# Investigating the effectiveness and safety of gelatin tannate and tyndallized acid lactic bacteria in adult patients with chronic diarrhoea with dysbiosis

Submission date 19/10/2020	<b>Recruitment status</b> No longer recruiting	[X] Prospectively registered [_] Protocol
<b>Registration date</b> 23/10/2020	<b>Overall study status</b> Completed	<ul> <li>Statistical analysis plan</li> <li>Results</li> </ul>
Last Edited 20/10/2020	<b>Condition category</b> Digestive System	<ul> <li>Individual participant data</li> <li>Record updated in last year</li> </ul>

# Plain English summary of protocol

#### Background and study aims

Chronic diarrhoea is a common presenting symptom in both primary care medicine and in specialized gastroenterology clinics. It is estimated that over 5% of the population has chronic diarrhoea and nearly 40% of these patients are older than 60 years. Clinicians often need to select the best diagnostic approach to these patients and choose between the multiple diagnostic tests available. Recently, in many countries, gelatine tannate is being marketed for the treatment of acute gastroenteritis. The combination of gelatine tannate with tyndallized probiotics seems to offer an advantage over live probiotics for the treatment of chronic diarrhoea as it is intended to restore the physiological function of the intestinal wall as well as to prevent and alleviate dysbiosis (microbial imbalance) including digestive disorders as diarrhoea and other related symptoms such as bloating and abdominal tension, being effective within the first 12 hours. This study aims to assess the effectiveness and safety of gelatin tannate and tyndallized acid lactic bacteria in the treatment of adults with chronic diarrhoea with dysbiosis.

Who can participate? Adults with chronic diarrhoea

#### What does the study involve?

Participants will be randomly allocated to group A or group B. One group will receive gelatin tannate and tyndallized acid lactic bacteria and the other placebo (dummy) tablets twice per day for 28 days.

What are the possible benefits and risks of participating?

This treatment could be very useful for the treatment of chronic diarrhoea caused by dysbiosis by reducing the symptoms associated with this diagnosis. To date, no adverse reactions to the study product have been reported.

Where is the study run from? The study is conducted from Noventure S.L. (Spain), through the local Romanian representative

When is the study starting and how long is it expected to run for? September 2020 to February 2022

Who is funding the study? Noventure S.L. (Spain)

Who is the main contact? Alina Iordache alina.iordache@cebis-int.com

# **Contact information**

**Type(s)** Scientific

**Contact name** Mrs Alina Iordache

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# **Contact details**

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# Additional identifiers

**EudraCT/CTIS number** Nil known

**IRAS number** 

**ClinicalTrials.gov number** Nil known

Secondary identifying numbers CBSNOV26022020

# Study information

Scientific Title

A randomized, double-blinded, placebo-controlled, clinical trial investigating the efficacy and safety of gelatin tannate and tyndallized acid lactic bacteria vs placebo administered to adult patients with chronic diarrhoea with dysbiosis

#### Acronym

RESTATE

### **Study objectives**

Gelatin tannate and tyndallized acid lactic bacteria are safe and improve the major symptoms of chronic diarrhoea vs placebo.

### Ethics approval required

Old ethics approval format

### Ethics approval(s)

1. Approved 20/07/2020, Bulgarian Drug Agency (8, Damyan Gruev Str., 1303, Sofia, Bulgaria, + 359 (0)2 8903555; bda@bda.bg), ref: ИАЛ-29402/20.07.2020

2. Approved 04/09/2020, Republic of Bulgaria, Ministry of Health, Ethics Committee for Clinical Trials (8, Damyan Gruev Str., 1303, Sofia, Bulgaria; +359 (0)2 8903435; bda@bda.bg), ref: EKKN /CT-0783

3. Approved 01/10/2020, Romanian Committee for the Bioethics of Medicines and Medical Devices (19-21 Stefan cel Mare Str., District 2, Bucharest, Romania; +40 (0)21/2102880; comisie@bioetica-medicala.ro), ref: 3DM / 16.07.2020

### Study design

Double-blind placebo-controlled randomized multicenter study

# Primary study design

Interventional

# Secondary study design

Randomised controlled trial

Study setting(s) Hospital

**Study type(s)** Treatment

#### Participant information sheet

Not available in web format, please use contact details to request a participant information sheet

Health condition(s) or problem(s) studied Chronic diarrhoea

# Interventions

Visit 1 – Baseline visit Visit 2 (Day 8) – Randomization visit Visit 3 (Day 36) – End of treatment/end of study Patients fulfilling the inclusion criteria will be recruited by gastroenterologists, internal medicine, and/or family doctors during ambulatory visits and/or during the hospitalized period. The screening period will start after obtaining the signed Informed Consent Form for each subject. Subjects who meet the eligibility criteria will be randomly assigned to group A or group B, in a 1:1 ratio, at Visit 2 (Day 8). One group will receive gelatin tannate and tyndallized acid lactic bacteria and the other placebo tablets. The dosage schedule for the study products will be two tablets twice per day for 28 consecutive days.

# Intervention Type

Mixed

# Primary outcome measure

1. Pain relief assessed using an 11-point scale from 0-10 in the subject diary on each day of the treatment period

2. Major symptoms of chronic diarrhoea (abdominal pain and distension) assessed on a 7-point Likert scale in the subject diary on each week of the treatment period

 Proportion of subjects who tested negative for dysbiosis using PCR at baseline and day 36
 Relief of symptoms assessed through the subject diary on each week of the treatment period. Additionally, the timing for the beginning of the clinical response will be also evaluated.
 Stool consistency assessed on the Bristol scale through the subject diary on each week of the treatment period

6. BMI, abdominal girth and weight measured using physician evaluation at baseline and day 36 7. Bowel movement frequency assessed using an 11-point scale from 0-10 in the subject diary on each day of the treatment period

# Secondary outcome measures

Safety assessed by:

- 1. No. of subjects that discontinued treatment due to adverse events at day 36
- 2. No. of subjects that experienced an adverse event and severity at day 36
- 3. Proportion of subjects who presented no improvement in clinical condition at day 36

# Overall study start date

04/09/2020

Completion date 28/02/2022

# Eligibility

# Key inclusion criteria

1. Chronic diarrhoea defined as a morbid process of at least 4 weeks of duration and a change in stool consistency to loose or liquid form (types 5-7, according to the Bristol Stool Chart) and/or an increase in the frequency of evacuations (≥3 in 24 h)

2. Patients diagnosed with irritable bowel syndrome or functional diarrhoea (according to the Rome IV criteria) or biliary acid malabsorption

3. Patients will be included if they record, during the week before randomization, an average score for stool consistency of ≥5.5 or a score of ≥5 on the Bristol Stool Chart for at least 5 days and an average score of ≥3.5 or a score of ≥3 for at least 5 days in the number of bowel movements

4. Participants will be tested at baseline for functional intestinal dysbiosis (Aliment Pharmacol Ther 2012;35(7):828-38), as demonstrated by real-time PCR analysis of faecal samples 5. Ability to sign the informed consent form

Participant type(s)

Patient

# Age group

Adult

Sex

Both

Target number of participants

190

# Key exclusion criteria

1. Use of antibiotics, gelatin tannate, diosmectite, probiotics, racecadotril, zinc, opioids, or any other drugs or medical devices know to alter gastrointestinal motility or secretion within 4 weeks prior to enrolment

2. Chronic diarrhoea caused by cystic fibrosis, coeliac disease, food allergy, diabetes

- 3. Chronic diarrhoea caused by lactose, fructose, or sorbitol intolerance
- 4. Immunodeficiencies

5. Abnormal thyroid function, a history of alcohol abuse or binge drinking, pancreatitis, sphincter of Oddi dysfunction, cholecystitis within the past 6 months, or known allergy to any of the components of the product or placebo

6. Pregnant or breastfeeding women

7. Patients receiving antidepressant medications will be eligible to participate in the study, provided that dosing has been stable for 12 weeks or longer before enrollment

8. If needed, discontinuation or modification of the treatment may be considered at the discretion of the physician

Date of first enrolment

23/11/2020

Date of final enrolment 31/12/2021

# Locations

**Countries of recruitment** Bulgaria

Romania

**Study participating centre Cluj-Napoca County Emergency Clinical Hospital - Internal Medicine, Section III** 4-6 Clinicilor Street, Cluj-Napoca Cluj-Napoca Romania 400 000

# Study participating centre

**Algomed Polyclinic** 4 Lucian Blaga Str. Timisoara Romania 300 002

**Study participating centre Medical office "Dr. Cristian Gainaru SRL"** 23 Principala Str. Corbii Mari, Dambovita Romania 137135

**Study participating centre Medical office "Dr. Fratila SRL"** 4 Remenyik Sandor Str. Oradea Romania 410167

**Study participating centre Medical Center Prolet EOOD** 25 Olimpi Panov Str., fl. 2 Ruse Bulgaria 7000

**Study participating centre BROD - Ambulatory Practice for Primary Medical Care EOOD** 23 Petko D. Petkov Str. Plovdiv Bulgaria 4000

Study participating centre

# Ambulatory Practice for Primary Outpatient Medical Care SANA OOD

8 Akademic Stefan Mladenov, Str. Sofia Bulgaria 1700

**Study participating centre Ambulatory Practice for Primary Outpatient Medical Care SANA OOD** 8 Akademic Stefan Mladenov, Str. Sofia Bulgaria 1700

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**Study participating centre Individual Ambulatory Practice for Primary Medical Care Dr. Georgi Tsigarovski EOOD** 7 Gergana Str., fl. 1, office 3 Plovdiv Bulgaria 4001

# Sponsor information

**Organisation** Noventure S.L.

Sponsor details Calle Consell de Cent 333 Barcelona Spain 08007 +40 (0)737 640 721 alina.iordache@cebis-int.com

#### Sponsor type

Industry

Website https://www.noventure.com/

Funder(s)

Funder type Industry

**Funder Name** Noventure S.L.

# **Results and Publications**

# Publication and dissemination plan

Planned publication in a high-impact peer-reviewed journal. Additional documents will be provided at a later date.

# Intention to publish date

01/09/2022

# Individual participant data (IPD) sharing plan

The data will be collected under the study confidentiality and for the study purpose only, according to the approved informed consent form. The study data will be archived according to the sponsor requirements and local regulatory requirements.

# IPD sharing plan summary

Not expected to be made available