Total Skin Electron Irradiation (TSEI)

Information for patients

Northern Centre for Cancer Care (NCCC)
Freeman Hospital
Introduction
Your oncologist has advised you to have a course of radiotherapy to your skin as part of your treatment for Cutaneous T-cell lymphoma (CTCL) or Mycosis Fungoides (MF).
This leaflet has been written to give you general information and answer some of the questions you may have about the side effects of radiotherapy.
We hope you will find this helpful. If you have any further questions relating to your treatment, please do not hesitate to ask your radiographer or oncologist.

Cutaneous T-cell lymphoma (CTCL) or Mycosis Fungoides (MF) is a lymphoma which often affects only the skin. It can continue for years, indeed for a normal life span, causing widespread skin changes like eczema, sometimes progressing to thicker patches and sometimes obvious tumours. It is not hereditary, nor can it be passed on by contact.
As CTCL is very sensitive to low doses of radiotherapy, a skin treatment called Total Skin Electron Irradiation has been developed. Electrons are a form of radiotherapy used to treat the skin as they penetrate only a short distance below the skin surface.

Planning your treatment
- The treatment plan will be discussed with you and it is important to ask any questions that worry you.
- You may like to have someone with you to help you to remember the details of this meeting.
- Perhaps it will help to write down questions beforehand.
- If you agree to treatment, you will be asked to sign a consent form.

Before treatment
- A few days before treatment begins, you will be asked to come for a pre-treatment visit. This is to demonstrate to you what the treatment involves and is an opportunity for you to ask questions.
- Protective shields will be made for any areas of your body which do not require treatment, such as your eyes and nails.
- If the lymphoma does not affect your head, it may be advisable to shield your head.
- It may also be advisable to shield some areas of skin previously treated with electrons or other forms of radiotherapy.
Your consultant will decide which areas are to be shielded.

The treatment
The treatment itself consists of six areas (‘fields’), each divided into an upper and a lower half. It is not painful and should take less than an hour.
The radiographers will come into the treatment room to help you reposition between each field. The treatment is given daily for four days of the week, continuing for five weeks. You will be asked to undress for treatment apart from underwear (non-wired bra for women).
Treatment involves standing in different positions that give the best chance of treating all your skin to a similar dose, while not missing out any areas. Of course, people come in all shapes and sizes, and this is not easy to achieve. We will put
small measuring devices on various parts of your skin for the first few treatments to ensure that the correct electron dose is delivered to all areas. To protect the thinner parts of you from too much dose, you may have your hands and sometimes lower legs shielded for some of the treatment. Your eyes will always be protected during the treatment by using special goggles.

**Treatment positions**

Even with the greatest care, some areas will not get a high enough dose, and may need to have a ‘top-up’ treatment at the end. Likewise, thicker or tumour areas may be given additional treatment before beginning the TSEI treatment.

**How does TSEI affect you?**
TSEI is an attempt to treat all the skin with a beam of radiation which does not penetrate further than 1cm into the skin. This should therefore not make you feel ill, and there should be no nausea, sickness or diarrhoea.
- Your skin will become progressively pink as the treatment continues, rather like mild sunburn. The radiographer and doctor will check which moisturising cream you are regularly using at the pre-treatment visit and it is suggested that you continue with this skin care during treatment, unless otherwise advised. This treatment reaction should settle to a mild brown tan within four weeks of completion of TSEI.
• There is no reason why you should not have a quick lukewarm bath or shower during the early weeks of treatment. Later in the course of treatment and depending on the condition of your skin, you may wish to avoid these as the reaction develops. You can return to your normal skin care routine once the treatment side effects have settled.

• When your whole head is treated, your hair will gradually fall out and in most people, will grow back. Sometimes however, due to either the disease or the treatment, this might not happen. Body hair might also fall out and will regrow.

• If there is no disease around the nails, they will be shielded. If the nails are not shielded, they will fall off. The fingernails re-grow in about six months, while the toenails can take up to a year.

• If you have had considerable recent radiotherapy to parts of your skin prior to TSEI, we may need to shield these areas from the higher dose.

• The sweat glands in the skin may produce less sweat after TSEI, especially in areas previously treated by radiotherapy.

• Most people feel tired at the end of treatment and it takes a few weeks for energy levels to return to normal.

You will be sent an appointment to be seen in the Mycosis Fungoides or Lymphoma clinic after completing treatment.

**Getting to your appointment**

If you have difficulty travelling on a daily basis, transport can be arranged, or accommodation provided in our ward. Please be sure to mention this at your pre-treatment visit.

**Further treatment**

It may be that following TSEI some ‘maintenance therapy’, such as PUVA (light treatment), is suggested to keep your skin clear. This will be discussed with you. We have a team of specialist nurses available to help with any daily dressings you may need.

**Useful contacts:**

Dr John Frew  
Consultant Clinical Oncologist  
0191 2138670

Liz Murphy,  
Superintendent Radiographer.  
0191 2138375  
Mon-Fri 9-5pm

Northern Centre for Cancer Care  
Macmillan Information and Support Centre  
0191 2138611 (out of hours: - voicemail service)  
Opening hours: Monday to Friday from 9am to 4.30pm

Newcastle upon Tyne Hospitals NHS Foundation Trust  
[www.newcastle-hospitals.org.uk](http://www.newcastle-hospitals.org.uk)
If you would like further information about health conditions and treatment options, you may wish to visit the NHS Choices website at www.nhs.uk. On this website there is an information prescription generator www.nhs.uk/ips which brings together a wealth of approved patient information from the NHS and charity partners which you may find helpful.