

# Evaluation of the optimal duration of immunosuppressive treatment after induction of remission, in patients with ANCA vasculitis

<b>Submission date</b> 04/01/2017	<b>Recruitment status</b> No longer recruiting	<input type="checkbox"/> Prospectively registered <input type="checkbox"/> Protocol
<b>Registration date</b> 10/01/2017	<b>Overall study status</b> Completed	<input type="checkbox"/> Statistical analysis plan <input checked="" type="checkbox"/> Results
<b>Last Edited</b> 30/05/2017	<b>Condition category</b> Circulatory System	<input type="checkbox"/> Individual participant data

## Plain English summary of protocol

### Background and study aims

Vasculitis is a condition in which the immune system attacks blood vessels by mistake, leading them to lead fluid into tissues causing inflammation (swelling). This happens because antibodies, which are normally produced by the immune system to fight germs, start attacking a type of white blood cell called neutrophils. In the case of ANCA vasculitis, the antibodies which are attacking the neutrophils are called Anti-Neutrophil Cytoplasmic Autoantibodies (ANCA). When ANCAs attack the neutrophils, the neutrophils in turn start to attack the walls of small blood vessels in different parts of the body. The treatment of ANCA vasculitis is by drugs which suppress the immune system (immunosuppressive drugs). These drugs, which include steroids, have side-effects and it is desirable to reduce the doses and stop them where possible. However vasculitis can return when the drugs are reduced or stopped. The aim of this study is to investigate how long immunosuppressive drugs should be given to patients with vasculitis.

### Who can participate?

Adults with ANCA vasculitis which has been treated and is now under good control.

### What does the study involve?

Participants are randomly allocated to one of two groups. In both groups, before they are allocated to the different groups, participants are taking immunosuppressive therapy, which involves taking the drug azathioprine and prednisolone every day by mouth for three months. Those in the first group then stop taking the azathioprine and lower the dose of prednisolone, which is stopped altogether by five months later. Those in the second group continue to take their azathioprine until the end of the study (30 months) and gradually reduce and eventually stop taking their prednisolone between 18 and 24 months. At the start of the study and then every three months until the end of the study (30 months), participants attend visits where they have blood samples taken to find out whether the vasculitis has come back and to assess their health.

### What are the possible benefits and risks of participating?

Not provided at time of registration

Where is the study run from?

1. Addenbrooke's Hospital (UK)
2. Hôpital Cochin (France)
3. Maastricht University (Netherlands)
4. Universitetssjukhuset Linköping (Sweden)
5. Uniklinikum Aachen (Germany)
6. Provincial Barcelona Hospital Hospital Clínic de Barcelona (Spain)

When is the study starting and how long is it expected to run for?

January 1994 to September 2012

Who is funding the study?

European Community (EC) BIOMED-1 Concerted Action Programme (UK)

Who is the main contact?

Prof. Alexandre Karras

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## Contact information

### Type(s)

Scientific

### Contact name

Prof Alexandre Karras

### ORCID ID

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## Additional identifiers

EudraCT/CTIS number

IRAS number

ClinicalTrials.gov number

Secondary identifying numbers

1

# Study information

## Scientific Title

Randomised controlled trial comparing relapse rate between standard (18 to 24 months) and prolonged (48 months) immunosuppression with azathioprine and prednisolone, in patients in the remission phase of ANCA vasculitis

## Acronym

REMAIN

## Study objectives

Prolonged maintenance therapy with low-dose prednisolone and azathioprine reduces long-term morbidity in systemic vasculitis, by reducing the frequency of relapse, when compared with cessation of therapy in the second year, as suggested by current guidelines.

## Ethics approval required

Old ethics approval format

## Ethics approval(s)

NHS Executive North West MREC, 07/03/2001, ref: MREC/00/8/74

## Study design

Prospective open-label randomised controlled trial

## Primary study design

Interventional

## Secondary study design

Randomised controlled trial

## Study setting(s)

Hospital

## Study type(s)

Treatment

## Participant information sheet

Not available in web format, please use the contact details to request a patient information sheet

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

ANCA-associated vasculitis

## Interventions

Patients with ANCA vasculitis in stable remission are included 18 to 24 months after initiation of immunosuppressive therapy. Patients are randomised in a 1:1 ratio to either withdraw from immunosuppression (Group W) or continue immunosuppression (Group C). Prior to randomisation, immunosuppressive therapy involves oral azathioprine at a daily dose of 1 mg/kg and oral prednisolone at the dose of 7.5 mg/day.

Group W: Participants receive oral azathioprine at the dose of 0.75 mg/kg for 3 months and then stop this drug. In addition, prednisolone is tapered to 5 mg/day at randomisation and then progressively stopped before month 5.

Group C: Participants continue oral azathioprine at the daily dose of 1 mg/kg for 30 months, until end of study. In addition, oral prednisolone is tapered to 5 mg/day at month 3, and then continued until month 18. After month 18, prednisolone is progressively stopped, before reaching month 24.

Duration of follow-up for both arms will be 30 months, with evaluation (examination and blood tests) every 3 months.

## **Intervention Type**

Drug

## **Phase**

Phase IV

## **Drug/device/biological/vaccine name(s)**

1. Azathioprine 2. Prednisolone

## **Primary outcome measure**

Rate of vasculitis relapse is measured using the Birmingham Vasculitis Activity Score (BVAS) continuously from baseline to 30 months.

## **Secondary outcome measures**

1. Incidence of major and minor relapse is measured using the Birmingham Vasculitis Activity Score (BVAS) continuously from baseline to 30 months
2. Mortality rate is measured continuously from baseline to 30 months
3. Adverse events of therapy are observed continuously from baseline to 30 months
4. Cumulative damage is assessed using the Vasculitis Damage Index (VDI) from baseline to 30 months
5. Renal function is assessed by measuring estimated Glomerular Filtration Rate (eGFR) from baseline to 30 months
6. Incidence of end-stage renal disease (ESRD) is monitored from baseline to 30 months
7. ANCA status

## **Overall study start date**

01/01/1994

## **Completion date**

01/09/2012

# **Eligibility**

## **Key inclusion criteria**

1. Diagnosis of MPA, GPA or renal-limited vasculitis
2. Renal involvement and/or other threatened loss of function of a vital organ (lung, brain, eye, motor nerve, or gut); and ANCA positivity (ANCA-negative patients were eligible for enrollment in the study only when there was histologic confirmation of pauci-immune vasculitis)

3. Remission-induction therapy with cyclophosphamide and prednisolone for at least 3 months, with or without plasma exchanges
4. Stable remission on azathioprine/prednisolone
5. Aged 18 years and over

**Participant type(s)**

Patient

**Age group**

Adult

**Lower age limit**

18 Years

**Sex**

Both

**Target number of participants**

116

**Key exclusion criteria**

1. Age under 18 years
2. Pregnancy
3. Previous malignancy
4. Known HIV infection
5. Previous life-threatening relapse
6. End-stage renal disease (ESRD) at inclusion and allergy to study medications. Patients not in stable remission for at least six months at 18 months after commencement of therapy and patients who had discontinued azathioprine and/or prednisolone are excluded from the study.

**Date of first enrolment**

01/09/1998

**Date of final enrolment**

01/03/2010

**Locations****Countries of recruitment**

Czech Republic

England

Finland

France

Germany

Italy

Lithuania

Netherlands

Spain

Sweden

Switzerland

United Kingdom

**Study participating centre**

**Addenbrooke's Hospital**

Lupus and Vasculitis Clinic  
Hills Road  
Cambridge  
United Kingdom  
CB2 0QQ

**Study participating centre**

**Hôpital Cochin**

Department of Internal Medicine  
27 Rue du Faubourg Saint-Jacques  
Paris  
France  
75014

**Study participating centre**

**Maastricht University**

Department of Immunology  
Minderbroedersberg 4-6  
Maastricht  
Netherlands  
6211 LK

**Study participating centre**

**Universitetssjukhuset Linköping**

Department of Nephrology  
Universitetssjukhuset  
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**Study participating centre**  
**Uniklinikum Aachen**  
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Germany  
52074

**Study participating centre**  
**Provincial Barcelona Hospital Hospital Clínic de Barcelona**  
Nephrology Department  
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Spain  
08036

## **Sponsor information**

**Organisation**  
European Vasculitis Society

**Sponsor details**  
Box 57  
Department of Renal Medicine  
Addenbrooke's Hospital  
Cambridge  
United Kingdom  
CB2 2QQ

**Sponsor type**  
Research organisation

**Website**  
<http://www.vasculitis.org/>

## **Funder(s)**

**Funder type**  
Research organisation

**Funder Name**

European Community (EC) BIOMED-1 Concerted Action Programme

## Results and Publications

**Publication and dissemination plan**

Planned publication in a high-impact reviewed journal.

**Intention to publish date**

31/12/2017

**Individual participant data (IPD) sharing plan**

The datasets generated during and/or analysed during the current study are/will be available upon request from Alexandre Karras (akarras3@gmail.com) or David Jayne (dj106@cam.ac.uk)

**IPD sharing plan summary**

Available on request

**Study outputs**

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<a href="#">Results article</a>	results	01/10/2017		Yes	No