

Patient information

Chemoprevention

Breast Services

What is chemoprevention?

Chemoprevention describes drugs that are used to reduce the risk of cancer developing. This is different from chemotherapy which describes drugs that are used in the treatment of cancer.

Who is at an increased risk of breast cancer?

Most women in the UK have a one in eight risk of developing breast cancer over their lifetime. A family history of breast cancer may mean your risk is higher, depending on the number and age that relatives were affected.

Why have I been given this leaflet?

Evaluation of your family history in a specialist clinic has shown that you are at an increased risk of developing breast cancer based on an assessment of your family history.

Guidance from NICE (National Institute of Clinical Excellence) published in 2013 recommended chemoprevention should be considered in women at increased risk of breast cancer based on their family history.

What types of chemoprevention can be used in women at increased risk of breast cancer?

Two drugs have been recommended by NICE:

- Tamoxifen and Raloxifene.

Both drugs have anti-oestrogen properties and are also known as SERMS (Selective oestrogen receptor modulators).

Does taking chemoprevention mean I will live longer?

Although the studies show a reduction in the occurrence of breast cancer, they did not show that women who took chemoprevention lived for longer than women who did not take chemoprevention.

Are there any side effects of chemoprevention?

Yes. There are both major and minor side effects to consider. These need to be considered alongside the potential benefits of chemoprevention.

What are the major side effects of chemoprevention?

Tamoxifen use is associated with a small increased risk of cancer of the womb (endometrial cancer) and blood clots (venous thromboembolism).

What are the minor side effects of chemoprevention?

Common side effects include menopausal symptoms such as hot flushes and vaginal discharge or dryness. Some patients can experience mild nausea, weight gain, and muscle and joint pains. Many women find that the side effects of chemoprevention are significant enough to stop taking the medication.

Studies report that about one in five women will stop taking chemoprevention due to side effects.

Are there any medical reasons why I should not take chemoprevention?

If you have a personal or family history of blood clots or a family history of womb cancer you should not take Tamoxifen.

You should also not take Tamoxifen or Raloxifene if you are on HRT (Hormone Replacement Therapy) or the contraceptive pill or are trying to conceive.

Tamoxifen or Raloxifene can also interfere with the action of other drugs, so it is important for the prescribing Doctor to know your drug history.

Are Tamoxifen and Raloxifene licensed in the UK to reduce breast cancer risk?

No. Both drugs are not currently approved in Europe for this purpose, however due to the new recommendations they can be prescribed for this purpose.

Both drugs are approved in the USA, however in practice use of neither drug is common.

For more information please ask for the Trust patient information leaflet 'PIF 1130 The Use of Unlicensed Medicines and Medicines for Unlicensed Indications'.

How do Tamoxifen and Raloxifene work?

Many breast cancers rely on the female sex hormone oestrogen to grow. These cancers are known as oestrogen-receptor positive (ER-positive) breast cancer. SERMS block the effect of oestrogen on the breast tissue. This means the cancer either grows more slowly or stops growing altogether.

SERMS have been used for many years in the treatment of women with breast cancer.

What are the potential benefits of chemoprevention?

Studies have demonstrated that chemoprevention reduces the risk of breast cancer developing by up to 45%. For every 42 women who take chemoprevention, one breast cancer will be prevented.

Does chemoprevention reduce the risk of all breast cancers?

No. Chemoprevention has been shown to reduce the risk of developing oestrogen-receptor positive breast cancer, but not oestrogen-receptor negative breast cancer.

At what age can chemoprevention be started?

We recommend that chemoprevention is not started before 35 years of age.

How long can chemoprevention be taken?

A maximum of five years is recommended.

How do I decide if I want to take chemoprevention to reduce my risk of breast cancer?

The decision is ultimately a personal one and both the potential benefits and potential risks need to be taken into careful consideration.

What alternatives are there to reduce your breast cancer risk?

There are established lifestyle risk factors associated with an increased risk of breast cancer that include being overweight, regularly drinking alcohol and not taking regular exercise.

Simple measures can be used to reduce your risk of developing breast cancer such as maintaining a healthy weight, eating a balanced diet, keeping active and limiting alcohol intake.

If I decide I want to take chemoprevention who will prescribe it to me?

We would recommend that Tamoxifen or Raloxifene is prescribed by your family doctor (GP), who will be approached to provide repeat prescriptions and monitor for side effects.

Should I still have breast screening if I take chemoprevention?

Yes. Although chemoprevention may reduce your risk of developing breast cancer, there is no way to determine if you will or will not get breast cancer in the future. Some women at increased risk of breast cancer due to their family history are eligible for increased breast screening, normally from the age of 40 years to detect cancer at an early stage. This screening should be continued even if chemoprevention is taken.

Key message

- NICE guidelines recommend that chemoprevention with Tamoxifen or Raloxifene can be offered to some women at increased risk of familial breast cancer.
- Tamoxifen and Raloxifene are not currently licensed for use as chemoprevention in the UK.
- Studies have shown that chemoprevention reduces the number of cases of breast cancer developing, but overall there is no impact on the number of deaths.
- Chemoprevention can be taken for a maximum of five years commencing after age 35.
- Use of chemoprevention can be associated with a number of major and minor side effects including increased risk of blood clots, womb cancer and menopausal symptoms.
- Women with a personal or family history of blood clots or endometrial cancer (womb cancer) should not take Tamoxifen.
- Tamoxifen and Raloxifene cannot be taken with HRT or the contraceptive pill, or when trying to conceive.
- The benefits of chemoprevention are finely balanced with the potential side effects. The decision to take chemoprevention needs to be considered carefully.

Feedback

Your feedback is important to us and helps us influence care in the future.

Following your discharge from hospital or attendance at your outpatient appointment you will receive a text asking if you would recommend our service to others. Please take the time to text back, you will not be charged for the text and can opt out at any point. Your co-operation is greatly appreciated.

Further information

Breast Unit

Royal Liverpool Hospital

Prescot Street

Liverpool

L7 8XP

Telephone 0151 706 2931

Text phone number: 18001 0151 706 2931

Author: Breast Services (adaptation of information produced by Royal Marsden Hospital)

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