

# N-terminal pro-B-type natriuretic peptide testing in patients presenting to the Emergency Department With acute dyspnoea: evaluation of effects on treatment, hospitalisation rate and costs

**Submission date**  
30/05/2007

**Recruitment status**  
No longer recruiting

☐ Prospectively registered

☐ Protocol

**Registration date**  
30/05/2007

**Overall study status**  
Completed

☐ Statistical analysis plan

☒ Results

**Last Edited**  
25/10/2021

**Condition category**  
Respiratory

☐ Individual participant data

## Plain English summary of protocol

Not provided at time of registration

## Contact information

### Type(s)

Scientific

### Contact name

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## Additional identifiers

EudraCT/CTIS number

IRAS number

ClinicalTrials.gov number

## Secondary identifying numbers

NL931 (NTR956)

# Study information

## Scientific Title

N-terminal pro-B-type natriuretic peptide testing in patients presenting to the Emergency Department With acute dyspnoea: evaluation of effects on treatment, hospitalisation rate and costs

## Study objectives

Diagnostic uncertainty in patients with complaints of shortness of breath presenting to the Emergency Department of a hospital may delay treatment and proper care. In patients with shortness of breath due to heart failure increased plasma levels of NT-pro-B-type natriuretic peptide (NT-proBNP) can be demonstrated. The use of NT-proBNP as a biomarker for heart failure in patients presenting to the Emergency Department with dyspnoea might improve care and reduce length of hospital stay. In our study we will investigate the effect of introduction of NT-proBNP as biomarker for heart failure on treatment, time to discharge and costs.

## Ethics approval required

Old ethics approval format

## Ethics approval(s)

Received from the Medical Ethics Review Committee Erasmus MC on the 13th October 2004 (ref: MEC-2004-201).

## Study design

Randomised, single blinded, controlled, parallel group trial

## Primary study design

Interventional

## Secondary study design

Randomised controlled trial

## Study setting(s)

Hospital

## Study type(s)

Diagnostic

## Participant information sheet

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

Cost-effectiveness, dyspnoea, amino-terminal pro B-type natriuretic peptide

## Interventions

Study-group:

Measurement of NT-proBNP plasma level at presentation in the Emergency Department.

Control-group:

No measurement of NT-proBNP plasma level at presentation in the Emergency Department.  
Blood was collected for determination of NT-proBNP levels at the end of the study.

### **Intervention Type**

Other

### **Phase**

Not Specified

### **Primary outcome measure**

1. Time to discharge, measured at discharge from hospital
2. Cost of treatment, measured at discharge from hospital

### **Secondary outcome measures**

1. Duration of stay at the Emergency Department, measured at discharge from the Emergency Department
2. Proportion of patients admitted to the hospital, measured at discharge from hospital of last included subject, end of study
3. Proportion of patients admitted to an intensive or coronary care unit, measured at discharge from hospital of last included subject, end of study
4. Specialist consultations, measured at discharge from hospital of last included subject, end of study
5. Medical treatment, measured at discharge from hospital of last included subject, end of study
6. Diagnostic investigations, measured at discharge from hospital of last included subject, end of study

### **Overall study start date**

12/01/2004

### **Completion date**

05/01/2008

## **Eligibility**

### **Key inclusion criteria**

1. Age 18 years or older
2. Acute dyspnoea as the most prominent complaint

### **Participant type(s)**

Patient

### **Age group**

Adult

### **Lower age limit**

18 Years

### **Sex**

Not Specified

**Target number of participants**

477

**Key exclusion criteria**

1. Acute dyspnoea due to a trauma
2. Acute dyspnoea due to cardiogenic shock
3. Renal failure requiring dialysis

**Date of first enrolment**

12/01/2004

**Date of final enrolment**

05/01/2008

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

Netherlands

**Study participating centre**

Erasmus Medical Centre

Rotterdam

Netherlands

3015 CE

**Sponsor information****Organisation**

Erasmus Medical Centre (The Netherlands)

**Sponsor details**

Department of Internal Medicine

Rotterdam

Netherlands

3000 DR

**Sponsor type**

Hospital/treatment centre

**Website**

<http://www.erasmusmc.nl/content/englishindex.htm>

**ROR**

<https://ror.org/018906e22>

# Funder(s)

## Funder type

Hospital/treatment centre

## Funder Name

Erasmus Medical Centre (The Netherlands) - Mrace Committee

# 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="#">Results article</a> |         | 01/07/2008   | 25/10/2021 | Yes            | No              |