

Rifaximin to reduce infection in decompensated cirrhosis

Submission date 20/02/2017	Recruitment status No longer recruiting	☐ Prospectively registered ☐ Protocol
Registration date 08/03/2017	Overall study status Completed	☐ Statistical analysis plan ☒ Results
Last Edited 30/08/2023	Condition category Digestive System	☐ Individual participant data

Plain English summary of protocol

Background and study aims

Cirrhosis is the result of long-term, continuous damage to the liver and may be due to many different causes. The damage leads to scarring, known as fibrosis. Irregular bumps (nodules) replace the smooth liver tissue and the liver becomes harder. Together, the scarring and the nodules are called cirrhosis. Cirrhosis can take many years to develop and can do so without any noticeable symptoms until the damage to the liver is very serious. The build-up of scar tissue can interfere with the flow of blood to the liver and stop it from functioning properly, eventually leading to liver failure. Patients with decompensated cirrhosis (when the liver is not working properly) are at risk of dying from life-threatening complications of liver disease, such as bleeding varices (internal bleeding); ascites (fluid in the belly); encephalopathy (confusion); and jaundice (yellowing of eyes and skin). Rifaximin is an antibiotic most often used to treat diarrhea caused by the common bacteria known as E. coli. The aim of this study is to find out whether use of rifaximin can reduce the risk of infection in patients admitted to hospital with cirrhosis.

Who can participate?

Patients aged between 18 and 80 who have been admitted to hospital with cirrhosis.

What does the study involve?

Participants are randomly allocated to one of two groups. Those in the first group take rifaximin 550 mg twice a day for 6 months. Those in the second group take a placebo (dummy drug) twice a day for 6 months. At the start of the study, during treatment, after treatment and after 9 and 12 months, participants have information collected about their use of antibiotics and whether they have had infections at routine clinic appointments.

What are the possible benefits and risks of participating?

There may not be any direct benefits for patients taking part in this study personally, but the care that participants receive as part of this study may reduce their risk of infection whilst they are being treated for their cirrhosis. The knowledge gained from the trial and looking at study samples in the laboratory during and after treatment may improve the treatment offered to patients with cirrhosis in the future. There aren't any significant risks in participating in this trial. The medicine being used in this study is already licenced and is used in clinical care and is very well tolerated with minimal side effects.

Where is the study run from?

St Mary's Hospital (lead centre) and four other NHS hospitals in England (UK)

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

April 2016 to January 2020

Who is funding the study?

1. Norgine Ltd (UK)
2. Alfa Wassermann S.P.A (Italy)

Who is the main contact?

Dr Rooshi Nathwani

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Contact information

Type(s)

Scientific

Contact name

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Contact details

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Additional identifiers

Clinical Trials Information System (CTIS)

2016-002628-96

Protocol serial number

33490

Study information

Scientific Title

A multi-centre, double-blind, randomised, controlled clinical trial of rifaximin to reduce infection in patients admitted to hospital with decompensated cirrhosis

Acronym

R-RID

Study objectives

The aim of the study is to investigate whether the use of Rifaximin reduces the risk of infection in patients admitted to hospital with cirrhosis.

Ethics approval required

Old ethics approval format

Ethics approval(s)

South West – Central Bristol Research Ethics Committee, 20/09/2016, ref: 16/SW/0232

Primary study design

Interventional

Study design

Randomised; Interventional; Design type: Treatment, Prevention, Drug

Study type(s)

Treatment

Health condition(s) or problem(s) studied

Decompensated cirrhosis

Interventions

Patients will be randomised to one of two groups in a ratio of 1:1 using a blinded randomisation list drawn up by an Imperial statistician and InForm software.

Intervention group: Participants receive rifaximin 550 mg twice a day for 6 months

Control group: Participants receive placebo 550 mg twice a day for 6 months

Participants in both groups are followed up for 6 months by their consultant during their routine clinic appointments.

Intervention Type

Drug

Phase

Not Applicable

Drug/device/biological/vaccine name(s)

Rifaximin

Primary outcome(s)

Incidence of secondary or recurrent infections in patients with cirrhosis during hospitalisation or after hospital discharge is assessed using clinical evaluations at baseline, 3, 7, 14, 28 and 90 days, at 6 months (EoT) and at 9 and 12 months.

Key secondary outcome(s)

1. Extrahepatic organ failure (e.g. renal, neurological) rate is measured by reviewing patient notes at baseline, 3, 7, 14, 28 and 90 days, at 6 months (EoT) and at 9 and 12 months
2. Mortality rate is measured by reviewing patient notes at baseline, 3, 7, 14, 28 and 90 days, at 6

months (EoT) and at 9 and 12 months

3. Readmission with sepsis rates is measured by reviewing patient notes at baseline, 3, 7, 14, 28 and 90 days, at 6 months (EoT) and at 9 and 12 months

4. Length of hospital stay is measured by reviewing patient notes at baseline, 3, 7, 14, 28 and 90 days, at 6 months (EoT) and at 9 and 12 months

Completion date

30/01/2020

Eligibility

Key inclusion criteria

1. Clinical/biochemical/radiological +/- histological diagnosis of cirrhosis
2. Hospital admission with complication of cirrhosis (e.g. alcoholic hepatitis, sepsis, variceal bleeding)
3. Commencement on antimicrobial therapy
4. Aged 18 - 80 years

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Adult

Lower age limit

18 Years

Upper age limit

80 Years

Sex

All

Total final enrolment

78

Key exclusion criteria

1. C.difficile infection
2. HIV antibody positive
3. Immunosuppression (excluding low dose steroids/steroid sparing agents for AIH <20 mg or equivalent of prednisolone)
4. Advanced disseminated Hepatocellular Carcinoma or invasive carcinoma
5. eGFR < 30 on screening/randomisation
6. End-stage/severe cardiac, pulmonary or kidney disease
7. IDDM

- 8. Colitis or coeliac disease
- 9. Pregnancy
- 10. Already receiving rifamixin

Date of first enrolment

12/01/2017

Date of final enrolment

31/03/2019

Locations

Countries of recruitment

United Kingdom

England

Study participating centre

St Mary's Hospital

Imperial College London & Imperial College Healthcare NHS Trust

South Wharf Road

London

United Kingdom

W2 1NY

Study participating centre

The Royal Liverpool University Hospital

Gastrointestinal and Liver Services

Prescot Street

Liverpool

United Kingdom

L7 8XP

Study participating centre

Queen Elizabeth Hospital Birmingham

Mindelsohn Way

Edgbaston

Birmingham

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B15 2GW

Study participating centre

Frimley Park Hospital
Portsmouth Road
Frimley
United Kingdom
GU16 7UJ

Study participating centre
Chelsea & Westminster Hospital
369 Fulham Palace Road
London
United Kingdom
SW10 9NH

Sponsor information

Organisation
Imperial College London

ROR
<https://ror.org/041kmwe10>

Funder(s)

Funder type
Industry

Funder Name
Norgine Ltd

Funder Name
Alfa Wassermann S.P.A

Results and Publications

Individual participant data (IPD) sharing plan

The current data sharing plans for the current study are unknown and will be made available at a later date.

IPD sharing plan summary

Data sharing statement to be made available at a later date

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
HRA research summary			28/06/2023	No	No
Thesis results		01/06/2021	30/08/2023	No	No