Radiotherapy or Chemoradiation for Rectal Cancer
This leaflet is for patients receiving radiotherapy or chemotherapy for a cancer arising within the back passage or rectum. It describes the radiotherapy planning and treatment. It also explains the effects that you may experience during and after treatment, and how best to cope with them. The effects of treatment vary from one person to another, therefore the information is a general guide and does not mean you will experience all of the effects described. Your doctor, radiographer and nurse will explain this further if necessary.

Before agreeing to this treatment it is also important that you understand its nature and possible effects. If you are in doubt about anything or have any questions or problems, please let us know as soon as possible.

**Preparation for Treatment**

Before beginning radiotherapy, the treatment must be carefully planned. This is done by visiting the CT scanner or simulator. Because radiotherapy can be given in a number of different ways when treating a cancer of the rectum, there are several options your doctor may choose to plan your treatment. Your doctor and other staff planning your treatment will explain this to you. You will be asked to undress from the waist down. Depending on the exact area needing treatment it may be possible to keep on underwear. Your radiographers will advise you about this and will ensure your dignity is maintained by covering you up whenever possible. If you have a stoma bag we would advise you to carry a spare bag with you each day.

**Planning by CT Scanner**

For some people the first step is a Planning CT Scan. This is a special x-ray taken with you lying on a special couch in the position you will be in when you receive the treatment. Usually this will be lying face down on your tummy. You may be given a small drink of a special fluid (Gastrografin) that shows up on scans and x-rays one hour before the scan. Some people have to be scanned with a full bladder. You will receive precise details with the information describing your scan with your appointment letter.
At the time of your scan, marks will be put on your skin with a felt tip pen. It is important that you stay as still as you can during the scan. It will take only a few minutes with the entire procedure taking about 10 -15 minutes. Once the radiographers are satisfied that everything is correct they will replace these felt tip marks with permanent marks that look like tiny freckles. These marks will be used to position you each day you come for treatment.

**Planning at simulator without a CT scan**

In some cases treatment is planned in a single simulator visit, without the need for a Planning Scan. As above, the simulator is a special x-ray machine similar to the treatment units used to give radiotherapy and can be used to plan the radiotherapy. Usually you will be asked to have your bladder full before we begin. You may be asked to drink a special liquid that shows up on x-rays an hour before going into Simulator.

Your radiographers will help you to lie face down on the simulator couch. The doctor may insert some dye into the back passage to allow it to show up on the x-ray pictures. To do this a small tube is placed inside the back passage. This is usually a little uncomfortable but only takes a minute or so. Your doctor and radiographer then look at your pelvis on the x-ray machine. While this is happening you may feel the couch moving gently until you are in the correct position. It is important you stay as still as you can.

Two x-rays are then taken along with measurements of your pelvis to help the physics staff produce a treatment plan. Once your doctor is satisfied with the planned treatment, the radiographers will mark several areas of your skin with permanent marks, which look like tiny freckles.
Radiotherapy Treatment

The treatment will be given on an x-ray machine called a linear accelerator which is a special x-ray machine used to give radiotherapy treatment. Your radiographers will explain everything before treatment starts, and check you know what to expect and how many treatments you will have. Radiotherapy can be given in a number of ways to treat cancers of the rectum. This can range from a single week of treatment before your operation through to 5 or 6 weeks treatment either before or after surgery. You will lie just as you did in simulator, and there is nothing to feel during treatment or immediately afterwards. Your treatment usually takes around 10 minutes. Please check with your radiographers if you have any questions or problems.

Chemotherapy & Radiotherapy

Many patients having longer courses of radiotherapy will also be given drug treatment (chemotherapy) along with their radiotherapy. The chemotherapy increases the activity of the radiotherapy against cancer cells. This can be given in several different ways which your doctor will discuss with you. He/she may also discuss the possibility of entry into a clinical trial looking at new ways of giving chemotherapy in this situation. This will be explained in more detail and you will receive separate specific information regarding any study being considered. If you are concerned about anything please ask.

General Advice during Treatment

There is no reason to change your lifestyle during treatment, but it may help to:

- Try to get plenty of rest and sleep, especially when the treatment begins to make you tired, but it is important that you try to continue some of your normal daily activities and interests. A sensible balance between rest and activity may be best.

- Accept offers of help from family and friends if you need help around the house. This also allows them to feel involved in caring for you during this time.
Early Effects of Radiotherapy Treatment

Each patient is individual and may experience the effects to differing degrees. Patients having a single week of treatment may notice very little side effects at all. Most people having longer courses of treatment find the side-effects of the treatment become more noticeable as the treatment progresses. They may last for several weeks after it has ended.

All patients are different, though generally, side-effects which we may expect include tiredness, inflammation within the skin over the treated area, diarrhoea, a sensation of having to pass water more often than normal (which may be associated with a stinging sensation) and nausea.

- **Skin** The skin in the treated area will be more sensitive and may become pink or red. This is most likely to happen in the folds of skin between the buttocks and in the groin. This tends to be a couple of weeks into treatment. Some people develop an irritation of the skin or itch around the back passage (anus) or front passage (vulva), especially towards the end of treatment. This can be treated with cream, however it is very important that you use only those prescribed by your doctor at the Beatson. Please tell us if you have these problems. Advice on skin care can be found in the next section of this leaflet.

If you have piles (haemorrhoids) or have had these treated in the past, they may get a little worse during treatment. Let us know, and your doctor can prescribe something to help.

- **Tiredness** You will begin to feel quite tired during treatment. It tends to start 2-3 weeks into your course of treatment and will last a number of weeks afterward.

- **Diet** When you are having radiotherapy it is important to eat well and choose from a wide variety of foods to help you feel stronger and more able to cope with treatment. Keep to a normal diet at the start of treatment, although it is best to avoid foods that you know make your bowels move unduly,
for example prunes, rhubarb, hot spicy foods etc. It’s also best to cut down on large amounts of fruit juice, fruit and vegetables if you start to have diarrhoea. We have a dietician who can advise if you have particular concerns.

- **Bowel** It is likely that you will develop diarrhoea after 3-4 weeks of treatment. This may be accompanied by colicky or wind pains. Your doctor can prescribe medication to help this, so let us know if you have problems. You should also drink plenty of fluids to replace water lost because of diarrhoea. Try to avoid foods you are sure make your symptoms worse. Some people notice a discharge of mucus from the back passage and there might be a little blood. If you have had a colostomy you may find that because the bowel moves more often you need to change the bag more frequently.

- **Rectum** *(back passage)* You may develop the urge to constantly go to the toilet. You may have this sensation at the start of your treatment as a consequence of the tumour. However as the treatment progresses, the back passage becomes inflamed by the treatment and you may feel the urge to go to the toilet more often during the day and perhaps at night. You may feel like this even if you have a colostomy. If this troubles you let us know as we can prescribe something to help.

- **Nausea** This is not usually a problem for most people, although it can sometimes happen. Please let us know if it is troublesome, particularly if you are actually being sick or have tummy pains. Again we can prescribe medication to help.

- **Passing water** Sometimes the bladder becomes irritated and you may feel that you need to pass water more often and more urgently than usual. You may also experience a burning sensation, a bit like cystitis, when passing urine. Drinking plenty of water will help, but let us know so that we can check there is no infection present.
• **Women** The tissues of the vagina (front passage) will be irritated by the treatment. You may develop a mild clear discharge. If you have a heavy or creamy or discoloured discharge (yellow, green or brown) you should let your doctor know. The vagina can also become a little inflamed during treatment which may make it sore. We generally advise during your treatment you should avoid having sexual intercourse.

• These effects should settle 3-4 weeks after treatment ends and you may then be able to resume your normal sexual activity. If appropriate you will need to take adequate contraceptive precautions. You may be a little drier than before and find it a little uncomfortable at first and you may find it helpful to use a lubricant. There are several brands available in the chemist such as KY Jelly or Replens. It is a matter of finding one that suits you best. Please discuss this with your doctor if you want further advice. There are also other female professionals available who would be happy to discuss any concerns. Ask your doctor or radiographer to put you in touch.

• **Hair** There will be a loss of hair only in the treated area. This is usually temporary, although in some patients it may not regrow.

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**Chemotherapy given with Radiotherapy**

As we explained earlier in this leaflet, chemotherapy can be given with radiotherapy for rectal cancer in a number of ways. If you do have chemotherapy you may have other effects to those above. It is possible the use of chemotherapy may increase the likelihood of nausea with your treatment. It may also cause small ulcers in the mouth and contribute to some of the diarrhoea seen with radiotherapy.
**Skin care During Treatment**

You may bath or shower during treatment, but don’t have the water too hot (lukewarm). You may use unperfumed soap (simple soap) and pat your skin dry with a soft towel. Avoid adding anything to the bath water, for example oils, dettol, savlon etc.

Don’t use perfumed soaps, creams, deodorants and lotions on the treated area, as these may irritate your skin.

- You will find that you may be more comfortable if you wear loose fitting clothes, preferably with cotton next to your skin.

If your skin does become red and sore we can prescribe creams that will help soothe it. Don’t be tempted to use anything other than those prescribed here. However soothing they may seem, they may interact with your treatment and cause the skin to become worse.

**Late Effects of Treatment**

We believe the benefits of your treatment outweigh any longer-term risks involved. It is important to remember that radiotherapy is often given either to allow your surgeon to remove an otherwise inoperable cancer or when your doctor has concerns of a risk of your cancer coming back.

However, you need to be aware that in addition to the side-effects which occur whilst you are receiving treatment other possible longer-term side-effects may occasionally occur. It is important to emphasise the likelihood of these effects is small and varies from one person to the next. Also if you are having an operation after your radiotherapy, it is possible the surgery will also contribute to some of the points mentioned here. Your doctor will explain specific individual issues to you personally, therefore the following is a general guide.
• If you have an operation after your radiotherapy, the treatment may slow down the healing of any surgical wound in the treatment area. However it should heal fully with time.

• It is possible your bowel habit may not return to normal after treatment. If you have an operation after your radiotherapy, it will also add to this effect. In most cases this does not cause too much upset. Similarly if you receive radiotherapy after an operation, your bowels may get looser or more frequent than they were before you received treatment. Sometimes medication may be needed to regulate your bowel on a longer-term basis.

• About a year after the treatment is complete small blood vessels can occasionally form within the bladder or the rectum. These vessels are more delicate than normal and may occasionally break down producing blood in the urine or the bowel motion. It may seem frightening at first but is not usually serious. You should let your GP or specialist know as they may wish to arrange further tests.

• Serious problems are very rare. Scar tissue may develop in several areas. Occasionally it can affect the wall of the bladder and very rarely this can cause shrinkage of the bladder. This can cause irritation on passing water and occasionally making it difficult for patients to “hold on”, requiring them to get to a toilet urgently.

• If such scar tissue affects the bowel it can add to the problems of diarrhoea mentioned above. Very occasionally this may lead to narrowing or even a blockage in the bowel and an operation may be required to remove this narrowed area. Fortunately this is a very rare problem indeed, but please do speak to your doctor if you are worried.

• A very rare but potential effect is that radiation can cause tumours. Although this is a serious possible consequence of your radiotherapy, it is important to bear in mind that it is extremely rare. If it does happen it is likely to be many years after treatment has ended.
Relationships

Following your treatment there is a possibility of loss of sexual function. This may occur as a result of radiotherapy or surgery or a combined effect of both.

Men may find it difficult to get or keep an erection due to damage to some of the pelvic nerves. Whether due to the radiotherapy or the surgery, help and advice is available so please let your doctor know if this becomes an issue. It is likely you will become infertile as a result of the radiotherapy and if this is a concern we can arrange discussions with specialists to store sperm before treatment starts. Women who are still having periods before radiotherapy will go through the menopause (the “change”) due to the effects the radiotherapy has on the ovaries. As a result of this you will become infertile. As discussed earlier, women receiving treatment may initially notice some vaginal dryness. If this continues to be a long-term problem you should discuss this with your doctor, as help and advice is available. Longer term, it is possible that scarring in the tissues of the vagina may contribute to some discomfort during intercourse. If your doctor thinks you may be at risk of this you may be given advice about vaginal dilators which can be used to help keep the vagina supple. Your doctor can advise you about this. We also have female professionals who can advice about using dilators on an individual basis. Please ask if you have any questions or concerns.

It’s also important to remember that your emotions and worries can also play a part in difficulties in your intimate relationships, particularly at this time. There are staff available in the department who can help you talk through any issues, so please let us know if you would like to see someone.

With all of these effects above, it cannot be stressed strongly enough that they are potential effects. This does not mean that you will experience all or indeed any of them. Also, you must remember there are great benefits to having treatment which make the small risk of this complication acceptable in your doctor recommending this treatment.
After Treatment ends

Any symptoms that have developed during treatment will wear off a few weeks after it ends, however the tiredness will probably take a bit longer. You may begin washing normally once your skin no longer looks red or feels itchy. Your oncologist will arrange to see you 4-6 weeks after the treatment has ended.

Where can I get help?

Information and Support

All our staff are here to make sure your treatment goes as smoothly as possible and will try to help with any questions or problems you may have. Further specialist help and information is available from:

- Colorectal Nurse Specialist: 0141 301 7637
- Macmillan Information Radiographer Counsellor: 0141 301 7423
- Macmillan Colorectal Nurse specialist at Gartnavel General Hospital: 0141 211 0194
- Information and Support Radiographer 0141 301 7427

The Beatson West of Scotland Cancer Centre has a Radiotherapy Advice Line available for patients who have completed treatment. This is an answer phone service, run by experienced Radiographers from Monday-Friday. Please leave your name and contact number and you will be called back as soon as possible. Please phone 0141 301 7432.

Counselling and Clinical Psychology

This leaflet deals with the physical aspects of your treatment, but your emotional well being is just as important to us. Being diagnosed with cancer can be a distressing time for you and those closest to you. At times it can also be difficult coping with treatment. Within the department we have a counselling and clinical psychology service that maybe able to help with worries and difficulties you might be having before during and after treatment. There is also a service for children and young people who are having difficulty coping with their relative’s illness. If you think this may be helpful to you, please ask staff to put you in touch.
There are also voluntary organisations providing information and support. These include:

**Colon Cancer Concern:** 08708 50 60 50 provides information and support.

**Cancerbackup:** 0808 800 1234 offers telephone information and advice and provides free information booklets about particular cancers.

**Macmillan Cancer Support:** 0808 808 20 20 Develops services to provide specialist care at every stage of illness. Provide an information line and financial help through grants.

**Tak Tent:** 0141-211-0122 providing information and support.

This leaflet is for general information only. For personalised information please ask a member of clinical staff.

Leaflet prepared by L. Webster and Dr A McDonald
Contact: L.Webster : 0141 301 7423
Review Date: Nov. 2008