your radiotherapy treatment and afterwards. Radiotherapy could cause a miscarriage or cause a child to be born with abnormalities.

Women

Your vagina may become irritated, which can cause discomfort, soreness and narrowing. You may notice an increase in vaginal discharge; please let the treatment team know if this is very heavy and/or has an offensive odour.

During your weekly reviews, the treatment team will be able to offer specific advice about this. They may give you vaginal dilators to use after your radiotherapy has finished. These are a device to help prevent the vagina narrowing.

You should not use tampons, female deodorisers, douches or talc during treatment, as these can cause irritation and possibly infection.

Long term side effects can occur many months or years after radiotherapy has finished. These side effects are hard to predict and unfortunately, if they do occur, they can be permanent. You should always report them to your GP or hospital team for assessment, advice and treatment or possible referral for specialist advice or treatment. We carefully plan the treatment to avoid the surrounding areas around the tumour as much as possible, to reduce these side effects.

Bowel

You may continue to feel the urge to go more often or that you need to open your bowels urgently. This should gradually improve, but there is a chance you may need to wear pads. Your treatment team can discuss some helpful changes to lifestyle or medication.

In some cases, a permanent stoma may be required (an opening from your bowel to a pouch on the outside of your abdomen). We will discuss this with you, if it is required.

Bladder

You may feel the urge to go more often or the need to pass urine urgently. You may feel more confident wearing pads. There is a small risk that you may need surgery to your bladder, if this continues.

Bone changes

Very rarely the radiotherapy can lead to hair-line cracks in the pelvic bones. These are called pelvic insufficiency fractures. You might experience pain, like a dull constant ache or difficulty moving around. This should not be severe enough to keep you awake and often disappears overnight with rest. In rare cases the bone can be weak enough to break.

We will discuss this with you, if required.

Skin

You may notice dilated capillaries (tiny blood vessels) under your skin where you have had the treatment. These are called telangiectasia. They can look unpleasant, but won't cause problems.

Fertility

Radiotherapy to the pelvic area will cause permanent infertility in women and will permanently affect sperm produced by men. For this reason it is very important to continue to use birth control.

Ovaries (for pre-menopausal women)

The radiotherapy will affect your ovaries and cause them to stop working. This is a permanent effect, which means you will become infertile (unable to become pregnant) and your body will go into the menopause. If you are still having periods, you may find they stop during your course of treatment or shortly after.

Before your treatment begins, you will be asked if you would like to have some of your eggs stored for future use.

Menopausal symptoms vary from woman to woman. Symptoms include hot flushes, vaginal dryness, irritability and night sweats. These symptoms can be treated with hormone replacement therapy (HRT). You can discuss these symptoms with your doctor who can refer you to a menopause specialist after the treatment has completed.

Sperm

If you are male, before your treatment begins, you will be asked if you wish to store a sample of sperm for future use. The sperm can be saved for several years in a frozen form.

Sexual effects Low sex drive and impotence

The treatment you are having can cause low sex drive. For men, there is a reduction in testosterone levels. Difficulties achieving an erection following a course of radiotherapy are more common in men over the age of 50 and may be permanent. Treatment is available in the form of medication from your family doctor.

Please let your doctor or nurse know if you experience any of these symptoms as they can refer you to specialists who can help.

Follow up:

After your treatment has finished you will be asked to return to the Outpatients Clinic to be reviewed by your oncology team.

Radiotherapy takes time to work and so it is at this appointment when your oncologist will assess and discuss your progress with you and what further appointments are needed in the future.

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Information for Patients

Revenue from these services is spent on the treatment of poor cancer patients.

You have been given this leaflet as you have been recommended treatment with radiotherapy for a rectal tumour.

This leaflet 'Radiotherapy for rectal tumours' will provide more specific detail about the type of treatment planned for you and how you can help yourself during and after treatment.

Each treatment is planned individually. Your doctor will explain how long the treatment course is likely to last, as well as the benefits and risks associated with the treatment.

This leaflet is intended as a guide, because the timing and effects of treatment may vary from one person to another. It will highlight the key points of the discussions you will have had with your doctor and treatment team. By giving you some idea of what to expect, we hope to ease some of the worries you may have. Family members and friends may also find it helpful.

Radiotherapy before surgery with chemotherapy

Radiotherapy is used to shrink the tumour before surgery. You will usually have 25 daily treatments (fractions) over five weeks.

Chemotherapy is given with the radiotherapy if possible, to improve its effectiveness. On the first day of your radiotherapy you will have an appointment with the doctor, to explain how to take your chemotherapy tablet (capecitabine).

During your treatment you will be seen each week by your Oncology team if needed. You will need to have a blood test every week during treatment.

It is important that you don't miss any of your radiotherapy treatments. If you have any problems attending, please contact the department.

Short course radiotherapy before surgery

Your doctors may suggest you have a short course of 5 daily radiotherapy treatments, the week before your surgery.

Radiotherapy after surgery with chemotherapy

Radiotherapy is used after surgery to kill any tumour cells that may have been left behind. This is called **adjuvant** treatment.

Radiotherapy to help symptoms

Radiotherapy can also be given to treat symptoms that are causing you problems. These are caused when the growth of the tumour presses on other parts of the body. The treatment relieves this pressure by shrinking the tumour. This type of radiotherapy is called **palliative** treatment and you may have 5 or 10 daily treatments, without chemotherapy

Radiotherapy treatment is painless. However, it will cause some side effects and you will notice one or more of them gradually developing over the course of treatment. If you are having chemotherapy you may also experience further side effects.

Often the side effects which you will experience become worse for a short while after your radiotherapy finishes and then slowly settle over a few weeks. Please do not worry as this is quite normal.

During this time you should continue to follow the advice you have been given during your treatment and take any prescribed medication for the side effects, until they settle down.

Please note that it is rare to experience all of these side effects.

If anything is worrying you during your treatment, however small, please tell your doctor, either at your visit or by phoning the department.

Bowel habit

Diarrhoea usually starts after treatment begins and lasts for several weeks after treatment ends. You may also pass mucus (a clear, jelly-like fluid which may contain blood) in addition to the diarrhoea.

You may experience an urgent need to open your bowels, increased 'wind' (flatulence) or occasional abdominal cramps. You may also feel bloated.

It is important to keep eating and drinking as normally as possible. The radiotherapy nurse practitioner can give you advice about whether to adapt your diet, or may prescribe you medication to help.

It is important to drink plenty (up to 2 litres or 3 and a half pints a day), to replace lost fluid.

Nutrition is important as it provides your body with energy, protein and the vitamins and minerals needed for your body to function well. It helps your body to cope better during radiotherapy and may improve your rate of healing and recovery after treatment.

If you have lost weight before or during treatment, please ask to be seen by the Dietitian.

Bladder

Your bladder will be irritated by the radiotherapy. This can cause an increased feeling of wanting to pass urine, straining to pass urine or a burning feeling as you are passing urine. It will help to drink plenty of fluids – at least double your normal intake. It is best to avoid drinking lots of tea, coffee and alcohol, as this can make the symptoms worse. Most people feel back to normal around six weeks after treatment.

Skin reaction

The skin in the treatment area may become red, dry,

sensitive or itchy. It is important to keep these areas clean and dry.

It is likely that the skin in the area between your legs and groin will become broken and produce a discharge. It is normal for this to be coloured or bloody. It is common for the skin reaction to peak at about 10 to 14 days after your radiotherapy course has been completed.

The doctor will assess your skin each week. They will advise you on the different lotions and dressings, which can ease the discomfort and help heal your skin.

Hair loss

Radiotherapy only affects the hair in the area treated. This means you may lose your pubic hair, but it should grow back.

Very occasionally, chemotherapy may cause you to lose some of the hair on your head. This will regrow after treatment.

Tiredness

This will occur, especially toward the end of a course of treatment. The tiredness wears off over a few weeks or months, once the treatment ends. You should rest and sleep as much as you need to, although a small amount of gentle exercise is helpful.

Sexual effects

Radiotherapy can sometimes cause physical changes that may affect your sex life. It is normal to lose interest in the physical aspect of your relationship for some months.

However, it is possible to continue with sexual intercourse during your treatment. If you are having problems it may help to talk these over with your partner and your treatment team.

Contraception - important

It is essential to use effective contraception throughout