



**Health**

Hunter New England  
Local Health District

# Gynaecological Cancer Treatment Side Effects and Management

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# Gynaecological Cancer

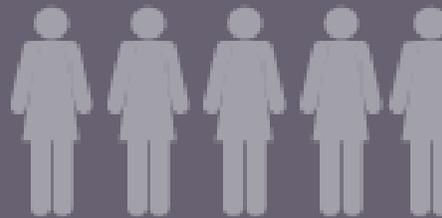


Gynaecological cancers originate in the female reproductive system. The main types of gynaecological cancers are ovarian, uterine, cervical and vulvar. Rarer types are vaginal cancer, fallopian tube cancer and placental cancer (which is pregnancy-related).

Every day  
in Australia

15

women  
are diagnosed with a  
gynaecological  
cancer



4.7 women  
will die from a  
gynaecological  
cancer  
today



57%

of women  
with ovarian  
cancer  
will not  
survive 5 years  
after diagnosis

While survival across all cancers has improved by 19% over the past 25 years, the relative survival for all gynaecological cancers improved by just 7%.

# Gynaecological Cancer



up **22%**

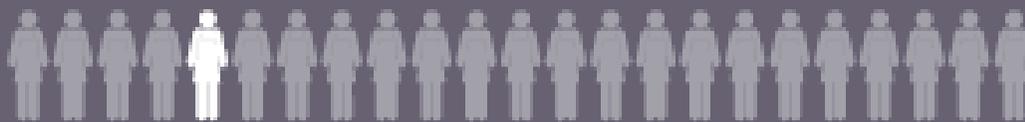
Endometrial cancer incidence has risen **22%** in the last 20 years, partly due to the rise in obesity.

Women who carry a mutation in their BRCA1 or BRCA2 genes have an approximately

 **20%**

greater risk of developing **ovarian cancer** than women with normal BRCA genes.

**1 in 23 women**



risk being diagnosed with a gynaecological cancer by the age of 85

The highest incidence of all gynaecological cancers is found in remote and very remote areas, second only to major cities.

Aboriginal and Torres Strait Islander women are more likely **1.7x** to be diagnosed with gynaecological cancers - particularly uterine and cervical - than non-Indigenous women.

# Treatment of Gynaecological Cancers



- Best undertaken in a specialist Gynaecological Oncology unit by a multidisciplinary team
- Depends on the stage and type of disease, the severity of symptoms and the woman's general health
- Surgery
- Radiotherapy
- Chemotherapy
- Hormonal therapies
- Immunotherapy
- May be as part of a clinical trial

# Side effects of treatment



- Depend on treatment regime
- Acute or late effects
- Physical effects
- Emotional effects
- Severity can be graded using the CTCAE (Common Terminology Criteria for Adverse Events) scale



# Gynaecology Surgery



- Hysterectomy (simple or radical, laparoscopic, vaginal, laparotomy)
- Trachelectomy
- Lymph node dissection or Sentinel Lymph Nodes
- Bilateral Salpingo-Oophorectomy
- Pelvic Exenteration
- Ovarian Debulking
- Frozen Section
- Omentectomy
- Staging
- Stoma formation
- Bowel surgery
- Vulvectomy, WLE, Radical WLE, Flap repair





- Potential complications can include bleeding, infection, damage to other organs or tissues, and reactions to anaesthetic medications
- Swelling and bruising
- Postoperative pain - analgesia
- DVT – thromboprophylaxis
- Constipation – Coloxyl, Movichol
- Difficulty urinating
- Lymphocyst
- Lymphoedema
- Menopausal symptoms if both ovaries are removed

# Lymphoedema



- Not curable, but can be managed
- The aim of management is to reduce and control swelling, improve the range of movement of the affected area and prevent infections
- Skin care and Exercise
- Suggested management options: Surgery, Drug therapy, Compressions pumps, Laser, Hydrotherapy, Alternative therapies
- Gold standard treatment: Complex Physical Therapy (CPT):
- Phase 1 of decongestion: Manual lymphatic drainage; Multi-layer bandaging; Skin Hygiene; Active Exercises
- Phase 2 of optimisation and conservation: Compression garments



# Menopausal symptoms



- Hot flushes/night sweats, vaginal dryness, sexual disturbance, sleep disturbance, mood disturbance
- Cultural differences (Asian women leg cramps)
- Frequent and distressing effect of cancer treatment that impairs QOL
- For hot flushes:
  - Cut out coffee, tea and nicotine
  - Keep room cool – use a fan if necessary
  - Spray face with a cool water atomiser
  - Wear layers of light clothing
  - Have layers of bedclothes to remove as needed
  - Wear natural fibres such as silk or cotton instead of man made fabrics
  - Cut down on alcohol
  - Sip cold or iced drinks
  - Have a lukewarm shower or bath instead of a hot one
  - Put a towel on bed if you sweat a lot at night
  - Try acupuncture

# Management of menopausal symptoms



- HRT 80% ↓ vasomotor symptoms
- Soy isoflavones ↓ hot flushes (2 glasses/day)
- Insufficient evidence for bioidentical hormones and Black Cohosh
- Yoga/acupuncture/Vit E/exercise
- Wt gain makes flushes worse
- Antidepressants have mild effect
- Gabapentin can ↓ flushes
- Hypnosis ↓ flushes
- Duavee- conjugated oestrogen/bazedoxifene ↓ 74% flushes



# Norma



- 78 year old independent lady
  - Widowed for fifteen years
  - 4 adult children and several grandchildren
  - Very active in her community, church, bowls and senior citizen's centre
  - Long standing relationship with Bill from church
  - WLE and bilateral groin node dissection for stage 1 SCC of the vulva
  - At her three month post operative appointment
- 
- **What are the potential concerns for Norma?**





# Maria



- 29 years old
- Not currently in a relationship
- Never had a pap test
- Presents to her GP with intermenstrual bleeding
- Otherwise fit and well
- History of childhood sexual abuse by a family member
- Further investigations reveal 1b1 squamous cell carcinoma of the cervix
- Preferred treatment option for Maria is radical trachelectomy with pelvic lymph node dissection to preserve future fertility
- Pre-op referral to a fertility specialist
- Positive lymph nodes at the time of surgery
- Surgery is discontinued and the treatment plan now is for chemoradiation



- **What are the potential concerns for Maria?**





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# Radiotherapy in Gynaecological Oncology



- 60% Cervical cancer patients
  - 45% Endometrial cancer patients
  - 5% Vulval cancer patients
  - 100% Vaginal cancer patients
  - 5% Ovarian cancer patients
- 
- May be primary treatment or adjuvant surgery
  - Can be given with chemotherapy (chemoradiation)
  - May be external beam (EBRT) - directs a beam of radiation from outside the body at cancerous tissues inside the body; or
  - Brachytherapy - involves placing a radioactive material directly inside or next to the tumour

# Radiotherapy side effects



- Side effects often begin during the second or third week of treatment
- Most can be managed and will gradually disappear once treatment is finished, some may last for several weeks after treatment
- Acute effects are those that occur from day 1, or commencement of radiation therapy, through day 90
- (Subacute – occur 4-12 weeks after completion of RT)
- Late effects are seen after 90 days from the beginning of radiation therapy



# Radiotherapy side effects



- The 2 most common side effects of radiation therapy are:
  - skin problems
  - fatigue
- Particular side effects for radiotherapy to the pelvis include:
  - diarrhoea, urination problems and reproductive/fertility problems

# Severity of side effects



- Depends on:
- Site
- Volume of tissue exposed
- Dose and type of radiotherapy
- Previous surgery
- Chemotherapy
- Underlying illness (IBS increases risk of bowel complications, also obesity, vascular disease, diabetes and HT increases side effects)



# Genitourinary effects



- Acute Radiation Cystitis:
  - Difficulty voiding, Pain, Frequency, Urgency, Nocturia, Bladder Spasm
- Generally resolves 1-2 weeks after RT – may use NSAID's, anti-spasmodics, cranberry juice
  
- Late GU signs and symptoms:
- Usually the result of changes in bladder physiology such as diminished capacity and loss of elasticity
- S & S similar to those in acute phase but may also see incontinence
- High doses can result in ulceration and fistula formation
- Onset of late GU effects is typically 1-3 years after treatment

# Gastrointestinal effects



- Acute Radiation Injury
  - Nausea and vomiting
  - Diarrhoea and Cramping
  - Rectal pain and spasm
  - Feeling to defecate
  - Generally a feeling of being unwell
  - Weight loss
- With standard dose RT approx 50% of patients will have some type of acute injury
- Treatment is largely symptomatic – anti-diarrhoeals, anti-nausea, steroids and other anti-inflammatory agents

# Late GI effects



Late effects can occur in approx 3% of patients

Chronic diarrhoea – may need ongoing antidiarrhoeals but should be referred to gastroenterology

Malabsorption – in Cervical Ca. pt B12 deficiency can occur in 12-20% of patients, also requires specialist management

Bowel obstruction and ileus – best managed conservatively but may require surgical intervention

Ulcerations – signs include pain, feeling to constantly defecate, pain. Average onset 14 months to 3 years. Very uncommon and is reduced now with use of brachytherapy

Rectal pain and bleeding – avoiding constipation and use of aluminium based enemas can protect the rectal lining



# Vaginal effects



- Common in those having RT for cervix and uterus
- Can cause sexual dysfunction and decrease QoL
- Acute Injury includes:
  - Mucositis – varies from redness to superficial ulceration, managed with vulval cleansing and sitz baths
  - Vaginal ulceration necrosis – may be side effect of brachy, healing can take more than 3 mths, conservative management and watch for infection

Late effects include:

- Vaginal Stenosis – most common late side effect and results due to shortening of vaginal length and adhesions; Often occurs 3-6 months after RT; Management include topical oestrogen (if not contraindicated), use of vaginal dilators
- Fistulas – rectovaginal or vesicovaginal; RARE; Conservative management or Exenteration

# Vaginal dilators



# Ovaries



- Radiation to ovaries can lead to early menopause and infertility
- Sensitivity is age dependant but dose given to adults is likely to result in non-functioning ovaries
- In premenopausal women consider laparoscopic transposition of the ovary may be considered – should be at least 3cm from the RT field
- ASCO guidelines – all women who will have fertility impacted need referral to fertility specialist
- Highly emotive topic regardless of previous childbearing
- Strongly linked to self perception of femininity
- Oocyte freezing/embryo freezing/surrogacy



# Bone and Bone Marrow



- Acute effects usually haematological
- Pelvic RT can increase risk of skeletal events such as focal osteopenia
- Pelvic fractures near sacroiliac joints
- Risk of skeletal events occurs with advancing age, pre-existing osteopenia, steroid use, low body weight and larger radiation dose





- Acute includes:
  - Redness and soreness and moist skin peeling usually in areas where there is skin folds; common in vulval cancers.
  - Management includes skin hygiene, water based creams and ointments; sometimes topical local anaesthetics and silver based creams
- Late effects:
  - Persistent hyperpigmentation, telangiectasia and fibrosis; RT fibrosis may respond to Vit E

# Multimodality side effects



- Well documented that acute and chronic radiation adverse events may be exacerbated by the simultaneous administration of some chemotherapy agents with radiation
- Some protocols are developed to take advantage of the radiosensitizing nature of some chemotherapy agents



# Jane



- 58 years old
- Post menopausal lady
- Second husband of six years



- Total abdominal hysterectomy, bilateral salpingo-oophorectomy and pelvic lymph node dissection
- Stage 2 endometrial cancer
- Required high dose rate brachytherapy to reduce her risk of recurrence
- **What are the potential concerns for Jane?**



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# Chemotherapy side effects



- Vary depending on the drugs used
- Number and type of side effects people experience varies
- Most are temporary and can be treated or managed
- Some will occur within hours or days of starting treatment
- Others may not occur for weeks, months or even years
- Important to remember that having chemotherapy can have great benefits
- If few side effects, it doesn't mean that chemotherapy is not working



# Acute effects of chemotherapy



- fatigue
- nausea, vomiting and loss of appetite
- pain or soreness, such as headaches, muscle pain or nerve pain
- sores in the throat or mouth
- changes to the skin, such as itching, redness, dryness and acne
- diarrhoea or constipation (often due to the anti-nausea medication)
- weight gain or weight loss
- hair loss (some drugs cause hair to thin or fall out)
- changes to libido
- changes to concentration and memory ('chemo brain')
- emotional changes (depression and anxiety)
- blood cell disorders, which may result in anaemia, dizziness, shortness of breath and increased risk of infection
- effects on the nervous system, such as tingling, burning or muscle weakness
- menopausal symptoms (temporary or permanent)

# Rare side effects



- The following side effects of chemotherapy are rare but can be quite serious:
  - Infection, neutropenia, leukopenia
  - Bleeding or bruising
  - Kidney or bladder problems
  - Cardiac problems
  - Bone marrow suppression
  - Allergic reactions



# Late effects of chemotherapy



- Late effects may be noticed months or years after treatment
- organ damage, such as damage to the heart, kidneys, liver, lungs or brain
- infertility
- increased risk of other cancers



# Nausea and Vomiting/ Fatigue



- N & V common
- Anticipatory vomiting.
- **What can help with nausea and vomiting?**  
Anti-emetics are usually given at the same time as chemotherapy. Effective treatments are available for anticipatory vomiting, such as relaxation training, eat smaller meals more often rather than larger meals
- Fatigue is a common side effect
- Can last 3–6 months after treatment is over
- Can also be due to anaemia caused by chemotherapy; blood transfusion may be recommended if significant anaemia
- **What can help with fatigue?**  
Organise practical help before starting treatment  
Prioritise activity  
Short rests/naps  
Exercising during and after treatment can help women feel less tired. It can also reduce the chance of weight gain. Exercise has also been shown to help improve sleep, body image and mood. Gentle exercise like walking is ideal.

# Hair loss



- Not all chemotherapy drugs cause hair loss
- More common with chemotherapy regimes that include taxanes and anthracyclines
- Can range from mild thinning of the hair to total hair loss, including body hair
- Can affect how a woman feels about herself and her sexuality
- May be helpful to cut hair short so that it's less upsetting if their hair does fall out
- May wear a scarf, hat or wig to cover the head while the hair grows back
- Use of cold cap/hypothermia cap
- [Look Good Feel Better](#)



# Constipation and Diarrhea



- Constipation can be caused by chemotherapy and some anti-emetic drugs
- Can develop because women are less active or eat less during treatment
- **What can help with diarrhea and constipation?**
- Medication can be used to control symptoms of diarrhoea
- Drink plenty of fluids to replace fluid lost
- Constipation can be treated by drinking more fluids, eating more fruit and vegetables, and using laxatives
- Exercise can also be helpful in reducing constipation



# Weight changes



- Some women lose their appetite during chemotherapy and lose weight
- Other women find that they put on weight during treatment

## **What can help with weight gain/loss?**

- Eating small meals and snacks as often possible throughout the day can help prevent weight loss
- Doing gentle exercise can help prevent weight gain

# Mouth ulcers



- Usually occur about 5–10 days after starting chemotherapy and clear up within 1–2 weeks
- Sometimes chemotherapy can cause other mouth infections in mouth, such as thrush or cold sores
- **What can help with mouth ulcers and infections?**
- Take extra care of the mouth during chemotherapy
- Brush the teeth and gums with a very soft brush after every meal to prevent infection
- Use an analgesic gel from the chemist or sodium bicarbonate mouthwash to help relieve discomfort
- Pain relief such as paracetamol
- Some mouthwashes can make ulcers worse as they contain alcohol
- Antifungals, antivirals for thrush or cold sores

# Skin and nail problems



- Minor skin or nail problems
- Include redness, itching, peeling, dryness or acne
- Nails may become darker, brittle or cracked
- Some chemotherapy drugs can make the skin more sensitive to the sun
- Paint nails black for patients having taxanes
- Avoid being in the sun for long periods, and use sunscreen when outdoors
- A sudden rash, sudden or severe itching, or breathing difficulties could be symptoms of a severe allergic reaction



# Anxiety and depression



- depressed, sad or teary
- anxious, worried, nervous or upset
- Some feelings of sadness, depression and anxiety are normal
  
- **What can help with depression and anxiety?**
- Help is available for women experiencing feelings or emotions that are interfering with things at home, or affecting relationships
- Social work, psychology, psychiatry
- Medication
- Support groups



# Nerve and muscle problems



- common symptoms include tingling, burning or numbness in the hands or feet
- problems with balance or have weak or sore muscles for a few days after chemotherapy
- more common with taxanes
- Dose adjustment if required



# Swelling in limbs



- Swelling or fluid retention may occur
- most common in the feet and ankles due to the effects of gravity
- most common with the use of taxanes
- not the same as lymphoedema and rarely requires any specific treatment
- Symptoms will slowly improve once treatment is over

# Concentration and memory



- feel 'vague' or mildly confused
- have memory problems
- called 'chemo brain' or 'chemo fog'
- Symptoms can last for some months after treatment is over
- Research being undertaken



# Infection



- Chemotherapy reduces the number of white blood cells
- white blood cell count drops usually 1–2 weeks after treatment
- may be at increased risk of developing an infection
- Highest risk for people who have drugs called taxanes at the same time as anthracyclines
- G-CSF may be given after each chemotherapy treatment to lower the risk
- Signs of a severe, life-threatening infection may include:
  - fever (a temperature higher than 38°C); chills; severe sweats
- Other symptoms of infection can be:
  - loose bowels
  - a burning sensation during urination
  - severe cough or sore throat
  - unusual vaginal discharge or itching
  - redness, swelling or tenderness around a wound, sore, pimple, boil, or the site where the chemotherapy drip was inserted
- Infections during chemotherapy can be treated effectively with antibiotics

# Susan



- 37 years old
  - Married with young school aged children
  - Diagnosed two years ago with stage 3 ovarian cancer
  - Had surgery and chemotherapy
  - Husband is very supportive
  - He works long hours in executive position
  - He frequently travels interstate for work
  - Works as a part time teacher
  - In-laws stay regularly to help out
  - Currently undergoing chemotherapy treatment
- 
- **What are the potential concerns for Susan?**





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# Hormonal therapies



- There are 2 main categories of hormone therapy – therapies that stop the production of hormones that cause cancer growth, and therapies that change how these hormones behave
- Hormone therapy can be given to:
  - reduce the level of hormones in the body
  - block the production of hormones
- First-line therapy for recurrent receptor positive endometrial cancer and low grade ESS
- Oral or intra-uterine progestagens in young women with Endo Ca to preserve fertility or obese women with Endo Ca who can't undergo surgery
- Tamoxifen in advanced/recurrent Ovarian Ca (binds with ER and acts as an anti-oestrogen)



# Side effects of Hormone Therapy



- Generally well tolerated
- hot flushes, night sweats
- headaches
- nausea and vomiting
- skin rashes
- increased risk of blood clots and stroke, increased risk of some heart conditions
- changes in mood
- loss of libido
- joint pain
- loss of bone density, loss of strength
- vaginal dryness
- disrupted menstrual cycles, onset of menopause
- breast tenderness
- increased risk of endometrial (uterine) cancers

# Immunotherapy



- Monoclonal antibodies are a type of immunotherapy
- Bevacizumab is a monoclonal antibody that binds to circulating vascular endothelial growth factor (VEGF)
- It is an anti-angiogenesis treatment as it blocks the VEGF protein and stops the cancer from growing blood vessels and is therefore starved and can't grow



# Side effects of Immunotherapy



- fever, chills
- weakness
- dizziness
- headache
- nausea, vomiting
- diarrhoea, constipation
- muscle or joint aches
- changes in weight
- blood pressure changes
- fatigue
- breathing difficulties
- allergic reactions (rarely)
- skin reactions at the site of injection if given intravenously

# Conclusion



- Side effects depend on treatment regime
- Acute or late effects
- Physical effects
- Emotional effects
- Many management options
- Educate, Educate, Educate!!!



# Walk for Women



<https://ovariancanceraustralia-chinachallenge.everydayhero.com/au/anne-mellon>



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