

# Phase II study of the adjuvant use of lenalidomide in patients undergoing reduced intensity conditioning allogeneic transplantation for multiple myeloma

<b>Submission date</b> 24/05/2011	<b>Recruitment status</b> No longer recruiting	<input checked="" type="checkbox"/> Prospectively registered <input type="checkbox"/> Protocol
<b>Registration date</b> 24/05/2011	<b>Overall study status</b> Completed	<input type="checkbox"/> Statistical analysis plan <input checked="" type="checkbox"/> Results
<b>Last Edited</b> 28/05/2020	<b>Condition category</b> Cancer	<input type="checkbox"/> Individual participant data

## Plain English summary of protocol

<http://cancerhelp.cancerresearchuk.org/trials/trials-search/a-trial-looking-lenalidomide-after-stem-cell-transplant-for-people-with-myeloma-lenaric>

## Study website

<http://www.birmingham.ac.uk/research/activity/mds/trials/crctu/trials/haematology/lenaric/index.aspx>

## Contact information

### Type(s)

Scientific

### Contact name

Miss Shamyla Siddique

### Contact details

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Queen Elizabeth Hospital  
Edgbaston  
Birmingham  
United Kingdom  
B15 2TH

## Additional identifiers

### EudraCT/CTIS number

2009-012033-30



IRAS number

ClinicalTrials.gov number

Secondary identifying numbers

7268

## Study information

### Scientific Title

Phase II study of the adjuvant use of lenalidomide in patients undergoing reduced intensity conditioning allogeneic transplantation for multiple myeloma

### Acronym

LenaRIC

### Study objectives

Allogeneic stem cell transplant (SCT) remains the only curative option for multiple myeloma (MM). However, conventional (myeloablative) transplants remain associated with a substantial transplant related mortality which compromises effectiveness in younger patients and precludes their use entirely in patients over the age of 55 years. The recent demonstration that the use of reduced intensity conditioning (RIC) regimens substantially reduces the toxicity of allografting, whilst permitting durable donor stem cell engraftment, has raised the hope of extending this procedure to many patients who would currently not be considered for transplantation. Donor lymphocytes can be safely administered in patients who relapse late after transplantation. Routine use of donor lymphocyte infusion (DLI) early after transplant is generally avoided, as the risk of GVHD increases the sooner DLI is administered after transplant. In the context of myeloma, the strategy of delayed DLI (at one year) reduces the risk of GVHD. Consequently, an independent anti-myeloma strategy early after transplantation is required to allow sufficient delay before DLI can be safely administered. The tolerability and remarkable activity of lenalidomide against myeloma makes it an excellent candidate to be used in an adjunctive role early after a reduced intensity regimen transplant prior to later institution of DLI, to suppress the growth and rapid recovery of a residual myeloma cell population

### Ethics approval required

Old ethics approval format

### Ethics approval(s)

First MREC approval date 12/11/2010, ref 10/H1208/49

### Study design

Non-randomised interventional trial

### Primary study design

Interventional

### Secondary study design

Non randomised study

### Study setting(s)



Hospital

## **Study type(s)**

Treatment

## **Participant information sheet**

<http://www.birmingham.ac.uk/research/activity/mds/trials/crctu/trials/haematology/lenaric/investigators.aspx>

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

Haematological Oncology, Myeloma

## **Interventions**

Patients will receive up to 12 cycles of Lenalidomide (or until 12 months post-transplant). Each cycle will last 28 days and patients will receive Lenalidomide on days 1 - 21 of each 28 day cycle. Dose reductions are in place. Follow up length: 24 month(s). Study entry : registration only.

## **Intervention Type**

Drug

## **Phase**

Phase II

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

Fludarabine, lenalidomide, ciclosporin, ATG

## **Primary outcome measure**

1. Progression free survival at 2 years post transplant
2. Timepoint(s): 2 years post transplant

## **Secondary outcome measures**

1. Day +100 and 1 year non-relapse mortality, timepoint(s): day 100 and year 1
2. Disease free survival at 1 and 2 years post transplant, timepoint(s): Markers of disease assessed at months 1, 3, 6, 9, 12, 15, 18, 21 and 24 post transplant
3. Donor engraftment, timepoint(s): lineage-specific chimerism assessed at months 1, 3, 6, 9, 12, 15, 18, 21 and 24 post-transplant
4. GVHD, timepoint(s): GVHD will be monitored continuously until 2 years post transplant
5. Overall survival at years 1 and 2 post transplant, timepoint(s): will be monitored continuously until 24 months post-transplant

## **Overall study start date**

01/05/2011

## **Completion date**

19/12/2017

# **Eligibility**

## **Key inclusion criteria**



1. Multiple myeloma subjects who have received a high dose melphalan conditioned autologous transplant in the preceding 120 days and who are in CR1/2 or VGPR1/2 as defined by International uniform response criteria for Myeloma, 2006 (Appendix 1)
2. Patients 18 to 70 years in whom allogeneic transplantation using a reduced intensity conditioning regimen is not contra-indicated but who are not suitable for conventional allograft
3. Eastern Cooperative Oncology Group (ECOG) status <2 or an ECOG status of 3 if the reason for a status of 3 is due exclusively to multiple myeloma (e.g. pathological fracture) (Appendix 2)
4. Patients with a HLA identical sibling or ten/ten antigen (A,B,C,DR,DQ) matched unrelated donor
5. Cardiac ejection fraction > 40%
6. Measured EDTA Creatinine clearance >50 ml/min
7. Carbon Monoxide Diffusing Capacity (DLCO) >50%
8. Liver function (AST or ALT) < 2.5 x upper limit of normal
9. Patients able to give written informed consent prior to allogeneic transplant, with the understanding that the patient has the right to withdraw from the study at any time, without prejudice
10. Patients willing and able to comply with the protocol for the duration of the study
11. Agree to abstain from donating blood (and semen in male subjects) while taking study drug therapy and for 28 days following discontinuation of study drug therapy
12. Agree not to share study drug with another person and to return all unused study drug to the investigator or pharmacist
13. Male or female
14. Upper age limit 70 years
15. Lower age limit 18 years

Updated 10/07/2017: upper age limit changed from 65 to 70 years.

### **Participant type(s)**

Patient

### **Age group**

Adult

### **Lower age limit**

18 Years

### **Sex**

Both

### **Target number of participants**

40 patients

### **Total final enrolment**

40

### **Key exclusion criteria**

1. Patients with allergies or contraindications to receiving Fludarabine, Lenalidomide, ciclosporin or ATG
2. Pregnant or lactating women
3. Adults of reproductive potential not willing to comply with the Lenalidomide Risk Minimisation Plan



4. Patients with organ allografts
5. Any co-morbidity that, in the investigators opinion, would affect the patients participation in this study
6. Patient who have taken any other investigational medical product within 4 weeks of starting conditioning therapy

Added 10/07/2017:

7. Patients with known positive serology for HIV/Hepatitis B/Hepatitis C
8. Patients who have undergone a previous allogeneic stem cell transplant
9. Patients who have previously progressed on Lenalidomide

**Date of first enrolment**

31/05/2011

**Date of final enrolment**

12/06/2015

## **Locations**

**Countries of recruitment**

England

United Kingdom

**Study participating centre**

**Queen Elizabeth Hospital**

Birmingham

United Kingdom

B15 2TH

## **Sponsor information**

**Organisation**

University Hospitals Birmingham NHS Foundation Trust (UK)

**Sponsor details**

c/o Miss Shamyla Siddique

Queen Elizabeth Hospital

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England

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B15 2TH

**Sponsor type**

University/education



**Website**

<http://www.uhb.nhs.uk/>

**ROR**

<https://ror.org/014ja3n03>

## **Funder(s)**

**Funder type**

Charity

**Funder Name**

Cancer Research UK Feasibility Study Committee

**Alternative Name(s)**

CR\_UK, Cancer Research UK - London, CRUK

**Funding Body Type**

Private sector organisation

**Funding Body Subtype**

Other non-profit organizations

**Location**

United Kingdom

**Funder Name**

Celgene Ltd (unrestricted educational grant)

**Alternative Name(s)**

Celgene Corporation

**Funding Body Type**

Private sector organisation

**Funding Body Subtype**

For-profit companies (industry)

**Location**

United States of America

## **Results and Publications**



## Publication and dissemination plan

Planned publication in a high-impact peer reviewed journal late 2017 – early 2018.

## Intention to publish date

19/03/2018

## Individual participant data (IPD) sharing plan

The current data sharing plans for the current study are unknown and will be made available at a later date.

## IPD sharing plan summary

Data sharing statement to be made available at a later date

## Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<a href="#">Basic results</a>			28/05/2020	No	No
<a href="#">HRA research summary</a>			28/06/2023	No	No