

# Carfilzomib in combination with doxorubicin and dexamethasone (CAD) therapy in transplant eligible relapsed myeloma patients

<b>Submission date</b> 02/12/2010	<b>Recruitment status</b> Stopped	<input type="checkbox"/> Prospectively registered
		<input type="checkbox"/> Protocol
<b>Registration date</b> 12/05/2011	<b>Overall study status</b> Stopped	<input type="checkbox"/> Statistical analysis plan
		<input type="checkbox"/> Results
<b>Last Edited</b> 26/11/2012	<b>Condition category</b> Cancer	<input type="checkbox"/> Individual participant data
		<input type="checkbox"/> Record updated in last year

**Plain English summary of protocol**  
Not provided at time of registration

## Contact information

**Type(s)**  
Scientific

**Contact name**  
Dr Faith Davies

**Contact details**  
Haemato-Oncology Unit  
Royal Marsden NHS Foundation Trust  
Downs Road  
Sutton  
United Kingdom  
SM2 5PT

## Additional identifiers

**Protocol serial number**  
HM10 9644

## Study information

**Scientific Title**  
An open label, multicentre, phase I/II dose escalation trial of carfilzomib in combination with doxorubicin and dexamethasone (CAD) therapy in transplant eligible relapsed myeloma patients

## Acronym

MUK 02

## Study objectives

During the dose finding phase, the primary objective of this trial is to determine the maximum tolerated dose (MTD) of carfilzomib in combination with doxorubicin and dexamethasone (CAD). In the dose expansion phase the primary objective will be to estimate the response rate to four cycles of CAD therapy at MTD identified in the dose finding stage in transplant eligible relapsed myeloma patients.

Within the extension phase there are also the following secondary objectives:

1. Assess the safety and toxicity of CAD therapy
2. Assess the feasibility to mobilise stem cells following CAD therapy
3. Estimate maximum response to therapy
4. Estimate time to maximum response to therapy
5. Estimate progression free survival following CAD therapy
6. Assess the feasibility of delivering CD maintenance

## Ethics approval required

Old ethics approval format

## Ethics approval(s)

Not provided at time of registration

## Study design

Open label multicentre phase I/II dose escalation trial

## Primary study design

Interventional

## Study type(s)

Treatment

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

Multiple myeloma

## Interventions

Dose escalation:

### Dose level 1

Carfilzomib 20mg/m<sup>2</sup> on days 1 and 2 of cycle 1 only, 27mg/m<sup>2</sup> on days 8-9 and 15-16 of cycle 1 and all subsequent doses. Adriamycin® (doxorubicin) 9.0 mg/m<sup>2</sup> days 1, 2, 15 and 16.  
dexamethasone 40mg days 1, 2, 8, 9, 15 and 16

### Dose level 2

Carfilzomib 20mg/m<sup>2</sup> on days 1 and 2 of cycle 1 only, 36mg/m<sup>2</sup> on days 8-9 and 15-16 of cycle 1 and all subsequent doses. Adriamycin® (doxorubicin) 9.0 mg/m<sup>2</sup> days 1, 2, 15 and 16.  
dexamethasone 40mg days 1, 2, 8, 9, 15 and 16

### Dose level 3

Carfilzomib 20mg/m<sup>2</sup> on days 1 and 2 of cycle 1 only, 45mg/m<sup>2</sup> on days 8-9 and 15-16 of cycle 1

and all subsequent doses. Adriamycin® (doxorubicin) 9.0 mg/m<sup>2</sup> days 1, 2, 15 and 16.  
dexamethasone 40mg days 1, 2, 8, 9, 15 and 16

Patients will receive four cycles of CAD and will be given the option of a further four cycles of consolidation therapy. Patients will then receive carfilzomib and dexamethasone maintenance therapy until disease progression and will be followed up every 2 months.

26/11/2012: Please note that this trial was never started.

### **Intervention Type**

Drug

### **Phase**

Phase I/II

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

Carfilzomib, doxorubicin, dexamethasone

### **Primary outcome(s)**

The primary endpoints for the dose escalation phase is dose limiting toxicities within the first cycle of treatment (28 days). In the dose expansion phase, the primary endpoint will be the proportion of patients achieving at least a partial response after four cycles of CAD.

### **Key secondary outcome(s)**

1. The proportion of patients for whom stem cell mobilisation is possible following CAD therapy
2. Safety and toxicity
3. Maximum response rate within four cycles of CAD
4. Maximum response rate within four cycles of CAD, consolidation therapy and maintenance therapy (i.e. maximum response to therapy)
5. Time to maximum response to therapy (i.e. within four cycles of CAD, consolidation therapy and maintenance therapy)
6. Progression-free survival
7. Feasibility of CD-maintenance therapy

### **Completion date**

01/04/2016

### **Reason abandoned (if study stopped)**

Lack of funding/sponsorship

## **Eligibility**

### **Key inclusion criteria**

1. Able to give informed consent and willing to follow study protocol
2. Aged over 18 years, either sex
3. Patients with relapsed myeloma requiring therapy
4. Transplant eligible
5. Adequate renal function (creatinine clearance greater than or equal to 30 ml/min) within 14 days prior to study entry

6. Adequate liver function (alanine aminotransferase [ALT]/aspartate aminotransferase [AST] less than 3 x upper limit of normal [ULN]) within 14 days prior to study entry
7. Adequate bone marrow reserve (haemoglobin [Hb] greater than 8.0 g/dL, absolute neutrophil count [ANC] greater than  $1.0 \times 10^9/L$ , platelets [Plts] greater than  $75 \times 10^9/L$ ) within 14 days prior to study entry
8. Female subjects of child-bearing potential must have a negative pregnancy test within 24 hours prior to starting therapy and agree to use dual methods of contraception for the duration of the study. Male subjects must agree to use a barrier method of contraception for the duration of the study if sexually active with a female of child-bearing potential.

**Participant type(s)**

Patient

**Healthy volunteers allowed**

No

**Age group**

Adult

**Lower age limit**

18 years

**Sex**

All

**Key exclusion criteria**

1. Unable to tolerate an aggressive fluid hydration regimen (e.g. due to pre-existing pulmonary, cardiac or renal impairment)
2. Received an investigational medicinal product at any dose within 28 days of study entry (registration)
3. Concurrent or previous malignancies (less than 12 months post end of treatment) at other sites, with the exception of appropriately treated localised epithelial skin or cervical cancer. Patients with histories (greater than or equal to 12 months) of other tumours may be entered.
4. Seropositive for human immunodeficiency [HIV], or active hepatitis A, B or C infection
5. Any history of hypersensitivity to any of the study medications or excipients
6. Patients with active uncontrolled infections
7. Patients with peripheral neuropathy Common Toxicity Criteria (CTC) grade 3 or higher within 14 days prior to study entry
8. Poorly controlled or serious medical or psychiatric illness that, in the Investigator's opinion, is likely to interfere with participation and/or compliance in this clinical study
9. Pregnant or breast feeding

**Date of first enrolment**

01/04/2011

**Date of final enrolment**

01/04/2016

**Locations**

## **Countries of recruitment**

United Kingdom

England

## **Study participating centre**

**Haemato-Oncology Unit**

Sutton

United Kingdom

SM2 5PT

## **Sponsor information**

### **Organisation**

University of Leeds (UK)

### **ROR**

<https://ror.org/024mrx33>

## **Funder(s)**

### **Funder type**

Charity

### **Funder Name**

Myeloma UK (UK)

## **Results and Publications**

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

### **IPD sharing plan summary**

Not provided at time of registration