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Nordic walking to improve functional exercise capacity and daily physical activities in chronic obstructive pulmonary disease (COPD)

Submission date 11/03/2009	**Recruitment status** No longer recruiting	[_] Prospectively registered [_] Protocol
Registration date 21/04/2009	**Overall study status** Completed	[_] Statistical analysis plan [_] Results
Last Edited 21/04/2009	**Condition category** Respiratory	[_] Individual participant data [_] Record updated in last year

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
NA

Study information

Scientific Title
Nordic walking to improve functional exercise capacity and daily physical activities in chronic obstructive pulmonary disease (COPD): a randomised controlled trial

Study objectives
The aim of the present study was to determine whether and to what extent Nordic walking is feasible in increasing functional exercise capacity in patients with chronic obstructive pulmonary disease (COPD). Additionally, we aimed to determine short- and long-term effects of Nordic walking on daily physical activity level, exercise performance and mood status in patients with COPD.

Ethics approval required
Old ethics approval format

Ethics approval(s)
Ethics Committee of Vienna (Ethikkommission der Stadt Wien), approved on 15/03/2006 (ref: EK 06-058-VK)

Study design
Randomised controlled trial

Primary study design
Interventional

Study type(s)
Treatment

Health condition(s) or problem(s) studied
Chronic obstructive pulmonary disease (COPD)

Interventions
The participants were randomised to either the intervention or control group:

Intervention group: 12 weeks outdoor Nordic walking exercise programme (1 hour per session, 3 times/week)
Control group: no exercise intervention

Patients randomised to the intervention group trained 3 times a week for 1 hour at recommended 75% of their initial maximum heart frequency obtained during initial maximum exercise test. In addition, the participants in the intervention group attended 1 hour/week educational sessions on pulmonary pathophysiology, management of breathlessness and exacerbations, clearance of pulmonary secretions, smoking cessation, medication and nutrition.

The control group received 1 hour/month educational sessions.

Intervention Type
Other

Phase
Not Applicable

Primary outcome(s)
Functional exercise capacity, assessed using the six minute walking test (6MWT).

All primary and secondary outcome measures will be assessed at baseline and after 3, 6, and 9 month.

Key secondary outcome(s))
1. Daily physical activities, assessed using a tri-axial accelerometer (DynaPort® Activity Monitor; McRoberts BV, Netherlands)
2. Exercise-induced dyspnoea, assessed using the modified Borg Dyspnoea Scale
3. Mood status, assessed using the Hospital Anxiety and Depression Scale (HADS)

All primary and secondary outcome measures will be assessed at baseline and after 3, 6, and 9 month.

Completion date
01/03/2007

Eligibility

Key inclusion criteria
1. Both males and females, age >18 years
2. Stable COPD (no infection or exacerbation for at least 12 weeks)
3. Absence of severe and/or unstable cardiac diseases (myocardial infarction within the last 6 month, cardiac arrhythmia Lown classification >IIIb, as shown by electrocardiogram during rest and maximal exercise test)
4. Absence of other pathologic conditions that could impair daily physical activities (cerebrovascular diseases, rheumatism, symptomatic osteoporosis and others)

Participant type(s)
Patient

Healthy volunteers allowed
No

Age group
Adult

Lower age limit
18 years

Sex
All

Key exclusion criteria
Does not meet inclusion criteria

Date of first enrolment
01/03/2006

Date of final enrolment
01/03/2007

Locations

Countries of recruitment
Austria

Study participating centre
Ludwig Boltzmann Institue for COPD
Vienna
Austria
1140

Sponsor information

Organisation
Ludwig Boltzmann Institute for COPD (Ludwid Boltzmann Institut für COPD) (Austria)

ROR
https://ror.org/01tf5aq62

Funder(s)

Funder type
Research organisation

Funder Name
Ludwig Boltzmann Institute for COPD (Ludwid Boltzmann Institut für COPD) (Austria) - http://www.lbg.ac.at

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary
Not provided at time of registration