

# Efficacy and safety of home treatment versus in hospital treatment with LMWH in patients with non-massive pulmonary embolism

Gepubliceerd: 22-05-2008 Laatste bijgewerkt: 18-08-2022

Outpatient LMWH treatment in patients with objectively proven non-massive pulmonary embolism is efficacious and safe.

<b>Ethische beoordeling</b>	Positief advies
<b>Status</b>	Werving gestopt
<b>Type aandoening</b>	-
<b>Onderzoekstype</b>	Interventie onderzoek

## Samenvatting

### ID

NL-OMON22733

### Bron

Nationaal Trial Register

### Verkorte titel

Hestia study

### Aandoening

Pulmonary embolism

Home treatment

Low-molecular-weight-heparin

And in Dutch:

Longembolie

Thuisbehandeling

Laag-moleculair-gewicht-heparine

### Ondersteuning

**Primaire sponsor:** Leiden University Medical Center,  
Department of General Internal Medicine-Endocrinology

**Overige ondersteuning:** All participating hospitals give financial support.

Unrestricted research grant: GlaxoSmithKline

## Onderzoeksproduct en/of interventie

## Uitkomstmaten

### Primaire uitkomstmaten

Efficacy and safety of home treatment<br>

1. Recurrent thromboembolic events are defined as recurrent pulmonary embolism if demonstrated by new defects on helical CT scan, perfusion-ventilation lung scan or pulmonary angiography or PE at autopsy or a clinical report indicating PE as the (likely) cause of death; or deep vein thrombosis demonstrated by compression ultrasonography or contrast venography.<br>
2. Bleeding is defined as major if it is clinically overt e.g. a clinically apparent bleeding or sign and symptoms suggestive of bleeding confirmed with imaging studies (ultrasound, computer tomography (CT)) combined with at least one of the following situations:<br>
  - a) Critical site involvement e.g. intracranial, retroperitoneal, intraocular, intraspinal, pericardial or non-traumatic intra-articular.<br>
  - b) Bleeding associated with a decrease in hemoglobin level of 1.3 mmol/L (2.0 gr/dl) or more.<br>
  - c) Bleeding leading to transfusion of > 2 units of whole blood or packed red cells.<br>
  - d) Fatal bleeding.<br>
3. The cause of death in patients who die within the study period is assessed by autopsy or a clinical report indicating the – likely - cause of death.

## Toelichting onderzoek

### Achtergrond van het onderzoek

While evidence is accumulating that initial home treatment of patients with acute PE may be feasible and safe, no study has conclusively demonstrated effective and safe out of hospital treatment in patients with acute PE. Given this limited evidence, clinicians remain reluctant to routinely treat patients with non-massive pulmonary embolism at home with LMWH and as a result, nearly all patients presenting with acute PE still receive initial treatment at the hospital.

The purpose of the current study is to evaluate the efficacy and safety of out of hospital LMWH treatment in consecutive patients with acute non-massive PE. In addition, a health economics evaluation will be performed.

## **Doel van het onderzoek**

Outpatient LMWH treatment in patients with objectively proven non-massive pulmonary embolism is efficacious and safe.

## **Onderzoeksopzet**

One week, six weeks and three months after diagnosis.

## **Onderzoeksproduct en/of interventie**

Patients with objectively proven PE will be triaged for possibility of treatment with LMWH out of the hospital.

Initial anticoagulant treatment with LMWH can be started on the basis of the clinical symptoms of the patient and consists of subcutaneous injections once daily for a minimum of five days. All patients who can be treated at home are sent home either immediately or within 24 hours after PE is objectively diagnosed.

## **Contactpersonen**

### **Publiek**

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### **Wetenschappelijk**

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## Deelname eisen

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

1. Consecutive patients with proven acute non-massive, stable Pulmonary Embolism (PE), i.e. PE that does not warrant thrombolytic therapy, presenting to the emergency ward or to the outpatient clinic.
2. Patients with provoked and non-provoked ('idiopathic') pulmonary embolism and patient with a first as well as those with a recurrent episode of pulmonary embolism are considered eligible for the study.

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

1. Patients who have had symptoms of PE for longer than 7 days duration
2. Active bleeding, or a very high risk for major bleeding, i.e. gastro-intestinal bleeding in the preceding 14 days, recent stroke (less than 4 weeks ago), recent operation (less than 2 weeks ago), bleeding disorder, or thrombocytopenia (platelet count  $< 75 \times 10^9/L$ )
3. PE accompanied by hemodynamic instability. The criteria for instability are left to the discretion of the investigator.
4. Massive PE requiring thrombolytic treatment or pulmonary embolectomy
5. Requirement for oxygen therapy to maintain oxygen saturation greater than 90%
6. Severe pain requiring intravenous narcotic analgesia
7. Medical or social condition which necessitates admission to the hospital for another reason (for example infection, cancer or stroke) without discharge in the next 24 hours
8. Severe renal failure e.g. calculated creatinine clearance  $< 30$  ml/min.
9. Severe liver failure
10. Diagnosis of PE during anticoagulant treatment

11. Previously documented heparin induced thrombocytopenia
12. Pregnancy
13. Age less than 18 years
14. Likelihood of non-compliance (e.g. no fixed address)
15. Life expectancy less than three months
16. Failure to sign informed consent.

## Onderzoeksopzet

### Opzet

Type:	Interventie onderzoek
Onderzoeksmodel:	Anders
Toewijzing:	N.v.t. / één studie arm
Blinding:	Open / niet geblindeerd
Controle:	N.v.t. / onbekend

### Deelname

Nederland	
Status:	Werving gestopt
(Verwachte) startdatum:	06-05-2008
Aantal proefpersonen:	260
Type:	Werkelijke startdatum

## Ethische beoordeling

Positief advies	
Datum:	22-05-2008
Soort:	Eerste indiening

## 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

Register	ID
NTR-new	NL1273
NTR-old	NTR1319
Ander register	METC LUMC : P07-244
ISRCTN	ISRCTN wordt niet meer aangevraagd

## Resultaten

### Samenvatting resultaten

N/A