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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

Registration date
30/05/2007

Overall study status
Completed

Last Edited
25/10/2021

Condition category
Respiratory

[ ] Prospectively registered
[ ] Protocol
[ ] Statistical analysis plan
[X] Results
[ ] Individual participant data

Plain English summary of protocol
Not provided at time of registration

Contact information

Type(s)
Scientific

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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

Study participating centre
Erasmus Medical Centre
Rotterdam
Netherlands
3015 CE

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