

# A randomised phase III study on the effect of bortezomib combined with adriamycin, dexamethasone (AD) for induction treatment, followed by high dose melphalan and bortezomib alone during maintenance in patients with multiple myeloma

<b>Submission date</b> 13/09/2005	<b>Recruitment status</b> No longer recruiting	<input type="checkbox"/> Prospectively registered <input type="checkbox"/> Protocol
<b>Registration date</b> 03/11/2005	<b>Overall study status</b> Completed	<input type="checkbox"/> Statistical analysis plan <input checked="" type="checkbox"/> Results
<b>Last Edited</b> 03/09/2013	<b>Condition category</b> Cancer	<input type="checkbox"/> Individual participant data

## Plain English summary of protocol

Not provided at time of registration

## Study website

<http://www.hovon.nl>

## Contact information

### Type(s)

Scientific

### Contact name

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## Additional identifiers

**EudraCT/CTIS number**

2004-000944-26

**IRAS number****ClinicalTrials.gov number****Secondary identifying numbers**

26866138MMY3003; HO65

## **Study information**

**Scientific Title****Acronym**

HOVON65/GMMG-HD4

**Study objectives**

Bortezomib combined with intensive chemotherapy and in maintenance therapy is superior in comparison with intensive therapy with vincristine followed by thalidomide maintenance in patients with previously untreated multiple myeloma, as measured by response rate and progression-free and overall survival.

**Ethics approval required**

Old ethics approval format

**Ethics approval(s)**

Ethics approval received from the local medical ethics committee

**Study design**

Prospective, multicentre, randomised, active controlled, parallel group trial

**Primary study design**

Interventional

**Secondary study design**

Randomised controlled trial

**Study setting(s)**

Not specified

**Study type(s)**

Treatment

**Participant information sheet****Health condition(s) or problem(s) studied**

Multiple myeloma

## Interventions

Arm A: Standard Vincristine, Adriamycin and Dexamethasone (VAD) induction, followed by intensive chemotherapy with melphalan 200 mg/m<sup>2</sup> and autologous blood stem cell transplantation, followed by maintenance therapy with thalidomide.

Arm B: Induction chemotherapy with Bortezomib, Adriamycin and Dexamethasone (BAD) followed by intensive chemotherapy with melphalan 200 mg/m<sup>2</sup> and autologous blood stem cell transplantation, followed by maintenance with bortezomib.

Duration of treatment:

Expected duration of induction, stem cell collection and intensification (with or without Bortezomib) is six to seven months. Maintenance therapy with Bortezomib or Thalidomide will be given for two years.

Please note that the anticipated end date of this trial has been shortened to 22nd April 2007.

## Intervention Type

Drug

## Phase

Phase III

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

Bortezomib, vincristine, adriamycin, dexamethasone and melphalan

## Primary outcome measure

Progression Free Survival (PFS), i.e. time from registration to progression, relapse or death from any cause.

## Secondary outcome measures

1. Response (Partial Remission [PR], very Good Partial Remission [vGPR] and Complete Remission [CR])
2. Overall Survival (OS)
3. PFS from High-Dose Therapy (HDT) i.e. time from last High-Dose Melphalan (HDM) treatment to progression, relapse or death from any cause whichever occurs first for patients who received at least PR on HDT
4. Toxicity
5. PFS analysed as primary endpoint, but patients with an allogeneic transplant not censored. This primarily to check whether censoring has a major impact.

## Overall study start date

01/05/2005

## Completion date

30/09/2011

## Eligibility

### Key inclusion criteria

1. Patients with a confirmed diagnosis of multiple myeloma stage II or III according to the Salmon and Durie criteria
2. Age 18 to 65 years inclusive
3. World Health Organisation (WHO) performance status zero to three (WHO = three is allowed only when caused by multiple myeloma and not by co-morbid conditions)
4. Negative pregnancy test at inclusion if applicable
5. Written informed consent

**Participant type(s)**

Patient

**Age group**

Adult

**Lower age limit**

18 Years

**Sex**

Both

**Target number of participants**

800

**Key exclusion criteria**

1. Known intolerance of thalidomide or boron
2. Systemic AL amyloidosis
3. Non-secretory multiple myeloma
4. Previous chemotherapy or radiotherapy except two cycles of melphalan/prednisone or local radiotherapy in case of local myeloma progression
5. Severe cardiac dysfunction (New York Heart Association [NYHA] classification II - IV)
6. Significant hepatic dysfunction (serum bilirubin more than or equal to 30 µmol/l or transaminases more than or equal to 2.5 times normal level), unless related to myeloma
7. Patients known to be Human Immunodeficiency Virus (HIV) positive
8. Patients with active, uncontrolled infections
9. Patients with neuropathy, CTC grade two or higher
10. Patients with a history of active malignancy during the past five years with the exception of basal carcinoma of the skin or stage zero cervical carcinoma
11. Patients who will not give permission for collection of Bone Marrow (BM) aspirate at entry
12. Patients who are not willing or capable to use adequate contraception during the therapy (all men, all pre-menopausal women)
13. Patients 65 years or less with a Human Leukocyte Antigen (HLA) identical sibling who will undergo non-myeloablative AlloSCT
14. Lactating women

**Date of first enrolment**

01/05/2005

**Date of final enrolment**

30/09/2011

# Locations

## Countries of recruitment

Germany

Netherlands

## Study participating centre

**Erasmus MC**

Rotterdam

Netherlands

3000 CA

# Sponsor information

## Organisation

Dutch Haemato-oncology Association (Stichting Haemato-Oncologie voor Volwassenen Nederland [HOVON])

## Sponsor details

VU Medisch Centrum

P.O. Box 7057

Amsterdam

Netherlands

1007 MB

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## Sponsor type

Research organisation

## ROR

<https://ror.org/056kpx27>

# Funder(s)

## Funder type

Industry

## Funder Name

Johnson & Johnson

## Alternative Name(s)

Johnson & Johnson, johnson & Johnson Services, Inc., Johnson&Johnson, , Johnson & Johnson Private Limited, , J&J, JNJ

**Funding Body Type**

Government organisation

**Funding Body Subtype**

For-profit companies (industry)

**Location**

United States of America

**Funder Name**

Amgen

**Alternative Name(s)**

Amgen Inc., Applied Molecular Genetics Inc.

**Funding Body Type**

Government organisation

**Funding Body Subtype**

For-profit companies (industry)

**Location**

United States of America

**Funder Name**

Chugai

**Funder Name**

Novartis

**Alternative Name(s)**

Novartis AG, Novartis International AG

**Funding Body Type**

Government organisation

**Funding Body Subtype**

For-profit companies (industry)

**Location**

Switzerland

**Funder Name**

Roche

**Alternative Name(s)**

F. Hoffmann-La Roche Ltd, F. Hoffmann-La Roche & Co, F. Hoffmann-La Roche AG, Roche Holding AG, Roche Holding Ltd, Roche Holding, Roche Holding A.G., Roche Holding, Limited, F. Hoffmann-La Roche & Co.

**Funding Body Type**

Government organisation

**Funding Body Subtype**

For-profit companies (industry)

**Location**

Switzerland

**Funder Name**

German Federal Ministry of Education and Research

## Results and Publications

**Publication and dissemination plan**

Not provided at time of registration

**Intention to publish date****Individual participant data (IPD) sharing plan****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="#">Results article</a>	results	01/11/2011		Yes	No
<a href="#">Results article</a>	results	26/01/2012		Yes	No
<a href="#">Results article</a>	results	24/01/2013		Yes	No
<a href="#">Results article</a>	results	01/01/2014		Yes	No