

# FLAMSA-BU conditioning regimen in patients with acute myeloid leukaemia and myelodysplasia undergoing allogeneic stem cell transplantation

<b>Submission date</b> 11/10/2013	<b>Recruitment status</b> No longer recruiting	<input type="checkbox"/> Prospectively registered <input type="checkbox"/> Protocol
<b>Registration date</b> 11/10/2013	<b>Overall study status</b> Completed	<input type="checkbox"/> Statistical analysis plan <input checked="" type="checkbox"/> Results
<b>Last Edited</b> 12/05/2022	<b>Condition category</b> Cancer	<input type="checkbox"/> Individual participant data

## Plain English summary of protocol

<http://www.cancerresearchuk.org/about-cancer/find-a-clinical-trial/a-trial-looking-at-different-combinations-of-drugs-before-a-stem-cell-transplant-for-aml-or-mds-figaro>

## Contact information

### Type(s)

Scientific

### Contact name

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## Additional identifiers

### EudraCT/CTIS number

2012-005538-12

### IRAS number

**ClinicalTrials.gov number**

**Secondary identifying numbers**

14772

## **Study information**

### **Scientific Title**

A randomised trial of the FLAMSA-BU conditioning regimen in patients with acute myeloid leukaemia and myelodysplasia undergoing allogeneic stem cell transplantation

### **Acronym**

FIGARO

### **Study objectives**

This is a prospective, phase II, multicentre, randomised clinical trial in patients with acute myeloid leukaemia (AML) or myelodysplasia (MDS) undergoing reduced intensity conditioning (RIC) allogeneic stem cell transplantation (SCT) comparing the novel conditioning regimen (fludarabine/cytarabine/amsacrine/busulphan/ATG) (FLAMSA-BU) with standard conditioning regimens fludarabine/melphalan/alemtuzumab (FMA), fludarabine/busulphan/alemtuzumab (FBA) or fludarabine/busulphan/ATG (FB-ATG).

### **Ethics approval required**

Old ethics approval format

### **Ethics approval(s)**

NRES Committee Yorkshire & The Humber Sheffield, 03/06/2013, ref: 13/YH/0152

### **Study design**

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**

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

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

Topic: National Cancer Research Network; Subtopic: Haematological Oncology; Disease: Leukaemia (acute myeloid)

## **Interventions**

Patients will be stratified at randomisation by their underlying disease (AML; MDS), cytogenetic risk group (adverse risk; intermediate or good risk), disease status at transplant [1st complete remission (CR1) or 2nd complete remission (CR2)]; primary refractory disease, intended control arm regimen (FMA; FBA; FB-ATG), age (above; below 60 years of age) and by donor type (sibling; unrelated).

Patients eligible for entry into the trial will be randomised on a 1:1 basis

Standard conditioning regimens fludarabine/melphalan/alemtuzumab (FMA), fludarabine/busulphan/alemtuzumab (FBA) or fludarabine/busulphan/ATG (FB-ATG).

Novel conditioning regimen, Using fludarabine, cytarabine, amsacrine, busulphan and ATG combined to condition the patients for a reduced intensity stem cell transplant.

The interventions are from 7 to 12 days depending in which treatment arm is selected. The follow-up is 24 months for both arms.

Study Entry : Single Randomisation only

## **Intervention Type**

Drug

## **Phase**

Phase II

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

Fludarabine, cytarabine, amsacrine, busulphan

## **Primary outcome measure**

Overall survival, measured using date of death from any cause; Timepoints: 24 months post transplant

## **Secondary outcome measures**

1. Disease relapse, measured using date of relapse; Timepoint(s): Disease relapse within the 24 month follow up
2. Event free survival, measured using date of relapse or date of death; Timepoint(s): 24 months post transplant
3. Incidence of graft versus host disease (GvHD), measured counting episodes of GvHD; Timepoint(s): Throughout the 24 month follow up
4. Quality of Life; Timepoint(s): FACT-BMT questionnaire, completed pre-transplant, at day 42 and month 3, 6, 9, 12, 18 and 24.
5. Transplant related mortality measured by any death related to transplant procedure, not underlying, disease at day 100 and 12 months post-transplant

## **Overall study start date**

10/10/2013

**Completion date**

31/10/2015

## **Eligibility**

**Key inclusion criteria**

1. Patients with a morphologically documented diagnosis of AML or MDS clinically indicated to receive a RIC allograft with one the following disease characteristics:

**AML**

- 1.1. Patients in 1st complete remission (CR1) with adverse risk cytogenetics
- 1.2. Patients in 2nd complete remission (CR2)
- 1.3. Patients with primary refractory AML defined as the failure to achieve a morphological remission after 2 courses of induction chemotherapy
- 1.4. Patients participating in the UK NCRN AML17 (or the subsequent AML19) clinical trial who have been defined as high risk (based upon age, de novo or secondary disease, cytogenetics, white blood count, sex and response to course 1)
- 1.5. Patients participating in the UK NCRN AML17, AML18 (or the subsequent AML19) clinical trials who have been defined as high risk by Minimal Residual Disease (MRD) criteria

**MDS**

- 1.6. Patients with advanced MDS (defined by an IPSS score of INT1 with >5% blasts or INT2 or high risk ) who have < 5% blasts at the time of randomisation following chemotherapy or hypomethylating agents if necessary
2. Patients aged  $\geq 16$  years
3. Patients with an HLA identical sibling or suitable matched unrelated donor (suitable match defined as no greater than a single allele mismatch at HLA A, B, C or DRB1)
4. Patients considered suitable to undergo a reduced intensity conditioned allogeneic stem cell transplant as clinically judged by the Local Investigator including:
  - 4.1. Adequate cardiac, pulmonary, hepatic and renal function as determined by pre-transplant assessments
  - 4.2. Resolution of any toxic effects of prior therapy (including radiotherapy, chemotherapy or surgical procedures)
5. Patients with an ECOG performance status of 0, 1 or 2
6. Patients have given written informed consent
7. Patients willing and able to comply with scheduled study visits and laboratory tests

**Participant type(s)**

Patient

**Age group**

Adult

**Lower age limit**

18 Years

**Sex**

Both

**Target number of participants**

UK Sample Size: 170

**Total final enrolment**

244

**Key exclusion criteria**

1. Patients with chemorefractory relapse of AML or MDS
2. Patients with contraindications to receiving RIC allogeneic SCT
3. Female patients who are pregnant or breastfeeding. All women of childbearing potential must have a negative pregnancy test before commencing treatment
4. Adults of reproductive potential not willing to use appropriate, effective, contraception during the specified period
5. Patients with clinically significant cardiac disease (New York Heart Association, Class III or IV)
6. Patients with renal or hepatic impairment as clinically judged by Local Investigator
7. Patients with active infection, HIV positive or chronic active Hep A, B, C
8. Patients with concurrent active malignancy

**Date of first enrolment**

10/10/2013

**Date of final enrolment**

31/10/2015

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

England

United Kingdom

**Study participating centre**

University of Birmingham

Birmingham

United Kingdom

B15 2TT

**Sponsor information****Organisation**

University of Birmingham (UK)

**Sponsor details**

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**Sponsor type**

University/education

**Website**

<http://www.birmingham.ac.uk/>

**ROR**

<https://ror.org/03angcq70>

## **Funder(s)**

**Funder type**

Charity

**Funder Name**

Leukaemia and Lymphoma Research; Grant Codes: 12071

**Alternative Name(s)****Funding Body Type**

Private sector organisation

**Funding Body Subtype**

Other non-profit organizations

**Location**

United Kingdom

## **Results and Publications**

**Publication and dissemination plan**

Not provided at time of registration

**Intention to publish date****Individual participant data (IPD) sharing plan**

Not provided at time of registration

**IPD sharing plan summary**

Not provided at time of registration

**Study outputs**

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<a href="#">Abstract results</a>	Presented at ASH	13/11/2019	12/05/2022	No	No
<a href="#">Basic results</a>		23/01/2022	12/05/2022	No	No
<a href="#">Plain English results</a>		10/05/2022	12/05/2022	No	Yes
<a href="#">Results article</a>		01/03/2021	12/05/2022	Yes	No
<a href="#">HRA research summary</a>			28/06/2023	No	No