# Prednisolone in nephrotic syndrome

Submission date 17/02/2011	<b>Recruitment status</b> No longer recruiting	<ul> <li>Prospectively registered</li> <li>Protocol</li> </ul>
Registration date 17/02/2011	<b>Overall study status</b> Completed	<ul> <li>Statistical analysis plan</li> <li>[X] Results</li> </ul>
Last Edited 25/07/2019	<b>Condition category</b> Urological and Genital Diseases	Individual participant data

### Plain English summary of protocol

Background and study aims

Nephrotic syndrome is a chronic disorder that occurs during childhood where the kidneys do not work properly, causing large amounts of protein to leak into the urine. This loss of protein can cause swelling of body tissues and increase the chance of catching infections. Initial treatment is with steroid drugs. This is usually successful but patients can relapse and require more treatment. The best duration of initial steroid treatment remains uncertain. We aim to compare two months versus four months of steroid (prednisolone) treatment. Both of these durations have been used in clinical practice, but we are unsure which is best. Previous research has suggested that with longer treatment, fewer children relapse, but the quality of the research was not very good and the results may be biased. We would like to carry out a further, better quality, study.

Who can participate? Children aged 1 - 15 with nephrotic syndrome

#### What does the study involve?

The children are randomly allocated to either two months or four months of prednisolone treatment. All the children take tablets for the same amount of time, but the children in the shorter treatment group take dummy (placebo) tablets in the last weeks. The main outcome we are interested in is how many children relapse and need further treatment for nephrotic syndrome. The children are asked to test their urine with dipsticks as the presence of protein in the urine is a sign of relapse. We also investigate how many children relapse frequently and how many are unable to manage without taking steroids and how relapses are treated. We look at how long it is before patients relapse. Although prednisolone is an effective drug in the treatment of nephrotic syndrome it does have side effects. These include making patients more vulnerable to infection, changes in facial appearance, hairiness, increased appetite, weight gain and a tendency to more aggressive behaviour. We do not know how often these side effects occur in the treatment of nephrotic syndrome from previous research, nor do we know what the impact of them is on parents and children and how important they are to families. We wish to find out whether there are more side effects with longer treatment. As part of this, we ask parents to complete a questionnaire about their child's behaviour at the beginning and at the peak of treatment, as well as checking regularly for side effects. As well as looking at how well the treatments work, we look at which is best value for the NHS. We follow the children up until the end of the study and each child is followed for at least 12 months.

What are the possible benefits and risks of participating? Not provided at time of registration

Where is the study run from? Birmingham Clinical Trials Unit (UK)

When is the study starting and how long is it expected to run for? February 2011 to May 2015

Who is funding the study? NIHR Health Technology Assessment Programme - HTA (UK)

Who is the main contact? Elizabeth Brettell E.a.brettell@brum.ac.uk

Study website http://www.bctu.bham.ac.uk/prednos/

### **Contact information**

**Type(s)** Scientific

**Contact name** Mrs Elizabeth Brettell

### **Contact details**

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## Additional identifiers

**EudraCT/CTIS number** 2010-022489-29

**IRAS number** 

ClinicalTrials.gov number

**Secondary identifying numbers** 9617

### Study information

#### Scientific Title

Long-term tapering versus standard prednisolone (steroid) therapy for the treatment of the initial episode of childhood nephrotic syndrome: national multicentre randomised double-blind trial

#### Acronym

PREDNOS

#### Study objectives

PREDNOS is a national multicentre randomised double blind trial of long-term tapering versus standard prednisolone (steroid) therapy for the treatment of the initial episode of childhood nephrotic syndrome.

Further details can be found at: http://www.nets.nihr.ac.uk/projects/hta/085331 Protocol can be found at: http://www.nets.nihr.ac.uk/\_\_data/assets/pdf\_file/0008/52982/PRO-08-53-31.pdf

**Ethics approval required** Old ethics approval format

Ethics approval(s) NRES Committee North West, 05/04/2011, ref: 10/H1008/122

**Study design** Multicentre randomised interventional treatment trial

**Primary study design** Interventional

**Secondary study design** Randomised controlled trial

**Study setting(s)** Hospital

**Study type(s)** Treatment

**Participant information sheet** Can be found at http://www.bctu.bham.ac.uk/prednos/investigators/Documents.shtml

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

Topic: Medicines for Children Research Network; Subtopic: All Diagnoses; Disease: All Diseases

#### Interventions

Standard course therapy: Weeks 1 - 4: prednisolone 60 mg/m2/day (max 80 mg) Weeks 5 - 8: prednisolone 40 mg/m2 (max 60 mg) Duration: given on alternate days for 28 days

Extended course therapy: Weeks 1 - 4: prednisolone 60 mg/m2/day (max 80 mg) Weeks 5 - 16: prednisolone 60 mg/m2 (max 80 mg) Duration: given on alternate days tapering by 10 mg/m2 every 2 weeks

Study entry: single randomisation only

#### Intervention Type

Drug

Phase

Phase III

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

Prednisolone

#### Primary outcome measure

Time to first relapse. Relapse of proteinuria is defined by Albustix positive proteinuria (++ or greater) for 3 consecutive days.

#### Secondary outcome measures

1. Relapse rate

 Incidence of frequently relapsing steroid sensitive nephrotic syndrome (defined as 2 relapses or more in the first six months following presentation or 4 relapses within any 12 month period)
 Incidence of steroid dependent nephrotic syndrome (defined as relapses on or within 14 days of completion of steroid therapy) nephrotic syndrome

4. Incidence of use of second line immunosuppressive agents, including levamisole,

cyclophosphamide, ciclosporin, tacrolimus, mycophenolate mofetil and rituximab

- 5. Incidence of serious adverse events
- 6. Incidence of adverse events
- 7. Incidence of behavioural change (as assessed by the Achenbach child behaviour checklist)
- 8. Cost per relapse of proteinuria
- 9. Cost per QALY gained

#### Assessment schedule:

Clinical trial follow-up assessments will be at weeks 4, 8, 12 and 16 and months 5, 6, 8, 10 and 12, 18, 24, 30, 36, 42 and 48. All patients will be followed up for at least 24 months and for a variable time period beyond 24 months until 24 months after the last patient is randomised.

Overall study start date 01/02/2011

**Completion date** 01/05/2015

## Eligibility

#### Key inclusion criteria

Children presenting with the first episode of steroid sensitive NS who meet all of the following criteria:

1. Urine albumin: creatinine ratio greater than 200 mg/mmol or protein: creatinine ratio greater than 200 mg/mmol, determined quantitatively on an early morning urine sample 2. Serum/plasma albumin level less than 25 g/L

Age over 1 year and less than 15 years at the time of diagnosis (children of 15 years and above have been excluded because of the reduced likelihood of their nephrotic syndrome being steroid sensitive and the increased likelihood of adult causes of nephrotic syndrome)
 No prior therapy with steroids, immunosuppressive or cytotoxic agents for any form of renal disease (other than the 28 days of prednisolone therapy given initially as routine clinical practice)
 No evidence of underlying systemic disorder or exposure to agents known to be associated with newly presenting steroid sensitive nephrotic syndrome
 Informed consent

#### Participant type(s)

Patient

#### Age group

Child

### Lower age limit

1 Years

#### **Upper age limit** 15 Years

### Sex

Both

**Target number of participants** Planned sample size: 224

**Total final enrolment** 237

### Key exclusion criteria

 Children with histological changes other than minimal lesion glomerulonephritis where renal biopsy has been undertaken
 Children with a prior history of poor compliance with medical therapy
 Known allergy to prednisolone

# Date of first enrolment 01/02/2011

Date of final enrolment 01/05/2015

### Locations

**Countries of recruitment** England

United Kingdom

**Study participating centre Birmingham Clinical Trials Unit** Birmingham United Kingdom B15 2TT

### Sponsor information

**Organisation** University of Birmingham (UK)

#### **Sponsor details**

c/o Dr Brendan W Laverty Assistant Director Research & Commercial Services Birmingham Research Park University of Birmingham Edgbaston Birmingham England United Kingdom B15 2SQ

Sponsor type

University/education

#### Website

http://www.rcs.bham.ac.uk

Organisation

Central Manchester University Hospitals NHS Foundation Trust (UK)

#### Sponsor details

c/o Dr Lynne Webster Research and Innovation Division 1st Floor, Postgraduate Centre Manchester Royal Infirmary Oxford Road Manchester England United Kingdom M13 9WL lynne.webster@cmft.nhs.uk

**Sponsor type** Hospital/treatment centre

Website www.cmft.nhs.uk

**Organisation** University of Birmingham

Sponsor details

**Sponsor type** Not defined

Website http://www.birmingham.ac.uk/index.aspx

**ROR** https://ror.org/03angcq70

## Funder(s)

**Funder type** Government

**Funder Name** Health Technology Assessment Programme

Alternative Name(s) NIHR Health Technology Assessment Programme, HTA

**Funding Body Type** Government organisation

Funding Body Subtype National government

**Location** United Kingdom

### **Results and Publications**

#### Publication and dissemination plan

Not provided at time of registration

# Intention to publish date 31/12/2018

### Individual participant data (IPD) sharing plan

#### IPD sharing plan summary

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Not provided at time of registration

Study outputs					
Output type <u>Basic results</u>	Details	Date created	<b>Date added</b> 21/05/2019	<b>Peer reviewed?</b> No	<b>Patient-facing?</b> No
Results article	HTA results	01/05/2019	04/06/2019	Yes	No
<u>Results article</u>	results	23/05/2019	25/07/2019	Yes	No
HRA research summary			28/06/2023	No	No