

Treating your skin condition with Narrowband ultraviolet B radiation (NB-UVB)

Introduction

You have been referred to the Phototherapy department at Colchester General Hospital for a course of narrowband ultraviolet B treatment for your skin condition. Narrowband UVB is also known as TLO-1. This leaflet explains this treatment in detail, including its risks, benefits and alternatives. If you have any concerns or **questions, please speak to a doctor, nurse or technician that is caring for you.**

What is ultraviolet B radiation (UVB)

Ultraviolet(UV) rays are produced by the sun. Although they cannot be seen, they are an important part of sunlight and are grouped into different wavelengths: UVA, UVB, UVC.

UVA rays penetrate skin and cause it to darken or tan. UVB rays are mostly absorbed by the epidermis, which is the top layer of skin and are responsible for sunburn. UVC rays are absorbed by the earth's ozone layer, so they do not reach us.

Broadband UVB radiation is used to treat skin conditions that are caused by overactive immune cells in the skin because it reduces their activity. A specific wavelength of UVB is thought to be most useful range for treating skin conditions. This is referred to as narrowband UVB or TLO-1.

Treatment with UV is often referred to as phototherapy.

What can be treated with narrowband UVB?

It is mainly used to treat psoriasis, but can also be used for other skin conditions such as acne, eczema, vitiligo, mycosis fungoides, and polymorphic light eruption.

What does treatment involve?

The treatment is given in the phototherapy department by trained technicians. Your privacy and dignity will be considered at all times. You will need to undress and stand in a phototherapy unit, which is a cabinet containing fluorescent tubes that produce UVB rays.

The machine will be turned on and you will be given a calculated dose of narrowband UVB. This is then repeated three times a week over a period of time. You may feel a warm sensation during treatment, but it will not hurt.

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Why should I have narrowband UVB treatment?

This treatment should help to improve your skin condition. It is often recommended if you have tried ointments and creams without success. However, it is sometimes used in combination with other treatments.

Most patients with psoriasis find their skin has improved after treatment with UVB and remains clear for three to four months or sometimes longer.

Compared to other forms of phototherapy, narrowband UVB has the following benefits:

- for many conditions you are more likely to have longer periods where your skin condition disappears or improves
- for many (though not all) conditions, narrowband UVB is as effective as PUVA (psoralen ultra violet A) but with fewer side effects.

Are there any other alternatives?

Your doctor recommended this treatment for you. However, there may be other treatments available, such as PUVA. PUVA involves making your skin sensitive to light by taking tablets or taking a bath with a lotion in it and then exposing it to UVA radiation.

As well as these treatments, there is a wide variety of creams and ointments that can be used alone or at the same time as your UVB. Oral medications or injections may also be options to consider. Your doctor will explain the available alternatives to you in more detail. Please make sure you ask questions if you are uncertain.

Asking for your consent

If you decide to go ahead with this treatment, you will be asked to sign a consent form, which confirms that you agree to have the treatment and understand what it involves.

Minimal Erythemic Dose testing (MED)

The day before your treatment starts you will be asked to attend the phototherapy department for a skin test called an MED. This involves exposing an unaffected area of your skin to different amounts of UVB light for two minutes with a hand held UVB light machine. This is to determine at what level your treatment will start. After a while you may see small squares of defined redness on the exposed area, this is quite normal and should not be painful. This test is normally done on a Tuesday afternoon. You will then come to the department the following day, Wednesday to have the test read and commence your treatment.

On the day of treatment

Do not wear perfumes, aftershave lotions, deodorants or other cosmetic products before treatment. Some of these contain substances which make the skin more sensitive to light.

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This can cause patchy discoloration of the skin and take some months to fade. You can use these after each treatment. For the same reason, please let us know if you have started any new medications or creams while having treatment because some of them can make your skin more sensitive to light.

On treatment days please do not apply any creams or ointments to your skin before you go in the machine apart from an appropriate moisturiser, which helps your skin to absorb the ultraviolet light. You should use a water-based moisturiser such as Aqueous cream, E45 or Diprobase. Do not use oily creams, as these could cause burning and prevent the UVB from being absorbed. If you are not sure which creams to use, please ask a member of staff.

You will need to reduce your exposure to the sun's rays in order to minimise the risk of sunburn. Cover up with long-sleeved clothes, particularly on sunny days. You may also want to wear a hat.

Use a sunscreen with a factor of at least 20 that protects against UVA and UVB rays. Re-apply it regularly. Please do not sunbathe or use a sunbed during the whole course of your treatment.

Let us know if you have a haircut or, if for any other reason, any other areas of skin become newly exposed during the course of treatment.

Arriving for your treatment

On your first visit your skin will be assessed by the phototherapy technician. You will be asked questions about your condition and any medications or creams you are using.

We usually ask that you remove all your clothing. Dressing gowns are provided. Men must cover their genitalia with either a dark sock or darkjock strap while in the cabinet. If an area of skin that has previously been covered is exposed to UVB treatment, it may burn.

What happens during treatment?

A technician will show you where to get changed. The technician will examine your skin on each visit and ask some questions before you enter the machine.

You will be given goggles to protect your eyes and a mask to protect your face. You will be told how to stand in the machine in order to make sure all your affected skin receives the UVB rays. After we have calculated the correct dose, we will turn the machine on.

The length of time you are in the cabinet will depend on many factors such as your skin type (fair or dark) and skin condition.

Your starting dose of UVB may be only a few seconds and will then gradually be built up. Please allow 15-30 minutes for your treatment to allow for changing.

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We will closely monitor the amount of UVB you receive and increase the dose slightly with each treatment as long as you have tolerated the previous treatment.

The machine is quite bright and you may feel warm if you need to stay in the cabinet for a long time. Let us know if you find it uncomfortable because we can give your treatment in separate doses.

How often will I need to have this treatment?

This depends on your skin condition but this treatment is usually quite intensive. We generally give treatments three times a week over a period of time. We do our best our best to keep to your appointment time but occasionally there may be a short queue.

What are the risks?

Your doctor will discuss possible complications with you, but you need to be aware of the following:

- your skin can occasionally become itchy and dry
- your skin condition can temporarily worsen
- your skin may burn, as with any form of sunlight. We will try to avoid this but some tanning and redness is likely. Please let us know if your skin becomes sunburnt. This usually develops 8-14 hours after treatment and usually settles within 24 hours
- very occasionally patients develop an itchy rash due to sunlight – a polymorphic light eruption
- as with too much sun exposure, long-term use of UVB (many months to years) may age your skin and increase your risk of developing skin cancer. This risk is very slight at first, but increases after 200-300 treatments
- if you do not wear protective goggles in the cabinet, you risk developing a reaction in your eyes within a few hours of exposure. It may also increase your risk of developing eye cataracts in the future. You may open your eyes during treatments only when you are wearing protective goggles provided
- we will shield your face during treatment if you have rosacea or a history of cold sores which can be aggravated by the sun and if your face is clear and not effected.

UVB is most suitable for people with extensive skin problems. It may not be appropriate for you if you have very fair skin, or if your condition becomes worse in sunlight.

It is also important to note that your skin condition may flare up again. If it does, you may need further treatments of UVB or other types of treatment in the future to manage it.

What do I need to do after my treatment?

You may want to apply your moisturiser or other creams and ointments after your treatment. You can do this in the changing cubicle. Someone will be able to help

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you if needed. You can then get dressed, book your next appointment and go home or to work.

UVB tends to cause dryness to the skin so you may find it more comfortable to use your moisturiser regularly, usually twice a day.

If you do develop sunburn please treat your skin as you would usually treat sunburn. If it is severe, please phone this department for advice. However this is very rare. Please remember to inform the technician of any reactions you may have from your treatments so your time in the machine can be adjusted.

Where do I have my treatment?

The phototherapy department is situated in Gainsborough Wing, Colchester General Hospital.

The department is open from 7am to 7.30pm on Mondays, Wednesdays and Fridays. The telephone number is 01206 742276.

Adapted from St. Thomas' Hospital London

Your views

If you or a family member has recently been in either Colchester General Hospital or Essex County Hospital for any reason, tell us about your experience by visiting the www.nhs.uk website and then click on the "Share your hospital feedback" section.

The Trust respects our patients' views on our services and would greatly appreciate hearing from you if you have any comments on this leaflet. If so you can phone the Patient Information Service on 01206 742930, write to the address on the front of this leaflet or email your comments to info@colchesterhospital.nhs.uk.

Phototherapy (PUVA) Unit Gainsborough Wing
Colchester General Hospital
Turner Road
Colchester
CO4 5JL
Tel: 01206 742276

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