

# The Progression and Regression of precancerous gastric lesions: A prospective cohort study; The PROREGAL study

Published: 23-07-2009

Last updated: 24-05-2024

Identification of patients with a high risk of progression of premalignant gastric lesions, in order to compose guidelines for surveillance and follow up.

<b>Ethical review</b>	Approved WMO
<b>Status</b>	Recruiting
<b>Health condition type</b>	Malignant and unspecified neoplasms gastrointestinal NEC
<b>Study type</b>	Observational invasive

## Summary

### ID

NL-OMON53080

### Source

ToetsingOnline

### Brief title

PROREGAL

### Condition

- Malignant and unspecified neoplasms gastrointestinal NEC
- Bacterial infectious disorders
- Gastrointestinal neoplasms malignant and unspecified

### Synonym

precancerous lesions of the stomach, Premalignant gastric lesions

### Research involving

Human

## Sponsors and support

**Primary sponsor:** Erasmus MC, Universitair Medisch Centrum Rotterdam

**Source(s) of monetary or material Support:** Ministerie van OC&W

## Intervention

**Keyword:** atrophic gastritis, H. Pylori, intestinal metaplasia, progression

## Outcome measures

### Primary outcome

Progression of premalignant gastric lesions, both in terms of distribution and severity.

### Secondary outcome

Identification of the risk factors, which play a role in progression or regression of premalignant gastric lesions.

Evaluation of the existing guideline for premalignant lesions of the stomach.

Evaluation of the correlation between serum pepsinogen I, II and gastrin and the histological severity and extent and intragastric distribution of premalignant gastric lesions.

To assess the involvement of genetic risk factors on oxidative damage induced by innate immune cells, immune cell function, and the eradication of *Helicobacter pylori*.

Evaluation of current guidelines

## Study description

### Background summary

The second leading cause of cancer related mortality in the world is gastric

cancer. The highest incidences are found Eastern Asia, Eastern Europe and South America and even though the incidence rate is declining, more cases are found every year due to aging of the world population. In the Netherlands it remains one of the most common cancers with an incidence of 2000 cases a year.

In 1992 Correa described a possible pattern of human gastric carcinogenesis. *Helicobacter Pylori* is considered as the starting point of this sequence, which leads to atrophic gastritis, intestinal metaplasia and dysplasia and eventually ends in intestinal gastric carcinoma in 1-2%.

Since only 1-2% of the 7000 new cases with precancerous gastric lesions develop gastric carcinoma, it is of interest which patients show progression early on, and which patients to offer surveillance in a certain time period. Even though it is clear that the risk of progression increases with the kind of lesion found, it is not clear which patient progress from, for example, atrophic gastritis to intestinal metaplasia and from intestinal metaplasia to dysplasia. Despite previously conducted studies no consensus exists concerning *H. pylori* eradication. It is not clear whether *H. pylori* eradication has any effect on the progression or regression of premalignant lesions. *H. pylori* eradication has shown to diminish gastritis in infected individuals and to prevent the development of premalignant gastric lesions. However the effect on atrophy, intestinal metaplasia or dysplasia remains a subject of discussion.

An earlier retrospective study by De Vries, et al has shown that every year 0,1% of the patients with gastric atrophy, 0,25% of the patients with intestinal metaplasia and 6% of the patients with dysplasia progress to gastric carcinoma. The specific patients who show progression or a constant stadium of the sequence or show regression have not been identified. It is however clear that a combination of *H. pylori* virulence, host genetic factors and lifestyle is the major part of the risk profile. When it would be possible to identify the effect of *Helicobacter pylori* eradication and the specific groups of patients with the highest risk of progression, requiring gastric cancer screening and/ or surveillance, guidelines could be made and a uniform approach could be created.

## **Study objective**

Identification of patients with a high risk of progression of premalignant gastric lesions, in order to compose guidelines for surveillance and follow up.

## **Study design**

Observational cohort study; a multicenter, prospective study. The study will be initiated and guided by the Erasmus MC, Rotterdam. Intended participating centers include; VU Medical Center, Amsterdam; Medical Center Leeuwarden, Leeuwarden, Deventer Ziekenhuis, Deventer; Rijnstate Medical Center, Arnhem; Canisius Wilhelmina Ziekenhuis, Nijmegen; IJsselland Ziekenhuis, Capelle aan den IJssel; het Sint Franciscus Gasthuis, Rotterdam, and the AvL-NKI, Amsterdam; Meander Medisch Centrum, Amersfoort, Maasstad ziekenhuis, Rotterdam

## Study burden and risks

Patients will be asked to give a blood sample when endoscopy is performed, which barely contains any risks for the participants. Upper gastrointestinal endoscopy with biopsy sampling is considered to be a safe procedure and complications are rare (1 in 3000 endoscopies).

## Contacts

### Public

Erasmus MC, Universitair Medisch Centrum Rotterdam

Doctor Molewaterplein 40 Doctor Molewaterplein 40  
Rotterdam 3015 GD  
NL

### Scientific

Erasmus MC, Universitair Medisch Centrum Rotterdam

Doctor Molewaterplein 40 Doctor Molewaterplein 40  
Rotterdam 3015 GD  
NL

## Trial sites

### Listed location countries

Netherlands

## Eligibility criteria

### Age

Adults (18-64 years)

### Inclusion criteria

Patients with a previous diagnosis of atrophic gastritis, intestinal metaplasia and/or dysplasia of the gastric mucosa  
Age 18 years or older

## Exclusion criteria

Previous upper gastrointestinal surgery  
Previous diagnosis of gastric cancer or any other malignancy not being in remission  
Subjects with severe concomittant illness limiting their expected survival to less than 2 years  
Subject with portal hypertension  
Subjects with proven CDH1 mutation.

## Study design

### Design

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

### Recruitment

NL  
**Recruitment status:** Recruiting  
**Start date (anticipated):** 18-08-2009  
**Enrollment:** 960  
**Type:** Actual

### Medical products/devices used

**Registration:** No

## Ethics review

Approved WMO  
**Date:** 23-07-2009  
**Application type:** First submission  
**Review commission:** METC Erasmus MC, Universitair Medisch Centrum Rotterdam (Rotterdam)

Approved WMO	
Date:	23-12-2011
Application type:	Amendment
Review commission:	METC Erasmus MC, Universitair Medisch Centrum Rotterdam (Rotterdam)
Approved WMO	
Date:	25-10-2012
Application type:	Amendment
Review commission:	METC Erasmus MC, Universitair Medisch Centrum Rotterdam (Rotterdam)
Approved WMO	
Date:	29-04-2014
Application type:	Amendment
Review commission:	METC Erasmus MC, Universitair Medisch Centrum Rotterdam (Rotterdam)
Approved WMO	
Date:	21-07-2017
Application type:	Amendment
Review commission:	METC Erasmus MC, Universitair Medisch Centrum Rotterdam (Rotterdam)
Approved WMO	
Date:	31-01-2020
Application type:	Amendment
Review commission:	METC Erasmus MC, Universitair Medisch Centrum Rotterdam (Rotterdam)
Approved WMO	
Date:	06-04-2021
Application type:	Amendment
Review commission:	METC Erasmus MC, Universitair Medisch Centrum Rotterdam (Rotterdam)
Approved WMO	
Date:	08-07-2021
Application type:	Amendment
Review commission:	METC Erasmus MC, Universitair Medisch Centrum Rotterdam (Rotterdam)
Approved WMO	
Date:	28-10-2021
Application type:	Amendment

Review commission:	METC Erasmus MC, Universitair Medisch Centrum Rotterdam (Rotterdam)
Approved WMO Date:	01-11-2022
Application type:	Amendment
Review commission:	METC Erasmus MC, Universitair Medisch Centrum Rotterdam (Rotterdam)
Approved WMO Date:	14-03-2024
Application type:	Amendment
Review commission:	METC Erasmus MC, Universitair Medisch Centrum Rotterdam (Rotterdam)
Approved WMO Date:	03-05-2024
Application type:	Amendment
Review commission:	METC Erasmus MC, Universitair Medisch Centrum Rotterdam (Rotterdam)

## 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
CCMO	NL27171.078.09