# Evaluation of the peripheral circulation and vascular reactivity in patients with different degrees of cirrhosis

Published: 13-12-2006 Last updated: 09-05-2024

To investigate peripheral circulation in the hyperdynamic circulation of cirrhotic patients and its correlation with the Child-Pugh score.

Ethical review	Approved WMO
Status	Pending
Health condition type	Other condition
Study type	Observational non invasive

# **Summary**

### ID

NL-OMON30284

**Source** ToetsingOnline

**Brief title** Peripheral circulation in cirrhosis

### Condition

- Other condition
- · Hepatic and hepatobiliary disorders

# **Synonym** peripheral circulation; cirrhosis

#### **Health condition**

microcirculation

#### **Research involving**

Human

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### **Sponsors and support**

Primary sponsor: Academisch Medisch Centrum Source(s) of monetary or material Support: Ministerie van OC&W

### Intervention

Keyword: cirrhosis, monitoring, peripheral circulation

### **Outcome measures**

#### **Primary outcome**

Vascular reactivity as measured by changes in PFI and NIRS in a human reactive

hyperaemia model.

#### Secondary outcome

Peripheral perfusion as measured by PFI and OPS; peripheral tissue oxygenation

as measured by NIRS.

# **Study description**

#### **Background summary**

Liver cirrhosis is associated with a hyperdynamic circulation characterized by vasodilation, low arterial pressure and high cardiac output. The vasodilation is most evident in the splanchnic circulation. Although peripheral vasodilation has been associated to the cirrhosis-induced hyperdynamic circulation, its role in these patients is still subject of controversy. More research is needed to define if the peripheral vascular tone in cirrhosis is constricted or dilated. Also, impaired vascular reactivity has been associated with the severity of cirrhosis. Peripheral circulation and vascular reactivity can be assessed using noninvasive techniques such as peripheral perfusion index (PFI), near infrared spectroscopy (NIRS) and orthogonal polarization spectral (OPS). This has never been done in cirrhotic patients.

#### **Study objective**

To investigate peripheral circulation in the hyperdynamic circulation of cirrhotic patients and its correlation with the Child-Pugh score.

### Study design

Prospective and observational study.

### Study burden and risks

This research entails negligible risks and minimal discomfort.

# Contacts

**Public** Academisch Medisch Centrum

Dr. Molewaterplein 3015-GD Nederland **Scientific** Academisch Medisch Centrum

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# **Trial sites**

## **Listed location countries**

Netherlands

# **Eligibility criteria**

#### Age

Adults (18-64 years) Elderly (65 years and older)

### **Inclusion criteria**

Cirrhosis Child-Pugh B and C.

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### **Exclusion criteria**

Patients with one of the following non-cirrhotic diseases: arterial hypertension, diabetes mellitus, and peripheral vascular disease.

# Study design

### Design

Study type: Observational non invasive		
Masking:	Open (masking not used)	
Control:	Uncontrolled	
Primary purpose:	Diagnostic	

### Recruitment

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NL	
Recruitment status:	Pending
Start date (anticipated):	01-12-2006
Enrollment:	60
Туре:	Anticipated

# **Ethics review**

Approved WMO	
Date:	13-12-2006
Application type:	First submission
Review commission:	METC Erasmus MC, Universitair Medisch Centrum Rotterdam (Rotterdam)

# **Study registrations**

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

No registrations found.

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

No registrations found.

## In other registers

Register

ССМО

**ID** NL14621.078.06