

# Trial exploring the benefits of different doses of baclofen for patients with alcohol addiction

<b>Submission date</b> 06/12/2022	<b>Recruitment status</b> No longer recruiting	<input checked="" type="checkbox"/> Prospectively registered
		<input type="checkbox"/> Protocol
<b>Registration date</b> 13/10/2023	<b>Overall study status</b> Ongoing	<input type="checkbox"/> Statistical analysis plan
		<input type="checkbox"/> Results
<b>Last Edited</b> 16/06/2025	<b>Condition category</b> Mental and Behavioural Disorders	<input type="checkbox"/> Individual participant data
		<input checked="" type="checkbox"/> Record updated in last year

## Plain English summary of protocol

### Background and study aims

Continued alcohol consumption in people diagnosed with cirrhosis quickens the time to death. It follows, that helping people stop drinking (abstinence) can lead to improvements in how the liver works, resulting in longer life expectancy. Baclofen has been identified as a promising alcohol anti-craving medicine with potential to help people to stop drinking which is clearly the most important aim of treatment.

### What does the study involve?

Our proposed trial will evaluate whether baclofen is an effective treatment option in patients with alcohol-related liver cirrhosis, and which dose(s) is/are safe and effective. This trial will test 3 different doses of baclofen and a placebo (dummy treatment) in patients with alcohol-related cirrhosis over 24 weeks. Participants will be recruited from secondary care settings within NHS trusts with the trial population reflecting the range of disease severity, co-morbidities (co-existing disease), and social and ethnic groups encountered in everyday clinical practice. The patients will be aged 18-75 years. All participants will undergo screening to detect suicidal ideation using the C-SSRS Screen between day 7 and day 10 post registration. This will ensure time for patients to receive appropriate medical treatment and reduce test anxiety. An answer of 'yes' to questions 3, 4, 5, or 6 will result in referral for mental health assessment following local standard of care procedures. At the randomisation visit, results of mental health assessment will determine eligibility (i.e. patient determined to be at risk of suicide will not be eligible for the trial). After two weeks, all participants will be assessed for entry to randomisation. Participants who do not meet the entry criteria will not be randomised. Participants will be randomised after the run-in period to one of the four treatment arms using double-blind methods, meaning neither the participants or the research doctors and nurses will know which treatment has been allocated. We will also undertake blood sampling to determine the relationship between the amount of baclofen in the bloodstream to and how participants respond. This will help us to identify the best dose for each individual.

### What are the possible benefits and risks of participating?

**Benefits:** Alcohol consumption in the presence of liver cirrhosis leads to poorer patient outcomes in comparison to patients who remain abstinent. Currently there are limited options to promote abstinence in this patient group. Continued alcohol intake increases the risk of

advanced liver failure and reduces both short and longterm survival. The predicted rates of death for patients with alcohol-related cirrhosis is very poor, with mortality rates of 71% at 5 years and 91% at 15 years for patients who continue to drink. Importantly, abstinence is associated with a ~40% reduced risk of mortality from 18 months onwards. Death from alcohol-related cirrhosis usually occurs in people of working age. Also, despite shorter life expectancy, patients admitted with alcohol-related cirrhosis incur substantial costs for healthcare systems. Risks: Baclofen has a well-established safety profile, with known adverse effects documented. Furthermore, the doses to be used have been taken from evidence from trials, and the upper limit of baclofen dosing in the UK (100 mg/day). Specific exclusion criteria have been adopted to minimise the risk of serious adverse events . In addition, suicide and suicide-related events have been reported in patients treated with baclofen. In most cases, the patients had additional risk factors associated with an increased risk of suicide including alcohol use disorder. The requirement for abstinence prior to recruitment will help reduce this risk. Patients with a recent suicide attempt or a history of previous multiple suicide or self-harm episodes will be excluded as will patients exhibiting suicidal ideation at the time of planned recruitment. During the run in period participants will undergo screening to detect suicidal ideation to determine if they need to be referred for mental health assessment. Following the mental health assessment, if the participant is assessed as being at risk of suicide they will not be eligible for the trial. The common side effects of baclofen include dizziness, weakness, confusion, headache, nausea, constipation, difficulty falling asleep or staying asleep, tiredness, frequent urination.

Where is the study run from?

Liverpool University Hospitals NHS Foundation Trust is the Sponsor of this study and is responsible for managing it. They are based in United Kingdom. They have asked that the day-to-day running of the study is carried out by a team based at the Liverpool Clinical Trials Centre, UK (LCTC, part of the University of Liverpool). A separate team from the University of Liverpool is responsible for managing the sub-study blood samples.

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

November 2022 to March 2027

Who is funding the study?

National Institute for Health and Care Research (NIHR) Health Technology Assessment (HTA) programme (UK).

Who is the main contact?

basis@liverpool.ac.uk

## Contact information

### Type(s)

Principal investigator

### Contact name

Dr Paul Richardson

### Contact details

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### **Type(s)**

Public

### **Contact name**

Dr BASIS Trial Team

### **Contact details**

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3 Brownlow Street  
Liverpool  
United Kingdom  
L69 3GL

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## **Additional identifiers**

### **Clinical Trials Information System (CTIS)**

2022-000154-28

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

1006141

### **Protocol serial number**

R&I 6040, IRAS 1006141, CPMS 54363

## **Study information**

### **Scientific Title**

An adaptive-design randomised placebo-controlled trial of baclofen in the treatment of alcohol use disorder in patients with liver cirrhosis

### **Acronym**

BASIS trial

### **Study objectives**

The primary objective is to investigate the effect of baclofen compared with placebo in the treatment of Alcohol Use Disorder (AUD) in patients with alcohol-related cirrhosis.

### **Secondary objectives:**

1. To determine if the treatment of AUD with baclofen in patients with alcohol-related cirrhosis is superior to placebo
2. To determine which dose(s) of baclofen is/are most effective in improving AUD treatment outcomes in patients with alcohol-related cirrhosis in comparison to placebo
3. To assess the relationship between variability in baclofen exposure and efficacy and safety

parameters.

4. To monitor and compare the safety profile of the baclofen arms, including dose dependency, in comparison to the placebo arm

### **Ethics approval required**

Ethics approval required

### **Ethics approval(s)**

approved 05/09/2023, South Central – Berkshire B Research Ethics Committee (Whitefriars, Level 3, Block B, Lewins Mead, Bristol, BS1 2NT, United Kingdom; +44 207 104 8253 ; berkshireb.rec@hra.nhs.uk), ref: 23/SC/0006

### **Study design**

Interventional double-blind randomized parallel-group placebo-controlled trial

### **Primary study design**

Interventional

### **Study type(s)**

Treatment

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

Alcohol use disorder in patients with liver cirrhosis

### **Interventions**

Current interventions as of 16/06/2025:

All participants will undergo screening to detect suicidal ideation using the C-SSRS Screen between day 7 and day 10 post registration. This will ensure time for patients to receive appropriate medical treatment and reduce test anxiety.

An answer of 'yes' to questions 3, 4, 5, or 6 will result in referral for mental health assessment following local standard of care procedures.

At the randomisation visit, results of mental health assessment will determine eligibility (i.e. patient determined to be at risk of suicide will not be eligible for the trial).

After two weeks, all participants will be assessed for entry to randomisation. Participants who do not meet the entry criteria will not be randomised

Registered participants will be required to abstain from alcohol for 2 weeks prior to randomisation.

Following the two weeks run-in period, eligible participants will be randomised via a secure (24 hour) web-based randomisation system.

Participants will be randomised to either one of three doses of baclofen or a matching placebo (in a ratio of 1:1:1:1). Participants will be instructed to take one tablet orally three times per day (TDS).

The study arms are:

- baclofen 10 mg TDS (max daily dose 30 mg)
- baclofen 20 mg TDS (max daily dose 60 mg)
- baclofen 30 mg TDS (max daily dose 90 mg)
- placebo TDS

Participants will be prescribed tablets at baseline and weeks 1, 2, 4, 8, 16 and 24.

Blinded treatment packs will be administered at baseline and weeks 1, 2, 4, 8, 16 and 24, with all participants attending titration visits at week 1 and week 2.

Participants will be titrated up to the next dose level if this is in accordance with their randomised dose allocation. Participants randomised to 20 mg TDS will be initially be given 10 mg TDS for the first week, then increasing to 20 mg TDS for the remainder of the treatment period. Participants randomised to 30 mg TDS will initially be given 10 mg TDS for the first week, then 20 mg TDS for the second week increasing to 30 mg TDS for the rest of the treatment period.

When end of treatment is reached participants will be unblinded and a phased reduction in baclofen dose applied for those in the active arms.

The protocol provides a down-titration regime; however, this can be adjusted for the individual needs of each participant. Down titration medication will be sourced via usual NHS supply arrangements.

Previous interventions:

All participants will undergo screening to detect suicidal ideation using the C-SSRS Screen between day 7 and day 10 post registration. This will ensure time for patients to receive appropriate medical treatment and reduce test anxiety.

A score of 3 or more will result in referral for mental health assessment following local standard of care procedures.

At the randomisation visit, results of mental health assessment will determine eligibility (i.e. patient determined to be at risk of suicide will not be eligible for the trial).

After two weeks, all participants will be assessed for entry to randomisation. Participants who do not meet the entry criteria will not be randomised

Registered participants will be required to abstain from alcohol for 2 weeks prior to randomisation.

Following the two weeks run-in period, eligible participants will be randomised via a secure (24 hour) web-based randomisation system.

Participants will be randomised to either one of three doses of baclofen or a matching placebo (in a ratio of 1:1:1:1). Participants will be instructed to take one tablet orally three times per day (TDS).

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Participants will be titrated up to the next dose level if this is in accordance with their randomised dose allocation. Participants randomised to 20 mg TDS will be initially be given 10 mg TDS for the first week, then increasing to 20 mg TDS for the remainder of the treatment period. Participants randomised to 30 mg TDS will initially be given 10 mg TDS for the first week, then 20 mg TDS for the second week increasing to 30 mg TDS for the rest of the treatment period.

When end of treatment is reached participants will be unblinded and a phased reduction in baclofen dose applied for those in the active arms.

The table provided in the email illustrates a down-titration regime; however, this can be adjusted for the individual needs of each participant. Down titration medication will be sourced via usual NHS supply arrangements.

## **Intervention Type**

Drug

## **Phase**

Phase III

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

Baclofen

## **Primary outcome(s)**

Continued abstinence post randomisation for 24 weeks measured using Timeline Followback

## **Key secondary outcome(s)**

Current secondary outcome measures as of 16/06/2025:

At baseline and weeks 4, 8, 16 and 24 of follow-up unless noted otherwise:

1. Self-reported alcohol consumption since previous visit via Timeline Followback to measure:
  - 1.1. Average units per drinking day
  - 1.2. Percent days abstinent.
  - 1.3. Number of heavy drinking days.
2. Changes in alcohol usage and dependency questionnaires (AUDIT, SADQ, APQ). SADQ to be completed at baseline and if required at follow up, when triggered by Timeline Followback and participant is drinking again.
3. Time to lapse (time to first alcoholic drink) measured using Timeline Followback.
4. Time to relapse (defined as time to consumption of  $\geq 5$  units for women,  $\geq 6$  units for men in a single day) measured using Timeline Followback.
5. Biological markers of alcohol consumption and liver function measured by:
  - 5.1. Ethyl glucuronide test in urine using dipstick at baseline, weeks 1, 2, 4, 8, 16 and 24 of follow-up
  - 5.2. Breath alcohol at baseline, weeks 1, 2, 4, 8, 16 and 24 of follow-up
  - 5.3. LFTs at baseline, weeks 4, 8, 16 and 24 of follow-up
6. Delta changes in liver function as per Child-Pugh and Model of End Stage Liver Disease (MELD-Na)
7. Alcohol craving by Penn Alcohol Craving Scale (PACS)
8. Subsequent hospital attendances and admissions (including unplanned use) at weeks 4, 8, 16 and 24 of follow-up
9. Rate of survival at time of data analysis using median duration of follow-up, ONS data clarification that death data may be requested at the final analysis if required
10. Medication adherence (pill count) at weeks 1, 2, 4, 8, 16 and 24 of follow-up

11. Blood sampling to determine a population pharmacokinetic model for baclofen in patients with alcohol-related liver cirrhosis
12. Recording and assessment of related adverse events at baseline and weeks 1, 2, 4, 8, 16 and 24 of follow-up

Previous secondary outcome measures:

At baseline and weeks 4, 8, 16 and 24 of follow-up unless noted otherwise:

1. Self-reported alcohol consumption since previous visit via Timeline Followback to measure:
  - 1.1. Average units per drinking day
  - 1.2. Percent days abstinent.
  - 1.3. Number of heavy drinking days.
2. Changes in alcohol usage and dependency questionnaires (AUDIT, SADQ, APQ). SADQ to be completed at baseline and if required at follow up, when triggered by Timeline Followback and participant is drinking again.
3. Quantity and Frequency of alcohol consumption measured using Timeline Followback.
4. Time to relapse (time to first alcoholic drink) measured using Timeline Followback.
5. Time to relapse (defined as time to consumption of  $\geq 5$  units for women,  $\geq 6$  units for men in a single day) measured using Timeline Followback.
6. Biological markers of alcohol consumption and liver function measured by:
  - 6.1. Urine Ethyl glucuronide (optional; measured in around 25% of participants) at weeks 4, 8, 16 and 24 of follow-up, where optional consent has been provided
  - 6.2. Breath alcohol at baseline, weeks 1, 2, 4, 8, 16 and 24 of follow-up
  - 6.3. LFTs at baseline, weeks 1, 2, 4, 8, 16 and 24 of follow-up
7. Delta changes in liver function as per Child-Pugh and Model of End Stage Liver Disease (MELD-Na)
8. Alcohol craving by Penn Alcohol Craving Scale (PACS)
9. Subsequent hospital attendances and admissions (including unplanned use) at weeks 4, 8, 16 and 24 of follow-up
10. Rate of survival at time of data analysis using median duration of follow-up, ONS data clarification that death data may be requested at the final analysis if required
11. Medication adherence (pill count) at weeks 1, 2, 4, 8, 16 and 24 of follow-up
12. Blood sampling to determine a population pharmacokinetic model for baclofen in patients with alcohol-related liver cirrhosis
13. Recording and assessment of related adverse events at baseline and weeks 1, 2, 4, 8, 16 and 24 of follow-up

## **Completion date**

31/03/2027

## **Eligibility**

### **Key inclusion criteria**

Current participant inclusion criteria as of 16/06/2025:

At Registration:

1. Age 18 to 75 years
2. Confirmed diagnosis of alcohol-related cirrhosis classified according to the Child-Pugh classification
3. Abstinent from alcohol at the time of registration for between  $\geq 1$  day and  $< 42$  days
4. Capacity to provide informed consent

**At Randomisation:**

1. Age 18 to 75 years
2. Confirmed diagnosis of alcohol-related cirrhosis classified according to the Child-Pugh classification
3. Abstinent from alcohol at the time of the baseline/randomisation visit for between  $\geq 14$  days and  $< 56$  days
4. Capacity to provide informed consent
5. Women of reproductive potential must have a negative pregnancy test at randomisation and use highly effective contraception for the duration of the treatment period

**Previous participant inclusion criteria:**

**At Registration:**

1. Age 18 to 65 years
2. Confirmed diagnosis of alcohol-related cirrhosis classified according to the Child-Pugh classification
3. Abstinent from alcohol at the time of registration for between  $\geq 1$  day and  $< 42$  days
4. Capacity to provide informed consent

**At Randomisation:**

1. Age 18 to 65 years
2. Confirmed diagnosis of alcohol-related cirrhosis classified according to the Child-Pugh classification
3. Abstinent from alcohol at the time of the baseline/randomisation visit for between  $\geq 14$  days and  $< 56$  days
4. Capacity to provide informed consent
5. Women of reproductive potential must have a negative pregnancy test at randomisation and use highly effective contraception for the duration of the treatment period

**Participant type(s)**

Patient

**Healthy volunteers allowed**

No

**Age group**

Adult

**Lower age limit**

18 years

**Upper age limit**

75 years

**Sex**

All

**Key exclusion criteria**

**At registration:**

1. Planning to become pregnant, is pregnant or breastfeeding
2. Overt hepatic encephalopathy or trans-jugular intrahepatic porto-systemic shunt in situ
3. Severe renal impairment (stage 5 chronic kidney disease and/or current haemodialysis)

4. History of illicit drug use excluding marijuana in the previous 4 weeks
5. Concurrent use of opioid substitution therapy
6. Use of licenced alcohol anti-craving pharmacotherapy (such as acamprosate, disulfiram naltrexone, nalmefene) in previous 12 weeks
7. Use of baclofen for any purpose in previous 12 weeks
8. Peptic ulceration detected by endoscopy within 14 days of registration.
9. Known hypersensitivity to baclofen or structurally related drugs or any other component of the formulation.
10. Poorly controlled major psychiatric disorder such as schizophrenia or bipolar disorder
11. Individuals who have participated in a trial of a medicinal product within 12 weeks preceding registration
12. Poorly controlled epilepsy
13. Rare hereditary problems of galactose intolerance, total lactose deficiency or glucose-galactose malabsorption
14. Suffering from porphyria

At randomisation:

1. Planning to become pregnant, is pregnant or breastfeeding
2. Overt hepatic encephalopathy or trans-jugular intrahepatic porto-systemic shunt in situ
3. Severe renal impairment (stage 5 chronic kidney disease and/or current haemodialysis)
4. History of illicit drug use excluding marijuana in the previous 6 weeks
5. Concurrent use of opioid substitution therapy, or use in the previous 14 days
6. Use of licenced alcohol anti-craving pharmacotherapy (such as acamprosate, disulfiram naltrexone, nalmefene) in previous 14 weeks
7. Use of baclofen for any purpose in previous 14 weeks
8. Peptic ulceration detected by endoscopy within 28 days of the baseline/randomisation visit.
9. Known hypersensitivity to baclofen or structurally related drugs or any other component of the formulation
10. Scored 3 or more on the C-SSRS Screen and has been assessed by an appropriately qualified mental health practitioner as having suicidal ideation or behaviour prior to the baseline /randomisation visit
11. Poorly controlled major psychiatric disorder such as schizophrenia or bipolar disorder
12. Individuals who have participated in a trial of a medicinal product within 14 weeks preceding the baseline/ randomisation visit
13. Poorly controlled epilepsy
14. Rare hereditary problems of galactose intolerance, total lactose deficiency or glucosegalactose malabsorption
15. Suffering from porphyria

**Date of first enrolment**

18/03/2024

**Date of final enrolment**

31/03/2026

## **Locations**

**Countries of recruitment**

United Kingdom

England

Scotland

**Study participating centre**

**Royal Liverpool University Hospital**

Prescot Street  
Liverpool  
United Kingdom  
L7 8XP

**Study participating centre**

**St Mary's Hospital**

Imperial College Healthcare NHS Trust  
South Wharf Road  
London  
United Kingdom  
W2 1BL

**Study participating centre**

**Glasgow Royal Infirmary**

84 Castle Street  
Glasgow  
United Kingdom  
G4 0SF

**Study participating centre**

**Royal Free Hospital**

Pond Street  
London  
United Kingdom  
NW3 2QG

**Study participating centre**

**Addenbrookes**

Addenbrookes Hospital  
Hills Road  
Cambridge  
United Kingdom  
CB2 0QQ

**Study participating centre**  
**Kings College Hospital**  
Mapother House  
De Crespigny Park  
Denmark Hill  
London  
United Kingdom  
SE5 8AB

**Study participating centre**  
**Freeman Road Hospital**  
Freeman Road  
High Heaton  
Newcastle upon Tyne  
United Kingdom  
NE7 7DN

**Study participating centre**  
**Aintree Hospitals - Opd**  
Fazakerley Hospital  
Lower Lane  
Liverpool  
United Kingdom  
L9 7AL

## **Sponsor information**

**Organisation**  
University of Liverpool

**ROR**  
<https://ror.org/04xs57h96>

## **Funder(s)**

**Funder type**  
Government

**Funder Name**  
Health Technology Assessment Programme

**Alternative Name(s)**

NIHR Health Technology Assessment Programme, Health Technology Assessment (HTA), HTA

**Funding Body Type**

Government organisation

**Funding Body Subtype**

National government

**Location**

United Kingdom

## Results and Publications

**Individual participant data (IPD) sharing plan**

Anonymous data from the trial will be made available to share with external researchers. All requests for access to these data will be reviewed by the sponsor and data controllers

**IPD sharing plan summary**

Available on request

**Study outputs**

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<a href="#">Study website</a>	Study website	11/11/2025	11/11/2025	No	Yes