Gynaecological cancer
Guidance for nursing staff
Acknowledgements


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This publication is due for review in August 2017. To provide feedback on its contents or on your experience of using the publication, please email publications.feedback@rcn.org.uk
Gynaecological cancer

Guidance for nursing staff

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Background

This guidance publication provides information on cancer of the:
- cervix
- endometrium
- ovary
- vulva.

*Gynaecological cancer: information and guidance for nurses* was first published by the RCN in March 1999. In 2000 the NHS Cancer Plan was published. This represented government strategy for investment and reform in the NHS aimed at reducing the death rate and improving quality of life for patients with cancer.

In 2011, a further document was published by the Government in England updating the NHS Cancer Plan. *Improving Outcomes: A Strategy for Cancer* (DH, 2011) outlines the quality of life issues which many cancer survivors have. This document is used in both England and Northern Ireland.


In Wales, *Together for Health, Cancer Delivery Plan for the NHS to 2016* (Welsh Government, 2012) sets out the expectations of NHS Wales in tackling cancer up to 2016, with the patient as the main focus.

The aforementioned Clinical Outcomes Guidance series sets out recommendations in relation to site-specific cancers which include gynaecological cancer.

The National Institute for Health and Care Excellence (NICE) and the National Cancer Research Institute and Network (NCRI and NCRN) have all been working to improve and standardise patient care and cancer research.

Since the implementation of these documents, it has been a dynamic time in gynaecological cancer nursing and a sharp increase has been seen in the number of specialist nurses and nurse practitioners in the field. Nurses have been taking on extended roles like colposcopy, hysteroscopy and symptom control in specialist environments.

Gynaecological cancers account for 12 per cent of female cancers in the UK (Cancer Research UK, 2013) and multidisciplinary teamworking and specialist referral has improved the management of women with gynaecological cancer.
Cancer of the cervix

**Incidence**
In the UK 2,851 women were diagnosed as having cervical cancer in 2010, with 936 deaths. This accounts for just 0.9 per cent of new cancer cases (Cancer Research UK, 2013). The incidence of and mortality from cancer of the cervix is falling, due largely, it is thought, to the cervical cancer screening programme.

**Anatomy**
The cervix forms the lower part of the uterus and lies partly in the upper vagina and partly in the retroperitoneal space, behind the bladder and in front of the rectum. The squamous epithelium that lines the vagina and outer part of the cervix meets the columnar epithelium of the uterine cavity at the squamocolumnar junction. With puberty the cervix grows and exposes the thin glandular epithelium of the endocervical canal, which is gradually replaced by squamous epithelium. This part of the cervix is known as the transformation zone and is the site of most cervical cancer.

**Aetiology**
The exact aetiology of cervical cancer, as with many other forms of cancer, remains unknown. Cancer of the cervix can occur in any woman but epidemiological studies have suggested some risk factors. These include:
- **Infective agents** – HPV (human papilloma virus) of various types has been associated with cervical neoplasia, although HPV alone is unlikely to be sufficient to induce the cancer. The exact role of HPV remains unclear. Women with HIV (human immunodeficiency virus) are at greater risk of developing the disease (RCN, 2012).

**Pathology**
Histologically, 80 to 90 per cent of cervical tumours are squamous and 10 to 20 per cent adenocarcinoma. The remainder are made up of other types including adenosquamous, glassy/clear, sarcoma and melanoma.

**Screening**
Most cancer of the cervix appears to go through a pre-malignant phase, called CIN (cervical intraepithelial neoplasia). Dyskariosis, changes in the cells, can be detected by taking a sample of cells from the cervix for cytological examination. This can be done with the use of liquid-based cytology (LBC). Cytology has proved to be an effective form of screening. NICE (2003) has recommended that LBC is used as the primary means of processing samples. Any abnormality in a smear may indicate the presence of CIN which can only be confirmed on histology. CIN is comparatively easy to treat successfully.

The NHS Cervical Screening Programme for England in April 2011 introduced HPV testing into the screening programme. Plans are also being made for the introduction of HPV testing in Northern Ireland, Scotland and Wales.

If a smear test result shows mild abnormalities (called borderline or mild dyskaryosis) an HPV test will be carried out on the smear test taken (BSCCP, 2013). If this HPV test is positive, a referral to a colposcopy clinic is made.

**Spread**
Cervical cancer spreads predominantly by direct invasion of the vagina, parametria, uterus, bladder and rectum. Indirect spread occurs via the lymphatic system to the pelvic then para-aortic nodes. Bloodstream metastasis is less common but sites include liver, lung and bone.

**Signs and symptoms**
Cervical cancer is usually asymptomatic in the early stages. Early symptoms may include post-coital and intermenstrual bleeding and offensive vaginal discharge (Cancer Research UK, 2013). Symptoms of advance disease may include back pain, dysuria, haematuria, rectal bleeding and lower limb lymphoedema.
Staging

The staging of cervical cancer is performed clinically rather than surgically. Staging is based upon physical examination (ideally examination under anaesthetic), chest X-ray, colposcopy, cystoscopy, proctosigmoidoscopy, and IVU or other radiological imaging of the renal tract. More units are also making use of magnetic resonance imaging, lymphangiography and ultrasonography (De Olivera and Mata, 2002).

FIGO (International Federation of Gynecology and Obstetrics) Carcinoma of the Cervix Uteri – staging:

<table>
<thead>
<tr>
<th>FIGO stages</th>
<th>TNM categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary tumour cannot be assessed</td>
<td>TX</td>
</tr>
<tr>
<td>No evidence of primary tumour</td>
<td>T0</td>
</tr>
<tr>
<td>0 Carcinoma in situ (pre-invasive carcinoma)</td>
<td>Tis</td>
</tr>
<tr>
<td>I Cervical carcinoma confined to uterus (extension to corpus should be disregarded)</td>
<td>T1</td>
</tr>
<tr>
<td>Ia Invasive carcinoma diagnosed only by microscopy. All macroscopically visible lesions – even with superficial invasion – are stage IB/T1b</td>
<td>T1a</td>
</tr>
<tr>
<td>Ia1 Stromal invasion no greater than 3.0 mm in depth and 7.0 mm or less in horizontal spread</td>
<td>T1a1</td>
</tr>
<tr>
<td>Ia2 Stromal invasion more than 3.0 mm and not more than 5.0 mm with a horizontal spread 7.0 mm or less a</td>
<td>T1a2</td>
</tr>
<tr>
<td>Ib Clinically visible lesion confined to the cervix or microscopic lesion greater than IA2/T1a2</td>
<td>T1b</td>
</tr>
<tr>
<td>Ib1 Clinically visible lesion 4.0 cm or less in greatest dimension</td>
<td>T1b1</td>
</tr>
<tr>
<td>Ib2 Clinically visible lesion more than 4 cm in greatest dimension</td>
<td>T1b2</td>
</tr>
<tr>
<td>II Tumour invades beyond the uterus but not to pelvic wall or to lower third of the vagina</td>
<td>T2</td>
</tr>
<tr>
<td>IIa Without parametrial invasion</td>
<td>T2a</td>
</tr>
<tr>
<td>IIb With parametrial invasion</td>
<td>T2b</td>
</tr>
<tr>
<td>III Tumour extends to pelvic wall and/or involves lower third of vagina and/or causes hydronephrosis or non-functioning kidney</td>
<td>T3</td>
</tr>
<tr>
<td>IIIa Tumour involves lower third of vagina no extension to pelvic wall</td>
<td>T3a</td>
</tr>
<tr>
<td>IIIb Tumour extends to pelvic wall and/or causes hydronephrosis or non-functioning kidney</td>
<td>T3b</td>
</tr>
<tr>
<td>IVa Tumour invades mucosa of bladder or rectum and/or extends beyond true pelvis b</td>
<td>T4</td>
</tr>
<tr>
<td>IVb Distant metastasis</td>
<td>M1</td>
</tr>
</tbody>
</table>

a Note: The depth of invasion should not be more than 5 mm taken from the base of the epithelium, either surface or glandular, from which it originates. The depth of invasion is defined as the measurement of the tumour from the epithelial-stromal junction of the adjacent most superficial epithelial papilla to the deepest point of invasion. Vascular space involvement.

b Note: Approximate five-year survival rates are: stage Ia: 95 per cent, stage Ib: 80 per cent, stage IIA: 80 per cent, stage III: 65 per cent, stage III: 40 per cent, stage IV: 25 per cent (Cancer Research UK, 2005).

(FIGO, 2000)
Treatments

The definitive treatment for invasive cancer of the cervix involves either surgery, chemoradiotherapy or a combination of both. The choice of treatment will depend on the stage, size and histology of the tumour, and the fitness of the patient. In general, comparable survival rates are seen with both treatment modalities for stage I disease. For details of contemporary treatments see www.bsccep.org.uk

Surgery has advantages over radiotherapy in early disease, particularly for the younger patient. These advantages include shorter treatment time, preservation of ovarian function, higher patient acceptance and reduced sexual morbidity. The standard treatment for stage Ib cancer of the cervix is either a radical hysterectomy or chemoradiation. Both treatments have significant morbidity and result in the loss of fertility. Fertility-sparing surgery such as radical trachelectomy (removal of the cervix and parametrium) can be offered in specialist centres. The surgical procedure for stage Ib is most commonly a radical hysterectomy and pelvic lymphadenectomy (Wertheim’s hysterectomy) (NICE, 2011). The ovaries can be conserved in pre-menopausal women.

Chemoradiotherapy is more commonly the treatment of choice for women with more advanced disease, those with a poor prognostic factor, or those less fit for surgery. There are two main types of radiotherapy; external beam and intracavity treatment. A radical course of external beam radiotherapy usually lasts for four to six weeks, given daily for five days per week. Treatments schedules vary but in general both internal and external beam radiotherapy are used in conjunction to reach a potentially curative dose. Intracavity treatment involves the use of radiation delivered directly into the vaginal cavity.

In 2005 the Cochrane Collaboration reviewed all the research evidence on chemoradiation in the treatment of cervical cancer (available at www.thecochranelibrary.com). Giving radiotherapy and chemotherapy at the same time provides the best chance of curing cervical cancer above stage Ib2. Most side effects are temporary and manageable. Chemotherapy can be used to palliate symptoms or reduce the size of tumour and metastatic deposits prior to surgery or radiotherapy (NICE, 2011).

Nursing considerations

In all phases of the disease and treatment, quality of life can be affected physically, psychologically, socially, sexually and spiritually. Together with the complexities of managing all aspects of quality of life, specific consideration for care planning needs to be given to:

✦ fertility – consider options pre-treatment
✦ vaginal shortening and narrowing – especially with radiotherapy, with radical hysterectomy and trachelectomy
✦ sexuality
✦ potential lymphoedema – preventive advice
✦ pelvic exenteration – is classified as anterior (removal of the bladder, vagina, cervix and uterus), posterior (removal of the rectum, vagina, cervix and uterus) or total exenteration where the bladder and rectum are removed en bloc with the uterus, cervix, vagina and the pelvic floor (BSCCP, 2013). Usually for reoccurrence of disease when surgery, and/or chemo radiation have been used.

Advanced disease

The symptoms of advanced disease need to be managed with consideration given to the woman as a whole within the framework of her family and friends. The most common problems of advancing cervical cancer include:

✦ pain that is difficult to control
✦ vaginal bleeding
✦ vaginal discharge – often offensive
✦ fistula formation/stoma formation
✦ difficulty in passing urine or faeces
✦ renal failure
✦ lymphoedema
✦ difficult to cure
✦ threat to life.
Cancer of the endometrium

Incidence
In the UK, endometrial cancer is now the fourth most common type of cancer in women (Cancer Research, 2013). The number of new cases per year has risen from 5,500 in 2005 (ONS, 2005) to 8,300 in 2013 (ONS, 2013). About five per cent of endometrial cancer is familial, and the inheritance of a pre-disposing gene fault should be suspected in women with early age at onset. It is associated with hereditary non-polyposis colon cancer (HNPC) and it occurs in 40 per cent of female gene carriers compared with a 44 per cent lifetime risk of bowel cancer. Gene carriers of HNPC should report to the doctor any inter-menstrual or post-menstrual bleeding.

Anatomy
The uterus is divided into two parts: the body and the cervix. The walls of the uterus are composed of muscle called the myometrium, and the endometrium is the membrane that lines the body of the uterus. It is shed and renewed cyclically during the reproductive years, under the influence of the hormones oestrogen and progesterone.

Aetiology
Hormonal influence on the lining of the womb appears to be an important factor in the development of endometrial cancer. Risk factors include:
- late menopause
- nulliparity
- obesity
- unopposed oestrogen therapy
- polycystic ovary syndrome.

Pathology
Endometrioid adenocarcinoma is the most common histological form of endometrial cancer. Other types include adenocanthomas, papillary serous, clear cell and mixed mullerian.

Screening
There is no effective screening test available for uterine cancer. The majority of endometrial cancers present with post-menopausal bleeding. The older the woman, the higher the chances that the bleeding is due to a tumour. The most common early presentation is abnormal vaginal bleeding, particularly post-menopausal bleeding (SIGN, 2013). Women over the age of 40 years with abnormal vaginal bleeding should be considered at risk, requiring investigation to exclude malignancy. A significant number of women with atypical hyperplasia will have, or will develop, endometrial cancer.

Other diagnostic tools will include: pelvic examination, blood tests, ultrasound, MRI scan, hysteroscopy and endometrial biopsy.

Spread
Direct spread of endometrial surface occurs before penetrating the muscle layer. The more deeply the tumour invades, the greater the likelihood of lymphatic or, less commonly, vascular involvement. Lymphatic spread to pelvic and para-aortic nodes is common with advancing disease. Metastatic involvement of the ovaries may occur but there may also be a concomitant ovarian tumour.

Signs and symptoms
- Abnormal vaginal bleeding – the majority of women with endometrial cancer are over 50, and 75 per cent of these women will have post-menopausal bleeding. Bleeding can present as intermenstrual, and about a third of younger women with endometrial cancer complain of regular but heavy menses.
- Vaginal discharge.
- Thickened endometrium.
There is often an absence of clinical signs in asymptomatic women, but on examination the uterus may be enlarged and blood may be visible in the vagina. A complete clinical assessment is required, which will include all the tests mentioned under screening.

**Staging**

**FIGO (International Federation of Gynecology and Obstetrics) Carcinoma of the Corpus Uteri – staging**

<table>
<thead>
<tr>
<th>FIGO stages</th>
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</tr>
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<tbody>
<tr>
<td>Primary tumour cannot be assessed</td>
<td>TX</td>
</tr>
<tr>
<td>No evidence of primary tumour</td>
<td>T0</td>
</tr>
<tr>
<td>0 Carcinoma in situ (pre-invasive carcinoma)</td>
<td>Tis</td>
</tr>
<tr>
<td>I Tumour confined to the corpus uteri</td>
<td>T1</td>
</tr>
<tr>
<td>Ia Tumour limited to endometrium</td>
<td>T1a</td>
</tr>
<tr>
<td>Ib Tumour invades up to less than half of myometrium</td>
<td>T1b</td>
</tr>
<tr>
<td>Ic Tumour invades to more than one half of myometrium</td>
<td>T1c</td>
</tr>
<tr>
<td>II Tumour invades cervix but does not extend beyond uterus</td>
<td>T2</td>
</tr>
<tr>
<td>IIa Endocervical glandular involvement only</td>
<td>T2a</td>
</tr>
<tr>
<td>IIb Cervical stromal invasion</td>
<td>T2b</td>
</tr>
<tr>
<td>III Local and/or regional spread as specified in IIIA, B, C</td>
<td>T3 and/or N1</td>
</tr>
<tr>
<td>IIIa Tumour involves serosa and/or adnexa (direct extension or metastasis) and/or cancer cells in ascites or peritoneal washings</td>
<td>T3a</td>
</tr>
<tr>
<td>IIIb Vaginal involvement (direct extension or metastasis)</td>
<td>T3b</td>
</tr>
<tr>
<td>IIIc Metastasis to pelvic and/or para-aortic lymph nodes</td>
<td>N1</td>
</tr>
<tr>
<td>IVa Tumour invades bladder mucosa and/or bowel mucosa&lt;sup&gt;a&lt;/sup&gt;</td>
<td>T4</td>
</tr>
<tr>
<td>IVb Distant metastasis (excluding metastasis to vagina, pelvic serosa, or adnexa, including metastasis to intra-abdominal lymph nodes other than para-aortic and/or inguinal nodes)</td>
<td>M1</td>
</tr>
</tbody>
</table>

<sup>a</sup> Note: The presence of bullous oedema is not sufficient evidence to classify a tumour as T4

Five-year survival rate quoted by the American Cancer Society (2013). These are improving in recent years to I-a 90%, I-b 88%, I-c 75%, II 69%, III-a 58%, III-b 50%, III-c 47%, IV-a 17%, IV-b 15%. The overall survival rate is high because of the predominance of women with stage I disease. Staging reflects tumour volume: the greater the tumour volume, the poorer the prognosis. Many prognostic factors have been identified for endometrial cancer including:

- stage of disease
- depth of the myometrial invasion
- age at diagnosis
- type and size of the tumour.
Treatments

The optimum treatment for endometrial cancer depends upon the extent of invasion of the myometrium. Pelvic lymph node metastases are unlikely if cancer is confined to the endometrium or affects less than one third of the thickness of the wall of the uterus.

With the use of appropriate investigations it is now possible to assess the state of endometrial cancer prior to surgery as mentioned in screening and investigations.

Treatment options

Surgery – the primary treatment for stages I, II and III used to be total abdominal hysterectomy and bilateral salpingo-oophorectomy, whereas now a laparoscopic hysterectomy and lymph node sampling (BSO) is offered in many cancer centres.

Radiotherapy – mainly given as an adjunct to surgery in high risk disease. Radiotherapy may be external beam or internal brachytherapy or a combination of both.

Hormonal manipulation

Nursing considerations

As treatment for endometrial cancer usually involves surgery, the main general gynaecological issues are those of pre- and post-operative care. Specific consideration for care planning needs to be given to:

- pre-existing medical conditions
- wound care, especially those with high body mass index (BMI)
- induced menopause, can be difficult to treat if HRT is contra indicated
- fertility
- sexuality – treatment-related side effects may affect sexual relationships.

All of the above have an effect on the woman’s quality of life.

Many women who have treatment for endometrial cancer require more regular information about their disease and potential after-effects of treatment. The provision of information can help to reduce anxiety and promote satisfaction, compliance with treatment and improved self care.

As there is a risk of women with gynaecological cancers suffering from high levels of depression and anxiety about recurrence, access to a clinical nurse specialist should be offered as part of the management process.

Advanced disease/palliative care

As the disease advances local infiltration and metastasis, together with the effects of treatment, may give rise to specific symptoms for consideration and control. The most common symptoms include:

- pain
- offensive vaginal discharge
- vaginal bleeding – may be heavy
- fistulae formation
- fungation, especially into the vagina.
Cancer of the ovary

Incidence
In the UK approximately 7,000 women are diagnosed with ovarian cancer each year. Ovarian cancer is the fifth most common cancer in women in the UK. Among gynaecological cancers, ovarian cancer ranks as the leading cause of death. An absence of symptoms in the early stages of the disease accounts for the high mortality rate. The risk of ovarian cancer increases with age. Most ovarian cancers occur in women who have gone through the menopause (Cancer Research UK, 2013).

In 2011, NICE released clinical guidelines for the recognition and initial management of ovarian cancer. This guideline focuses on the management of women with suspected ovarian cancer and recommends investigations in primary care prior to referral to secondary care for a woman with a suspected diagnosis of ovarian cancer.

Anatomy
The ovaries are a pair of solid oval-shaped organs about 2-3 cm in diameter located laterally to the uterus. Endocrine stimuli are responsible for altering their shape, size, position and histology.

Aetiology
The exact aetiology of ovarian cancer remains unknown. The genes BRCA1 and BRCA2 when altered or mutated account for approximately 10 per cent of ovarian carcinomas (BJOG, 2013) but risk factors associated with the disease include:
- low parity/nullparity, may be dependant on the length of time a woman has ovulated
- history of breast cancer
- hormonal influence
- late menopause
Protective factors may include:
- pregnancy
- lactation
- combined oral contraceptives.

Histology
The most common histological types of ovarian cancer are serous epithelial tumours. Other types of tumour include sex cord stromal tumours and germ cell tumours, endometroid and clear cell (NICE, 2011).

Screening
To date there is no cost-effective screening programme for ovarian cancer. Research by Jacobs et al. demonstrated increased specificity and sensitivity by using pelvic examination, serum CA 125 and transvaginal ultrasound but not to acceptable levels in women of normal risk. The UK Familian Ovarian Cancer Screening Study (UKFOCSS) looked at the results of annual screening in over 3,500 women aged 35+ between 2002 and 2008. During this period, 26 women developed ovarian or fallopian tube cancers. Prophylactic oophorectomy may offer the best protection against ovarian cancer for those women at high risk. If screening indicates a possible cancer, surgery is required to establish a diagnosis (NICE, 2011).

Spread
Approximately two-thirds of women with ovarian cancer will present with disease beyond the pelvis. Direct spread involves the pelvic peritoneum and other pelvic organs. Other modes of spread involve:
- migration of exfoliated cells within the normal circulation of peritoneal fluid
- lymphatic permeation
- haematogenous spread – usually occurs late, may involve liver, lung, bone and brain.

Signs and symptoms
Enlargement of the abdomen is the most common sign. The woman may experience no symptoms in early disease and non-specific symptoms such as vague abdominal and pelvic discomfort, increasing flatulence, a sense of bloating and gastrointestinal disturbances (NICE, 2011).
Staging

Staging is based upon surgical and pathological findings. For adequate staging the following procedures need to be undertaken: exploratory laparotomy; peritoneal washings; total abdominal hysterectomy; bilateral salpingo-oopherectomy; omentectomy; multiple peritoneal biopsies; and pelvic and para-aortic lymph node sampling. However, for a young woman with stage I ovarian cancer, or with a tumour of low malignant potential, the reproductive organs are preserved if at all possible.

FIGO (International Federation of Gynecology and Obstetrics) Carcinoma of the Ovary – staging

<table>
<thead>
<tr>
<th>FIGO stages</th>
<th>TNM categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary tumour cannot be assessed</td>
<td>TX</td>
</tr>
<tr>
<td>0 No evidence of primary tumour</td>
<td>T0</td>
</tr>
<tr>
<td>I Tumour confined to ovaries</td>
<td>T1</td>
</tr>
<tr>
<td>Ia Tumour limited to one ovary, capsule intact</td>
<td></td>
</tr>
<tr>
<td>No tumour on ovarian surface</td>
<td>T1a</td>
</tr>
<tr>
<td>No malignant cells in the ascites or peritoneal washings</td>
<td></td>
</tr>
<tr>
<td>Ib Tumour limited to both ovaries, capsules intact</td>
<td></td>
</tr>
<tr>
<td>No tumour on ovarian surface</td>
<td>T1b</td>
</tr>
<tr>
<td>No malignant cells in the ascites or peritoneal washings</td>
<td></td>
</tr>
<tr>
<td>Ic Tumour limited to one or both ovaries</td>
<td></td>
</tr>
<tr>
<td>With any of the following</td>
<td>T1c</td>
</tr>
<tr>
<td>Capsule ruptured, tumour on ovarian surface, positive malignant cells in the ascites</td>
<td></td>
</tr>
<tr>
<td>or positive peritoneal washings</td>
<td></td>
</tr>
<tr>
<td>II Tumour involves one or both ovaries with pelvic extension</td>
<td>T2</td>
</tr>
<tr>
<td>IIA Extension and/or implants in uterus and/or tubes</td>
<td></td>
</tr>
<tr>
<td>No malignant cells in the ascites or peritoneal washings</td>
<td>T2a</td>
</tr>
<tr>
<td>IIB Extension to other pelvic organ</td>
<td>T2b</td>
</tr>
<tr>
<td>No malignant cells in the ascites or peritoneal washings</td>
<td></td>
</tr>
<tr>
<td>IIC IIA/b with positive malignant cells in the ascites or positive peritoneal washings</td>
<td>T2c</td>
</tr>
<tr>
<td>III Tumour involves one or both ovaries with microscopically confirmed peritoneal</td>
<td></td>
</tr>
<tr>
<td>T3 and/metastasis outside the pelvis and/or regional lymph nodes metastasis</td>
<td>or N1</td>
</tr>
<tr>
<td>IIIA Microscopic peritoneal metastasis beyond the pelvis</td>
<td>T3a</td>
</tr>
<tr>
<td>IIIB Macroscopic peritoneal metastasis beyond the pelvis 2 cm or less in greatest dimension</td>
<td>T3b</td>
</tr>
<tr>
<td>IIICC Peritoneal metastasis beyond pelvis more than 2 cm in greatest dimension and/or</td>
<td></td>
</tr>
<tr>
<td>T3c and/regional lymph nodes metastasis</td>
<td>or N1</td>
</tr>
<tr>
<td>IV Distant metastasis beyond the peritoneal cavity</td>
<td>M1</td>
</tr>
</tbody>
</table>

Note: Liver capsule metastasis is T3/ Stage III, liver parenchymal metastasis M1/ Stage IV. Pleural effusion must have positive cytology (FIGO, 2000)

The survival rates of ovarian cancer depend upon the tumour type. Epithelial cancer is stage I: 93 per cent, stage II: 70 per cent, stage III: 37 per cent, stage IV: 25 per cent.
Treatments

**Surgery:** surgery is still the cornerstone of treatment for ovarian cancer. Adequate cytoreduction of the tumour remains the most important prognostic factor (NICE, 2011).

**Second-look surgery:** an exploratory second-look laparotomy has been performed on those women who have achieved a complete clinical response after primary therapy. Benefits include evaluating the patient’s response to treatment to decide on any future debulking surgery. However, there is associated morbidity.

**Chemotherapy:** including conventional treatment with chemotherapy agents; intraperitoneal chemotherapy; high dose chemotherapy; neoadjuvant chemotherapy. The NICE recommendation (2011) is that women should be offered the choice of a platinum-based chemotherapy alone as first-line treatment (usually following surgery) or to have a combination of platinum and paclitaxel.

Chemotherapy can be used as second-line treatment when ovarian cancer recurs after initial treatment. A platinum-based chemotherapy may be used second-line and NICE approves the use of paclitaxel (if not used upfront), Pegylated Liposomal Doxorubicin and topotecan. Some women with ovarian cancer may have many courses of chemotherapy in the course of their disease management.

**Hormonal therapy:** a viable treatment option for patients who have failed cytotoxic chemotherapy.

**Radiotherapy:** mainly used for palliation. Or for an isolated nodule or reoccurrence, where further surgery cannot be undertaken.

Nursing considerations

The disease has many manifestations. In all phases quality of life can be affected physically, psychologically, sexually and spiritually. The initial phase involves the consequences of diagnosis, surgery and chemotherapy with the resulting side effects. Specific nursing considerations include:

- possible need for bowel surgery as part of debulking/stoma formation
- association with poor prognosis
- nutritional status
- induced menopause
- sexuality
- fertility.

Advanced disease/palliative care

The four most common complications of advanced disease are ascites, bowel obstruction, pleural effusions and malnutrition (NICE, 2011). Nursing intervention should be focused on relieving symptoms and associated discomforts that are inherent in this disease.

- **Bowel obstruction:** managed medically at first, by resting the bowel. In women who fail to respond to conservative measures, surgical relief of the obstruction can be undertaken. The aim is palliation.

- **Ascities:** if the abdomen is tense and uncomfortable, an attempt should be made to drain the ascities. However, multiple paracenteses deplete protein levels and can lead to loculation.

- **Plural effusion:** needle aspiration can provide relief. With advancing illness, reduce discomfort so as to ease breathlessness.

- **Malnutrition:** anxiety, depression and poorly controlled pain are all potent appetite suppressants. Bowel constriction can lead to loss of appetite and an inability to eat enough food to maintain adequate nutrition. Altered metabolism in malignancy can result in anorexia and cachexia. Ascities can also cause loss of appetite and vomiting.
Cancer of the vulva

Incidence
In the UK less than 1,200 women are diagnosed with a vulval cancer (Cancer Research UK, 2013) with 75 per cent of those women aged 65 years or over.

Anatomy
The vulva consists of the external female genitalia. The vulva includes the mons pubis, labia majora, labia minora, the clitoris and the vestibule. It is covered by squamous epithelium.

Aetiology
Little is known of the aetiology of vulval cancer. There is often a long history of vulval irritation and scratching. Viral factors have been implicated but the significance of viral association remains uncertain.

It has been suggested that vulval cancer exists as two separate diseases. The first type involves humanpapillomavirus (HPV) infection, which leads to VIN (vulval intraepithelial neoplasia) and predisposes the patient to vulval cancer. The second type involves vulval non-neoplastic epithelial disorders (VNED) and advanced age, leading to cellular atypia and cancer.

Most of the vulval cancers appearing in young women arise in a field of VIN. An estimated 80 per cent of untreated women develop invasive disease. Thirty per cent of patients with vulval cancer present at 70 years or older and this rate increases with age, reaching a peak of 20 per 100,000 by age 75 years. This rate equals lifetime risks of acquiring vulval carcinoma and dying as a result of 30 per cent and 10 per cent respectively (NICE, 2011).

Pathology
Histologically, most invasive vulval cancers – 85 per cent – are squamous. Other types of tumour include adenocarcinoma, basal cell carcinoma and melanoma. Paget’s disease of the vulva is associated with a small risk of developing cancer. Further information at: www.cancerresearchuk.org/cancer-help/type/vulval-cancer/about/risks-and-causes-of-vulval-cancer

Screening
There is no effective screening available for vulval cancer and due to the relatively small numbers presenting with the disease, it is unlikely to be screened for in the general population. VIN (vulval intraepithelial neoplasia), a potential precursor to vulval cancer, can be monitored or treated by excision. Follow-up is required because of the multi-focal nature of the disease.

Spread
Cancer of the vulva usually spreads slowly, infiltrating locally before metastasising to groin nodes. Direct spread involves adjacent organs (vagina, urethra, anus). Bloodstream metastasis to lung and bone is late and uncommon.

The tumour invades locally and in the majority of cases metastasises to the superficial and deep inguino-femoral nodes followed sequentially by pelvic nodal spread and systemic disease. Direct spread from the vulva to pelvic lymph nodes is sufficiently uncommon to have little impact on treatment strategies.

Signs and symptoms
Most patients with vulva carcinoma complain of irritation or pruritis and about 57 per cent report a mass or ulcer. Bleeding, discharge, dysuria, dyspareunia, a lesion that will not heal, or vulval pain are more common with advanced disease (www.cancerresearchuk.org).
### Staging

**FIGO (International Federation of Gynecology and Obstetrics) Carcinoma of the vulva – staging**

<table>
<thead>
<tr>
<th>FIGO stages</th>
<th>TNM categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary tumour cannot be assessed</td>
<td>TX</td>
</tr>
<tr>
<td>No evidence of primary tumour</td>
<td>T0</td>
</tr>
<tr>
<td>0 Carcinoma in situ (pre-invasive carcinoma)</td>
<td>Tis</td>
</tr>
<tr>
<td>I Tumour confined to vulva or vulva and perineum, 2 cm or less in greatest dimension</td>
<td>T1</td>
</tr>
<tr>
<td>Ia Tumour confined to vulva or vulva and perineum, 2 cm or less in greatest dimension and with stromal invasion no greater than 1.0 mm*</td>
<td>T1a</td>
</tr>
<tr>
<td>Ib Tumour confined to vulva or vulva and perineum, 2 cm or less in greatest dimension and with stromal invasion greater than 1.0 mm*</td>
<td>T1b</td>
</tr>
<tr>
<td>II Tumour confined to the vulva or vulva and perineum, more than 2 cm in greatest dimension</td>
<td>T2</td>
</tr>
<tr>
<td>III Tumour invades any of the following: lower urethra, vagina, anus and/or unilateral regional node metastasis</td>
<td>T3</td>
</tr>
<tr>
<td>IV Tumour invades any of the following: bladder mucosa, rectal mucosa, upper urethral mucosa; or is fixed to bone and/or bilateral regional node metastases</td>
<td>T4</td>
</tr>
<tr>
<td>IVb Any distant metastasis including pelvic lymph nodes</td>
<td></td>
</tr>
</tbody>
</table>

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

(FIGO, 2000)

The overall five-year survival rate is approximately 75 per cent. For stage I disease the survival rate is around 90 per cent but drops to 50 per cent when metastatic disease is present.
Treatments

The treatment of choice for cancer of the vulva is surgery. Radical surgical management should be carried out in centres with considerable surgical, anaesthetic and nursing experience of the disease. This multidisciplinary approach will result in high feasibility of operations and excellent long-term survivals.

- Patients with stage Ia carcinoma may be treated with wide local excision alone.
- For those with a stage Ib tumour, a radical vulvectomy with bilateral groin node dissection may be performed through separate incisions. Where the tumour is laterally placed and there is no significant pre-invasive skin change a wide local excision of the tumour on the vulva combined with ipsilateral groin node dissection is appropriate. The margins should be as close to 2 cm as possible.
- For later stage disease with carcinomas up to 4 cm in diameter a woman will require a radical vulvectomy and bilateral groin node dissection ensuring the cancer is completely encompassed with a 2 cm wide margin of normal tissue.
- Women with vulval cancers over 4 cm in diameter or where there are clinically involved nodes are quite often not suitable for surgery and are referred for radiotherapy.
- If the cancer extends to the anus or lower rectum an anovulvectomy with colostomy or a posterior exenteration should be considered together with groin and pelvic node dissection.

Radiotherapy: can be given post-operatively in the presence of nodal disease or pre-operatively to reduce the size of the tumour.

Chemotherapy: sometimes used as adjuvant treatment with radiotherapy or in an attempt to control symptoms for palliation.

Nursing considerations

- Wound infection: the most commonly listed complications of radical vulvectomy. Lymphoceles can occur post op and may need to be drained.
- Lymphoedema: advice needs to be given for prevention.
- Body image/sexual morbidity: sensitivity, consideration of partner, the specialist gynaecology oncology team should be able to advise the women on this and can refer to psychosexual counselling.
- Sexual dysfunction: referral for specialist advice, information and treatment.
- Pre-existing medical conditions and general fitness should be taken into account when care planning.

Advanced disease/palliative care

Advanced disease requires careful management, physically, psychologically and socially. Specific problems experienced by women with advanced vulval cancer include:

- fungating vulval or groin wounds
- lymphoedema
- bleeding
- offensive odour
- difficulty in passing urine or faeces
- pain – which may be complex and difficult to control, requiring specialist management.

Tissue viability nurses, Macmillan nurses and palliative care referrals all may be of help.

Further useful information on the care of terminally ill patients can be found at National End of Life Care Programme (www.endoflifecare.nhs.uk).

The National End of Life Care Programme (NEoLCP) worked with health and social services across all sectors in England to improve care for adults and their website is designed to support health and social care staff working in any capacity with people nearing
the end of life. A range of publications, tools and case studies is available on the NEoLCP website (available at www.nhsi.q.nhs.uk). This includes guidance produced in conjunction with the Royal College of Nursing highlighting the key nursing contributions within the six steps of the end of life care pathway *Route to success: the key contribution of nursing to end of life care.*

Cancer care has improved significantly in recent years and continues to be a challenge for health care professionals. The overriding focus on changes in practice has to be the importance of nurses maintaining and enhancing their skills and knowledge in order to provide the best quality care to all woman who may find themselves faced with a diagnosis, that will change their lives.
References


Further reading


Useful websites

The British Society for Colposcopy and Cervical Pathology
www.bsccp.org.uk

Cancer Research UK
www.cancerresearch.org.uk

Cancer Screening Programme
www.cancerscreening.nhs/cervical

The Cochrane Gynaecological Cancer Group (CGCG) is part of the Cochrane Collaboration
www.cochrane-gyncan.org

Jo’s Trust – Jo’s Trust offers cancer support information on a variety of topics
www.jostrust.org.uk

NICE
www.nice.org.uk

Macmillan Cancer Relief
www.macmillan.org.uk

Ovacome – Ovacome is a charitable support trust for ovarian cancer sufferers
www.ovacome.org.uk/about-ovarian-cancer.aspx

VACO – Vulval Awareness Campaign Organisation
www.vaco.co.uk

Women’s Health Concern
www.womens-health-concern.org

WellBeing of Women
www.wellbeingofwomen.org.uk

Office of National Statistics on cancer
www.ons.gov.uk
The RCN represents nurses and nursing, promotes excellence in practice and shapes health policies.

Publication code 004 538