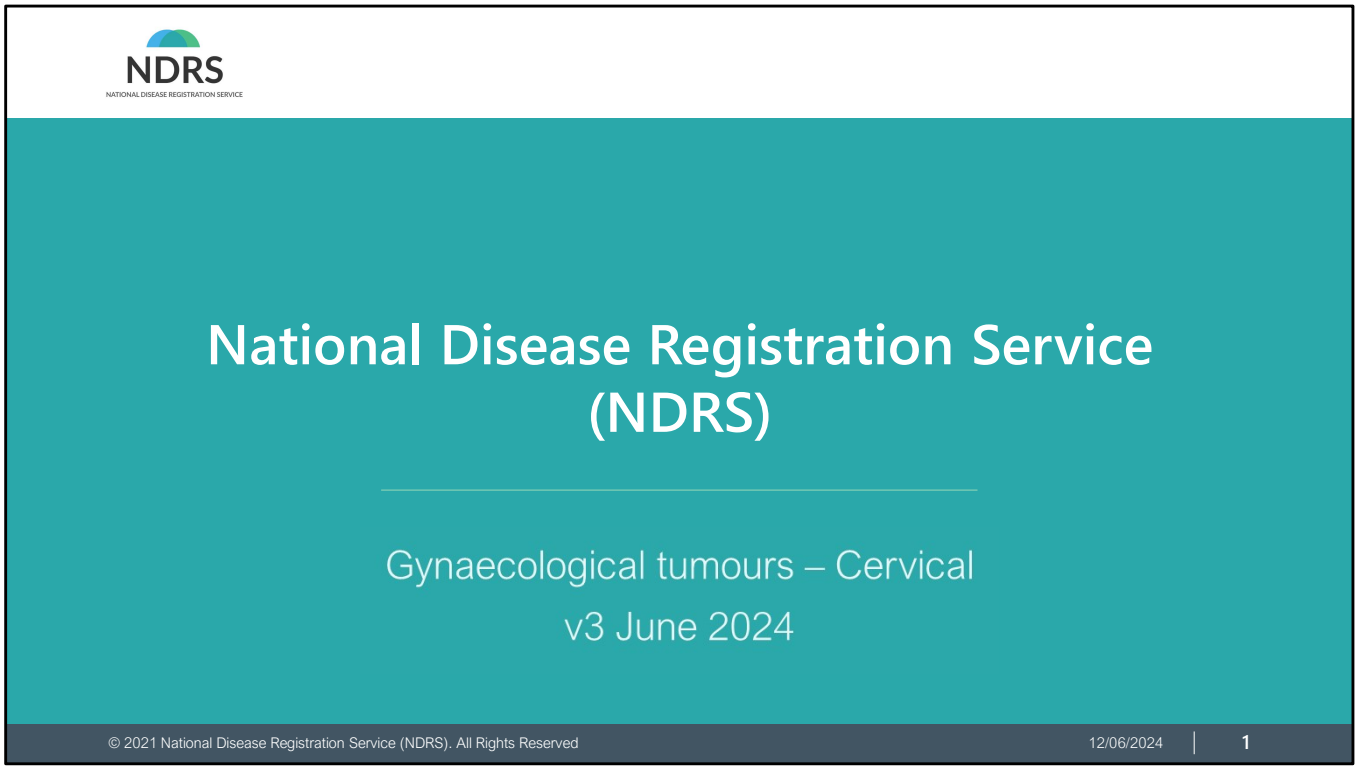


Welcome to this NDRS training module on Gynaecological Tumours - Cervical. This module is designed to help Cancer Administration staff gain a better understanding of these tumours and the terminology used by the clinical teams.

Agenda

- Introduction
- Cervical 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 with a cervical tumour might experience. We'll look at the anatomy & physiology of the female reproductive system and will then go through the diagnosis & treatment. Remember, this module can be paused at any time.

Introduction

In this section we will cover:

- Types of Gynaecological tumour

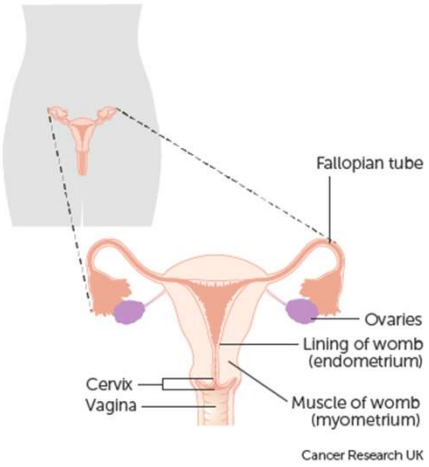
Firstly, we'll look at the various types of Gynaecological tumour…

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 Cervix



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 Cervical tumours

Cervical 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 cervical tumours…

Cervical – Causes & Risk Factors

- Age – more common in women under 45
- Human papilloma virus (HPV) – certain strains
- Human immunodeficiency virus (HIV)
- Sexually transmitted infections (STIs)
- Smoking
- The contraceptive pill
- Number of children and when
- Family history
- Previous cancer

Cervical tumours are more common in women under the age of 45. Other risk factors include particular strains of the Human Papilloma Virus, smoking and the use of hormonal contraceptives

Cervical – Signs & Symptoms

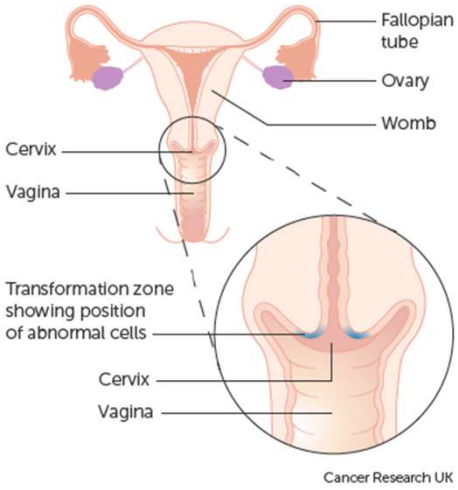
Most common symptoms:

- Bleeding in between a period
- Bleeding and pain after sex
- Bleeding after the menopause
- Pain after sex

Some early cervical tumours are asymptomatic but for those that do display symptoms, the most common include: bleeding between periods, pain during or after sex and post-menopausal bleeding

Cervical – Anatomy & Physiology

- The cervix is at the base of the cervical canal, beneath the uterus, and forms the opening which leads into the upper part of the vagina
- The area at the base of the cervical canal is called the endocervix
- The area below this, on the cusp of the cervical opening and the outer part of the cervix is known as the 'transformation zone'; malignancy is most likely to occur in this region
- The area on the protruding part of the cervix at the top of the vagina, is called the ectocervix (or exocervix)

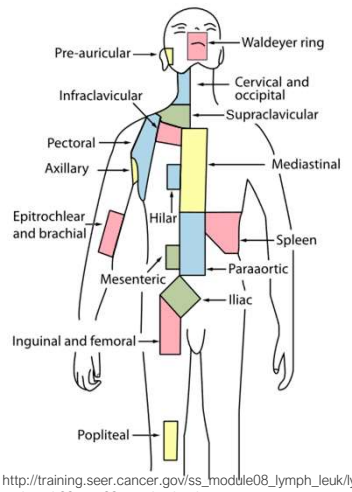


The cervix is the opening between the cervical canal - which lies at the base of the uterus - and the vagina. Malignancy is most common on the very edge of this opening, which is known as the transformation zone

Cervical – Regional Lymph Nodes

The regional lymph nodes for the Cervix are:

- Paracervical nodes (near the cervix)
- Parametrial nodes (in the tissue around the uterus)
- Hypogastric nodes - obturator (in the groin) and internal iliac nodes
- Common and external iliac nodes
- Presacral nodes (in front of the base of the spine)
- Lateral sacral nodes (also at the base of the spine)
- Para-aortic nodes (located near the aorta, the main artery in the body)



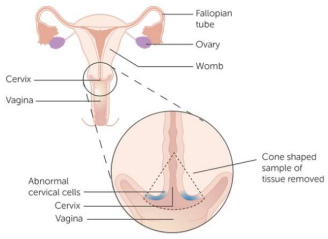
http://training.seer.cancer.gov/ss_module08_lymph_leuk/lymph_unit02_sec02_reg_lns.html

During an MDT, clinicians may mention specific groups of regional lymph nodes as either displaying or not displaying lymphadenopathy – which means enlarged lymph nodes. If these groups of lymph nodes are mentioned, it may indicate that the clinical team have determined the stage of the cancer. Regional lymph nodes for cervical tumours include the paracervical, iliac and para-aortic nodes.

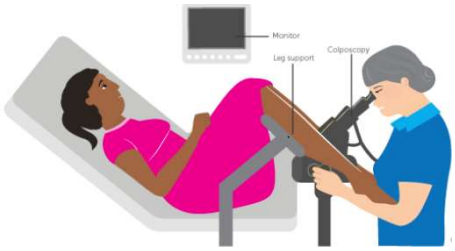
Cervical - Diagnosis

Patients can be diagnosed by one or more of the following methods:

- Internal pelvic examination (further diagnostics required)
- Cervical screening for HPV +/- smear test (further diagnostics required)
- Colposcopy +/- biopsy
- Large loop excision of the transformation zone (LLETZ)
- Cone biopsy



Colposcopy procedure



Diagnostic methods might include a screening examination, colposcopy or a LLETZ procedure

Cervical - Diagnosis

Cervical Screening

Over 3 million women were screened in the UK (2015 - 2016)

The test is offered to women in the age group 24½-64 who will receive an automatic invitation to attend their GP practice

After their first cervical screen women will receive an invitation every:

- 3 years between the ages 24½-49
- 5 years between the ages 50-64

An invitation will also be sent to women aged 65 and over if a woman has not had a test since the age of 50 or if there has recently been an abnormal result

Cervical Screening is offered to all women between the ages of 24½ and 64. Women over the age are 65 may be invited if they have not been screened after the age of 50 or if they have recently had an abnormal result.

Cervical - Morphology

CIN (cervical intraepithelial neoplasia)

- CIN is a pre-cancerous condition of abnormal cells within the epithelial layer of the cervix. CIN is graded from 1 to 3 with CIN3 being the most abnormal and is equivalent to in situ carcinoma
- In CIN3 or severe dysplasia the abnormality involves the full thickness of the epithelium and is curable if it is diagnosed and treated

High grade CGIN (cervical glandular intraepithelial neoplasia) is an in-situ adenocarcinoma which is often diagnosed at the same time as CIN3; it has the potential to turn malignant/invasive if it is left undetected

Early stromal invasion (ESI) can be diagnosed at the same time as CIN3 or high grade CGIN; this is an indication that the tumour has become invasive (and as an **invasive** tumour, it would need to be recorded in your cancer data management system as a C code in ICD10). For morphology, unless the pathology report indicates otherwise:

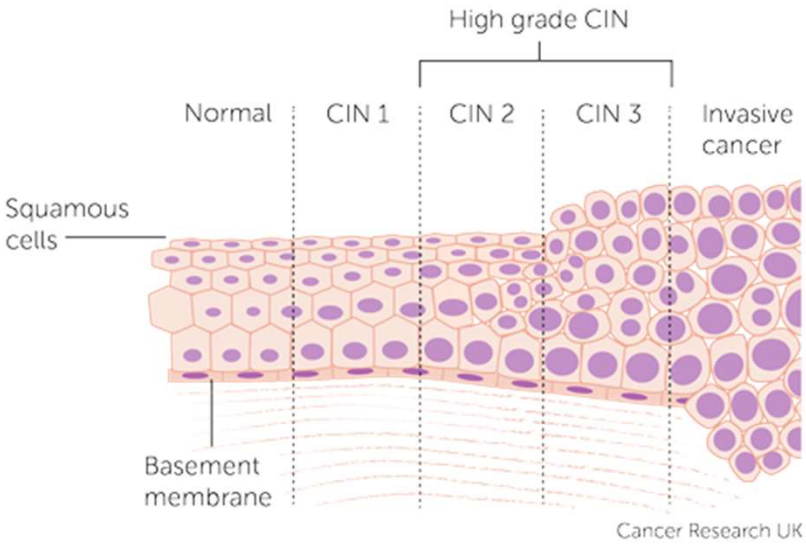
CIN3 with ESI – record morphology as invasive Squamous cell carcinoma - M8070/3

CGIN with ESI – record morphology as invasive Adenocarcinoma - M8140/3

CIN or Cervical Intraepithelial Neoplasia is a precancerous cell abnormality, graded 1 to 3. In CIN3 the abnormality involves the full thickness of the epithelium but is nonetheless curable if treated. High grade CGIN is often diagnosed at the same time as CIN3 and has the potential to become malignant if untreated. Early stromal invasion indicates that a tumour has become invasive.

Cervical - Morphology

Stages of Cervical Intraepithelial Neoplasia (CIN)



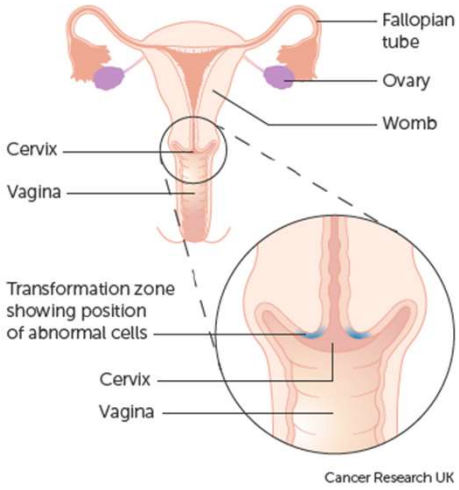
Once cellular abnormality extends below the basement membrane the tumour is deemed to be invasive.

Cervical - Morphology

There are two main types of invasive cervical cancer:

- Squamous cell carcinoma (SCC)- M8070/3
- Adenocarcinoma - M8140/3

Squamous cell carcinoma is the most common type. SCCs mainly occur in the transformation zone



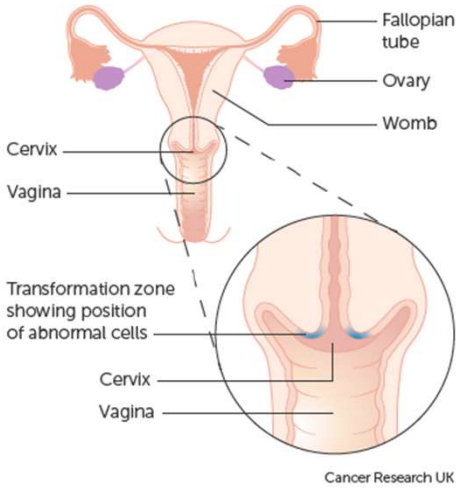
The two main types of invasive cervical cancer are Squamous cell carcinoma (or SCC) and Adenocarcinoma. The most common type, SCCs occur mainly in the transformation zone…

Cervical - Morphology

Adenocarcinoma also arises mainly in the transformation zone. It is less common than squamous cell carcinoma

Less common types are:

- Adenosquamous carcinoma – M8560/3
- Small cell carcinoma, NOS - M8041/3
- Clear cell carcinoma – M8310/3



… as do adenocarcinomas. Less common types of tumour include Adenosquamous, small cell and clear cell carcinomas.

Cervical – Topography - Invasive

Invasive cervical malignancy is classified as

- C53.0 – Endocervix
- C53.1 – Exocervix
- C53.8 – Overlapping lesion of cervix uteri
- C53.9 – Cervix uteri, unspecified

- All invasive cervical cancers must be recorded on your cancer data management system

ICD10 codes for invasive cancers of the cervix are shown here…

Cervical – Topography – In Situ

In-situ cervical tumours are classified as

- D06.0 – Endocervix
- D06.1 – Exocervix
- D06.7 – Overlapping lesion of cervix uteri
- D06.9 – Cervix uteri, unspecified

The ICD10 code D06 includes CIN III with or without mention of severe dysplasia. It should be noted that while your clinical team may request that D06 in-situ cervical tumours are recorded, these do not currently require a COSD submission from your cancer data management system

… and ICD10 codes for in-situ tumours are shown here. D06 includes CINiii with or without mention of severe dysplasia.

Cervical – Topography – Unknown or Uncertain Behaviour

Cervical tumours of unknown or uncertain behaviour are classified as:

- D39.9 – Female genital organ, unspecified

It should be noted that while your clinical team may request that D39.9 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 D39.9 … 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 these records directly from pathology labs

Cervical - Grade

Invasive tumour grade is reported as:

- Well differentiated — Grade 1
- Moderately differentiated — Grade 2
- Poorly differentiated — Grade 3

Grading of invasive cervical tumours is based on the level of cell differentiation within the tumour.

Cervical - Stage

- Cervical cancer is staged using FIGO staging system which can be based on clinical examination +/- pathological findings
- Please refer to the NDRS Training Module: FIGO Staging for Gynaecology

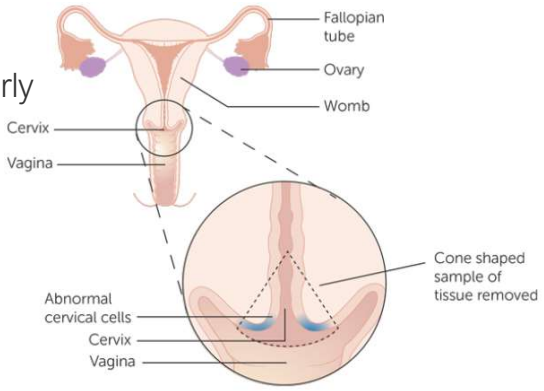
Cervical tumours are staged using the FIGO staging system. A link to detailed guidance on recording the FIGO stage is included in the summary

Cervical - Treatment

For in-situ and some very early invasive cervical cancers a small operation to remove the tumour cells is the only treatment that is required.

The most common procedures for in situ and early invasive cancers are:

- Large Loop Excision of Transformation Zone (LLETZ)
- Cone biopsy (pictured)



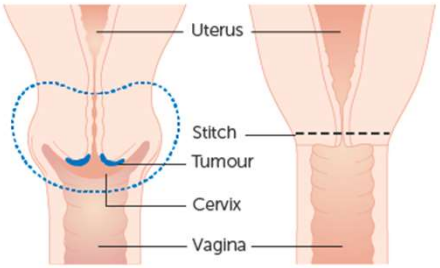
In situ and some very early stage cancers can be treated with a relatively simple surgical procedure. Usually, this would be either a LLETZ or a cone biopsy.

Cervical – Treatment - Surgery

Surgery

For some stage 1 invasive cervical cancers it may be possible to remove the cancer entirely by a procedure called a radical trachelectomy. This treatment is more extensive than a cone biopsy but retains the uterus and enough cervical tissue that may allow the patient to become pregnant and have a baby afterwards

A radical trachelectomy removes part of the cervix and the upper part of the vagina. This may only be offered for small stage 1 tumours where the patient wishes to maintain fertility



Cancer Research UK

Some patients with a small stage 1 tumour might be offered a radical trachelectomy. This surgery removes part of the cervix and the upper part of the vagina but may still allow the patient to have children later.

Cervical – Treatment - Surgery

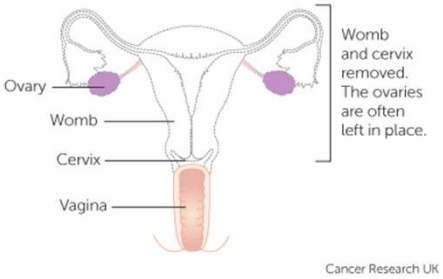
Surgery

For larger cervical tumours, the usual surgery offered is called a radical hysterectomy

- During a radical hysterectomy, the surgeon will remove the womb/uterus, cervix, top of the vagina, surrounding tissues and pelvic lymph nodes

Some patients with very early cancer may have a simple hysterectomy which removes the uterus and cervix only

In pre-menopausal women the ovaries are left in place but usually removed if post-menopausal



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Larger Cervical tumours may require a hysterectomy which might be simple or radical, depending on the stage of the tumour. Removal of the ovaries is normally decided according the menopausal status of the patient.

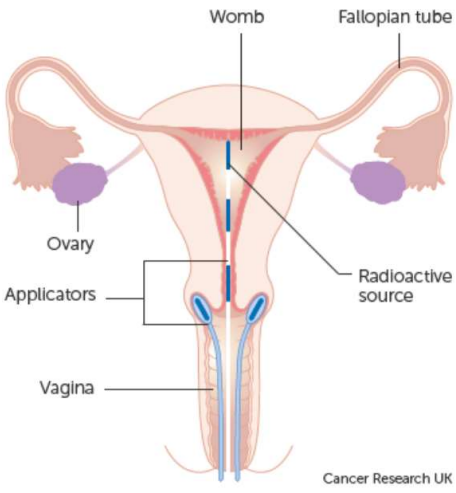
Cervical – Treatment - Radiotherapy

Radiotherapy is sometimes used in the treatment of cervical cancer:

- Adjuvant radiotherapy
- Recurrence

It can be delivered in different ways:

- Brachytherapy delivered directly into the vagina via an applicator. A high dose is given to the top of the vagina, but only a low dose to surrounding tissues
- External beam is used to treat early cervical cancer



Radiotherapy is normally used either as an adjuvant treatment or in the treatment of recurrent cervical cancer. The radiotherapy may be delivered as Brachytherapy – where the radioactive source is placed within the body – or as External beam radiation.

Cervical – Treatment - Chemotherapy

Chemoradiotherapy is a combination of chemotherapy and radiotherapy treatments administered at the same time

- This type of therapy is usually given if the cervical cancer is stage 1B2, up to stage 4A
- Brachytherapy is normally given after a course of chemoradiotherapy
- Chemoradiotherapy may also be given as an adjuvant treatment if tumour cells are found in the regional lymph nodes

Chemotherapy on its own can be given for advanced and recurrent cervical cancer

Chemoradiotherapy uses a combination of chemotherapy and external beam radiation treatment. Brachytherapy may then be administered after a course of chemoradiotherapy. Chemotherapy alone may be given for advanced or recurrent cases.

Summary

To summarise…

Summary

- There are multiple possible risk factors for cervical tumours. These include: age, genetic risk, some HPV strains (a known cause), previous cancers and prior hormone treatments

Risk factors for cervical tumours include the patient's age and their genetic risk. Some variants of the human papilloma virus are known to cause cervical cancer

Summary

- There are multiple possible risk factors for cervical tumours. These include: age, genetic risk, some HPV strains (a known cause), previous cancers and prior hormone treatments
- Some cervical tumours show no symptoms. Those that do may cause: bleeding between periods, painful sex or post menopausal bleeding

While some cervical tumours are asymptomatic, some cause unusual bleeding or painful sex

Summary

- There are multiple possible risk factors for cervical tumours. These include: age, genetic risk, some HPV strains (a known cause), previous cancers and prior hormone treatments
- Some cervical tumours show no symptoms. Those that do may cause: bleeding between periods, painful sex or post menopausal bleeding
- Investigations may include a simple examination of the cervix, biopsy of the cells or excision in a surgical procedure such as a LLETZ or cone biopsy

Investigations may require a smear test or potentially a LLETZ or cone biopsy

Summary

- There are multiple possible risk factors for cervical tumours. These include: age, genetic risk, some HPV strains (a known cause), previous cancers and prior hormone treatments
- Some cervical tumours show no symptoms. Those that do may cause: bleeding between periods, painful sex or post menopausal bleeding
- Investigations may include a simple examination of the cervix, biopsy of the cells or excision in a surgical procedure such as a LLETZ or cone 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, gynaecological 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

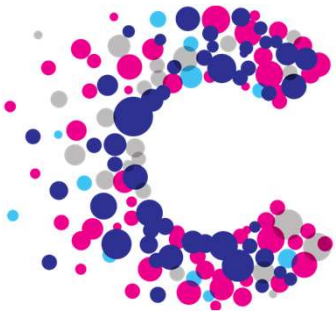
- If in any doubt as to whether you should be recording a diagnosis, please refer to the latest COSD User Guide, Appendices A, B & C
- For guidance on the required staging system, please refer to the latest COSD User Guide, Appendix E

- 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



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

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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