

Opioids in the management of breathlessness in advanced heart failure

Submission date 03/05/2007	Recruitment status No longer recruiting	☒ Prospectively registered ☐ Protocol
Registration date 04/09/2007	Overall study status Completed	☐ Statistical analysis plan ☒ Results
Last Edited 04/07/2011	Condition category Circulatory System	☐ Individual participant data

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
R&D number RO452

Study information

Scientific Title

Study objectives

Opioids are currently used in the management of breathlessness in palliative patients at the end of life. There is a small but growing evidence base regarding the use of opioids to manage breathlessness in lung cancer and Chronic Obstructive Pulmonary Disease (COPD). A pilot placebo controlled crossover study involving oramorph in ten heart failure patients demonstrated symptom improvement and two studies involving opioids in exercise revealed an improvement in exercise tolerance. Morphine is also used clinically to treat acute pulmonary oedema. The manner in which opioids improve breathlessness is unclear, but is likely to represent a combination of local effects in the lung and heart, effect at the respiratory centre in the brain and neurohumeral effects. Our aim is to demonstrate a symptom benefit regarding breathlessness with opioids and to determine if this is a class effect and whether opioids that interact with different opioid receptors have different outcomes.

Ethics approval required

Old ethics approval format

Ethics approval(s)

Ethics approval received from the Leeds East Ethics Committee on the 9th October 2007 (ref: 07/H1306/110).

Study design

This study is a three arm randomised double blind placebo controlled clinical crossover trial. Participants and observers will remain blinded throughout.

Primary study design

Interventional

Study type(s)

Treatment

Health condition(s) or problem(s) studied

Chronic heart failure

Interventions

Please note that as of 29/04/2008 the anticipated start date of this trial was changed to 01/05/2008; the previous start date was 01/07/2007.

The two active intervention arms involve low dose oral liquid morphine (oramorph 5 mg four times a day [QDS]) and oral oxycodone liquid (oxynorm 2.5 mg QDS). The sequence of interventions will be randomised for each participant and all participants will receive all three treatment arms. Participants will be invited to take the medication (oramorph, oxynorm or placebo) for four consecutive days. There will be daily assessments of breathlessness and side effects during this time. A three-day washout period will occur before commencing the next treatment in sequence.

Intervention Type

Drug

Phase

Not Specified

Drug/device/biological/vaccine name(s)

Morphine (oramorph), oxycodone (oxynorm)

Primary outcome(s)

Severity of breathlessness as measured by the Borg validated score for breathlessness and 11 point Numerical Rating Scale (worst, average and current readings), measured daily whilst taking the trial medications.

Key secondary outcome(s)

1. Distress from breathlessness, measured on days one and four for each trial medication (the first and last days participants take it)
2. Satisfaction and coping, measured daily whilst taking the trial medications
3. Breathlessness descriptors, measured on days one and four for each trial medication (the first and last days participants take it)
4. Adverse effect scores, measured daily whilst taking the trial medications
5. Quality of life, measured on days one and four for each trial medication (the first and last days participants take it)

Completion date

01/12/2008

Eligibility**Key inclusion criteria**

1. New York Heart Association (NYHA) grade three to four chronic heart failure with systolic dysfunction on echocardiography
2. Receiving optimal medical management (diuretics and Angiotensin Converting Enzymes [ACE] inhibitors/angiotensin 2 antagonists) stable for the past month
3. Aged 18 years and over

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Adult

Lower age limit

18 years

Sex

Not Specified

Key exclusion criteria

1. Inadequate renal function (Glomerular Filtration Rate [GFR] less than 30 ml/min on Cockcroft /Gault formula)
2. Morphine allergy
3. Currently receiving opioid therapy

Date of first enrolment

01/05/2008

Date of final enrolment

01/12/2008

Locations

Countries of recruitment

United Kingdom

England

Study participating centre**Academic Cardiology**

Hull

United Kingdom

HU16 5JQ

Sponsor information

Organisation

Hull and East Yorkshire Hospitals NHS Trust (UK)

ROR

<https://ror.org/01b11x021>

Funder(s)

Funder type

Government

Funder Name

Hull York Medical School (HYMS) Clinical Fellowship Scheme (funded by the NHS local Strategic Health Authority) (UK)

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	01/09/2011		Yes	No