Treating your skin condition with PUVA therapy

Your doctor has referred you to the Dowling Day Treatment Centre for a course of PUVA ultraviolet treatment for your skin condition. PUVA is also known as photochemotherapy. This leaflet explains this treatment in detail, including its risks, benefits and alternatives. If you have any questions or concerns, please to speak to a doctor or nurse caring for you.

What is PUVA?

Ultraviolet (UV) rays are produced by the sun. Although they can't be seen, they are an important part of sunlight and are grouped into different wavelengths: UVA, UVB and UVC. PUVA is a combination of a drug called psoralen (P) and long wave ultraviolet radiation (UVA)- hence the term PUVA. Psoralen 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 our skin and is responsible for sunburn. UVC rays are absorbed by the Earth's ozone layer, so they do not reach us.

What can PUVA treat?

It is mainly used to treat psoriasis, eczema, vitiligo, mycosis fungoides, and polymorphic light eruption.

What does treatment involve?

The psoralen medication is taken by mouth (before coming to the Dowling Day Treatment Unit) or applied to the skin as a paint or lotion, or dissolved in bath water used by the patient in the Dowling Day Unit. Two hours after ingestion of the oral drug or some minutes after application of the paint, lotion or bath water, the required concentration in the skin is reached. The UVA treatment is then given in the Dowling Day Unit by specially trained nurses. You will need to undress and stand in a phototherapy unit, which is a cabinet containing fluorescent tubes that produce UVA rays. Each machine is screened off to make sure your treatment is given in private.

The machine will be turned on and you will be given a calculated dose of PUVA. This is then repeated 2 or 3 times per week over several months. You may feel a warm sensation during treatment, but it will not hurt.

Why should I have PUVA 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 topical treatments.

Most patients with psoriasis find their skin has improved after about 20 treatments and remains clear for three to four months or sometimes longer.

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

 For many conditions you are more likely to have longer periods where your skin condition disappears or improves with PUVA than with narrowband UVB. For a number of conditions (though not all) PUVA is more effective than narrowband UVB.

Are there any other alternatives?

Your doctor recommended this treatment for you. However, there may be other treatments available, such as narrowband UVB, tablets or injections. 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 PUVA. Your doctor will explain all the alternatives available 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. You should receive the leaflet, **Helping you decide: our consent policy**, which gives you more information. If you do not, please ask us for one.

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 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, as some can make your skin more sensitive to light.

Avoid significant alcohol consumption

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. You should use a water-based moisturiser such as Aqueous cream or Diprobase. Do not use oily creams, as these could cause burning and prevent the UVA from being absorbed. We suggest that you moisturise beforehand, as this helps your skin to absorb the ultraviolet light. If you are not sure which creams you can use, please ask a member of the day unit staff.

Reduce your exposure to the sun's rays, even through window glass, to minimise the risk of sunburn. PUVA can cause unpleasant sunburn-type reactions if this is not adhered to. For lotion, paint or bath water PUVA, only the areas of skin where the lotion, paint or bath water has been applied need protection. Cover up with loose fitting, long sleeved clothes. Use a sunscreen with a factor of at least 20 that protects against UVA and UVB rays. Re-apply it regularly. You may also want to wear a hat after your treatments on sunny days particularly if you don't have a lot of scalp hair. Please do not sunbathe or use a sunbed during the whole course of your treatment.

If you are having the psoralen as a tablet, you must wear glasses, either your own sunglasses or clear glasses supplied by your optician with special UV filters, from the time when you take the psoralen tablets until

nightfall on the day of treatment. This protects your eyes against damage from PUVA

Let us know if you have a haircut or if you have any areas that have not been exposed to the ultraviolet light beforehand.

Arriving for your treatment

Let the nursing staff know you have arrived. At your first visit you will need to have a light test, which allows us to see your skin's tolerance to PUVA. We need this to calculate your safe starting dose. You will need to come back 96 hours afterwards, so we can examine the site where you had the light test. We will then be able to start your treatment.

We usually ask that you remove all your clothing, although you can keep your underwear on if this area of skin is not affected. However, men must either wear dark underwear or cover their genitalia with a sock or jock strap while in the booth. If you wear underwear, please make sure it covers the same are on each visit. If an area of skin that has previously been covered is exposed to the PUVA treatment, it may burn. Please bring a light dressing gown to wear while you are waiting for a machine to become available.

The unit has lockers where you can store your other belongings while you are having your treatment. However, we do not have anywhere to store your dressing gown in between treatments, so you will have to take it home and bring it with you on each treatment day. Please remove any jewellery you are wearing and store it in one of the lockers.

What happens during treatment?

The nurse will call you from the waiting room when a machine is available for your treatment. He/she will examine your skin on each visit and ask you some questions before you enter the machine.

We will give you goggles to protect your eyes and tell you how to stand in the machine, to make sure all your affected skin receives the PUVA rays. We will give you specific instructions on how to stand in the machine to ensure that all of your skin is exposed evenly each time After we have calculated the correct dose for you we will turn the machine on.

The time that you are in the booth will depend on many factors such as your skin type (fair or dark) and skin condition. Your starting dose of PUVA may only be a few seconds and then gradually built up. Please allow 15-30 minutes for your treatment, to allow time for changing. We will explain this to you in more detail before your treatment and will closely monitor the amount of PUVA you receive.

We will increase the dose of PUVA slightly with each treatment. We will make every effort to prevent your skin burning, but if it does, please see the after care advice overleaf.

The machine is quite bright and you may feel warm if you need to stay in the booth for a long time. Let us know if you find it uncomfortable, as we can give your treatment in divided 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 two times a week for about 10 weeks, though this length is different for the treatment of different skin conditions. Therefore, you **must** make sure you can commit this amount of time before you start the course of treatment.

We do our best to keep to your appointment time, but occasionally there may be a short queue. Please ask one of the nurses if you are concerned about your waiting time.

What are the risks?

Your doctor or nurse will discuss the possible complications of this treatment with you in more detail, but you need to be aware of the following:

- Your skin can occasionally become itchy and dry.
- Some patients feel nauseous after taking the psoralen tablets
- Your skin condition could temporarily worsen.
- Your skin may burn, with redness and soreness and occasionally blistering, though these effects are usually avoided by careful selection by the staff of the UVA dose which they will give. We will try to avoid this, but some tanning and redness of your skin is likely. Please let us know if your skin does become sunburnt. This usually develops 8-14 hours after your treatment.
- Very occasionally patients develop polymorphic light eruption, which is an itchy rash due to sunlight.
- Long-term use of PUVA (many months to years) ages the skin and increases
 the risk of developing skin cancer. This increased risk is slight at first, but
 increases after about 150-200 treatments, and so it is unusual for us to give
 patients more than 150-200 PUVA treatments in total. For this reason, we
 also do not give PUVA therapy between courses.
- If you do not wear the protective goggles in the unit, you risk developing sunburn like reaction to your eyes within a few hours of exposure. You may open your eyes during treatments only when you are wearing the protective goggles provided. In the long term, it is possible that a lot of PUVA treatment increases the risk of developing cataracts in the eyes. This risk is probably very low as long as you wear the glasses and goggles as advised.
- Although there is no evidence that PUVA can damage a developing foetus, nevertheless if pregnancy is suspected it is advisable for absolute safety for the baby to stop PUVA until delivery, particularly if the psoralen is being taken in the tablet form.

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

If you have rosacea or a history of cold sores, we will shield your face during treatment.

It is also important to note that your skin condition may flare up again. If it does, you will need further treatments of PUVA or other another type 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. Cubicles are available for you to do this in. The nurses will be able to help you if needed. You can then get dressed, book your next appointment and go home.

If you develop sunburn it is important to contact the unit as soon as you can so that we can assess your symptoms, please treat your skin as you usually would after a sunburn. If it is severe, please phone the unit for advice. However, this is very rare.

Are there any follow-up appointments?

You will be able to book your PUVA appointments in advance if you wish. Please remember to keep all your appointments and let us know if you cannot attend for any reason. You will usually have a follow-up appointment six to eight weeks after your treatment, or sooner if you are having problems.

Who can I contact for more information?

If you have any questions or concerns about your treatment, please contact the Dowling Day Unit 020 7188 6275/6290.

Photodermatology Unit St John's Institute of Dermatology February 2008

