



UVA1 PHOTOTHERAPY

WHAT ARE THE AIMS OF THIS LEAFLET?

This leaflet has been written to help you understand more about UVA1 phototherapy for your skin condition. This leaflet explains this treatment in detail, including its risks, benefits and alternatives. If you have any questions or concerns, please speak to the doctor or nurse caring for you.

WHAT IS PHOTOTHERAPY?

Natural sunlight has been known to be beneficial in certain skin disorders for thousands of years. Phototherapy is a specialised treatment, delivered by the Phototherapy Unit at your hospital. It is carefully regulated to ensure patient safety and has proven to be a very effective treatment for many different skin diseases.

The ultraviolet radiation (UVR) produced by the sun is used in phototherapy. Although it cannot be seen, UVR is an important part of sunlight and is divided into ultraviolet A (UVA) and ultraviolet B (UVB) wavelengths. UVA rays go deeper into the skin than other types of UVR and can cause the skin to tan. UVB rays do not penetrate as deeply but can cause the skin to burn. In phototherapy we use carefully calculated doses of UV light to minimise this risk.

WHAT IS UVA1?

UVA means Ultraviolet A. UVA is made up of UVA1 and UVA2. UVA1 is the type of UVA which goes most deeply into the skin.

ARE THERE ANY OTHER TYPES OF PHOTOTHERAPY?

Other phototherapy treatments include:

- **Narrowband UVB (NB-UVB):** Uses a small part of the UVB light spectrum to treat skin conditions.

- **Oral PUVA:** Psoralen and UVA, where UVA radiation is combined with a chemical called psoralen that increases the effect of UVA on the skin.
- **Topical PUVA:** Psoralen is applied directly to the skin before UVA exposure.

The choice of phototherapy recommended will depend on your skin condition, and on discussions that you have with your doctor about the treatment that would work best for you and be most suitable for you.

WHAT SKIN CONDITIONS ARE TREATED WITH UVA1 AND WHY AM I HAVING THIS TREATMENT?

You and your healthcare professional will have discussed treatment options for your skin condition and decided that this treatment is the most suitable.

This treatment is usually recommended if ointments and creams have not helped sufficiently, but usually before trying tablet medication. UVA1 phototherapy is used to treat skin diseases where the skin thickens, including scleroderma, morphea, lichen sclerosus and **keloid** scars. It is also sometimes used in the treatment of other skin conditions including **atopic dermatitis**, **mycosis fungoides**, mastocytosis, chronic urticaria and **polymorphic light eruption**. The success of UVA1 treatment varies from one patient to another and from one skin disease to another.

THE TREATMENT PROCESS

What can I expect on my first treatment?

In many phototherapy units, treatment will start right away. Some units may offer UV (light) patch test at the first visit to check the skin's tolerance to UVA1. This includes shining



many test doses of UVA onto small areas of skin and then calculating the safe starting dose for you.

Following the UV patch test, you will need to wait for 24 hours before the phototherapy team can examine the test dose site. They will then be able to start your treatment.

What happens during treatment?

The phototherapy nurses will examine your skin on each visit and ask you some questions before you enter the machine. They will give you protective goggles for your eyes, which you must wear at all times during the treatment. You will be guided on how to position yourself correctly in the machine to ensure your skin is exposed evenly each time.

For full body treatment, the UVA1 machine may require you to stand or to lie down to receive the treatment, depending on the type of machine used. The nurses will show you how to lie down in the machine in the correct position to make sure that all your skin is exposed evenly each time. Alternatively, you may be having more localised areas treated with a smaller unit, which will be carefully positioned to target selected areas.

Full body treatment will usually require removing all clothing and loose jewellery. Private parts (genitalia) can be kept covered if they do not require treatment, and in such cases, underwear can be worn. Wearing dark underwear or cover provides better protection of the genitalia during treatment. This is because darker colours block UV light better. If you wear underwear, please make sure it covers the same area on each visit. If an area of skin that has previously been covered is exposed to the UVA1 treatment, it may burn.

You will be in the UVA1 machine for up to 45 minutes. The amount of UVA1 you receive will be closely monitored and the dose will be increased with each treatment, if you have tolerated the previous treatment. The light in the machine is quite bright and you may feel warm if you stay in the booth for a long time. Please let the nursing staff know if you feel uncomfortable or unwell.

How long do treatments last?

This depends on your skin condition and varies from person to person. Treatments are generally given 2-5 times a week for 12 weeks. The total number of treatments will depend on response to treatment and your specific skin condition.

It is difficult to predict how long your skin will remain clear after treatment, and you may require further treatment in the future, whether UVA1 or another option. In most cases, successful treatment does not require follow-up sessions. However, if your symptoms return, you can ask your GP for a referral back to UVA1 phototherapy.

Important points to remember before and during your treatment

- You need to commit to attending the phototherapy department 2-5 times per week. Attending regularly helps to achieve better results from your treatment. If you miss too many appointments, this can directly affect any improvement that you may have had.
- Reduce exposure to the sun's rays to minimise the risk of sunburn. We recommend:
 - After treatment, use a sun protection factor 50 (SPF 50) sunscreen with a UVA 5-star rating, and re-apply it regularly (do not apply before treatment as this may stop the UVA1 from working).
 - Do not sunbathe or use a sunbed at any point during your course of treatment.
- Newly exposed areas of skin during your treatment can burn. Let your phototherapy team know if you get a haircut or if any new areas of skin become exposed.
- Be consistent with the way you wear clothing or jewellery during treatment. Areas covered at the start may burn if exposed later. We recommend that you remove watches or any loose jewellery during treatment. This is



because the dose of UV light increases with each session, and it may be too strong for skin that has not been gradually introduced to the therapy.

- Inform staff of any medication changes, including over-the-counter drugs or creams, as some can affect UVA sensitivity, including supplements.
- This is because some tablets can affect the way this treatment works and may make you more sensitive to it.

On the day of your treatment

- Do not wear perfumes, deodorants, aftershave lotions or other cosmetic products before your treatment. Some of these contain substances which make your skin more sensitive to light. This can cause patchy discolouration of the skin that can take some months to fade. You can use them after each treatment.
- On treatment days, please do not apply any oily creams or ointments to your skin before you go into the machine. These could cause burning or prevent the UVA1 from being absorbed. If you do require a moisturiser, a non-SPF containing water-based **emollient** can be applied 2 hours beforehand and may in fact help your skin to absorb the ultraviolet light especially if your skin is dry and flaky. Please speak to your nursing team for more information on this.
- Do not use oily creams as these could cause burning or prevent the UVA from being absorbed.

WHAT ARE THE RISKS WITH UVA1 PHOTOTHERAPY?

Your doctor or nurse will discuss the possible complications of this treatment with you in more detail. You need to be aware of the following side effects that could happen during your course of treatment:

- **Mild sunburn:** It is possible that a mild sunburn could occur, and it can take 2-

3 days to appear and could last for more than a week. If you get a severe sunburn-like reaction, contact your phototherapy unit, or contacts provided for advice. If there is a delay in getting advice, apply a steroid ointment, if you have one at home, along with moisturisers. More information on dealing with sunburn can be found on the NHS website here: www.nhs.uk/conditions/sunburn/

- **Spotty itchy rash:** We know that about 1 out of 10 people develop spotty itchy rash during their course of treatment. This is called **polymorphic light eruption** or prickly heat. If you already know that sunlight causes this reaction on your skin please tell the nurse or doctor before you start treatment. If this happens during your course of treatment, please tell the nurse as soon as possible.
- **Tanning:** Depending on your natural skin colour, if your skin goes brown easily in sunlight, you may develop a dark tan.
- **Dry and itchy skin:** This is common, and we recommend using a regular moisturiser or **emollient** between treatments to reduce this.
- **Cold sores:** One in 30 people experience this. Tell your nurse if you notice early signs of tingling or a painful bump developing on your lip. If you have a history of **cold sores**, they will apply sunblock to your lips.
- **Worsening of the condition being treated:** This may occur instead of improvement and your doctor will advise you of the risk of this happening.

WHAT ARE THE RISKS ASSOCIATED WITH MULTIPLE COURSES OF UVA1 THERAPY?

- **Skin cancer:** People who have a lot of sunlight exposure have an increased risk of developing skin cancer. In the UK, approximately one in every 4-5 people will develop skin cancer. Unlike



other forms of phototherapy, it is unclear whether there is any risk at all from UVA but if you have received more than 200 UVA treatments, you may be asked to attend your local clinic for regular skin cancer screenings.

- **Skin-aging:** If you need many treatments, you may develop sunlight-induced skin changes with wrinkling and skin discolouration, similar to that of the ageing process or produced by cigarette smoking. Increased freckling can also occur.

WHERE CAN I GET MORE INFORMATION ABOUT UVA1 PHOTOTHERAPY?

The process of phototherapy can generate lots of questions, and sometimes also thoughts and feelings about your skin condition. The links below direct you to patient support groups which can provide support during your treatment course and information about the process of phototherapy.

Patient support groups providing information:

National Eczema Society:
www.eczema.org

The British Porphyria Association:
www.porphyrria.org.uk

Vitiligo Support Group:
www.vitiligosupport.uk/

Vitiligo Society
www.vitiligosociety.org.uk

Other relevant resources:

Skin cancer symptoms and treatments:
www.skinhealthinfo.org.uk/symptoms-treatments/skin-cancer/

Jargon Buster:
www.skinhealthinfo.org.uk/support-resources/jargon-buster/

In addition, the Phototherapy unit nursing staff are more than happy to answer

questions about your course of treatment or anything that arises from the treatment.

Please note that the British Association of Dermatologists (BAD) provides web links to additional resources to help people access a range of information about their treatment or skin condition. The views expressed in these external resources may not be shared by the BAD or its members. The BAD has no control of and does not endorse the content of external links.



This leaflet aims to provide accurate information about the subject and is a consensus of the views held by representatives of the British Association of Dermatologists and the British Photodermatology Group: individual patient circumstances may differ, which might alter both the advice and course of therapy given to you by your doctor.

This leaflet has been assessed for readability by the British Association of Dermatologists' Patient Information Lay Review Panel

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