

# HEBE III: A prospective, randomised, double blind, placebo controlled clinical study to examine the effects of a single bolus erythropoietin on left ventricular function in patients with an acute myocardial infarction.

Gepubliceerd: 15-05-2006 Laatste bijgewerkt: 18-08-2022

A single bolus EPO administered just before a primary PCI for a first acute myocardial infarction will increase left ventricular function after 4 months.

<b>Ethische beoordeling</b>	Niet van toepassing
<b>Status</b>	Werving nog niet gestart
<b>Type aandoening</b>	-
<b>Onderzoekstype</b>	Interventie onderzoek

## Samenvatting

### ID

NL-OMON26840

### Bron

NTR

### Verkorte titel

HEBE III

### Aandoening

One group will receive the study medication and the other group will receive placebo medication.

### Ondersteuning

**Primaire sponsor:** Inter Cardiological Institute Netherlands  
Van Buchem Stichting (UMCG)

## Onderzoeksproduct en/of interventie

### Uitkomstmaten

#### Primaire uitkomstmaten

The main study endpoint will be left ventricular ejection fraction, measured with Cardiac Magnetic Resonance Imaging at 4 months after onset of the acute myocardial infarction.

## Toelichting onderzoek

### Achtergrond van het onderzoek

Erythropoetin (EPO) is commonly known as an effective treatment for anemia, (partly) caused by an inadequate production of endogenous EPO (e.g., renal failure). However, we and others suggested several important extra-hematopoietic effects of EPO, which might be beneficial in the setting of an acute myocardial infarction. Recent animal studies provided very consistent evidence for a reduced infarct size and improved left ventricular function caused by EPO administration. In addition, we and others have mainly explained the beneficial effects of EPO by non-hematopoietic effects, such as reduction of apoptosis and stimulation of neovascularisation.

Clinical studies with EPO in non-anemic patients are scarce. However, in our safety study, EPO administration in patients with an acute myocardial infarction was safe and well tolerated. Therefore the primary objective of this study is to establish the effects of a single bolus EPO administered just before a primary PCI for a first acute myocardial infarction, on left ventricular function after 4 months.

### Doel van het onderzoek

A single bolus EPO administered just before a primary PCI for a first acute myocardial infarction will increase left ventricular function after 4 months.

### Onderzoeksproduct en/of interventie

1. One bolus of EPO (Eprex, about 60.000 IU) will be administered intravenously in 30 minutes, within 3 hours after the primary PCI procedure. OR
2. Placebo

## Contactpersonen

## Publiek

University Medical Center Groningen (UMCG), Trial Coordination Center,  
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## Wetenschappelijk

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## Deelname eisen

### Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

Successful primary PCI (TIMI 2/3) for a first acute myocardial infarction, diagnosed by:

1. Chest pain suggestive for acute myocardial infarction;
2. Symptom onset < 12 hour after hospital admission, or < 24 hour in case ongoing ischemia;
3. ECG with ST-T segment elevation > 1 mV in 2 or more leads;
4. TIMI flow 0/1 before primary PCI on diagnostic coronary angiography.

### Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

1. Hemoglobin levels > 10.6 mmol/L;
2. Anticipated additional revascularisation within 4 months;
3. Cardiogenic shock;
4. Presence of other serious medical conditions;
5. Pregnancy/breast feeding;
6. Malignant hypertension;
7. End stage renal failure (kreatinin > 220 micromol/l);
8. Previous treatment with rh-EPO;

9. Blood transfusion <12 weeks prior to randomisation;
10. Allergy against rh-EPO;
11. Polycytemia verae;
12. Previous acute myocardial infarction;
13. Concomitant inflammatory or malignant disease;
14. Recent trauma or major surgery;
15. Unwilling to sign informed consent;
16. Contra-indications for MRI (pacemaker and other metal subjects).

## Onderzoeksopzet

### Opzet

Type:	Interventie onderzoek
Onderzoeksmodel:	Parallel
Blinding:	Dubbelblind
Controle:	Placebo

### Deelname

Nederland	
Status:	Werving nog niet gestart
(Verwachte) startdatum:	01-09-2006
Aantal proefpersonen:	400
Type:	Verwachte startdatum

## Ethische beoordeling

Niet van toepassing	
Soort:	Niet van toepassing

## Registraties

### Opgevolgd door onderstaande (mogelijk meer actuele) registratie

Geen registraties gevonden.

## Andere (mogelijk minder actuele) registraties in dit register

Geen registraties gevonden.

### In overige registers

<b>Register</b>	<b>ID</b>
NTR-new	NL619
NTR-old	NTR678
Ander register	: N/A
ISRCTN	ISRCTN46528154

## Resultaten

### Samenvatting resultaten

N/A