

# Investigation of the effects and mechanisms of action of different wavelengths of ultraviolet B (UVB) radiation in the treatment of psoriasis

<b>Submission date</b> 12/05/2010	<b>Recruitment status</b> No longer recruiting	<input type="checkbox"/> Prospectively registered
<b>Registration date</b> 12/05/2010	<b>Overall study status</b> Completed	<input type="checkbox"/> Protocol
<b>Last Edited</b> 13/12/2019	<b>Condition category</b> Skin and Connective Tissue Diseases	<input type="checkbox"/> Statistical analysis plan
		<input type="checkbox"/> Results
		<input type="checkbox"/> Individual participant data
		<input type="checkbox"/> Record updated in last year

**Plain English summary of protocol**  
Not provided at time of registration

## Contact information

**Type(s)**  
Scientific

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## Additional identifiers

**Protocol serial number**  
5623; 079504

## Study information

**Scientific Title**

Investigation of the effects and mechanisms of action of different wavelengths of ultraviolet B (UVB) radiation in the treatment of psoriasis: a single centre non-randomised treatment trial

**Acronym**

MECH-UVB-PSOR

**Study objectives**

To test the hypothesis that keratinocyte apoptosis is an important mechanism of action of ultraviolet B (UVB) phototherapy in the clearance of psoriasis, and to investigate the correlation between effectiveness of different wavelengths of UV and apoptotic response in the clearance of psoriasis.

**Ethics approval required**

Old ethics approval format

**Ethics approval(s)**

County Durham and Tees Valley (1) REC, ref: 06/Q1003/78

**Study design**

Single centre non-randomised interventional treatment trial

**Primary study design**

Interventional

**Study type(s)**

Treatment

**Health condition(s) or problem(s) studied**

Topic: Skin; Subtopic: Skin (all Subtopics); Disease: Dermatology

**Interventions**

Compare the apoptotic effect of different wavelengths of UVB in psoriatic epidermis in vivo.

**Intervention Type**

Other

**Phase**

Not Specified

**Primary outcome(s)**

Whether the number of apoptotic cells seen within the epidermis is sufficient to allow plaque remodelling. Measured up to 48 hours (4 hours, 8 hours, 12 hours, 15 hours, 18 hours, 24 hours, and 48 hours).

**Key secondary outcome(s))**

1. Effect of skin type
2. UV dose
3. Age and gender

Measured up to 48 hours (4 hours, 8 hours, 12 hours, 15 hours, 18 hours, 24 hours, and 48 hours).

**Completion date**

30/04/2010

## Eligibility

**Key inclusion criteria**

1. Aged 18 years and over, with no sex specific criteria
2. All patients who are prescribed routine UVB (TL01) for their psoriasis at our centre
3. Give informed consent to participate

**Participant type(s)**

Patient

**Healthy volunteers allowed**

No

**Age group**

Adult

**Lower age limit**

18 years

**Sex**

All

**Key exclusion criteria**

1. Aged under 18 years
2. Systemic immunosuppression within 3 months
3. UVB exposure to lower back within 3 months of recruitment
4. Topical treatments other than emollients for 2 weeks

**Date of first enrolment**

01/10/2006

**Date of final enrolment**

30/04/2010

## Locations

**Countries of recruitment**

United Kingdom

England

**Study participating centre**

Newcastle University

Newcastle

United Kingdom  
NE2 4HH

## Sponsor information

### Organisation

Newcastle upon Tyne Hospitals NHS Foundation Trust (UK)

### ROR

<https://ror.org/05p40t847>

## Funder(s)

### Funder type

Charity

### Funder Name

The Wellcome Trust (UK) (grant ref: 079504)

## Results and Publications

### Individual participant data (IPD) sharing plan

### IPD sharing plan summary

Not provided at time of registration