

Telemonitoring in heart failure

Submission date 14/01/2010	Recruitment status No longer recruiting	☐ Prospectively registered ☐ Protocol
Registration date 09/02/2010	Overall study status Completed	☐ Statistical analysis plan ☒ Results
Last Edited 27/06/2012	Condition category Circulatory System	☐ 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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Contact details

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Additional identifiers

Study information

Scientific Title

Telemonitoring in heart failure: a multicentre randomised trial

Study objectives

A heart failure clinic using telemonitoring of weight, blood pressure, heart rate and an automatic symptoms questionnaire allows to reduce the hospitalisation frequency, its duration and mortality. It also increases quality of life and reduces the number of unplanned consultations with the first and second line.

Ethics approval required

Old ethics approval format

Ethics approval(s)

Medical Ethical Committee of Jessa Hospital approved on the 29th November 2007 (ref: 07.70 /cardio07.13)

Primary study design

Interventional

Study design

Prospective randomised controlled trial

Study type(s)

Quality of life

Health condition(s) or problem(s) studied

Congestive heart failure

Interventions

Telemonitoring will consist of daily patient self-measurements of body weight, blood pressure and heart rate with devices that allow automatic transfer of registered data to a web-site. This web-site will trigger E-mail alerts to care providers if data are out of limits, or if data have not been received. The tele-monitoring approach will be assisted by a central call centre, allowed to contact patients if technical problems with devices are suspected. The patients will also be called by an automatic telephone system to answer a short symptom questionnaire once every week.

The total follow-up in control patients, and intervention for other patients, is 6 months.

Intervention Type

Other

Phase

Not Applicable

Primary outcome(s)

1. Number and duration of hospitalisation after the start of the study
2. Number of unplanned consultations with the heart failure team and GP
3. Number of phone calls (and amount of time spent) between the HF nurse and the patient
4. Quality of life (Minnesota Living with Heart Failure Questionnaire)
5. Mortality rate
6. Number of medication changes
7. Number of changes in alert limits

Measured at entry of study, and after 6 months of follow-up.

Key secondary outcome(s)

Blood B-type natriuretic peptide (BNP) content, measured at entry of study, and after 6 months of follow-up.

Completion date

01/06/2010

Eligibility

Key inclusion criteria

1. Patients hospitalised for decompensated heart failure, necessitating intravenous (IV) diuretics or augmentation of oral (PO) diuretic, IV inotropic or IV vasodilator. Patients should be stabilised with treatment including angiotensin converting enzyme (ACE) inhibitors (or angiotensin II receptor antagonists [AIIA]), betablockers and diuretics at discharge.
2. Patients should be capable of understanding the aims of the study and to use the telemonitoring system
3. Aged between 50 and 85 years, either sex

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Adult

Sex

All

Key exclusion criteria

1. Reversible forms of heart failure
2. Heart failure due to aortic stenosis
3. Isolated right heart failure
4. Patients residing in "elderly homes"
5. Severe renal disease (glomerular filtration rate [GFR] less than 20 ml/min), planned dialysis in the next 6 months
6. Planned implantation of biventricular pacemaker, or cardiac surgery
7. Life expectancy less than 1 year
8. Severe pulmonary disease

Date of first enrolment

01/04/2008

Date of final enrolment

01/06/2010

Locations

Countries of recruitment

Belgium

Study participating centre

Jessa Hospital

Hasselt

Belgium
3500

Sponsor information

Organisation

Heart Centre Hasselt vzw (Belgium)

ROR

<https://ror.org/03tw90478>

Funder(s)

Funder type

Research organisation

Funder Name

Heart Centre Hasselt vzw (Belgium)

Results and Publications

Individual participant data (IPD) sharing plan

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	results	01/03/2012		Yes	No