

# DUAL Pathway Inhibition to Improve Endothelial Function in Peripheral Artery Disease

Gepubliceerd: 22-09-2020 Laatst bijgewerkt: 18-08-2022

The investigators hypothesized that a combination of low-dose rivaroxaban and antiplatelet therapy would improve endothelial function in PAD patients.

<b>Ethische beoordeling</b>	Positief advies
<b>Status</b>	Werving gestopt
<b>Type aandoening</b>	-
<b>Onderzoekstype</b>	Interventie onderzoek

## Samenvatting

### ID

NL-OMON28220

### Bron

Nationaal Trial Register

### Verkorte titel

DUAL-PAD

### Aandoening

Peripheral arterial disease

### Ondersteuning

**Primaire sponsor:** Radboud University Medical Center

**Overige ondersteuning:** Bayer B.V.

### Onderzoeksproduct en/of interventie

### Uitkomstmaten

#### Primaire uitkomstmaten

The primary outcome measure is the CAR after 3 months combination treatment. The change

in proportion of patients with CAR-constriction from baseline (Aspirin alone) to 3 months after adding low dose rivaroxaban will be compared for both study groups (A and B).

## Toelichting onderzoek

### Achtergrond van het onderzoek

Peripheral artery disease (PAD) is a manifestation of systemic atherosclerosis, causing patients to be at high risk of major adverse cardiovascular and limb events. Therefore, single antiplatelet therapy is recommended when patients are symptomatic or have undergone revascularization. Rivaroxaban (2.5 mg twice a day) in addition to Acetylsalicylic acid (ASA) (100 mg once a day) has shown to be effective in reducing morbidity and mortality from major cardiovascular and limb events in patients with stable peripheral or carotid artery disease compared to Aspirin alone. Although a higher rate of major bleeding was detected, the incidence of fatal or critical organ bleedings was not increased.

Endothelial dysfunction is one of the first signs of atherosclerosis and is related to major cardiovascular events. The level of vascular endothelial dysfunction can be measured using the carotid artery reactivity (CAR) test. The investigators hypothesized that a combination of low-dose rivaroxaban and antiplatelet therapy would improve endothelial function in PAD patients. The aim is to study the effectiveness of this combination therapy in improving vascular endothelial function in patients with stable or symptomatic PAD.

Therefore the investigators will study two clinical cohorts of lower extremity PAD patients ( $n=159$ ) with intermittent claudication (group A: Rutherford stages 1-3) or critical limb ischemia with pain at rest and/or foot ulcers (group B: Rutherford stages 4-6) who have an indication for single antiplatelet therapy.

ASA100mg once a day + 2.5 mg rivaroxaban twice a day will be given during 3 months, preceded by a run-in period of ASA alone as reference.

The change in proportion of patients with CAR-constriction from baseline (ASA alone) to 3 months after combination treatment with low dose rivaroxaban and ASA (100mg once a day) will be compared for both study groups (A and B).

### Doel van het onderzoek

The investigators hypothesized that a combination of low-dose rivaroxaban and antiplatelet therapy would improve endothelial function in PAD patients.

### Onderzoeksopzet

3 months

## Onderzoeksproduct en/of interventie

Aspirin 100mg once a day + 2.5 mg rivaroxaban twice a day (combination therapy). The use of Aspirin alone (100 mg once a day) during the run-in period is used as reference.

## Contactpersonen

### Publiek

Radboudumc  
Loes Willems

+31 24 361 5333

### Wetenschappelijk

Radboudumc  
Loes Willems

+31 24 361 5333

## Deelname eisen

### Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

- Symptomatic or stable lower extremity PAD patients (Rutherford stages 1-6) with an indication for single antiplatelet therapy according to international (ESC) guidelines
- >16 years old

### Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

- Patients having or at risk of major bleeding:
  - Gastrointestinal ulceration
  - Current malignant neoplasms
  - Brain or spinal injury
  - Brain, spinal or ophthalmic surgery
  - Intracranial hemorrhage

- Known or suspected esophageal varices
- Arteriovenous malformations
- Major intraspinal or intracerebral vascular abnormalities
- Hepatic disease associated with coagulopathy and clinically relevant bleeding risk, including cirrhotic patients with Child Pugh B and C
- Use of selective serotonin reuptake inhibitors or serotonin-norepinephrine reuptake inhibitors
- Patients with prosthetic valves
- Patients with a history of asthma attacks caused by salicylates
- Severe renal impairment (creatinine clearance <30 ml/min)
- Systemic treatment with strong CYP3A4 and/or P-glycoprotein inhibitors (i.e. azole-antimyotics, HIV protease inhibitors)
- Concomitant treatment with other anticoagulants
- Concomitant treatment with methotrexate at a weekly dosage of >15 mg
- Pregnant or lactating
- Known hypersensitivity to Aspirin or rivaroxaban

## Onderzoeksopzet

### Opzet

Type:	Interventie onderzoek
Onderzoeksmodel:	Anders
Toewijzing:	Niet-gerandomiseerd
Blinding:	Open / niet geblindeerd
Controle:	N.v.t. / onbekend

### Deelname

Nederland	
Status:	Werving gestopt
(Verwachte) startdatum:	08-06-2020
Aantal proefpersonen:	159
Type:	Werkelijke startdatum

### Voornemen beschikbaar stellen Individuele Patiënten Data (IPD)

**Wordt de data na het onderzoek gedeeld:** Nog niet bepaald

## Ethische beoordeling

Positief advies

Datum: 22-09-2020

Soort: Eerste indiening

## Registraties

### Opgevolgd door onderstaande (mogelijk meer actuele) registratie

Geen registraties gevonden.

### Andere (mogelijk minder actuele) registraties in dit register

Geen registraties gevonden.

### In overige registers

Register	ID
NTR-new	NL8908
CCMO	NL2019-6036

## Resultaten