

PATIENT INFORMATION

Pelvic Radiotherapy for Gynaecological Cancers



1. Introduction

The Sydney South Western Local Health District provides Cancer Services for residents of South West Sydney. This includes Surgery, Radiotherapy, Chemotherapy and Palliative Care. Facilities for Radiotherapy and Chemotherapy treatment exist at the Liverpool and Macarthur (Campbelltown) Cancer Therapy Centres. Chemotherapy is also available at Bankstown and Southern Highlands Cancer Centre.

This booklet is designed to provide you with information about Radiotherapy treatment to the pelvis for cancers of the uterus, cervix, vagina and vulva. The information is therefore general and may not specifically apply to your treatment. If you have any concerns please consult your Radiation Oncologist.

2. Rationale for Radiotherapy to the Pelvis

It has been recommended that you consider Radiotherapy as part of the treatment for your cancer.

Radiotherapy following surgery

After your cancer has been removed by your Surgeon, it is examined by a **Pathologist**. The Pathologist looks to see if all of the cancer has been removed and whether your cancer has any features that suggest it may recur. One of these features is spread of cancer to lymph glands in the pelvis. Radiotherapy is recommended after Surgery if your Doctor thinks there is a high risk of the cancer coming back in the pelvis. Radiotherapy reduces the chances of your cancer coming back in the pelvis.

Radiotherapy instead of surgery

Sometimes radiotherapy is recommended instead of surgery. The cancer may be too large to operate on safely or it may occur in an area where surgery is difficult to perform. Alternatively it may be that you are not fit enough to undergo surgery.

Radiotherapy in combination with Chemotherapy

For some cancers, chemotherapy may also be recommended either during radiotherapy or before or after radiotherapy. In this case, you will be seen by a **Medical Oncologist** to see if Chemotherapy is an appropriate treatment for you and to see if you are fit enough to receive the treatment. You may have blood tests and scans in preparation for these treatments. Your medical oncologist will discuss the possible side effects of chemotherapy treatment with you and give you advice on how to reduce these side effects.

3. Radiation Therapy Planning and Treatment

Radiation Therapy to the pelvis generally involves 25 to 30 treatment visits to the hospital over a timeframe of 6-7 weeks. You may also have **brachytherapy** (internal radiation treatment in the cervix or vagina) at the end of the pelvic radiotherapy. There is a separate information sheet about this.

Before treatment starts you will have a separate visit which is for the planning of the treatment. For the planning visit, please bring any x-rays or CT, MRI or PET scans that you have had.

At the treatment planning appointment you will have a **CT scan** of your abdomen and pelvis. **It is important that your bladder is full and your rectum is empty for the CT scan. See Appendix 1 for instructions on how to achieve this.**

The CT scan is usually performed with some contrast (x-ray dye) that is injected into your vein. You may also be asked to drink some contrast before the scan. The contrast allows the organs in your body to be seen more clearly. **If you have an allergy to iodine, contrast dye or seafood then you need to inform us.**

You may also have a **MRI scan** of your pelvis at the planning appointment. Your radiation oncologist will discuss this with you if they recommend it. The MRI scan involves lying on a flat bed which moves into a tunnel. The MRI scanner makes loud noises (such as knocks, bangs and clicks) while it is working. You will be given ear plugs and headphones with music to help reduce the noise of the scan.

You will be given up to 3 small permanent tattoos on the skin in your pelvic area, similar in size to a freckle, used to help position you for treatment each day. Once you have gone home, your treatment is planned on computer by our radiation therapy and physics staff prior to the final plan being checked by your treating doctor. A Radiation Therapist will call you with a date to start treatment. You will be able to drive yourself for treatment and some patients may be able to continue working during treatment.

The actual radiation treatment is given by trained staff called Radiation Therapists. Generally the treatment takes about 15 minutes and you will be in the Cancer Therapy Centre anywhere between 15 and 60 minutes depending on the number of patients waiting. Normally you will wait your turn in the waiting room and then change into a gown when asked by the radiation therapy staff. You will then wait in the waiting area for your treatment machine and will you have a bladder scan to make sure your bladder is full enough for treatment. You will then be taken into the treatment room where you will be asked to lie on the treatment couch. Most of the time in the room will be spent making sure that you are in the correct position for treatment. You will not feel anything during your actual treatment.

Treatment is given daily on weekdays and is not given on weekends or public holidays. The machines are serviced once a fortnight and on these days treatment will not occur. You may be asked to have two radiotherapy treatments in one day to make up for these non-treatment days. If this occurs then the treatments will need to be delivered at least six hours apart that day. The machine staff will inform you of any changes to your treatment schedule.

You will be asked to attend the clinic area once each week to be reviewed by your specialist or their registrar (specialist-in-training). Due to the busy nature of the clinics it may not always be possible to see the specialist on each occasion but on those days alternative arrangements will be made.

An appointment will also be made for you to see the Cancer Therapy Centre Dietician within the first two weeks of starting treatment. The Dietician will be able to advise you on how to reduce some of the side effects of treatment by modifying your diet. You can also make an appointment to see the Dietician at any time by asking at the front reception desk or contacting the Care Coordinator.

4. Side Effects of Radiotherapy

Radiotherapy works by killing cancer cells using high energy x-rays. The normal cells in the area being treated are also affected. This causes side effects. However, normal tissue cells have a greater capacity to recover from the radiation compared to cancer cells. The gap between each day of treatment allows the normal cells to recover. The following is a list of possible side effects that may be experienced.

It is very important that you **STOP SMOKING** during treatment. Smoking during radiotherapy to the pelvis increases the chance of side effects from treatment and if these are bad then occasionally treatment has to be stopped. Continued smoking can also reduce the chances of being cured of your cancer.

Early Side effects

These side effects occur during radiotherapy and usually resolve in the weeks following the end of treatment.

Tiredness

This is a common side effect although the amount of tiredness varies from person to person. You may feel more tired at the end of the day compared to normal.

Nausea

You may experience nausea and vomiting during treatment. Medication can be given to relieve this if this occurs. These include **Metochlopramide (Pramin or Maxolon)**, **Prochlorperazine (Stemetil)** and **Ondansetron (Zofran)**. Speak to your doctor if you are feeling nauseous. The Dietician can also give you advice on how to manage your nausea.

Diarrhoea

Patients commonly suffer from loose bowels during treatment. You might need to open your bowels often during the day although the bowel motions might be small. You might also need to go to the toilet quickly at times (urgency). If you have haemorrhoids, these sometimes start bleeding during treatment. A low fibre diet is advised during treatment to help with these symptoms. You should also reduce or stop any Benefibre you may be taking to empty your bowels (See Appendix 1). The Dietician will give you advice on a modified fibre diet to try and reduce this side-effect. Medications such as **Imodium** or **Lomotil** can help treat the diarrhoea.

Urinary symptoms

Patients commonly need to pass urine more frequently during treatment. You may also feel a burning sensation when you pass urine. **Ural sachets** can help reduce the burning sensation. These can be bought at a chemist without a prescription. Drinking cranberry juice may also help with these symptoms.

Temporary loss of hair

You may notice some hair loss in the pubic region. The hair on your head will not be affected.

Skin redness and peeling

Some patients get some redness or darkening of the skin in the groin and pubic region. Occasionally the skin in this area may also peel like sunburn. Try to avoid using any soap in this area as this can worsen the skin reaction. The skin will heal in the weeks following radiotherapy. Your skin may also feel itchy during treatment. Salt water baths are helpful in relieving itch. Creams such as **Sorbolene** and **Solugel** may also help relieve skin symptoms. Speak to your Radiation Oncologist about this if these symptoms are troubling you. It is important not to use perfumed soaps, powders, deodorants or perfumes in the area being treated as this could make any skin side effects worse.

Long Term Side effects

The radiation has to travel through some of your normal tissues to get to the area that is being treated. These tissues are damaged by the radiation but usually recover. However sometimes radiation can cause permanent changes in your body. You may not have any symptoms from this. Occasionally these changes can cause side effects months to years after radiotherapy. Your radiotherapy is planned in a way to reduce the chance of any long term side effects.

Bowel obstruction

Radiotherapy can cause scar tissue to form inside your pelvis and this sometimes interferes with the movement of your bowel contents and results in a blockage in your bowels. The risk of this happening is 1-2% with radiotherapy alone and 4-5% if you have had surgery as well. You may have nausea, vomiting or swelling of your abdomen. If any of these symptoms occur you must see your doctor or come to the Emergency Department. This can be treated by resting your gut (not allowing you to eat) and giving you fluids with a drip. Sometimes an operation is necessary.

Altered Bowel Habit

A few patients (5-10%) may notice that their bowel habits do not completely return to normal after radiotherapy. Usually this is managed with a modified fibre diet and medications (**Imodium**, **Lomotil**) as needed. Taking probiotics may also help. Patients are also more prone to bleeding from their bowel after radiotherapy. If this happens you may need to see a specialist who can perform a Colonoscopy to look inside your bowel.

Altered Bladder Habit

A few patients (5-10%) may continue to pass urine frequently after treatment. Patients are also more prone to bleeding from their bladder after radiotherapy. If this happens you may need to see a specialist who can perform a Cystoscopy to look inside your bladder.

Swelling of the legs

Radiation therapy can cause swelling of your legs. This is more likely to occur if you have had surgery as well. You may need a referral to a physiotherapist for this.

Bone changes

Radiotherapy can make the bones brittle in the area of treatment (pelvis and hips) which can result in a fracture many months to years after radiotherapy. This is more likely if you have osteoporosis. It is important to maintain healthy bones with adequate intake of calcium and vitamin D and to do weight bearing exercise such as walking.

Vaginal symptoms

The vagina will become dryer from radiotherapy and will be smaller as a result of both radiotherapy and surgery. You may need to use water based lubricants such as **KY jelly, Lubafax, Sylk, Wet Stuff, and Glide**. These can be bought from your chemist or supermarket. Your doctor may also prescribe **Vagifem** pessaries to help.

Sexual Function

Both surgery and radiotherapy to the pelvis can affect your sex life. It may be painful to have sex because your vagina is smaller and dryer. A lot of lubrication may be needed for sexual intercourse. You may find that your sexual desire is not the same as before treatment. Speak to your doctor if you are having problems. Referral to a psychologist or sexual health counsellor may help in improving your sexual function.

Menopause

If you still have your ovaries in your pelvis, radiotherapy to the pelvis will stop them from functioning. Your periods will stop sometime after radiotherapy has commenced and you will become menopausal. This may cause symptoms such as hot flushes, dry vagina, mood swings etc. Speak to your doctor if this occurs as treatments are available.

Sometimes the ovaries are moved from the pelvis higher up in your abdomen by the surgeon before the start of radiotherapy. In this case, pelvic radiotherapy is unlikely to stop your ovaries from functioning.

Fertility

Radiotherapy to the pelvis will make you infertile.

Second malignancy (development of another cancer)

Radiation exposure can cause cancer. The risk is extremely small (less than 1 in 1000 patients) and would usually take more than 10-15 years to develop. The chances of your cancer recurring without radiotherapy are higher than the risk of developing a cancer from radiotherapy.

Pregnancy (if applicable)

It is very important that you do not become pregnant whilst you receive radiotherapy. Radiation will cause damage to a developing foetus. You must tell your radiation oncologist before you receive radiotherapy if you are pregnant or may be pregnant.

5. Follow-up after treatment

The purpose of follow-up after gynaecological cancer treatment is to

1. Recognise and treat any side effects from treatment
2. Provide support to you and your family
3. Diagnose and treat any cancer recurrence

The follow-up is usually performed by your Gynaecological Oncologist alternating with your Radiation Oncologist. Usually you will see a specialist every 3 months for the first 2 years following treatment and then every 6 months for the next 3 years.

6. Helpful Sources of Further Information

You may find the need for further information. Cancer Council Resource books & other information are available at the Cancer Council Resource Centre in the reception areas of Liverpool and Macarthur Cancer Therapy Centres. The Support & Information pack you will receive as a new patient contains helpful information for you to keep.

Books that may be helpful

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| • Understanding Radiotherapy | NSW Cancer Council |
| • Understanding Chemotherapy | NSW Cancer Council |
| • Understanding Cervical Cancer | NSW Cancer Council |
| • Understanding Uterine Cancer | NSW Cancer Council |
| • Understanding Vaginal Cancer | NSW Cancer Council |
| • Understanding Vulval Cancer | NSW Cancer Council |
| • Sexuality for women with cancer | NSW Cancer Council |
| • Food and Cancer | NSW Cancer Council |

Websites and Organizations that may be helpful

NSW Cancer Council

www.cancercouncil.com.au

NSW Cancer Institute – Treatment protocols and patient information

www.eviq.org.au/

NSW Health Gynae Oncology Network

www.aci.health.nsw.gov.au/networks/gynaecological-oncology/about

National Centre for Gynaecological Cancers

www.canceraustralia.gov.au/affected-cancer/cancer-types/gynaecological-cancers

US National Cancer Institute

www.cancer.gov

Gynaecological cancer psychosocial support

www.gynaecancersupport.org.au

UK cancer information site

www.macmillan.org.uk/Home.aspx

American—Gynaecological cancers information

www.eyesontheprize.org

APPENDIX 1

BLADDER AND BOWEL PREPARATION

In order to help us plan and deliver your radiotherapy treatment as accurately as possible, please follow the instructions below carefully. By following these instructions you will improve the accuracy of the radiation treatment, and reduce the potential side effects.

BOWEL PREPARATION

If the size of your rectum changes during treatment due to being full of gas or faeces, it can cause the tissues in the pelvis to change position. This could mean that a greater amount of the rectum receives radiation, which increases the risk of side effects, and could also lead to inaccuracy in radiotherapy treatment.

The instructions below aim to have the rectum the same size each day during treatment as it was at the planning appointment.

Three days before your planning CT scan begin taking Benefiber twice daily as per directions on the bottle. The aim is for the rectum to be consistently empty prior to the planning CT scan and for each day of your treatment. If your bowels become loose (or you develop diarrhoea), you can reduce/ stop the amount of Benefiber you take, provided you are still opening your bowels regularly each day.

Reduce your intake of gas-producing foods from one week prior to your CT appointment and until the end of treatment.

Gas producing foods include

- legumes (such as baked beans, kidney beans, 4 bean mix),
- cabbage,
- brussel sprouts,
- broccoli,
- cauliflower,
- onion,
- garlic,
- carbonated drinks,
- beer,
- eggs,
- some spicy foods such as curries.

Other tips to minimise gas formation include:

- Eat more slowly and chew thoroughly
- Sip rather than gulp fluids and drink without a straw
- Avoid eating and drinking at the same time, as this frequently encourages swallowing of excess air.
- Avoid chewing gum.
- Don't talk whilst eating.
- Increase gentle physical activity such as walking.



BLADDER PREPARATION

- 1. 1 hour before your appointment time please empty your bladder and open your bowels.** It is important to at least open your bowels once per day, and it is preferable if your bowels are opened at least 1 hour before the initial planning scan, and before radiotherapy treatment each day.
- 2. After emptying your bladder and bowel, drink 500mL of water within 10 minutes.** (It is best to use a drink bottle that fills up to around 500 mL).
- 3. Please avoid emptying your bladder following your drink until after the planning or treatment is completed.**
 - A bladder scanner will be used before your treatment each day to check that your bladder is full enough for treatment to proceed.
 - It is important that your bladder is not too uncomfortable during planning or treatment as this may cause you to move around. If you find it difficult to —hold onll for an hour after drinking two glasses, please discuss with your radiation therapists or doctor about reducing the amount that you drink.
 - Please avoid drinking more than one cup of coffee before your radiotherapy treatment, as this is a stimulant that will make you want to empty your bladder sooner.
 - If your treatment machine is running late and your appointment will bedelayed, the radiation therapists will let you know if you need to empty your bladder and drink water again.

