



## Clinical trial results: The induction of apoptosis by anti-psoriatic treatments Summary

EudraCT number	2005-000707-34
Trial protocol	GB
Global end of trial date	30 December 2013

### Results information

Result version number	v1 (current)
This version publication date	06 May 2020
First version publication date	06 May 2020
Summary attachment (see zip file)	2005-000707-34 Final report (2005-000707-34 Final report.pdf)

### Trial information

#### Trial identification

Sponsor protocol code	2316
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#### Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	-
WHO universal trial number (UTN)	-

Notes:

### Sponsors

Sponsor organisation name	The Newcastle upon Tyne Hospitals NHS Foundation Trust
Sponsor organisation address	RVI, Queen Victoria Road, Newcastle upon Tyne, United Kingdom, NE1 4LP
Public contact	Professor Nick Reynolds, Newcastle University, +44 191 208 5840, nick.reynolds@ncl.ac.uk
Scientific contact	Professor Nick Reynolds, Newcastle University, +44 191 208 5840, nick.reynolds@ncl.ac.uk

Notes:

### Paediatric regulatory details

Is trial part of an agreed paediatric investigation plan (PIP)	No
Does article 45 of REGULATION (EC) No 1901/2006 apply to this trial?	No
Does article 46 of REGULATION (EC) No 1901/2006 apply to this trial?	No

Notes:

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**Results analysis stage**

Analysis stage	Final
Date of interim/final analysis	26 July 2019
Is this the analysis of the primary completion data?	Yes
Primary completion date	30 December 2013
Global end of trial reached?	Yes
Global end of trial date	30 December 2013
Was the trial ended prematurely?	No

Notes:

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**General information about the trial**

Main objective of the trial:

To define the molecular mechanism of action of various routine treatments used in the management of psoriasis. We aim to study apoptosis/autophagy in psoriatic skin biopsies during the clinical resolution of psoriatic plaques in response to a variety of treatments and correlate this with clinical improvement

Protection of trial subjects:

A Trial Steering Committee (TSC) was in place to supervise the trial to ensure it was conducted to the highest standards in accordance with the protocol, GCP, ethical principles and with regards to patient safety. Patient safety was also assessed via appropriate safety reporting.

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	01 November 2002
Long term follow-up planned	No
Independent data monitoring committee (IDMC) involvement?	No

Notes:

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**Population of trial subjects****Subjects enrolled per country**

Country: Number of subjects enrolled	United Kingdom: 40
Worldwide total number of subjects	40
EEA total number of subjects	40

Notes:

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**Subjects enrolled per age group**

In utero	0
Preterm newborn - gestational age < 37 wk	0
Newborns (0-27 days)	0
Infants and toddlers (28 days-23 months)	0
Children (2-11 years)	0
Adolescents (12-17 years)	0
Adults (18-64 years)	36
From 65 to 84 years	4
85 years and over	0

## Subject disposition

### Recruitment

Recruitment details:

Patients were recruited in to the study from one site (The Newcastle upon Tyne Hospitals NHS Foundation Trust) who were about to commence anti-psoriatic treatment and who met the inclusion/exclusion criteria. Written informed consent was required from all patients. First patient was recruited 04/06/2003; last patient was recruited 17/07/2013.

### Pre-assignment

Screening details:

Patients were recruited who were about to commence anti-psoriatic treatment and who meet the inclusion/exclusion criteria.

### Period 1

Period 1 title	Baseline
Is this the baseline period?	Yes
Allocation method	Not applicable
Blinding used	Not blinded

### Arms

Are arms mutually exclusive?	Yes
<b>Arm title</b>	Adalimumab

Arm description:

Biologic therapy

Arm type	Active comparator
Investigational medicinal product name	Adalimumab
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Injection
Routes of administration	Subcutaneous use

Dosage and administration details:

According to National guidelines (British Association of Dermatologists Psoriasis and Use of Biological Interventions in Psoriasis) for the therapeutic indications, contraindications and monitoring of therapies, combined with specific issues specified in SmPC

<b>Arm title</b>	Etanercept
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Arm description:

Biologic therapy

Arm type	Active comparator
Investigational medicinal product name	Etanercept
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Injection
Routes of administration	Subcutaneous use

Dosage and administration details:

According to National guidelines (British Association of Dermatologists Psoriasis and Use of Biological Interventions in Psoriasis) for the therapeutic indications, contraindications and monitoring of therapies, combined with specific issues specified in SmPCs

<b>Arm title</b>	Ustekinumab
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Arm description:

Biologic therapy

Arm type	Active comparator
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Investigational medicinal product name	Ustekinumab
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Injection
Routes of administration	Subcutaneous use

Dosage and administration details:

According to National guidelines (British Association of Dermatologists Psoriasis and Use of Biological Interventions in Psoriasis) for the therapeutic indications, contraindications and monitoring of therapies, combined with specific issues specified in SmPCs

<b>Arm title</b>	Adalimumab combined with Methotrexate
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Arm description:

Biologic therapy

Arm type	Active comparator
Investigational medicinal product name	Adalimumab
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Injection
Routes of administration	Subcutaneous use

Dosage and administration details:

According to National guidelines (British Association of Dermatologists Psoriasis and Use of Biological Interventions in Psoriasis) for the therapeutic indications, contraindications and monitoring of therapies, combined with specific issues specified in SmPCs

Investigational medicinal product name	Methotrexate
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Tablet
Routes of administration	Oral use

Dosage and administration details:

According to National guidelines (British Association of Dermatologists Psoriasis) for the therapeutic indications, contraindications and monitoring of therapies, combined with specific issues specified in SmPCs

<b>Arm title</b>	Acitretin
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Arm description:

Conventional (non-biologic) systemic therapy

Arm type	Active comparator
Investigational medicinal product name	Acitretin
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Tablet
Routes of administration	Oral use

Dosage and administration details:

According to National guidelines (British Association of Dermatologists Psoriasis) for the therapeutic indications, contraindications and monitoring of therapies, combined with specific issues specified in SmPC

<b>Arm title</b>	Ciclosporin
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Arm description:

Conventional (non-biologic) systemic therapy

Arm type	Active comparator
Investigational medicinal product name	Ciclosporin
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Tablet
Routes of administration	Oral use

Dosage and administration details:

According to National guidelines (British Association of Dermatologists Psoriasis) for the therapeutic indications, contraindications and monitoring of therapies, combined with specific issues specified in SmPC

<b>Arm title</b>	Fumaric Acid Esters
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Arm description:

Conventional (non-biologic) systemic therapy

Arm type	Active comparator
Investigational medicinal product name	Fumaric Acid Esters
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Tablet, Ointment
Routes of administration	Oral use, Topical use

Dosage and administration details:

According to National guidelines (British Association of Dermatologists Psoriasis) for the therapeutic indications, contraindications and monitoring of therapies, combined with specific issues specified in SmPC

<b>Arm title</b>	Methotrexate
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Arm description:

Conventional (non-biologic) systemic therapy

Arm type	Active comparator
Investigational medicinal product name	Methotrexate
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Tablet
Routes of administration	Oral use

Dosage and administration details:

According to National guidelines (British Association of Dermatologists Psoriasis) for the therapeutic indications, contraindications and monitoring of therapies, combined with specific issues specified in SmPC

<b>Arm title</b>	Oral PUVA
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Arm description:

Phototherapy

Arm type	Active comparator
Investigational medicinal product name	Oral PUVA
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Tablet
Routes of administration	Oral use

Dosage and administration details:

According to National guidelines (British Association of Dermatologists Psoriasis) for the therapeutic indications, contraindications and monitoring of therapies, combined with specific issues specified in SmPC

<b>Arm title</b>	Dithranol
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Arm description:

Topical treatment

Arm type	Active comparator
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Investigational medicinal product name	Dithranol
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Cream
Routes of administration	Topical use

Dosage and administration details:

According to National guidelines (British Association of Dermatologists Psoriasis) for the therapeutic indications, contraindications and monitoring of therapies, combined with specific issues specified in SmPC

Number of subjects in period 1	Adalimumab	Etanercept	Ustekinumab
Started	2	3	2
Completed	2	3	2

Number of subjects in period 1	Adalimumab combined with Methotrexate	Acitretin	Ciclosporin
Started	1	12	2
Completed	1	12	2

Number of subjects in period 1	Fumaric Acid Esters	Methotrexate	Oral PUVA
Started	1	14	2
Completed	1	14	2

Number of subjects in period 1	Dithranol
Started	1
Completed	1

## Period 2

Period 2 title	Treatment
Is this the baseline period?	No
Allocation method	Not applicable
Blinding used	Not blinded

## Arms

Are arms mutually exclusive?	Yes
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<b>Arm title</b>	Adalimumab
Arm description:	
Biologic therapy	
Arm type	Active comparator
Investigational medicinal product name	Adalimumab
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Injection
Routes of administration	Subcutaneous use
Dosage and administration details:	
According to National guidelines (British Association of Dermatologists Psoriasis and Use of Biological Interventions in Psoriasis) for the therapeutic indications, contraindications and monitoring of therapies, combined with specific issues specified in SmPC	
<b>Arm title</b>	Etanercept
Arm description:	
Biologic therapy	
Arm type	Active comparator
Investigational medicinal product name	Etanercept
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Injection
Routes of administration	Subcutaneous use
Dosage and administration details:	
According to National guidelines (British Association of Dermatologists Psoriasis and Use of Biological Interventions in Psoriasis) for the therapeutic indications, contraindications and monitoring of therapies, combined with specific issues specified in SmPC	
<b>Arm title</b>	Ustekinumab
Arm description:	
Biologic therapy	
Arm type	Active comparator
Investigational medicinal product name	Ustekinumab
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Injection
Routes of administration	Subcutaneous use
Dosage and administration details:	
According to National guidelines (British Association of Dermatologists Psoriasis and Use of Biological Interventions in Psoriasis) for the therapeutic indications, contraindications and monitoring of therapies, combined with specific issues specified in SmPC	
<b>Arm title</b>	Adalimumab combined with Methotrexate
Arm description:	
Biologic therapy	
Arm type	Active comparator
Investigational medicinal product name	Adalimumab
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Injection
Routes of administration	Subcutaneous use
Dosage and administration details:	
According to National guidelines (British Association of Dermatologists Psoriasis and Use of Biological Interventions in Psoriasis) for the therapeutic indications, contraindications and monitoring of therapies, combined with specific issues specified in SmPC	

Investigational medicinal product name	Methotrexate
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Tablet
Routes of administration	Oral use
Dosage and administration details:	
According to National guidelines (British Association of Dermatologists Psoriasis) for the therapeutic indications, contraindications and monitoring of therapies, combined with specific issues specified in SmPC	
<b>Arm title</b>	Acitretin
Arm description:	
Conventional (non-biologic) systemic therapy	
Arm type	Active comparator
Investigational medicinal product name	Acitretin
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Tablet
Routes of administration	Oral use
Dosage and administration details:	
According to National guidelines (British Association of Dermatologists Psoriasis) for the therapeutic indications, contraindications and monitoring of therapies, combined with specific issues specified in SmPC	
<b>Arm title</b>	Ciclosporin
Arm description:	
Conventional (non-biologic) systemic therapy	
Arm type	Active comparator
Investigational medicinal product name	Ciclosporin
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Tablet
Routes of administration	Oral use
Dosage and administration details:	
According to National guidelines (British Association of Dermatologists Psoriasis) for the therapeutic indications, contraindications and monitoring of therapies, combined with specific issues specified in SmPC	
<b>Arm title</b>	Fumaric Acid Esters
Arm description:	
Conventional (non-biologic) systemic therapy	
Arm type	Active comparator
Investigational medicinal product name	Fumaric Acid Esters
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Tablet
Routes of administration	Ocular use
Dosage and administration details:	
According to National guidelines (British Association of Dermatologists Psoriasis) for the therapeutic indications, contraindications and monitoring of therapies, combined with specific issues specified in SmPC	
<b>Arm title</b>	Methotrexate
Arm description:	
Conventional (non-biologic) systemic therapy	
Arm type	Active comparator

Investigational medicinal product name	Methotrexate
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Tablet
Routes of administration	Oral use

Dosage and administration details:

According to National guidelines (British Association of Dermatologists Psoriasis) for the therapeutic indications, contraindications and monitoring of therapies, combined with specific issues specified in SmPC

<b>Arm title</b>	oral PUVA
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Arm description:

Phototherapy

Arm type	Active comparator
Investigational medicinal product name	oral PUVA
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Tablet
Routes of administration	Oral use

Dosage and administration details:

According to National guidelines (British Association of Dermatologists Psoriasis) for the therapeutic indications, contraindications and monitoring of therapies, combined with specific issues specified in SmPC

<b>Arm title</b>	Dithranol
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Arm description:

Topical treatment

Arm type	Active comparator
Investigational medicinal product name	Dithranol
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Cream
Routes of administration	Topical use

Dosage and administration details:

According to National guidelines (British Association of Dermatologists Psoriasis) for the therapeutic indications, contraindications and monitoring of therapies, combined with specific issues specified in SmPC

<b>Number of subjects in period 2</b>	Adalimumab	Etanercept	Ustekinumab
Started	2	3	2
Completed	2	3	2

<b>Number of subjects in period 2</b>	Adalimumab combined with Methotrexate	Acitretin	Ciclosporin
Started	1	12	2
Completed	1	12	2

<b>Number of subjects in period 2</b>	Fumaric Acid Esters	Methotrexate	oral PUVA
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Started	1	14	2
Completed	1	14	2

<b>Number of subjects in period 2</b>	Dithranol
Started	1
Completed	1

## Baseline characteristics

Reporting groups	
Reporting group title	Adalimumab
Reporting group description:	
Biologic therapy	
Reporting group title	Etanercept
Reporting group description:	
Biologic therapy	
Reporting group title	Ustekinumab
Reporting group description:	
Biologic therapy	
Reporting group title	Adalimumab combined with Methotrexate
Reporting group description:	
Biologic therapy	
Reporting group title	Acitretin
Reporting group description:	
Conventional (non-biologic) systemic therapy	
Reporting group title	Ciclosporin
Reporting group description:	
Conventional (non-biologic) systemic therapy	
Reporting group title	Fumaric Acid Esters
Reporting group description:	
Conventional (non-biologic) systemic therapy	
Reporting group title	Methotrexate
Reporting group description:	
Conventional (non-biologic) systemic therapy	
Reporting group title	Oral PUVA
Reporting group description:	
Phototherapy	
Reporting group title	Dithranol
Reporting group description:	
Topical treatment	

Reporting group values	Adalimumab	Etanercept	Ustekinumab
Number of subjects	2	3	2
Age categorical			
Units: Subjects			
In utero	0	0	0
Preterm newborn infants (gestational age < 37 wks)	0	0	0
Newborns (0-27 days)	0	0	0
Infants and toddlers (28 days-23 months)	0	0	0
Children (2-11 years)	0	0	0
Adolescents (12-17 years)	0	0	0
Adults (18-64 years)	2	3	1
From 65-84 years	0	0	1
85 years and over	0	0	0

Gender categorical			
Units: Subjects			
Female	1	1	1
Male	1	2	1

Reporting group values	Adalimumab combined with Methotrexate	Acitretin	Ciclosporin
Number of subjects	1	12	2
Age categorical			
Units: Subjects			
In utero	0	0	0
Preterm newborn infants (gestational age < 37 wks)	0	0	0
Newborns (0-27 days)	0	0	0
Infants and toddlers (28 days-23 months)	0	0	0
Children (2-11 years)	0	0	0
Adolescents (12-17 years)	0	0	0
Adults (18-64 years)	1	9	2
From 65-84 years	0	3	0
85 years and over	0	0	0
Gender categorical			
Units: Subjects			
Female	0	1	1
Male	1	11	1

Reporting group values	Fumaric Acid Esters	Methotrexate	Oral PUVA
Number of subjects	1	14	2
Age categorical			
Units: Subjects			
In utero	0	0	0
Preterm newborn infants (gestational age < 37 wks)	0	0	0
Newborns (0-27 days)	0	0	0
Infants and toddlers (28 days-23 months)	0	0	0
Children (2-11 years)	0	0	0
Adolescents (12-17 years)	0	0	0
Adults (18-64 years)	1	14	2
From 65-84 years	0	0	0
85 years and over	0	0	0
Gender categorical			
Units: Subjects			
Female	0	6	1
Male	1	8	1

Reporting group values	Dithranol	Total	
Number of subjects	1	40	
Age categorical			
Units: Subjects			
In utero	0	0	
Preterm newborn infants (gestational age < 37 wks)	0	0	

Newborns (0-27 days)	0	0	
Infants and toddlers (28 days-23 months)	0	0	
Children (2-11 years)	0	0	
Adolescents (12-17 years)	0	0	
Adults (18-64 years)	1	36	
From 65-84 years	0	4	
85 years and over	0	0	
Gender categorical			
Units: Subjects			
Female	1	13	
Male	0	27	

## End points

### End points reporting groups

Reporting group title	Adalimumab
Reporting group description:	
Biologic therapy	
Reporting group title	Etanercept
Reporting group description:	
Biologic therapy	
Reporting group title	Ustekinumab
Reporting group description:	
Biologic therapy	
Reporting group title	Adalimumab combined with Methotrexate
Reporting group description:	
Biologic therapy	
Reporting group title	Acitretin
Reporting group description:	
Conventional (non-biologic) systemic therapy	
Reporting group title	Ciclosporin
Reporting group description:	
Conventional (non-biologic) systemic therapy	
Reporting group title	Fumaric Acid Esters
Reporting group description:	
Conventional (non-biologic) systemic therapy	
Reporting group title	Methotrexate
Reporting group description:	
Conventional (non-biologic) systemic therapy	
Reporting group title	Oral PUVA
Reporting group description:	
Phototherapy	
Reporting group title	Dithranol
Reporting group description:	
Topical treatment	
Reporting group title	Adalimumab
Reporting group description:	
Biologic therapy	
Reporting group title	Etanercept
Reporting group description:	
Biologic therapy	
Reporting group title	Ustekinumab
Reporting group description:	
Biologic therapy	
Reporting group title	Adalimumab combined with Methotrexate
Reporting group description:	
Biologic therapy	
Reporting group title	Acitretin
Reporting group description:	
Conventional (non-biologic) systemic therapy	
Reporting group title	Ciclosporin

Reporting group description:

Conventional (non-biologic) systemic therapy

Reporting group title	Fumaric Acid Esters
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Reporting group description:

Conventional (non-biologic) systemic therapy

Reporting group title	Methotrexate
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Reporting group description:

Conventional (non-biologic) systemic therapy

Reporting group title	oral PUVA
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Reporting group description:

Phototherapy

Reporting group title	Dithranol
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Reporting group description:

Topical treatment

### Primary: Psoriasis Area Severity Index (PASI)

End point title	Psoriasis Area Severity Index (PASI)
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End point description:

PASI is a validated scoring system to assess psoriasis severity.

PASI 75 represents the percentage of patients who have achieved a 75% or more reduction in their PASI score from baseline.

PASI75 calculation – We compared the latest PASI available with the earliest PASI

End point type	Primary
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End point timeframe:

Dates related to the PASI scores – We calculated the date of the PASI compared to:

- The drug start date on or around the baseline
- The baseline PASI (or visit date if no baseline PASI)

End point values	Adalimumab	Etanercept	Ustekinumab	Adalimumab combined with Methotrexate
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	2	3	2	1
Units: Subject's percentage achieving PASI75				
number (not applicable)	2	3	2	1

End point values	Acitretin	Ciclosporin	Fumaric Acid Esters	Methotrexate
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	12	2	1	14
Units: Subject's percentage achieving PASI75				
number (not applicable)	12	2	1	14

<b>End point values</b>	oral PUVA	Dithranol		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	2	1		
Units: Subject's percentage achieving PASI75				
number (not applicable)	2	1		

## Statistical analyses

<b>Statistical analysis title</b>	Descriptive statistics
Comparison groups	Adalimumab v Adalimumab combined with Methotrexate v Ustekinumab v Etanercept v Acitretin v Ciclosporin v Fumaric Acid Esters v Methotrexate v oral PUVA v Dithranol
Number of subjects included in analysis	40
Analysis specification	Pre-specified
Analysis type	other <sup>[1]</sup>
P-value	= 0 <sup>[2]</sup>
Method	Descriptive statistics
Parameter estimate	not applicable

Notes:

[1] - Percentage of PASI75 responders, mean percentage change in PASI

[2] - Not applicable

## Adverse events

### Adverse events information<sup>[1]</sup>

Timeframe for reporting adverse events:

SAEs were reported immediately to the Principal Investigator and were reported from when patients were consented through to last patient last visit.

Adverse event reporting additional description:

One SUSAR report in the UK

Assessment type	Systematic
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### Dictionary used

Dictionary name	Protocol
Dictionary version	3.0

### Reporting groups

Reporting group title	Adalimumab
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Reporting group description:

Biologic therapy

Reporting group title	Etanercept
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Reporting group description:

Biologic therapy

Reporting group title	Ustekinumab
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Reporting group description:

Biologic therapy

Reporting group title	Adalimumab combined with Methotrexate
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Reporting group description:

Biologic therapy

Reporting group title	Acitretin
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Reporting group description:

Conventional (non-biologic) systemic therapy

Reporting group title	Ciclosporin
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Reporting group description:

Conventional (non-biologic) systemic therapy

Reporting group title	Fumaric Acid Esters
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Reporting group description:

Conventional (non-biologic) systemic therapy

Reporting group title	Methotrexate
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Reporting group description:

Conventional (non-biologic) systemic therapy

Reporting group title	Oral PUVA
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Reporting group description:

Phototherapy

Reporting group title	Dithranol
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Reporting group description:

Topical treatment

Notes:

[1] - There are no non-serious adverse events recorded for these results. It is expected that there will be at least one non-serious adverse event reported.

Justification: The study team maintained a central record of AEs, SAEs in the combined Trial Master File / Investigator Site File (single center study). No other safety events were reported apart from one SUSAR. No Adverse Events were recorded in the CRFs.

Serious adverse events	Adalimumab	Etanercept	Ustekinumab
Total subjects affected by serious adverse events			
subjects affected / exposed	0 / 2 (0.00%)	0 / 3 (0.00%)	0 / 2 (0.00%)
number of deaths (all causes)	0	0	0
number of deaths resulting from adverse events	0	0	0
Musculoskeletal and connective tissue disorders			
Myositis	Additional description: Myositis secondary to long term drug treatment of Simvastatin & Acitretin. Patient admitted to hospital to monitor muscle weakness. Both Acitretin & Simvastatin were stopped.		
subjects affected / exposed	0 / 2 (0.00%)	0 / 3 (0.00%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0

Serious adverse events	Adalimumab combined with Methotrexate	Acitretin	Ciclosporin
Total subjects affected by serious adverse events			
subjects affected / exposed	0 / 1 (0.00%)	1 / 12 (8.33%)	0 / 2 (0.00%)
number of deaths (all causes)	0	0	0
number of deaths resulting from adverse events	0	0	0
Musculoskeletal and connective tissue disorders			
Myositis	Additional description: Myositis secondary to long term drug treatment of Simvastatin & Acitretin. Patient admitted to hospital to monitor muscle weakness. Both Acitretin & Simvastatin were stopped.		
subjects affected / exposed	0 / 1 (0.00%)	1 / 12 (8.33%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 0	1 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0

Serious adverse events	Fumaric Acid Esters	Methotrexate	Oral PUVA
Total subjects affected by serious adverse events			
subjects affected / exposed	0 / 1 (0.00%)	0 / 14 (0.00%)	0 / 2 (0.00%)
number of deaths (all causes)	0	0	0
number of deaths resulting from adverse events	0	0	0
Musculoskeletal and connective tissue disorders			
Myositis	Additional description: Myositis secondary to long term drug treatment of Simvastatin & Acitretin. Patient admitted to hospital to monitor muscle weakness. Both Acitretin & Simvastatin were stopped.		
subjects affected / exposed	0 / 1 (0.00%)	0 / 14 (0.00%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0

Serious adverse events	Dithranol		
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Total subjects affected by serious adverse events			
subjects affected / exposed	0 / 1 (0.00%)		
number of deaths (all causes)	0		
number of deaths resulting from adverse events	0		
Musculoskeletal and connective tissue disorders			
Myositis	Additional description: Myositis secondary to long term drug treatment of Simvastatin & Acitretin. Patient admitted to hospital to monitor muscle weakness. Both Acitretin & Simvastatin were stopped.		
subjects affected / exposed	0 / 1 (0.00%)		
occurrences causally related to treatment / all	0 / 0		
deaths causally related to treatment / all	0 / 0		

Frequency threshold for reporting non-serious adverse events: 5 %

Non-serious adverse events	Adalimumab	Etanercept	Ustekinumab
Total subjects affected by non-serious adverse events			
subjects affected / exposed	0 / 2 (0.00%)	0 / 3 (0.00%)	0 / 2 (0.00%)

Non-serious adverse events	Adalimumab combined with Methotrexate	Acitretin	Ciclosporin
Total subjects affected by non-serious adverse events			
subjects affected / exposed	0 / 1 (0.00%)	0 / 12 (0.00%)	0 / 2 (0.00%)

Non-serious adverse events	Fumaric Acid Esters	Methotrexate	Oral PUVA
Total subjects affected by non-serious adverse events			
subjects affected / exposed	0 / 1 (0.00%)	0 / 14 (0.00%)	0 / 2 (0.00%)

Non-serious adverse events	Dithranol		
Total subjects affected by non-serious adverse events			
subjects affected / exposed	0 / 1 (0.00%)		

## More information

### Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

Date	Amendment
18 October 2011	Protocol amendment: <ul style="list-style-type: none"><li>• Change in protocol title</li><li>• Inclusion of healthy tissue samples (new wording)</li><li>• Addition of 2 new drugs (Ustekinumab, Adalimumab)</li></ul>

Notes:

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### Interruptions (globally)

Were there any global interruptions to the trial? No

### Limitations and caveats

None reported