

# Study of Shufeng Jiedu® (SFJD) capsules to aid antibiotic use reduction in acute exacerbations of chronic obstructive pulmonary disease

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<b>Registration date</b> 01/07/2021	<b>Overall study status</b> Completed	<input checked="" type="checkbox"/> Statistical analysis plan <input checked="" type="checkbox"/> Results
<b>Last Edited</b> 06/10/2023	<b>Condition category</b> Respiratory	<input type="checkbox"/> Individual participant data

## Plain English summary of protocol

### Background and study aims

Chronic obstructive pulmonary disease (COPD) is the name for a group of lung conditions that cause breathing difficulties.

Patients with COPD commonly experience flare-ups (“acute exacerbations”) and antibiotics are often prescribed. However, only one in three flare-ups are caused by bacterial infections and are helped by antibiotics. The remaining two out of three flare-ups are caused by viruses or environmental factors and in these cases, antibiotics will not help. If you take antibiotics, you are more likely to suffer from an infection from drug-resistant bacteria in the future, so it is important to find a safe and effective way to control the symptoms of COPD flare-ups without using antibiotics. There is evidence, based on studies conducted in China, that a herbal combination treatment called Shufeng Jiedu could help control symptoms of COPD flare-ups. We would like to know whether the herbal combination, Shufeng Jiedu, could be an alternative to antibiotics. As this study is a feasibility study, it will not answer this question but this will help us to plan a large, full-scale trial.

### Who can participate?

COPD patients aged 40 years or older who present at their GP Practice with an acute exacerbation of COPD will be invited to take part in the EXCALIBUR trial.

### What does the study involve?

Eligible patients (participants) will be randomly allocated to Shufeng Jiedu (SFJD) capsules or matched placebo (dummy capsule), and will take 4 capsules, 3 times a day for 14 days. Participants will be asked to complete a participant diary for 28 days, recording their COPD flare-up symptoms in a symptom questionnaire and any medication they have taken for their flare-up (including the trial treatment). The participants will receive a final questionnaire mailed to them at 12 weeks post-randomisation. Research sites will perform a review of the participant's notes 12 weeks post-randomisation to record any further GP visits or hospital admissions. Participants will also be interviewed at 4 weeks to give their views on the trial documents, design, and herbal treatment.

What are the possible benefits and risks of participating?

It is not known whether you will have any additional benefit from taking part in this trial.

However, your participation will give important information about how best to treat people with flare-ups of their COPD.

You may experience mild side effects from taking the trial medication.

Where is the study run from?

University of Southampton (UK)

When is the study starting and how long is it expected to run for?

June 2019 to December 2022

Who is funding the study?

Innovate UK

Who is the main contact?

Tom Oliver, EXCALIBUR@soton.ac.uk

## Contact information

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Scientific

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## Additional identifiers

**Integrated Research Application System (IRAS)**  
268737

**Central Portfolio Management System (CPMS)**  
45360

**Protocol serial number**  
Grant Codes: 104983

## Study information

### Scientific Title

Treating Acute EXacerbation of COPD with Chinese Herbal Medicine to aid AntiBiotic Use Reduction (EXCALIBUR) - Study of Shufeng Jiedu® (SFJD) capsules to aid antibiotic use reduction in acute exacerbations of chronic obstructive pulmonary disease: a mixed-methods, double blind, randomised placebo-controlled feasibility trial

### Acronym

EXCALIBUR

### Study objectives

We hypothesise that SFJD will improve symptoms in people with AECOPD, and will therefore reduce the necessity for antibiotics, the risk and duration of admission to hospital, and the risk of relapse. This trial will be a feasibility study in patients treated for AECOPD in primary care in the UK, in preparation for a full trial to assess whether adding SFJD to standard treatment will enable patients to improve faster, thus reducing the necessity for antibiotics and reducing their risk of admission to hospital. If successful, this would pave the way for a full-scale clinical trial in the UK. The addition of SFJD to antibiotics has the potential to significantly reduce healthcare costs associated with COPD and to reduce the risk of development of antimicrobial resistance, by reducing the number of antibiotic prescriptions and reducing the risk and duration of hospital admission.

### Ethics approval required

Ethics approval required

### Ethics approval(s)

approved 30/11/2020, London - Surrey Research Ethics Committee (Wates Room, Wates House, University of Surrey, Guildford, Surrey, GU2 7XH, United Kingdom; +44 (0)207 104 8088, (0)207 104 8131; surrey.rec@hra.nhs.uk), ref: 20/LO/0580

### Study design

Interventional randomized controlled feasibility study

### Primary study design

Interventional

## **Study type(s)**

Treatment

## **Health condition(s) or problem(s) studied**

Chronic obstructive pulmonary disease

## **Interventions**

### **OVERVIEW**

This is a multicentre, double blind placebo-controlled feasibility trial of Shufeng Jiedu® in treating symptoms of acute exacerbations of COPD (AECOPD). This trial will also contain nested qualitative interviews of patients who choose to take part and those who don't, in order to help aid the design of the large, full-scale trial.

### **POPULATION**

We aim to recruit 80 adults, 40 years and over, presenting to their GP with an acute exacerbation of their COPD and with at least one of the Anthonisen criteria (increased pus in sputum; increased sputum volume; increased breathlessness), and the GP is considering use of antibiotics.

### **IDENTIFICATION**

Potential participants will be made aware of the EXCALIBUR trial via mail-out from the 8 recruiting GP sites. The criteria for receiving a mail-out pack will be for patients to have experienced an acute exacerbation (flare-up) of their COPD (AECOPD) in the last two years. This mail out pack will inform the patient about the trial and to contact their GP next time they suffer an AECOPD, before taking any AECOPD treatment.

### **ELIGIBILITY**

On presentation at a GP Practice with an AECOPD, the patient will be assessed for eligibility from the patient notes and by clinical assessment of their symptoms.

### **TREATMENT**

Eligible participants will be randomised to active or placebo IMP in a 1:1 allocation, on top of usual care for AECOPD (such as antibiotics and oral corticosteroids). Participants will be asked to take the trial medication of 4 capsules, 3 times a day, preferably after meals, for 14 days. GPs will be given the option to prescribe immediate; delayed; or no antibiotics on the trial based on the clinical assessment of the patient and their symptoms.

### **PARTICIPANT DIARY**

Participants will be asked to complete daily diary data for up to 28 days after presentation at their GP practice. This diary collects information on the patients' symptoms as well as any treatment taken for the AECOPD. The diary may be completed early if the participant's exacerbation has ended for 7 days and the diary has been completed for at least 14 days. Patients will receive follow up phone calls or text messages from the research team at the Southampton Clinical Trials Unit (SCTU) at 2-3; 14; and 28 days following randomisation to prompt diary completion and return.

A final COPD Assessment Test (CAT) questionnaire will be mailed to the participant at 12 weeks post-randomisation, after which their involvement in the trial will be complete.

### **NOTES REVIEW**

A notes review will be undertaken 12 weeks after randomisation to document return visits to the GP for repeat COPD consultations, antibiotic prescriptions, other medications prescribed for treatment of AECOPD and hospital attendances (both inpatient and outpatient).

## NESTED QUALITATIVE SUBSTUDY

As part of the EXCALIBUR trial, we would like to talk to both people who entered the trial and those who chose not to enter. We will ask patients about their views on herbal medicine and delayed prescriptions of antibiotics in the treatment of flare-ups of COPD. Additionally, we wish to learn about their experience of taking part in the EXCALIBUR trial or their reasons for not doing so.

These interviews will range from 15-60 minutes long and be conducted over the telephone.

### Intervention Type

Drug

### Phase

Phase III

### Drug/device/biological/vaccine name(s)

Shufeng Jiedu Capsules (SFJDC)

### Primary outcome(s)

1. Number and proportion of patients on the COPD register who present with AECOPD measured using: Onsite screening logs – proportion of patients on the COPD register who present to their GP practice with AECOPD and are considered for eligibility into EXCALIBUR
2. Proportion of patients presenting with AECOPD that are eligible and ineligible (plus reasons) for the trial measured using: Onsite screening logs – proportion of patients approached who agreed to be assessed for eligibility and are found eligible for inclusion
3. Proportion of eligible patients recruited measured using: Onsite screening logs – proportion of eligible patients who are recruited to the trial and eligible patients refusing to enter the trial (plus reasons why) and patient feedback from qualitative interviews.
4. Recruitment rate per site per month open measured using: Onsite enrolment logs – number of participants recruited per site per 1000 registered patients per month open.
5. Compliance with medication according to diary data and returned medication measured using: Medication adherence collected from medication diary and returned medication.  
Qualitative: Patient experiences of taking SFJD from qualitative interviews
6. Average no. of capsules taken per day per patient measured using: Number of capsules recorded in medication diary and in returned medication.
7. Duration of treatment per patient measured using: Number of days trial medication taken as per medication diary and in returned medication.
8. % of patients correctly guessing treatment/placebo allocation and reasons why measured using % of patients who correctly guessed whether they had been allocated to SFJD or placebo and reasons why (as reported in medication diaries and qualitative interviews).
9. % of patients returning trial diaries measured using: Percentage of patients returning diaries and patient experiences of completing the diary
10. % of diary completion measured using: Percentage of diary completion per patient and patient experiences of completing the diary
11. % of patients who took antibiotics in each group measured using: Antibiotic prescribing from baseline CRF and self-reported antibiotic use (number of days on which antibiotics were consumed) from the patient diary
12. % of patients given immediate and delayed antibiotic prescriptions measured using % receiving delayed and immediate antibiotic prescriptions from baseline CRF and self-reported antibiotic use (number of days on which antibiotics were consumed) from the patient diary

### Key secondary outcome(s)

There are no secondary outcome measures

**Completion date**

30/12/2022

**Eligibility****Key inclusion criteria**

1. Has a current acute exacerbation of COPD with at least one of the following:
  - 1.1. Increased sputum purulence;
  - 1.2. Increased sputum volume;
  - 1.3. Increased breathlessness.
2. The current acute exacerbation has lasted for at least 24 hours and no longer than 21 days.
3. The responsible clinician is considering use of antibiotics for the acute exacerbation.
4. Diagnosis of COPD in clinical record.
5. Age 40 years or more.
6. Able to provide informed consent.
7. Able to provide the primary outcome data at 2 and 4 weeks within the expected windows.

**Participant type(s)**

Patient

**Healthy volunteers allowed**

No

**Age group**

Adult

**Lower age limit**

40 years

**Sex**

All

**Total final enrolment**

19

**Key exclusion criteria**

1. The responsible clinician feels urgent referral to hospital is necessary.
2. Severe illness (e.g. suspected pneumonia or pulmonary embolism or lung cancer; necessity for emergency admission to hospital).
3. Patient has a primary diagnosis of bronchiectasis, lung cancer or other active chronic respiratory disease.
4. Currently on or has previously had antibiotics or corticosteroids for this AECOPD.
5. Patient is on a maintenance dose of antibiotics for treatment of COPD.
6. Known or suspected pregnancy.
7. Women of childbearing potential who are at risk of pregnancy and not using an effective form of contraception.
8. Currently breast-feeding.
9. Chronic kidney disease stage 4 or 5.

10. Severe liver disease.
11. Cannot read or understand the study materials.
12. Previously recruited into this "EXCALIBUR" trial.
13. Previously been recruited into another drug trial within the last 6 weeks.

**Date of first enrolment**

30/07/2021

**Date of final enrolment**

31/07/2022

## Locations

**Countries of recruitment**

United Kingdom

England

**Study participating centre**

NIHR CRN Wessex

Unit 7

Berrywood Business Village

Tollbar Way

Hedge End

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United Kingdom

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## Sponsor information

**Organisation**

University of Southampton

**ROR**

<https://ror.org/01ryk1543>

## Funder(s)

**Funder type**

Government

**Funder Name**

Innovate UK

### Alternative Name(s)

Technology Strategy Board

### Funding Body Type

Government organisation

### Funding Body Subtype

National government

### Location

United Kingdom

## Results and Publications

### Individual participant data (IPD) sharing plan

The datasets generated during and/or analysed during the current study are not expected to be made available because the participants did not consent for their data to be used in further research. Access to this data is strictly controlled by the Southampton Clinical Trials Unit and no third parties will be granted access to the Medidata servers holding research data. For any queries please contact [ctu@soton.ac.uk](mailto:ctu@soton.ac.uk).

### IPD sharing plan summary

Not expected to be made available

### Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<a href="#">Results article</a>		25/09/2023	06/10/2023	Yes	No
<a href="#">Protocol article</a>		19/12/2022	20/12/2022	Yes	No
<a href="#">Basic results</a>			06/10/2023	No	No
<a href="#">HRA research summary</a>			28/06/2023	No	No
<a href="#">Statistical Analysis Plan</a>	version 1.0	09/11/2022	06/10/2023	No	No
<a href="#">Study website</a>	Study website	11/11/2025	11/11/2025	No	Yes