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Type: PROTOCOL

Ultraviolet Treatment Protocol

Relevant to: HEH, SWCH Physiotherapy Departments, Dermatology Departments all sites.

Produced by:	Physiotherapy OPD
Responsible Executive Director:	Vince McCabe
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Responsible Reviewing Officer:	Team Leader Physiotherapists
This document replaces:	2005 TLO1 Policy and Protocol

Signed



Chief Executive

For Office Use Only

Scheme of Publication

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POLICY VALIDITY STATEMENT

THIS POLICY IS DUE FOR REVIEW ON 30.07.09

After this date, policy and process documents may become invalid.

Policy users should ensure that they are consulting the currently valid version of the documentation.

WEST ESSEX PCT
Physiotherapy Service
Protocol for Ultraviolet treatment - UVB/TLO1

INTRODUCTION

The effective use of sunlight and artificial ultraviolet radiation for the treatment of psoriasis and other skin disorders has long been recognised. Conventional UVA and UVB irradiation was a major component of the Goeckerman regime promoted by Mayo in the 1920s.

By definition, phototherapy consists of non ionising radiation as a treatment modality. It has been utilized since antiquity.

Diseases that are treated with ultraviolet phototherapy are psoriasis, eczema, acne, Vitiligo, pityriasis lichenoides chronica, polymorphic light eruption (and other photosensitive disorders) pruritis. The vast majority of patients treated with ultraviolet phototherapy will have psoriasis or eczema (particularly atopic eczema). UVB phototherapy is also used to treat a number of photosensitive skin disorders only one of which (polymorphic light eruption) is at all common. Increased tolerance is achieved by tanning and skin thickening and, probably of equal importance, by immunological and pharmacological actions.

The following is the protocol to be followed from the receipt of a referral from the Consultant and process to follow depending on the diagnosis and skin type indicated.

1. Referral form

Completed referral form sent to Physiotherapy Department from the Dermatology Consultant. Information required: diagnosis, skin type, medication and creams currently using especially protopic / neotigason, follow up period eg 8/52 from start of treatment.

PLE clients will receive 4 weeks of treatment unless indicated on treatment card that longer course is required.

If this information is not received the referral will be returned to the Consultant for completion.

2. Standard letter

Standard letter sent to client with time and date of first and second appointment for those who require a skin test, or a standard letter for time and date of 1st appointment without a skin test

Advice sheet including information in case of overdose or adverse reaction to treatment also to be included. (Appendix 1, 1a & 2)

3. First appointment

Assessment of patient completed by qualified Physiotherapist using a standard format. **(Appendix 3)**

A standard advice sheet will be given to the client if not previously received.

Patient compliance rules explained, completed and signed by client and assessor. (**Appendix 4**)

In addition Dept of Health consent form 3 is used for children and adults prior to commencement of treatment.

Appointment card system explained to client. (double checking). (**Appendix 5**)

A Skin test must be completed for all conditions excluding VITILIGO and PLE for their skin type. (**Appendix 6**)

In the event that skin test cannot be performed due to no unaffected skin – treatment to follow the ‘ without skin test chart’. (**Appendix 7**)

VITILIGO and PLE clients can receive their 1st treatment at this appointment once consent form signed following the protocol for the condition. (Appendix 8 & 9)

Goggles **MUST** be worn by all clients for every treatment – (even if the eyes are involved in the skin condition)

Following assessment, old notes to be removed from wallet and stored at the back of the filing cabinet (SWCH) or in the box in main office (HEH).

If there is no skin problem on the face, a hood (SWCH) or goggles and face mask (HEH) must be worn for the course of treatment.

4. **Second appointment** [the following day if possible]

Skin test assessed. Initial dose calculated as 70% of MED

Follow protocol for diagnosis (appendix 10)

PLE & Vitiligo clients follow own protocol

5. **Subsequent treatments**

These may be 2 or 3 times a week as suits the client and department.

Clients with Skin type 1 will have their dose increased by 10 % each visit, unless there is no improvement/reaction in which case transfer to 20 % increments

Clients with psoriasis and Pityriasis Lichenoides Chronicus will have their dose increased by 20% each visit.

Mycosis fungoides, eczema/ atopic dermatitis and actinic prurigo will have their dose increased by 20 % until get an erythema and thereafter complete the course of treatment with 10 % increases

Summary of conditions and protocols

DIAGNOSIS	SKIN TEST	START DOSE	% age Increments SKIN type I	% age increments SKIN type II - VI	Maximum no. of treatments in a course – unless consultant authorised further in writing
VITILIGO	NO	30 secs	10 % When signs of pink/pigmentation dose to remain static	20 % When signs of pink/pigmentation dose to remain static	50 +
PSORIASIS	YES	70 % MED	10 %	20 %	20
PITYRASIS LICHENOIDES CHRONICUS	YES	70 % MED	10 %	20 %	20
MF	YES	70 % MED	10 %	20% until reach erythema and then 10% increments	20
ACTINIC PRURIGO	YES	70 % MED	10 %	20% until reach erythema and then 10% increments	20
ATOPIC ECZEMA/ ATOPIC DERMATITIS	YES	70 % MED	10 %	20% until reach erythema and then 10% increments	30
PLE	NO	Skin Type I IV 150mJ/c m ² Skin Type V – VI 150 mJ/cm ²	Skin type I – IV 20 % increments (follow charts)	Skin type V – VI 40 % then 20 % increments (follow charts)	4/52 no need for consultant follow up

If a client has an erythema on the day of treatment they will miss a dose, their subsequent dose will be reduced.

Some patients may have specific dose requirements.

The client must have their appointment card with the dose written on it to compare and double check with the physiotherapy notes. Dose must be agreed with the patient.

All Skin Type I patients should be increased by 10% only.

Specific treatment protocols including progression

PSORIASIS AND PITYRIASIS LICHENOIDES CHRONICUS			
SKIN TEST REQUIRED			
Start dose 70 % of MED			
		SKIN TYPE I	SKIN TYPE II III & IV
E0	No erythema	Increase by 10%	Increase by 20%
E1	24 hours erythema – clear now	Increase by 10%	Increase by 20%
E2	48 hours erythema – clear now	0% increase	0% increase
E3	Still pink	No treatment	No treatment
E4	Red, blistered, peeling	No treatment refer to overdose / excessive reaction protocol	No treatment refer to overdose / excessive reaction protocol

MF ECZEMA / ATOPIC DERMATITIS ACTINIC PRURIGO			
SKIN TEST REQUIRED			
Start dose 70 % of MED			
		SKIN TYPE I	SKIN TYPE II III & IV
E0	No erythema	Increase by 10%	Increase by 20%
E1	24 hours erythema – clear now	Increase by 10%	Increase by 10%
E2	48 hours erythema – clear now	0% increase	0% increase
E3	Still pink	No treatment	No treatment
E4	Red, blistered, peeling	No treatment refer to overdose / excessive reaction protocol	No treatment refer to overdose / excessive reaction protocol

POLYMORPHIC LIGHT ERUPTION				
<u>NO SKIN TEST</u>				
If PLE flares withhold treatment until settled				
May need prednisolone (from consultant) until settled and then on treatment days				
If Hx severe PLE may have more than 4/52 treatment as indicated by the consultant				
	SKIN TYPE I – IV (20 % increments)		SKIN TYPE V - VI (40 % then 20 % increments)	
WK 1	150 mJ/cm ²	180 mJ/cm ²	150 mJ/cm ²	200 mJ/cm ²
WK 2	220 mJ/cm ²	260 mJ/cm ²	300 mJ/cm ²	400 mJ/cm ²
WK 3	310 mJ/cm ²	370 mJ/cm ²	600 mJ/cm ²	800 mJ/cm ²
WK 4	440 mJ/cm ²	530 mJ/cm ²	960 mJ/cm ²	1,150 mJ/cm ²

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VITILIGO NO SKIN TEST REQUIRED		
START DOSE : 30 SECONDS ALL SKIN TYPES (SWCH output 225mj/cm)		
When the unpigmented skin shows signs of pink/pigmentation dose to remain static		
	SKIN TYPE I	SKIN TYPE II III & IV
No erythema	Increase by 10%	Increase by 20%
24 hours erythema – clear now	Increase by 10%	Increase by 10%
48 hours erythema – clear now	0% increase	0% increase
Still pink	No treatment	No treatment
Red, blistered, peeling	No treatment refer to overdose / excessive reaction protocol	No treatment refer to overdose / excessive reaction protocol

Missed treatment protocol

No of days since last RX. %Reduction in dose

< = 7	Continue treatment as normal for diagnosis
8 – 10	Repeat dose
11 - 15	Reduce last dose by 20 % OR if below starting dose – restart
16 - 20	Reduce last dose by 35% OR if below starting dose – restart
21+	Give a dose between starting dose and 50 % of previous dose – dependent on skin type

6. Total number of treatments

Total number of treatments in one episode must be kept to a minimum. There is a maximum no. of joules with which we can use for each treatment session, this varies for each skin type and also for face and body. **(Appendix 12)**

Discharge is discussed at 20 sessions unless the patient is still continuing to improve. Written OR emailed or documented verbal authorisation must be received by the physiotherapy department to continue treatment beyond the recommended total below.

Recommended totals, in one course, for:

Psoriasis	=	20
Pityriasis lichenoides chronicus (PLC)	=	20
Eczema/ Atopic dermatitis	=	30
Mycosis fungoides (MF)	=	20+
Vitiligo	=	50
Polymorphic light eruption (PLE)	=	8 or 12 if HX severe PLE as indicated by Consultant on referral

A maximum of 200 sessions in a lifetime is recommended.

Maximum doses for face and body

BODY		FACE
SKIN TYPE 1	2J / 2000MJ	1J / 1000MJ
SKIN TYPE 2	3J / 3000MJ	1.5J / 1500MJ
SKIN TYPE 3	4J / 4000MJ	2J / 2000MJ
SKIN TYPE 4	4J / 4000MJ	2J / 2000MJ
SKIN TYPE 5	5J / 5000MJ	2J / 2000MJ
SKIN TYPE 6	6J / 6000MJ	2J / 2000MJ

8. **Neotigason protocol**

Please see **Appendix 13**

9. **Discharge letter**

A discharge summary must be completed and sent to the referring Consultant and client and a copy kept in the clients treatment notes (**Appendix 14**)

10. **Severe reaction to treatment**

Do not treat on that day, review subsequent doses.

If it does not settle, seek medical help, please refer to the TLO1 overdose / extreme reaction procedure. (**appendix 15**)

Write a report in the client's notes and the Incident Book.

11. **Documentation**

Use standard assessment forms, document each treatment and sign/initial after each treatment.

Dosage must be written into the physiotherapy notes and on the patient's appointment card.

Current notes will be filed in a separate filing cabinet for Ultra-Violet notes(SWCH) and in general current filing (HEH) .

Old notes will be removed from the current treatment envelope and kept in the back of the sunlight filing cabinet (SWCH), sunlight notes box in main office, all notes to be filed away together on discharge.

On discharge notes must be ruled off and scored through with a pen to ensure it is clear that they represent a previous episode of care. Old notes to be added to the current notes and filed together.

Send a standard discharge form

12. **Data review**

Annual review of current procedures to maintain standards of care.

Six monthly notes audit.

13. **Training**

Annual update preferably by an external lecturer.

Inhouse training for new physiotherapy staff from physiotherapist currently practicing sunlight treatment

14. **New tubes**

When new tubes are installed try to spread new tubes about the machine rather than all one side.

Appendix 1
APPOINTMENT LETTER

Physiotherapy Department
Herts and Essex Hospital
Cavell Drive
Off Haymeads lane
Bishops Stortford
Herts CM23 5JH
01279 827498

Date:

Dear

Re: Sunlight Treatment – TLO1(UVB) Skin test

Arrangements have been made for you to attend

The Physiotherapy Outpatient Department

At **HERTS AND ESSEX HOSPITAL,
HAYMEADS LANE, BISHOPS STORTFORD**

On.....

At.....Am/Pm

You will be required to attend the following day 24 hours later to assess the result of your skin test.

I would be grateful if you could contact the physiotherapy Department immediately on:

 **(01279) 827498**, to confirm whether this appointment is convenient for you.

If you are unable to attend, you will give another patient the opportunity of being seen.

Failure to call us within 48 hrs of receiving this letter could mean cancellation of your appointment.

In order for your skin test to be successfully carried out you will need to bring/wear some specific items of clothing with you.

You will need the following items, all of which must be dark in colour i.e. navy/black/dark green:

Gloves (long enough to tuck under cuffs of shirt)

Scarf and hat

Dark trousers

Casual sweatshirt or dark long-sleeved shirt or preferably a dark polo neck top

Dark socks

No creams or lotions (especially Doctors prescriptions) to be used prior to skin test. This is an essential requirement.

If you are using PROTOPIC CREAM please contact the department for further advice prior to your first appointment

Yours sincerely

Physiotherapy Department
Herts and Essex Hospital

Appendix1A

Physiotherapy Department
Herts and Essex Hospital
Cavell Drive
Off Haymeads lane
Bishops Stortford
Herts CM23 5JH
01279 827498

Date:

Dear

Re: Sunlight Treatment – TLO1

Arrangements have been made for you to attend for an assessment and treatment of
your
VITILIGO / POLYMORPHIC LIGHT ERUPTION (PLE)


In the **Physiotherapy Outpatient Department**

At **HERTS AND ESSEX HOSPITAL,
CAVELL DRIVE , OFF HAYMEADS LANE,
BISHOPS STORTFORD, HERTS CM23 5JH**

On.....

At.....Am/Pm

I would be grateful if you could contact the physiotherapy Department immediately
on:

 **(01279) 827498**, to confirm if this appointment is convenient for you.

If you are unable to attend, you will give another patient the opportunity of being
seen.

Failure to call us within 48 hrs of receiving this letter could mean cancellation of your
appointment.

No creams or lotions (especially Doctors prescriptions) should be used on the day of
this appointment . **This is an essential requirement.**

**If you are using PROTOPIC CREAM please contact the department for further
advice prior to your first appointment**

Yours sincerely

Physiotherapy Department

Appendix 2
WEST ESSEX PRIMARY CARE TRUST
ADVICE SHEET

PHYSIOTHERAPY DEPARTMENT
SWCH/HEH
ULTRA-VIOLET THERAPY

UVB - WHAT IS IT?

UVB stands for ultraviolet B radiation. This is the part of the natural sunlight that causes tanning and sunburn, and is helpful in the treatment of several different skin disorders. The treatment we provide is TL01 which is a very narrow band of UVB radiation.

THE TL01 MACHINE

The machine used contains fluorescent tubes with a special coating. These tubes give out the UVB. The tubes are built into boxes, rather like shower cubicles, into which you step for treatment.

During treatment you must wear goggles to protect your eyes. Make sure they fit correctly and do not allow any light to penetrate. These goggles will be provided at the clinic.

THE TREATMENT SESSION

Fair-skinned people, who burn easily, will have shorter treatment time than dark-skinned people who rarely burn in the sun.

The treatment sessions may gradually be increased for so long as your skin tolerates the treatment and does not burn.

If you notice any burning or soreness, please tell your Physiotherapist before further treatment, as the treatment time may need to be reduced or the affected area may need covering.

You will be treated by various Physiotherapists in order to achieve appointment times convenient to you.

Shower facilities are available for use following treatment. Please bring your own towel.

FREQUENCY

Treatment is usually given two to three times a week. Psoriasis usually clears after 4-6 weeks of treatment and, on average, remains clear for 3-4 months. Please

inform your Physiotherapist if you feel your skin has cleared as treatment may be stopped. Continuous treatment is avoided, if possible, to reduce the cumulative damaging effects of the UVB.

A maximum of 200 treatment sessions, in a lifetime, are recommended and we therefore try to limit a course of treatment to a maximum of 20.

You will be given an appointment card on which we will record each treatment dose. **THIS MUST BE BROUGHT TO EVERY SESSION** in order to double check treatment levels. **FAILURE TO PRODUCE THIS CARD WILL RESULT IN NO TREATMENT BEING GIVEN.**

PRECAUTIONS TO TAKE

- Always be on time for your appointment as the clinic runs to a very tight schedule.
- Dry itchy skin can be treated by moisturising creams such as Aqueous cream, E45 and Unguentum Merck. These are available on prescription and also over the counter, and we recommend their use immediately following treatment.
- Please inform your Physiotherapist if you have been started on any new medication as some medicines make you more sensitive to light.
- You should not use a sun bed while on UVB therapy.
- Prior to treatment your skin should be clean and dry. UVB therapy may be less effective if your skin is covered by certain creams or ointments.
- Do not wear deodorants, perfumes or aftershave during treatment. Some of these products contain oils which sensitise the skin to light and may result in patchy discoloration of the skin which takes many months to fade.
- As a precaution men are required to protect their genitalia. Tight fitting, dark coloured briefs or a thong may be used.
- Please bring sun block (Factor 30+) to protect lips and moles.
- Whilst on treatment it is important to keep moving in order to expose all affected skin to the ultraviolet light.
- You should make an appointment to see your doctor at intervals.
- Non compliance noted may lead to withdrawal of treatment.

SIDE EFFECTS OF UVB

Certain side effects may occur from UVB, but these are reduced if you follow the precautions.

- Your skin may burn, blister or become dry and itchy.

- Long term use of UVB may age the skin.
- People who have had hundreds of UVB sessions may be slightly more likely to develop skin growths and cancers. These are not serious if detected early - if you notice anything please inform your doctor.

ADVANTAGES OF UVB

- It does not involve the use of messy or smelly creams, ointments or the taking of tablets.
- There are no stains to ruin clothes or bed linen.
- You attend as an Out-patient. Appointments usually last for fifteen to thirty minutes.

PROCEDURE TO FOLLOW IN THE EVENT OF EXTREME REACTION OR INADVERTENTLY RECEIVING AN OVERDOSE OF TLO1

If you are concerned regarding your response to treatment – We have procedures in place in the event of these circumstances, and if instructions/advice are adhered to, there should be no untoward outcome.

In the first instance please call the physiotherapy department where you received your treatment for advice.

HEH 01279 827498

SWCH 01799 562908

We may advise/arrange for you to attend an urgent appointment with your Dermatologist.

Should there be no responses from the department i.e. after 4.30 pm or on a weekend please attend your nearest Accident and Emergency Department, and take your appointment sheet with you. Centres specialising in Dermatology advocate the administration of Painkillers, antihistamine and topical steroids.

Please advise the physiotherapy department as soon as possible.

OUT-PATIENT PHYSIOTHERAPY DEPT. SWCH HOSPITAL TEL:01799 562908.
H&E HOSPITAL 01279 827498

Appendix 3
WEST ESSEX PRIMARY CARE TRUST
PHYSIOTHERAPY DEPARTMENT
HERTS AND ESSEX HOSPITAL

TLO1 ASSESSMENT FORM

HOSPITAL BASE:	SURNAME
CONSULTANT	FORENAMES
PHYSIO <small>PRINT</small> SIGNATURE	D.O.B. Hosp Number:
DIAGNOSIS:	ADDRESS
DATE	

<u>PREVIOUS COURSE DATES</u>	<u>CUMULATIVE JOULES</u>	<u>CUMULATIVE NO. OF RX's</u>
<u>START DATE</u> <u>FINISH DATE</u> 	<u>JOULES THIS EPISODE</u>	<u>NO. OF RX's THIS EPISODE</u>

Name..... DOB..... Postcode/house No..... Hospital No.....
--

HPC

Date of onset

Previous UV treatment – where? When? Response?

Any hospital admissions when? where

All Current Medication /Creams –

Protopic cream Y / N (must discontinue 2 weeks B4 treatment/skin test can commence)

Neotigisan Y / N (see neotigasin protocol)

Other medical conditions
(Claustrophobic /faint / able to stand long periods / falls)

Sun Beds

Yes/No

Previous Sun exposure (eg. Tropics)	Yes/No
Oral Anticoagulants (↑ Hypersensitivity)	Yes/No
Previous malignant melanoma (Contraindicated)	Yes/No
Non-malignant melanoma (Contraindicated)	Yes/No
Severe photosensitivity	Yes/No
Systemic lupus erythematosus (CI can trigger SLE)	Yes/No
Arsenic exposure (rare – Assoc intraepidermal Ca)	Yes/No
Deep x-ray therapy (thins skin – like elderly skin)	Yes/No
Methotrexate (Consultant approval req)	Yes/No
Cyclosporin (↑Ca risk – Consultant approval needed)	Yes/No
Etretinate (Reactone – drys the skin- extra sensitivity need extra emollient –	Yes/No
Family history of skin cancer	Yes/No
Previous internal malignancy (Cons approval req)	Yes/No
Moles to be covered indicated on chart	Yes/No

Physio..... ... Signature

AREA OF LESIONS

Name.....
DOB.....
Postcode/house No.....
Hospital No.....

Colour of lesions :

Description :

Mark moles on chart (X that are to be screened for treatment)

Mark skin test area (circle on body chart – note number of squares tested)

BODY CHART ON THIS PAGE

Physio.....
...
Signature

WEST ESSEX PRIMARY CARE TRUST

PHYSIOTHERAPY DEPARTMENT

HERTS AND ESSEX HOSPITAL

Clarification of patient compliance rules when being treated with UVB therapy

Name: ----- Physio.....

Address: ----- Signature

I undertake to adhere to the following guidelines:

- 1 Avoid any other form of ultraviolet treatment or relaxation eg. Solarium, sunbed or **sunbathing during the treatment course ie I will avoid prolonged exposure to direct sunlight**
- 2 Tell the Physiotherapist if I have started any other tablets or creams.
- 3 Avoid perfumes, aftershave lotions or other cosmetics on days of UVB treatment.
- 4 If male, shield my genitalia whilst in the UVB machine with dark briefs or a thong.
- 5 Undertake to attend regularly for appointments to obtain maximum benefit from treatment.
- 6 Keep appointments in Dermatology Clinics, as arranged. Keep your Physiotherapist informed of these dates.
- 7 Has the patient received the information sheets including the overreaction/overdose procedure (sent with initial appointment letter)?
- 8 I will not wear any jewellery eg necklaces during treatment to prevent a risk of burning

SCREENING

1. Goggles **MUST** be worn
2. Lip salve – with **total sun block** ingredients
3. Pillowcase
4. Screening – eg moles to be sunblocked

ON TREATMENT

1. Movement – arms and legs (no turning)
2. Box or not
3. Explanation if erythema occurs on day of treatment (ref to info sheet sent with appointment letter)
4. Moisturiser- waterbased emollient creams can be used eg aqueous,

doublebase, diprobase – and apply 30 – 60 mins before treatment to dry scaly areas

- 5. Explanation as to why patient will possibly be seen by different physios each time.
- 6. Appointment card - no treatment if card not produced

I understand that UVB treatment:

- 1. May cause itching and very rarely severe sunburn-like reactions.
- 2. May, after months to years of treatment, accelerate skin ageing and may be associated with an increased risk of skin cancer.
- 3. There is a very slight possibility of the occurrence of eye cataracts after many months to years of TLO1 treatment if protective goggles are not worn in the sunlight unit.
- 4. If non compliance is noted then treatment will be withheld.

I confirm that the nature and risks of UVB therapy have been explained to me by :-

Physiotherapist (Print & Signature)-----Date -----
-

Signature of Patient/Parent/Guardian ----- Date -----
-

-

Appendix 6

MED PROTOCOL FOR TLO1

<u>Skin Types 1 and 2</u>	<u>HEH</u> <u>J/cm²</u>	<u>SWCH</u> <u>mJ/cm²</u>
	0.10	100
	0.14	140
	0.20	200
	0.28	280
	0.39	390
	0.55	550

Takes approx 3 –5 mins at HEH

<u>Skin Types 3 and 4</u>	0.20	200
	0.28	280
	0.39	390
	0.55	550
	0.77	770
	1.10	1100

Takes approx 5 – 7 mins at HEH

<u>Skin Type 5 and 6</u>	0.39	390
	0.55	550
	0.77	770
	1.10	1110
	1.54	1540
	2.16	2160

Takes approx 7 – 10 mins at HEH

Appendix 7

TREATMENT PROTOCOL WITHOUT SKIN TEST

Psoriasis, MF, Eczema/Atopic Dermatitis, Actinic Prurigo

Only to be used if a skin test cannot be performed due to totally affected skin

Skin type	Starting dose	First 3 increments	Subsequent increments
I	100 mJ/cm ²	40 mJ/cm ²	20 % of previous dose
II	120 mJ/cm ²	50 mJ/cm ²	20 % of previous dose
III	150 mJ/cm ²	60 mJ/cm ²	20 % of previous dose
IV	200 mJ/cm ²	80 mJ/cm ²	20 % of previous dose
V	300 mJ/cm ²	120 mJ/cm ²	20 % of previous dose
VI	500 mJ/cm ²	200 mJ/cm ²	20 % of previous dose

Appendix 8
VITILIGO PROTOCOL

VITILIGO	SKIN TYPE 1	SKIN TYPE I - IV
START DOSE	30 SECS	30 SECS
PROGRESSION	10 % until pinkness/pigmentation starts to occur	20 % until pinkness/pigmentation starts to occur
PIGMENT / PINKNESS	Dose now STATIC	Dose now STATIC
Max No treatments	50	50

When the unpigmented skin starts to show signs of pinkness or pigment then the dose may remain static. It is a very slow treatment process and may take up to 6 months of treatment or up to 50 sessions.

Pigment starts to develop like freckles in the pale areas and edges into fill the space. Very slow process.

NB A skin test is not necessary as the skin we are looking to affect is the unpigmented white patches not the normal skin

Any queries or problems refer to Fiona Toh at Addenbrookes on 01223 214408

Appendix 9
PLE PROTOCOL

POLYMORPHIC LIGHT ERUPTION

NO SKIN TEST

if PLE flares withhold treatment until settled
May need prednisolone (from consultant) until settled and then on treatment days
If Hx severe PLE may have more than 4/52 treatment as indicated by the consultant

	SKIN TYPE I – IV (20 % increments)		SKIN TYPE V - VI (40 % then 20 % increments)	
WK 1	150 mJ/cm²	180 mJ/cm²	150 mJ/cm²	200 mJ/cm²
WK 2	220 mJ/cm²	260 mJ/cm²	300 mJ/cm²	400 mJ/cm²
WK 3	310 mJ/cm²	370 mJ/cm²	600 mJ/cm²	800 mJ/cm²
WK 4	440 mJ/cm²	530 mJ/cm²	960 mJ/cm²	1,150 mJ/cm²

Appendix 10

PSORIASIS PROTOCOL

PSORIASIS				
Start dose 70 % of MED treatments 20		SKIN TEST REQUIRED		Maximum number of
		SKIN TYPE I	SKIN TYPE II III & IV	
E0	No erythema	Increase by 10%	Increase by 20%	
E1	24 hours erythema – clear now	Increase by 10%	Increase by 20%	
E2	48 hours erythema – clear now	0% increase	0% increase	
E3	Still pink	No treatment	No treatment	
E4	Red, blistered, peeling	No treatment refer to overdose / excessive reaction protocol	No treatment refer to overdose / excessive reaction protocol	

APPENDIX 11

MYCOSIS FUNGOIDES, ECZEMA, ACTINIC PRURINGO PROTOCOL

MF		ECZEMA/ATOPIC DERMATITIS		ACTINIC PRURIGO	
SKIN TEST REQUIRED					
Start dose 70 % of MED			Eczema / AP maximum number of treatments 30		
			MF maximum number of treatments 20		
		SKIN TYPE I		SKIN TYPE II III & IV	
E0	No erythema	Increase by 10%		Increase by 20%	
E1	24 hours erythema – clear now	Increase by 10%		Increase by 10%	
E2	48 hours erythema – clear now	0% increase		0% increase	
E3	Still pink	No treatment		No treatment	
E4	Red, blistered, peeling	No treatment refer to overdose / excessive reaction protocol		No treatment refer to overdose / excessive reaction protocol	

Appendix 12

Name.....
DOB.....
Postcode/house No.....
Hospital No.....

MAXIMUM DOSES OF TLO1

TOTAL LIFETIME DOSE = 200 SESSIONS
TOTAL NO OF DOSES PER TREATMENT EPISODE = 20

THERE IS NOW A MAXIMUM NO. OF JOULES WITH WHICH WE CAN USE FOR EACH TREATMENT SESSION, THIS VARIES FOR EACH SKIN TYPE AND ALSO FOR FACE AND BODY.

	BODY	FACE
SKIN TYPE 1	2J / 2000MJ	1J / 1000MJ
SKIN TYPE 2	3J / 3000MJ	1.5J / 1500MJ
SKIN TYPE 3	4J / 4000MJ	2J / 2000MJ
SKIN TYPE 4	4J / 4000MJ	2J / 2000MJ
SKIN TYPE 5	5J / 5000MJ	2J / 2000MJ
SKIN TYPE 6	6J / 6000MJ	2J / 2000MJ

Appendix 13

NEOTIGASON PROTOCOL FOR PATIENTS UNDERGOING PHOTOTHERAPY PUVA & TLO1

- **NEOTIGASON & PUVA (RE-PUVA)**

If a patient **commences** RETINOID (Neotigason) **DURING PUVA** treatment, reduce the PUVA dose by 25%, 10 – 14 days after starting medication.

- **NEOTIGASON & TLO1**

If the patient **commences** Neotigason **DURING TLO1** treatment, reduce TLO1 dose by 25 %, 10 – 14 days after starting Neotigason

- If patient is **ALREADY** taking Neotigason and their **Neotigason dose is increased** during course of treatment, reduce dose of their TLO1/PUVA by 10 %, 10 – 14 days after increased Neotigason dose commenced (consider lower increments after this depending on response)

(Above protocol more applicable for higher doses of Neotigason i.e. 40 – 50mg)

- If patient **ALREADY** taking Neotigason and starts TLO1 therapy, do not have to treat as Skin Type I, but may chose to commence regime by dropping a Skin Type i.e. Skin Type II treat as I

Neotigasin Protocol written by Addenbrookes NHS Trust,
Dermatology Day Treatment Centre 9.2002 Dr Norris Consultant
Dermatologist and dermatology staff

Appendix 14
WEST ESSEX PRIMARY CARE TRUST
HERTS AND ESSEX HOSPITAL
PHYSIOTHERAPY DEPARTMENT

ULTRA-VIOLET TREATMENT DISCHARGE SUMMARY

to be filed in patient's notes

PATIENT DETAILS:		HOSP NO:
DIAGNOSIS:	PHOTOTHERAPY - TL01 (narrowband) / UVA / PUVA	
1ST RX. DOSE	FREQUENCY OF RX.	
NO. OF TREATMENTS (this course)	NO OF TREATMENTS (cumulative)	
CUMULATIVE DOSE IN J/cm2 THIS COURSE:	TOTAL CUMULATIVE DOSE OVERALL:	
TOTAL NO OF COURSES:		
RESPONSE TO TREATMENT:		

SIGNED **DATE**

cc. Dermatologist and patient's notes & patient

Appendix 15
WEST ESSEX PRIMARY CARE TRUST
PHYSIOTHERAPY OUT-PATIENT DEPARTMENT
HERTS AND ESSEX HOSPITAL

TLO1 OVERDOSE PROCEDURE

PROCEDURE TO FOLLOW IN THE EVENT OF A PATIENT INADVERTENTLY RECEIVING AN OVERDOSE OF TLO1.

1. Advise the patient immediately that an excessive dose has occurred; reassure the patient that procedures are in place in the event of these circumstances, and that if instructions/advice are adhered to, there should be no untoward outcome. This may necessitate contacting the patient at home and/or outside normal hours, depending on when the overdose came to be known.
2. (i) The patient will be advised to immediately attend:

If a Dr Wolpert Client:

HEH all day Monday

Tues Pm

Weds HEH Thurs am

SMH 1st & 3rd Friday of month

Sec HEH ext:7432 SMH ext:7431

PAH ext:7421

Dr Dodds

Keats House Monday am

SMH Monday/Tues/Weds pm

HEH Thursday am

Sec HEH ext:4036 SMH:7431 PAH:7421

SMH

PAH all day

Outside these times or non availability of Dr Dodds **Accident and Emergency Department at Princess Alexandra Hospital**

If a Dr Norris Client/Addenbrookes

Addenbrookes Hospital

The Dermatology Department

Clinic 7

Hills Road

Cambridge

CB2 2QQ

Tel: 01223 216234 - ask for Dr P Norris
or the PUVA Unit.

↳ If noone can be contacted go to:

A and E Department

Addenbrookes Hospital

Hills Road

Cambridge

CB2 2QQ

The staff member will advise the Dermatology Clinic or Accident & Emergency that the patient will present him/herself.

If possible, also offer the added information – hospital number, date of birth etc.

3. If the patient is the first to become aware of an overdose, he/she should attempt to contact Dr Dodds via the hospital switchboard. **01279 444455**. If unsuccessful he/she should make their way to Accident & Emergency at PAH

Or if a Dr Norris patient

Attempt to contact Dr Norris at Addenbrookes Hospital on the above number or the general switchboard no **01223 245151**. if unsuccessful he/she should make their way to Accident & Emergency at Addenbrookes Hospital.

Centres specialising in Dermatology advocate the administering of:-

Pain killers, anti-histamines and topical steroids

In the event of an E4 both systemic and topical steroids may be required.

4. Staff member to complete and Incident Form and record details in patient's records.