

Intra-Operative Breast Radiotherapy

You have been given this information leaflet because your specialist has recommended that you have radiotherapy during your breast cancer operation. This is called intra-operative radiotherapy.

What is radiation therapy?

Radiotherapy is sometimes called radiation therapy. It is the administration of x-rays to the breast tissues.

Why is radiotherapy given?

Radiotherapy is given to patients who have had breast cancer surgery where the lump is removed through a scar, but the healthy breast tissue remains. This is called breast conserving surgery. Radiotherapy is given to reduce the risk of other breast cancers developing within your breast.

How is radiotherapy given?

Traditional methods of radiotherapy involve a series of x-ray treatments beamed onto your scar and breast tissue. Typically, this conventional external beam radiotherapy involves between 15 and 25 treatments at a local radiotherapy centre in Oxford, Bath or Cheltenham. This type of radiotherapy is given several weeks after surgery.

Intra-operative radiotherapy is a pioneering technique that may allow you to avoid weeks of radiotherapy. Instead a similar dose of radiotherapy is given as a single dose directly into your breast during the cancer surgery. After this you should not usually need any other radiation treatments. For some patients (13%) we recommend a short course of additional radiotherapy (about three weeks).

Why give intra-operative radiotherapy?

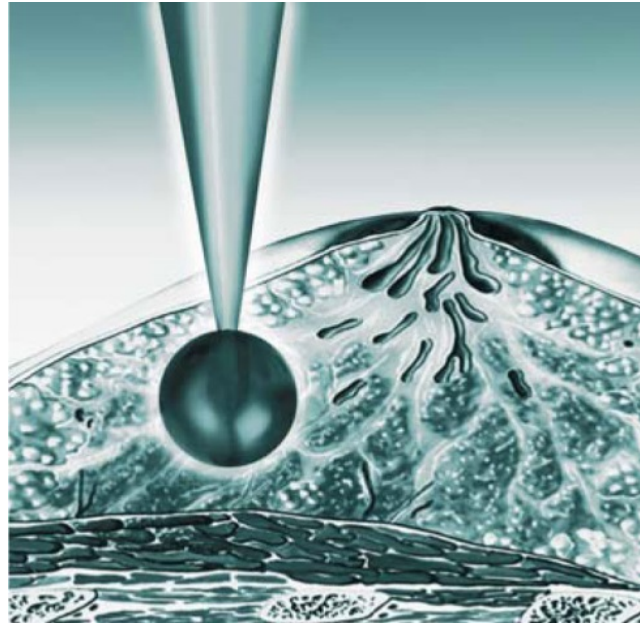
An international clinical trial (TARGIT trial) published in the leading medical journal, The Lancet has shown that the newer treatment of IORT has similar success rates to conventional radiotherapy, and has fewer side-effects.

Who can have intra-operative radiotherapy?

Approximately a third of patients who undergo breast conserving surgery may be treated with this new method. You must be a suitable candidate for this radiotherapy treatment and this is generally given when you have early stage disease.

How is intra-operative radiotherapy given?

Breast intra-operative radiotherapy may be given in two ways; either as a single dose, or as a boost to your breast followed by an additional treatment of conventional radiotherapy. Your specialist will advise you which is most appropriate to you.



Single dose intra-operative radiotherapy

Single dose radiotherapy typically takes about 30 minutes and is most suited when you have early stage breast cancer, typically when a small tumour is discovered in your breast during breast screening. During your operation the tumour is removed and then the radiotherapy is targeted with precision into the surrounding breast tissue. This minimises the exposure of your body's other organs (such as the lungs or heart) to radiation treatment. The radiotherapy is given in the operating theatre while you are asleep. There are no lasting effects of the treatment and you will usually be discharged to home after your operation later that day. After receiving intra-operative radiotherapy you do not need to take any other precautions once you are at home.

By giving a single dose of radiotherapy during your operation, you can be saved considerable time and inconvenience as you should not need to travel to a radiotherapy centre for five days a week for several weeks.

Boost radiotherapy as part of the TARGIT-B trial

Your specialist may explain that, due to your type of breast cancer, you are at a higher risk of further disease. In this situation, boost radiotherapy may be recommended. It is applied into your breast in an identical manner as single dose intra-operative radiotherapy. However you would receive a shorter course (typically three weeks) of additional conventional radiotherapy. Early studies show that this treatment has the lowest risk of further breast disease.



What are the side effects of intra-operative radiotherapy?

Studies have examined the effectiveness of intra-operative radiotherapy and standard radiotherapy. These show that for selected patients, in the first five years, there is a similar risk of developing a second cancer within the breast in both groups of patients. This risk has been calculated to be about 2% for IORT and 1% for standard radiotherapy treatment. This compares with a risk of local recurrence of 4% if radiotherapy is not given.

Patients receiving intra-operative breast radiotherapy report less pain in the breast. There is reduced inflammation and redness compared with patients receiving traditional external-beam radiotherapy. In trials, the patients who received single dose intra-operative radiotherapy had a superior cosmetic outcome.

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