# The value of ICT guided disease management combined with telemonitoring for heart failure patients.

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ICT guided disease management combined with telemonitoring leads to a reduction of death and readmission for heart failure, and improves the quality of life.

Ethische beoordeling	Positief advies
Status	Werving nog niet gestart
Type aandoening	-
Onderzoekstype	Interventie onderzoek

# Samenvatting

#### ID

NL-OMON20035

Bron NTR

Verkorte titel IN TOUCH

#### Aandoening

Heart failure, disease management systems, ICT guided protocols, telemonitoring, telemedicine, telecare, cost effectiveness

### Ondersteuning

**Primaire sponsor:** University Medical Center Groningen (UMCG), department of cardiology **Overige ondersteuning:** Ministerie van Volksgezondheid, Welzijn en Sport. Directie Geneesmiddelen en medische technologie

### **Onderzoeksproduct en/of interventie**

#### **Uitkomstmaten**

#### Primaire uitkomstmaten

1 - The value of ICT guided disease management combined with telemonitoring for hear ... 5-05-2025

- 1. A composite end point for death; <br>
- 2. Readmission for heartfailure; <br>
- 3. Change in quality of life.

# **Toelichting onderzoek**

#### Achtergrond van het onderzoek

Background:

Chronic heart failure is a rapidly increasing epidemic with high mortality and high morbidity, leading to increasing costs for the society. Although guidelines for the management of heart failure are clear, the quality of care for heart failure can still be improved. Disease management systems implemented in smart ICT solutions and telemedicine are expected to improve the quality of care and to reduce costs.

Aim:

To investigate the effect of ICT guided disease management (DM) and telemedicine (TM) on the quality and efficiency of care in patients with heart faillure after an hospitalisation.

#### Methods:

The study is devided in three arms; a control arm with care as usual (CAU) in 10 hospitals and two randomized intervention arms (DM en DM+TM) in 10 other hospitals in the Netherlands. In total 450 patients will be included after an hospitalisation for heart failure (CAU: N=225, DM: N=75, DM+TM: N=150). Follow-up will be 9 months. Primary endpoint of the study is a composite score of: 1. death from any cause during the follow-up of the study, 2. first readmission for heart failure and 3. change in quality of life compared to baseline, assessed by the Minnesota Living with Heart failure Questionnaire

Results: The study will start in June 2009. Results are expected in 2012.

Conclusion:

The IN TOUCH study is the first to investigate the effect of an ICT guided disease management system in combination with telemedicine on the quality and efficiency of care in patients after an hospitalisation for heart faillure.

#### Doel van het onderzoek

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ICT guided disease management combined with telemonitoring leads to a reduction of death and readmission for heart failure, and improves the quality of life.

#### Onderzoeksopzet

- 1. Baseline (inclusion);
- 2. First control (14 day's after inclusion);
- 3. 9 month after inclusion (end of study).

#### **Onderzoeksproduct en/of interventie**

1. ICT guided disease management without telemedicine.

Patients will receive care with an ICT guided disease management system (CardioConsult). The patient will also recieve tailored information on life style changes, complying with the pharmacological and non pharmacological regimen, including symptom management;

2. ICT guided disease management with telemedicine.

The above described disease management system will function together with telemedicine devices (weightscale, ECG, healthmonitor and blood pressure meter). Collected data will be transferred automatically by the GPRS network in the disease management system CardioConsult. The system performs disease management in a fully automated manner using periodic interactive dialogs with the patients to obtain health state measurements from the patient to evaluate and assess the progress of the patients disease, to review and adjust therapy to optimal levels and to give the patient medical advice for administering treatment. The health proffesional will be informed automatically by mobile phone (SMS) or email when the data of the measurements are out of range and indicate that medical care is necessary.

# Contactpersonen

### **Publiek**

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### Wetenschappelijk

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# **Deelname eisen**

### Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

Patients are eligible when they are admitted to the IC/CCU or cardiology ward for heart failure, NYHA class III-IV, have evidence for structural underlying heart disease, are intravenously treated with diuretics during their hospitalisation, have a documented ejection fraction less or equal than 40% in the previous 3 months, are at least 18 years old, male or female and are able to understand content of and willing to provide informed consent.

### Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

Patients will be excluded from the study when they have a history of myocardial infarction in the previous 1 month, have a life expectation less then 1 year, have a history of valve replacement or surgery within the previous 6 months, have undergone cardiac invasive intervention within the last 6 months or planned to have such a procedure in the following 3 months, are evaluated for heart transplantation prior or during the study, are inable to fill out questionnaires, are inable to use telemedicine devices at home or participate at another clinical intervention trial.

# Onderzoeksopzet

### Opzet

Type:

Interventie onderzoek

Onderzoeksmodel:	Parallel
Toewijzing:	Gerandomiseerd
Blindering:	Open / niet geblindeerd
Controle:	Geneesmiddel

#### Deelname

Nederland Status:	Werving nog niet gestart
(Verwachte) startdatum:	01-09-2009
Aantal proefpersonen:	450
Туре:	Verwachte startdatum

# **Ethische beoordeling**

Positief advies	
Datum:	07-07-2009
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	NL1788
NTR-old	NTR1898
Ander register	METC UMC Groningen : METC 2008.350
ISRCTN	ISRCTN wordt niet meer aangevraagd.

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# Resultaten

### Samenvatting resultaten

N/A