# Effects of a phyisiotherapeutic exercise programme in patients with a combination of COPD and chronic heart failure: the CHEST-study.

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Chronic heart failure (CHF) and chronic obstructive pulmonary disease (COPD) are important causes of morbidity and mortality. The prevalence and incidence of COPD as well as CHF are still rising. CHF is an important co-morbidity in COPD and vice...

**Ethische beoordeling** Niet van toepassing

**Status** Werving nog niet gestart

Type aandoening -

**Onderzoekstype** Interventie onderzoek

# **Samenvatting**

#### ID

NL-OMON26228

**Bron** 

NTR

**Verkorte titel** 

**CHEST** 

**Aandoening** 

Chronic heart failure and COPD.

## **Ondersteuning**

**Primaire sponsor:** Department of Pulmonary Medicine, Medisch Spectrum Twente Enschede **Overige ondersteuning:** Netherlands Asthma Foundation

#### Onderzoeksproduct en/of interventie

#### **Uitkomstmaten**

#### **Primaire uitkomstmaten**

The primary outcome measure is exercise capacity measured with the 6 Minutes Walking Test, and daily activity rate, measured by pedometer.

# **Toelichting onderzoek**

#### Achtergrond van het onderzoek

The aim of this study is to assess the effects of a small-group community based physical exercise programme on functional exercise capacity, activity rate and health-related quality of life in patients with chronic heart failure (CHF) and chronic obstructive pulmonary disease (COPD).

#### Study design:

The CHEST-study is a multicenter randomised controlled trial in patients with both COPD and CHF, with a 12-month follow-up. Patients will be randomly assigned to an intervention and a control group. Patients in the intervention group will participate in a 6-month community based reactivation programme, preceded by participation in four self-management sessions. Patients in the control group will also participate in four self-management sessions, additional to usual care. Measurements will be performed at baseline, directly, a half year, and one year after finishing the physical exercise programme.

#### Study population:

100 patients with a combination of COPD (GOLD 2 or 3) and chronic heart failure (NYHA II or III) will be recruited from the outpatient departments of pulmonology and cardiology of Medisch Spectrum Twente in Enschede, UMCG and one other hospital.

The primary outcome measure is exercise capacity measured with the 6 Minutes Walking Test, and daily activity rate, measured by pedometer. Secondary outcomes are: health-related quality of life (disease specific: Clinical COPD Questionnaire, Minnesota Living with Heart Failure Questionnaire, and generic: Euroqol 5D, SF-36), health-related behaviour (European Heart Failure Self-care Behaviour Scale) and self-efficacy (COPD Self-efficacy scale), and exercise capacity measured with the Incremental Shuttle Walk Test.

2 - Effects of a physiotherapeutic exercise programme in patients with a combinatio ... 8-05-2025

#### Doel van het onderzoek

Chronic heart failure (CHF) and chronic obstructive pulmonary disease (COPD) are important causes of morbidity and mortality. The prevalence and incidence of COPD as well as CHF are still rising. CHF is an important co-morbidity in COPD and vice versa. It is estimated that approximately one quarter of primary care patients with COPD also has CHF. Beneficial effects of exercise based rehabilitation programmes on exercise capacity have already been demonstrated in patients with solely COPD or solely CHF. However, no studies are known investigating these effects in patients with both.

The aim of this study is to assess the effects of a small-group community based physical exercise programme on functional exercise capacity, activity rate and health-related quality of life in patients with chronic heart failure (CHF) and chronic obstructive pulmonary disease (COPD).

#### **Onderzoeksopzet**

Measurements will be done at baseline, directly, half a year, and one year after completion of the community based physical exercise programme.

#### Onderzoeksproduct en/of interventie

Patients in the intervention group will participate in a community-based physical exercies programme. In this programme, patients will exercise in small groups under supervision of a community based physiotherapist. The intervention lasts 6 months and is divided into two periods. In the first period, lasting 4 months, the patients will exercise twice a week in the physiotherapy practice, and once a week at home. The goal of this phase of the program is to achieve an optimal improvement of exercise capacity and muscle strength. During the second period, lasting 2 months, patients will exercise once a week in the physiotherapy practice and once a week at home. The goal of this phase is to maintain training effects and to make the shift from training under supervision of a physiotherapist to training at home.

All patients will participate in 4 small group self-management sessions which will be given by a respiratory nurse and a heart failure nurse. Also, a physiotherapist and a dietician will contribute to the programme. Patients will be encouraged to come to the sessions with his or her partner or another person that is close to him or her. The sessions will be planned prior to the reactivation programme. Patients in the control group will receive usual care in addition to the self-management programme.

# Contactpersonen

#### **Publiek**

M. Zwerink [default] The Netherlands

#### Wetenschappelijk

M. Zwerink
[default]
The Netherlands

## **Deelname** eisen

# Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

- 1. Age between 40 and 75 years;
- 2. A clinical diagnosis of COPD defined by the GOLD-criteria stage 2 and 3;
- 3. A diagnosis of chronic heart failure defined by NYHA class II-III;
- 4. A left ventricular ejection fraction (LVEF) < 40% measured by echocardiogram;
- 5. A history of smoking of at least 10 pack-years.

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

- 1. Serious other diseases with a survival rate of less than 1 year;
- 2. Other diseases which generate symptoms of dyspnoea and/or decreased exercise capacity, or which seriously influence the ability to walk;
- 3. Participation in a pulmonary or cardiac rehabilitation programme less than 1 year ago.

# **Onderzoeksopzet**

#### **Opzet**

Type: Interventie onderzoek

Onderzoeksmodel: Parallel

Toewijzing: Gerandomiseerd

Blindering: Open / niet geblindeerd

Controle: Geneesmiddel

#### **Deelname**

Nederland

Status: Werving nog niet gestart

(Verwachte) startdatum: 01-08-2009

Aantal proefpersonen: 100

Type: Verwachte startdatum

# **Ethische beoordeling**

Niet van toepassing

Soort: Niet van toepassing

# 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 NL1729 NTR-old NTR1839

Ander register CCMO / Netherlands Asthma Foundation: 28404 / AF 3.4.07.038

ISRCTN wordt niet meer aangevraagd

# Resultaten

#### Samenvatting resultaten

N/A