

Electrochemotherapy

This leaflet explains about having electrochemotherapy to treat cancer or keloid scarring, including the benefits, risks and any alternatives and what you can expect when you come to hospital. If you have any further questions, please speak to a doctor or nurse caring for you.

What is electrochemotherapy?

In electrochemotherapy treatment you are given a low dose of a chemotherapy drug, and an electrical pulse (electroporation) is also applied directly to cancer cells or a keloid scar, using an electrode.

The chemotherapy drug (typically a drug called Bleomycin) can be injected straight into the tumour if it is small, otherwise it is given intravenously.

This low-level dose of the chemotherapy drug would not normally work but the electrical pulse makes the cells or keloid form pores which let the drug right inside the cells. Normal tissue is not affected.

Who can have electrochemotherapy?

Electrochemotherapy can be used to treat cancers that have spread to the skin or just below the skin's surface (metastasised) from the following types of cancer:

- all types of skin cancer (melanoma and non-melanoma)
- breast cancer recurrence
- head and neck cancers, including oral cancer
- carcinoma of the vulva
- keloids (abnormal scars which behave like tumours).

Electrochemotherapy can also be used to shrink large cancers to make them easier to remove.

Patients over the age of 18 can have electrochemotherapy if the tumour is suitable. There is no upper age limit for having the treatment.

If you are already having chemotherapy, we will talk to your oncologists to make sure there is nothing that means you shouldn't have the electrochemotherapy drugs. If electrochemotherapy goes ahead, we will set a suitable treatment period, so it doesn't interfere with your continuing treatment.

If you have keloids, cancer in the lungs or lung disease such as asthma, COPD or lung fibrosis, you will have lung function tests before any treatment.

Why should I have electrochemotherapy?

The National Institute for Health and Care Excellence (NICE) published guidance on electrochemotherapy in 2013, saying it may reduce symptoms and improve the quality of life of some patients.

What are the risks?

Serious side effects are extremely rare.

In a few cases patients may have an allergic reaction to the chemotherapy drug.

One of the drugs used for electrochemotherapy can cause permanent stiffening of the lungs (fibrosis). This may cause shortness of breath which will need treatment straightaway. If this isn't managed well, it could lead to needing oxygen long term or, rarely, breathing problems resulting in death. Therefore, you must have the relevant investigations and lung function tests before any electrochemotherapy treatment.

Some patients may experience a mild fever after treatment and all patients are given antibiotics to reduce the risk of infection. Signs of infection to look out for around the wound site include increased redness and pain, discharge or fluid leakage. If you notice these symptoms contact your hospital medical team.

Are there any alternatives?

Most patients referred for electrochemotherapy will already have had extensive surgery and / or chemotherapy. For these patients there is no alternative treatment.

Alternative treatment options such as surgery, radiotherapy or chemotherapy will be discussed with you by the referring team before electrochemotherapy is offered.

How can I prepare for electrochemotherapy?

You will need to go to a pre-operative assessment clinic to have some baseline tests to make sure the anaesthetic will be suitable for you.

The areas to be treated are then measured and photographed so that we can check your response to the treatment. If you give your permission, this data is uploaded to a secure database so it can be shared with other electrochemotherapy practitioners.

You will also be seen in an oncology clinic to check you are suitable for chemotherapy.

If you have keloids, cancer in the lungs or lung disease such as asthma, COPD or lung fibrosis, you will also have some lung function tests.

Asking for your consent

It is important that you feel involved in decisions about your care. For some treatments, you will be asked to sign a consent form to say that you agree to have the treatment and understand what it involves. You can withdraw your consent at any time, even if you have said 'yes' previously. If you would like more details about our consent process, please ask for a copy of our policy.

What happens during electrochemotherapy?

You may have a local or a general anaesthetic depending on the size and number of cancer nodules. Your doctor will discuss this with you.

On the day of the treatment, you will be admitted to the surgical admission lounge, where you will meet the doctors. You will also meet the anaesthetist and if you are having a local anaesthetic, you may be offered sedation too.

You will be asked to sign a consent form for the treatment, will be marked by the doctors and asked to change into a hospital gown.

You will then be taken to the operating theatre suite where you will be given an anaesthetic and have your electrochemotherapy treatment.

Will I feel any pain?

You may have pain after your treatment, but this should not be severe.

You will be given strong pain killers which you should take regularly for the first two weeks when any pain is likely to be at its worst.

What happens after electrochemotherapy?

After your treatment, light dressings will be put on to the treated sites and if you have had a general anaesthetic, you will then be woken up and taken to the recovery area.

When the nursing staff is happy with your condition, you will be transferred to a ward. Most patients spend one night in hospital. The dressings are reduced or removed the following morning, and you will be discharged home.

The treatment can be carried out as a day case but how long you will be in hospital will depend on your general health. After your treatment, you may have some nausea from the anaesthetic and chemotherapy.

The treatment area will be covered with a dressing which should be changed often, either by yourself or by a nurse. The area may turn black, scab over and look worse before it starts to get better. This is a normal part of the healing process.

After it has healed, your skin may be darker or lighter than before.

What do I need to do after I go home?

The area may feel warm and be uncomfortable about two weeks after treatment. You should take regular pain relief to help.

Keep the treatment area clean and dry. Keep the dressing in place until your healthcare team tell you to remove or change it.

Do not overexert yourself while the area heals. Avoid strenuous exercise such as running or weights, and do not stretch the area while it's healing. When resting, try to keep the area elevated if the treated area is on your arm or leg.

If you're worried about how your wound is healing, you can email photos of the wound to your healthcare team.

You will be given an email address and a number to call if you have any questions or concerns.

Will I have a follow-up appointment?

Wound review one-week post-surgery.

Attend clinic approximately 4 weeks post-surgery for clinical review.

Electrochemotherapy can be repeated if needed to improve the response to the treatment or to control any new cancer nodules.

Useful sources of information

The following website has simple clear information for patients about electrochemotherapy:

[Electrochemotherapy for the Treatment of Tumours | IGEA Medical](#)

The National Institute for Health and Care Excellence (NICE) has published the following guidelines on electrochemotherapy:

www.nice.org.uk/guidance/ipg446

www.nice.org.uk/guidance/ipg478

Contact us

If you have any questions or concerns about electrochemotherapy, please contact Carol Cuthbert on 020 8725 4948 or call the hospital switchboard on 020 8672 1255 and ask them to bleep 7694 (Tuesday to Friday, 8.00am to 5.00pm). Out of hours, please call the hospital switchboard on 020 8672 1255 and ask them to bleep 7050.

For more information leaflets on conditions, procedures, treatments and services offered at our hospitals, please visit www.stgeorges.nhs.uk

Additional services

Patient Advice and Liaison Service (PALS)

PALS can offer you on-the-spot advice and information when you have comments or concerns about our services or the care you have received. You can visit the PALS office between 9.30am and 4.30pm, Monday to Friday in the main corridor between Grosvenor and Lanesborough wings (near the lift foyer).

Tel: 020 8725 2453 **Email:** pals@stgeorges.nhs.uk

NHS Choices

NHS Choices provides online information and guidance on all aspects of health and healthcare, to help you make decisions about your health.

Web: www.nhs.uk

NHS 111

You can call 111 when you need medical help fast but it's not a 999 emergency. NHS 111 is available 24 hours a day, 365 days a year. Calls are free from landlines and mobile phones.

Tel: 111

AccessAble

You can download accessibility guides for all our services by searching 'St George's Hospital' on the AccessAble website (www.accessable.co.uk). The guides are designed to ensure everyone – including those with accessibility needs – can access our hospital and community sites with confidence.



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