# **Online supplement**

## Personalised intervention for depression and COPD (PID-C)

## Session 1 (rehabilitation hospital)

Introduction of the role of care manager

• Describe the intervention and explain how it might help.

## Assessment of barriers to treatment

Use this guide to identify causes of barriers to treatment in each individual patient.

- Misconceptions about COPD and depression.
- Misunderstanding about treatment and about the actual regimen.
- Misattribution of depressive symptoms.
- Hopelessness.
- Overestimation of the energy needed to perform daily exercises.
- Dissatisfaction with prior treatment or aftercare arrangements.
- Logistic barriers to treatment, for example scheduling visits and access to care, transportation, finances.

#### Education

• Brief discussion of facts about depression and its impact on the care of COPD.

#### Sessions 2–9 (at home)

Ongoing assessment

- Depressive symptoms, dyspnoea-related disability.
- Treatment recommendations (rehabilitative, medical, psychiatric) and barriers to engagement.

#### Address barriers to treatment

Focus on barriers to treatment pertinent to the individual patient.

- *Misconceptions about COPD and depression:* address incorrect facts about COPD and depression, recognise and address stigma.
- *Misunderstanding about the actual regimen:* discuss the role of prescribed treatment and exercise in reducing dyspnoea and disability and in preventing exacerbations.
- *Misattribution of depressive symptoms:* identify likely contributors to symptoms and clarify the role of prescribed antidepressant treatment in reducing them.
- *Hopelessness*: identify hopelessness as a symptom of depression that fuels poor expectations about treatment. Discuss the role of antidepressant treatment and exercise in improving function and in conferring a feeling of empowerment. Offer support.
- Overestimation of the energy needed to perform daily exercises: describe in realistic terms what needs to be done, when and how.
- *Dissatisfaction with aftercare:* help patient develop a plan to address concerns (for example coach patient to express their concerns and ask question of health professionals).
- Logistic barriers: help patients develop concrete strategies to address practical issues (for example identify ways to attend appointments; devise reminders for taking medications and conducting exercises; enlist help of family members and social services).

## **Collaboration with physicians**

Inform the physicians about any significant changes in the patient's status as well as any problems with treatment adherence, and engage them in addressing them.

The manual is available on request from the authors.



Fig. DS1 CONSORT diagram: participant progress through the phases of the randomised trial.