD in general, do please feel free to email your regional Data Liaison Manager