

# Preoperative high dose rate brachytherapy for rectal cancer

Information for the public

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[www.nice.org.uk](http://www.nice.org.uk)

## What has NICE said?

Preoperative high dose rate brachytherapy for rectal cancer is safe but there is no evidence that this procedure gives additional benefit when used as a boost to another type of radiotherapy (external beam radiotherapy). And there is not much evidence about how well it works when used alone, without external beam radiotherapy. It should only be used if extra care is taken to explain the uncertainty about how well it works and extra steps are put in place to record and review what happens.

More research on this procedure is needed and NICE may look at it again if more evidence is published.

## What does this mean for me?

Your health professional should fully explain what is involved in having this procedure and discuss the possible benefits and risks with you. In particular, they should explain the uncertainty about the evidence on how likely it is to improve your symptoms. You should

also be told how to find more information about the procedure. You should only be asked if you want this procedure after having this discussion. Your health professional should ask you if details of your procedure can be collected.

## Your healthcare team

A healthcare team experienced in managing colorectal cancer should decide which patients should be offered this procedure. The team should include an oncologist (cancer specialist) and a colorectal surgeon (specialist in bowel surgery) with expertise in the techniques needed for the procedure.

## The condition

Rectal cancer is a common form of bowel cancer that affects the rectum (the last part of the bowel, just before the anus). Symptoms include bleeding from the rectum and change in bowel habit. Surgery to remove the affected part of the rectum is the main treatment, keeping the anus if possible. Some patients also have chemotherapy or radiotherapy, or both, to reduce the chances of the cancer spreading or coming back.

Radiotherapy can use radiation from outside the body (external-beam radiotherapy) or radiation placed inside the body. Radiation placed inside the body includes radioactive pellets inserted directly into the tumour or a radioactive tube placed in contact with the tumour to kill the cancer cells.

NICE has looked at using [preoperative high dose rate brachytherapy](#) as a treatment option.

NHS Choices ([www.nhs.uk](http://www.nhs.uk)) and NICE's information for the public about colorectal cancer may be a good place to find out more.

## The procedure

Preoperative high dose rate brachytherapy aims to shrink the tumour before surgery.

The procedure is usually done with the patient under sedation. An enema is given to clear the bowel before treatment starts. A local anaesthetic and a muscle relaxant are applied to the ring of muscle around the anus. A tube (sigmoidoscope) is inserted through the anus

into the bowel to see the size and position of the tumour. An applicator containing a source of radiation is placed in contact with the tumour. The radiation only penetrates a few millimetres so that damage to tissues not associated with the cancer is reduced.

## Benefits and risks

NICE decided that more evidence is needed about how well preoperative high dose rate brachytherapy works. The 9 studies that NICE looked at involved a total of 1900 patients.

There was some limited evidence that preoperative high dose rate brachytherapy may increase the response of the tumour to treatment and that fewer patients may need a permanent colostomy bag. However, this does not apply to all types of rectal cancer.

The studies showed that the risks of the procedure included:

- problems with the skin around the rectum and anus
- inflammation of the rectum
- infection of the wound or the surrounding tissue
- problems with wound healing
- a fistula forming (an abnormal passage between the rectum and the skin)
- narrowing of the rectum
- complications that needed more surgery.

If you want to know more about the studies, see the [guidance](#). Ask your health professional to explain anything you don't understand.

## Questions to ask your health professional

- What does the procedure involve?
- What are the benefits I might get?
- How good are my chances of getting those benefits? Could having the procedure make me feel worse?

- Are there alternative procedures?
- What are the risks of the procedure?
- Are the risks minor or serious? How likely are they to happen?
- What care will I need after the procedure?
- What happens if something goes wrong?
- What may happen if I don't have the procedure?

## About this information

NICE [interventional procedures guidance](#) advises the NHS on the safety of a procedure and how well it works.

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## Accreditation

