# RituxiMab in INDuction therapy for living donor renal transplantation

<b>Submission date</b> 01/10/2009	Recruitment status No longer recruiting	[X] Prospectively registered		
		<pre>Protocol</pre>		
<b>Registration date</b> 15/12/2009	Overall study status Completed	Statistical analysis plan		
		☐ Results		
<b>Last Edited</b> 27/01/2023	<b>Condition category</b> Surgery	Individual participant data		
		<ul><li>Record updated in last year</li></ul>		

#### Plain English summary of protocol

Background and study aims

Kidney transplantation is the best treatment for end stage kidney disease. Immunosuppression (reducing the strength of the body's immune system) prevents rejection and prolongs the life of a transplant. However, long-term graft loss remains a problem with an incidence of up to 20%. This is mainly due to immune system cells called B cells and the side effects of immunosuppression. Rituximab is a drug that targets B cells, reducing their numbers, and there is evidence that it reduces rejection. The aim of this study is to determine whether rituximab in combination with reduced immunosuppression can be used in kidney transplants to reduce the side effects of immunosuppression.

#### Who can participate?

Patients aged over 18 receiving their first living donor kidney transplant, or their second if the first was not lost from acute rejection

#### What does the study involve?

Participants are randomly allocated to either receive rituximab or to not receive rituximab 2 - 4 weeks before receiving their kidney transplant.

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

The potential benefits are significant. If rituximab is effective, patients could be safely managed with a reduced immunosuppressive treatment, which would lead to better graft function, lower rates of post-transplant diabetes, heart complications and infections, and potentially less rejection. This could result in improved long-term graft and patient survival: this would profoundly affect the approach to immunosuppression in kidney transplantation. There are two potential risks for participants: side effects due to rituximab administration, and the risks of rejection related to a reduced immunosuppressive treatment. These will be closely monitored during the study.

#### Where is the study run from?

Guy's Hospital, Derriford Hospital, Glasgow Renal and Transplant Unit, Queen Elizabeth Hospital Birmingham, Sheffield Kidney Institute and Manchester Renal Transplant Unit (UK).

When is the study starting and how long is it expected to run for? November 2010 to November 2021

Who is funding the study?
Astellas Pharma and Guy's Hospital Transplant Surgical Research Fund (UK)

Who is the main contact? Nizam Mamode mamode@sky.com

#### Contact information

#### Type(s)

Scientific

#### Contact name

Mr Nizam Mamode

#### Contact details

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### Additional identifiers

**EudraCT/CTIS** number

**IRAS** number

ClinicalTrials.gov number

NCT01095172

Secondary identifying numbers

Study ID: 9154

# Study information

#### Scientific Title

A phase IV open label randomised controlled trial of rituximab in induction therapy for living donor renal transplantation

#### **Acronym**

**ReMIND** 

#### Study objectives

Can the use of a single dose of rituximab at induction allow a maintenance regimen of low dose tacrolimus and mycophenylate alone?

#### Ethics approval required

Old ethics approval format

#### Ethics approval(s)

Guy's Research Ethics Committee, 25/01/2010, ref: 09/H0804/110

#### Study design

Phase IV 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

Live donor renal transplantation

#### **Interventions**

Pre-medication with paracetamol 1 g orally (PO), hydrocortisone 100 mg intravenously (IV) and chlorphenamine 10 mg IV is provided 30 minutes before start of rituximab infusion. A single dose of rituximab 375 mg/m^2 administered via a dedicated IV line is given 2 - 4 weeks prior to transplantation. The dose should be rounded to the nearest 100 mg unless the difference comprises more than 5% of calculated dose, in which case the dose should be rounded up to the nearest 10 mg.

Patients then receive the medications as below:

- 1. Basiliximab (Simulect®): 20 mg IV 1 hour prior to induction of anaesthesia, and a further 20 mg IV dose on day 4 post-transplant
- 2. Tacrolimus: dose calculated to give levels of 3 7 ng/ml
- 3. Mycophenylate mofetil: 2 g/day in divided doses
- 4. Prednisolone: all patients will be given 1 g methylprednisolone at induction of anaesthesia. Patients receiving rituximab will be given 100 mg hydrocortisone twice daily (bd) on day 1 after transplantation, then prednisolone at 0.3 mg/kg on day 2, 0.25 mg/kg on day 3, 0.2 mg/kg on day 4 and 0.16 mg/kg on day 5. On day 6 they will receive 5 mg prednisolone, and on day 7 none. For patients not receiving rituximab, our current protocol will be followed. Prednisolone will

continue at 0.3 mg/kg for the first month after transplantation, 0.25 mg/kg for months 2 and 3, and 0.16 mg/kg for months 4 to 6. Subsequent steroid maintenance or withdrawal will be at the discretion of the patient's clinician.

#### **Intervention Type**

Drug

#### Phase

Phase IV

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

Rituximab, tacrolimus, mycophenylate

#### Primary outcome measure

Glomerular filtration rate (GFR) (Modification of Diet in Renal Disease [MDRD] study calculation) at 12 months

#### Secondary outcome measures

- 1. Biopsy proven acute rejection, graft and patient survival at 1 year
- 2. Infections
- 3. Post-transplant lymphoproliferative disorder (PTLD)

#### Overall study start date

16/11/2010

#### Completion date

16/11/2021

# Eligibility

#### Key inclusion criteria

- 1. Adult patients aged over 18 years, either sex
- 2. Receiving their first living donor renal transplant, or their second if the first was not lost from acute rejection
- 3. Have given written informed consent

#### Participant type(s)

**Patient** 

#### Age group

Adult

#### Lower age limit

18 Years

#### Sex

Both

#### Target number of participants

316

#### Key exclusion criteria

Amendments as of 22/12/2010:

Point 8 of the below exclusion criteria has been amended to read as follows:

8. Patients who have been involved in any other investigational trial or non protocol immunosuppressive regimen in the previous 90 days prior to transplant

#### Initial information at time of registration:

- 1. Previous other organ transplants lost through acute rejection
- 2. Patients undergoing antibody removal
- 3. Patients with other organ transplants
- 4. Patients previously treated with cylophosphamide, ATG, OKT3 or rituximab
- 5. Patients with white cell count below 4,500/mm^3
- 6. Patients with platelet count below 1,500/mm^3
- 7. Patients who are treated with drugs that are strong inhibitors or inducers of cytochrome P450, or treated with terfenadine, astemizole, cisapride or lovastatin
- 8. Patients who have been involved in any other investigational trial or non protocol immunosuppressive regimen in the previous 30 days prior to transplant
- 9. Pregnant or breastfeeding women
- 10. Patients with a documented history of malignancy and its origins and treatment in the last five years. Localised basal cell carcinoma of the skin is permitted
- 11. Patients known to be human immunodeficiency virus (HIV), hepatitis B or C surface antigen positive
- 12. Patients who in the opinion of the Investigator would not be a suitable candidate for study participation

#### Date of first enrolment

16/11/2010

#### Date of final enrolment

30/11/2018

#### Locations

#### Countries of recruitment

England

Scotland

United Kingdom

# Study participating centre Guy's Hospital

London United Kingdom SE1 9RT

#### **Derriford Hospital**

Derriford Road Plymouth United Kingdom PL6 8DH

#### Study participating centre Glasgow Renal and Transplant Unit

Greater Glasgow & Clyde NHS trust Western Infirmary Dumbarton Road Glasgow United Kingdom G11 6NT

#### Study participating centre Renal Transplant Unit

Queen Elizabeth Hospital Birmingham Mindelsohn Way Edgbaston Birmingham United Kingdom B15 2WB

#### Study participating centre Sheffield Kidney Institute

Northern General Hospital Herries Road Sheffield United Kingdom S5 7AU

#### Study participating centre Manchester Renal Transplant Unit

Central Manchester University Hospitals Manchester Royal Infirmary Oxford Road Manchester United Kingdom M13 9WL

# Sponsor information

#### Organisation

Guy's and St Thomas' Hospital NHS Foundation Trust (UK)

#### Sponsor details

c/o Jackie Louise Pullen Joint Clinical Trials Office 3rd Floor Conybeare House Great Maze Pond London England United Kingdom SE1 9RT +44 (0)20 7188 5732 jackie.pullen@kcl.ac.uk

#### Sponsor type

Hospital/treatment centre

#### Website

http://www.guysandstthomas.nhs.uk/

#### **ROR**

https://ror.org/00j161312

# Funder(s)

#### Funder type

Industry

#### **Funder Name**

Guy's Hospital Transplant Surgical Research Fund (UK)

#### **Funder Name**

Astellas Pharma Europe

#### Alternative Name(s)

Astellas Pharma Europe Ltd

#### **Funding Body Type**

Private sector organisation

#### **Funding Body Subtype**

International organizations

#### Location

United Kingdom

## **Results and Publications**

#### Publication and dissemination plan

It is intended that the results of the study will be reported and disseminated at international conferences and in peer-reviewed scientific journals.

#### Intention to publish date

16/11/2022

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

-

#### IPD sharing plan summary

Available on request

#### **Study outputs**

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
HRA research summary			28/06/2023	No	No