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	Recruitment status No longer recruiting	Prospectively registered		
30/05/2007		Protocol		
Registration date 30/05/2007	Overall study status Completed	Statistical analysis plan		
		[X] Results		
Last Edited	Condition category	[] Individual participant data		
25/10/2021	Respiratory			

Plain English summary of protocol

Not provided at time of registration

Contact information

Type(s)

Scientific

Contact name

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Contact details

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Additional identifiers

Protocol serial number 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 Comittee Erasmus MC on the 13th October 2004 (ref: MEC-2004-201).

Study design

Randomised, single blinded, controlled, parallel group trial

Primary study design

Interventional

Study type(s)

Diagnostic

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(s)

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

Key secondary outcome(s))

- 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

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

Healthy volunteers allowed

No

Age group

Adult

Lower age limit

18 years

Sex

Not Specified

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

3015 CE

Study participating centre
Erasmus Medical Centre
Rotterdam
Netherlands

Sponsor information

Organisation

Erasmus Medical Centre (The Netherlands)

ROR

https://ror.org/018906e22

Funder(s)

Funder type

Hospital/treatment centre

Funder Name

Erasmus Medical Centre (The Netherlands) - Mrace Committee

Results and Publications

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?
Results article		01/07/2008	25/10/2021	Yes	No