

# Glucose-insulin-potassium infusion in patients treated with primary percutaneous coronary intervention for acute myocardial infarction

<b>Submission date</b> 17/05/2005	<b>Recruitment status</b> No longer recruiting	<input type="checkbox"/> Prospectively registered <input type="checkbox"/> Protocol
<b>Registration date</b> 20/05/2005	<b>Overall study status</b> Completed	<input type="checkbox"/> Statistical analysis plan <input checked="" type="checkbox"/> Results
<b>Last Edited</b> 15/02/2008	<b>Condition category</b> Circulatory System	<input type="checkbox"/> Individual participant data

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

## Contact information

**Type(s)**  
Scientific

**Contact name**  
Prof Felix Zijlstra

**Contact details**  
Hanzeplein 1  
Groningen  
Netherlands  
30.001  
+31 (0)503612355  
f.zijlstra@thorax.umcg.nl

## Additional identifiers

**EudraCT/CTIS number**

**IRAS number**

**ClinicalTrials.gov number**

**Secondary identifying numbers**  
99.028

# Study information

## Scientific Title

## Acronym

Glucose-Insulin-Potassium Study (GIPS)

## Study objectives

In this study we considered the question of whether adjunction of glucose-insulin-potassium (GIK) infusion to primary coronary transluminal angioplasty (PTCA) is effective in patients with an acute myocardial infarction (MI).

## Ethics approval required

Old ethics approval format

## Ethics approval(s)

Not provided at time of registration

## Study design

Randomised controlled trial

## Primary study design

Interventional

## Secondary study design

Randomised controlled trial

## Study setting(s)

Not specified

## Study type(s)

Not Specified

## Participant information sheet

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

ST elevation myocardial infarction (mi)

## Interventions

After admission, patients were randomly assigned to either glucose-insulin-potassium (GIK) infusion or no infusion. In patients randomized to GIK, a continuous infusion of 80 mmol potassium chloride in 500 ml 20% glucose with a rate of 3 ml/kg body weight/hour over an 8- to 12-hour period in a peripheral venous line was given, as soon as possible. A continuous infusion of short-acting insulin (50 U Actrapid) in 50 ml 0.9% sodiumchloride was started. Baseline insulin-infusion dose and hourly adjustments of the insulin dose were based on an algorithm to obtain blood-glucose levels between 7.0 and 11.0 mmol/l.

## Intervention Type

Drug

**Phase**

Not Specified

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

glucose-insulin-potassium

**Primary outcome measure**

30-day mortality

**Secondary outcome measures**

Recurrent infarction, repeat coronary angioplasty, and the composite incidence of death, recurrent infarction, or repeat coronary angioplasty.

**Overall study start date**

01/04/1998

**Completion date**

30/09/2001

**Eligibility****Key inclusion criteria**

All consecutive patients with symptoms consistent with acute MI of >30 min duration, presenting within 24 hours after the onset of symptoms and with an ST-segment elevation of more than 1 mm (0.1 mV) in two or more contiguous leads on the electrocardiogram, or new onset left bundle branch block, were evaluated for inclusion in this single-center study. Patients presented at our center and patients referred for treatment of high-risk myocardial infarction (MI) from nine referring hospitals without angioplasty facilities were included.

**Participant type(s)**

Patient

**Age group**

Not Specified

**Sex**

Not Specified

**Target number of participants**

940

**Key exclusion criteria**

Patients were excluded when pre-treated with thrombolysis or when an illness associated with a marked restricted life expectancy was present.

**Date of first enrolment**

01/04/1998

**Date of final enrolment**

30/09/2001

## Locations

### Countries of recruitment

Netherlands

### Study participating centre

Hanzeplein 1

Groningen

Netherlands

30.001

## Sponsor information

### Organisation

Netherlands Heart Foundation (Netherlands)

### Sponsor details

Bordewijklaan 3

The Hague

Netherlands

300

+31 (0)703155555

info@hartstichting.nl

### Sponsor type

Charity

### Website

<http://www.hartstichting.nl/go/>

### ROR

<https://ror.org/05nxhgm70>

## Funder(s)

### Funder type

Charity

### Funder Name

Netherlands Heart Foundation (99.028)

# 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	02/06/2005		Yes	No