

# Evaluation of Clinical and laboratory outcomes of Rivaroxaban in short Bowel syndrome patients depending on Long term parenteral nutrition: a prospective cohort study

No registrations found.

<b>Ethical review</b>	Positive opinion
<b>Status</b>	Pending
<b>Health condition type</b>	-
<b>Study type</b>	Observational non invasive

## Summary

### ID

NL-OMON28143

### Source

Nationaal Trial Register

### Brief title

TINCRBEL study

### Health condition

short bowel syndrome, thrombosis, catheter related thrombosis

## Sponsors and support

**Primary sponsor:** Amsterdam University Medical Center

**Source(s) of monetary or material Support:** Investigator initiated study

## Intervention

## Outcome measures

### Primary outcome

Clinical outcomes after one year, related to the laboratory levels per subject:

\* Efficacy: venous thromboembolism, cerebrovascular stroke

\* Safety: (major) bleeding cfr. ISTH criteria, mortality

## **Secondary outcome**

Laboratory outcomes:

\* Inter- and intraindividual variability of rivaroxaban absorption

\* Correlation between anti Xa levels and rivaroxaban plasma concentrations as assessed by LC-MS/MS

Quality of life assessment

\* SF-36 questionnaire

## **Study description**

### **Background summary**

Rationale

Short bowel syndrome patients are patients at high risk for thrombosis and bleeding. In a recent retrospective cohort of 266 patients, 11% developed a recurrent thrombosis and 4.3% developed a bleeding complication within one year. In recent years, direct oral anticoagulants (DOACs) have emerged as a first-line option for the treatment and prevention of venous thromboembolism. A prior pilot study showed that the DOAC rivaroxaban is well absorbed in most patients, but not in all. Therefore in AMC patients with short bowel syndrome, with a lifelong indication for anticoagulation who are prescribed rivaroxaban 20 mg 1dd1, regular "absorption checks" are performed as clinical routine to assure that the adequate plasma levels are obtained. However, in this specific patient population there is no data yet on clinical outcomes showing the relation between the DOAC plasma levels and therapeutic efficacy. This study is conducted to test the following hypotheses:

1) Adequate plasma levels (anti Xa levels and drug concentration) of rivaroxaban in a patient population suffering from short bowel syndrome correlate with favorable clinical outcomes, in particular less recurrent thrombosis.

2) Rivaroxaban in patients suffering from short bowel syndrome who have a lifelong indication for anticoagulants leads towards improvement of quality of life.

## Objective

1) To evaluate attained rivaroxaban plasma levels, assessed anti Xa levels and drug concentration, in patients with short bowel and to relate these blood levels to clinical outcomes.

2) To evaluate the change in quality of life in this patient population.

## Study design and population

We choose to perform a prospective cohort drug study with minimally invasive measurements where patients with short bowel syndrome who are taking rivaroxaban according to clinical routine will be observed during a period of at least one year. Patients  $\geq$  18 years old are eligible for the study if they are diagnosed with SBS by the AMC outpatient clinic endocrinology, if they have a DOAC-registered indication for life long anticoagulants (atrial fibrillation, thromboprophylaxis and treatment of VTE) and if they have no contra-indications for DOAC's. The invasive measurements consist of 12 extra blood draws and 2 SF-36 quality of life questionnaires over a period of half a year. The intervention is not the prescribing of rivaroxaban as rivaroxaban is prescribed for the indication which it was registered for.

## Main study parameters/endpoints:

- Clinical outcomes: VTE, bleeding, mortality- Laboratory outcomes: anti Xa levels and plasma concentrations of rivaroxaban

- SF-36 questionnaire

Nature and extent of the burden and risks associated with participation, benefit and group relatedness: There are no specified burden or risks associated with participation, as in clinical scenario the same assessments would be done, except for 4 extra blood draws per day (and filling in two SF-36 questionnaires on quality of life. As it is a drug study, a moderate risk has been assigned to this study.

## Study objective

Rivaroxaban in patients with short bowel syndrome is absorbed well and improves quality of life.

## Study design

T0 = baseline

T1 = 3 months

T2 = 6 months

## **Intervention**

Blood samples (pharmacokinetic profile) and quality of life questionnaires

## **Contacts**

### **Public**

Roisin Bavalia  
Afdeling: vasculaire geneeskunde  
Meibergdreef 9, kamer F4-139

Amsterdam 1105AZ  
The Netherlands  
020-5667516

### **Scientific**

Roisin Bavalia  
Afdeling: vasculaire geneeskunde  
Meibergdreef 9, kamer F4-139

Amsterdam 1105AZ  
The Netherlands  
020-5667516

## **Eligibility criteria**

### **Inclusion criteria**

In order to be eligible to participate in this study, a subject must meet all of the following criteria:

- Diagnosis of short bowel syndrome (<170 cm after Treitz ligamentum) or intestinal malabsorption, diagnosed by an endocrinologist in the AMC
- Current use of TPN
- Age 18 years or over
- Indication for anticoagulant therapy before the start of TPN (DOAC, vitamin K antagonist, heparin) such as stroke prevention in patients with atrial fibrillation, prevention of venous

thromboembolic events

## Exclusion criteria

### 3. Exclusion criteria

A potential subject who meets any of the following criteria will be excluded from participation in this study

- Symptomatic thrombosis at inclusion
- Major bleeding defined according to the International Society on Thrombosis and Haemostasis(11) in the 6 months prior to start participation
- Contraindication for direct oral anticoagulant
  - o Chronic treatment with NSAID/Cytochrome P450/PgP dependent co-medication
  - o Severe renal (eGFR<15) or hepatic impairment (Child Pugh score B or C) o Pregnancy or inadequate use of contraception
- Gastrectomy or
  - Medical or psychological condition that would not permit completion of the study or signing of informed consent, including life expectancy less than six months, or unwillingness to sign informed consent;
- Non-compliance or inability to adhere to treatment or to the follow-up visits.

## Study design

### Design

Study type:	Observational non invasive
Intervention model:	Other
Allocation:	Non controlled trial
Masking:	Open (masking not used)
Control:	N/A , unknown

## Recruitment

NL  
Recruitment status: Pending  
Start date (anticipated): 01-08-2018  
Enrollment: 30  
Type: Anticipated

## Ethics review

Positive opinion  
Date: 08-08-2018  
Application type: First submission

## Study registrations

### Followed up by the following (possibly more current) registration

No registrations found.

### Other (possibly less up-to-date) registrations in this register

No registrations found.

## In other registers

### Register ID

NTR-new NL7225

NTR-old NTR7425

Other METC Amsterdam UMC // ABR Toetsingonline : 2018\_84 // NL63863.018.18

## Study results