NT-proBNP Testing in Patients Presenting to the Emergency Department With Acute Dyspnea: Evaluation of Effects on Treatment, Hospitalisation Rate and Costs

Gepubliceerd: 15-04-2007 Laatst bijgewerkt: 18-08-2022

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…

Ethische beoordeling	Positief advies
Status	Werving gestopt
Type aandoening	-
Onderzoekstype	Interventie onderzoek

Samenvatting

ID

NL-OMON24573

Bron
NTR

Aandoening

dyspnea (dyspnoe); amino-terminal pro B-type natriuretic peptide (amino-terminaal pro B-type natriuretisch peptide); costs (kosten); cost-effectiveness (kosteneffectiviteit)

Ondersteuning

Primaire sponsor: Erasmus MC
Department of Internal Medicine
's Gravendijkwal 230
3015 CE Rotterdam
Overige ondersteuning: Mrace Comittee, Erasmus MC
fund = initiator = sponsor

Onderzoeksproduct en/of interventie

Uitkomstmaten

Primaire uitkomstmaten

1. Time to discharge;
2. Cost of treatment

Toelichting onderzoek

Achtergrond van het onderzoek

Elevated amino-terminal pro-B-type natriuretic peptide (NT-proBNP) plasma levels are indicative for heart failure. Assessment of this biomarker in patients with acute dyspnoea presenting to the emergency department may aid diagnostic decision-making; resulting in improved patient care and reduced costs.
We will investigate the cost-effectiveness of introduction of NT-proBNP measurements in patients presenting with acute dyspnoea to the emergency department of the Erasmus MC, Rotterdam, the Netherlands. Subjects will be randomised for either rapid measurement of plasma NT-proBNP or no diagnostic measurement of NT-proBNP. For ruling out heart failure, cut-off values of 11 pmol/l in males and 17 pmol/l in female patients will be used, and for ruling in heart failure a cut-off value of 120 pmol/l. Time to discharge from the hospital and costs related to hospital admission are primary end-points.

Doel van het onderzoek

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 dyspnea 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.

Onderzoeksproduct en/of interventie

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.

Contactpersonen

Publiek

Erasmus MC
J.H.W. Rutten
's Gravendijkwal 230
Rotterdam 3015 CE
The Netherlands
+31 10-4639222

Wetenschappelijk

Erasmus MC
J.H.W. Rutten
's Gravendijkwal 230
Rotterdam 3015 CE
The Netherlands
+31 10-4639222

Deelname eisen

Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

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

Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

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

Onderzoeksopzet

Opzet

Type:	Interventie onderzoek
Onderzoeksmodel:	Parallel
Blindering:	Enkelblind
Controle:	N.v.t. / onbekend

Deelname

Nederland

Status:	Werving gestopt
(Verwachte) startdatum:	12-01-2004
Aantal proefpersonen:	477
Type:	Werkelijke startdatum

Ethische beoordeling

Positief advies

Datum:	15-04-2007
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	NL931
NTR-old	NTR956

Register	ID
Ander register	:
ISRCTN	ISRCTN28653133

Resultaten