# Vitamin Deficiencies and Supplementation in Morbidly obese

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The main objective is to optimize the supplementation of vitamins and minerals to prevent postoperative deficiencies after MB / RYGB or GS on the long term. We also examined whether the number of outpatient visits, blood tests, and costs can be...

Ethical reviewApproved WMOStatusRecruitment stoppedHealth condition typeVitamin related disordersStudy typeObservational non invasive

# **Summary**

## ID

NL-OMON38253

#### Source

**ToetsingOnline** 

**Brief title** VITAAL 2

# **Condition**

Vitamin related disorders

## **Synonym**

vitamin deficienties

## Research involving

Human

# **Sponsors and support**

**Primary sponsor:** Rijnstate Ziekenhuis

Source(s) of monetary or material Support: eigen financiering

## Intervention

**Keyword:** morbily obese, roux-en-y Gastric Bypass, vitamin deficiencies

## **Outcome measures**

## **Primary outcome**

Number of vitamin deficiencies

Number of outpatient visits per patient

Reduction in number of vitamin B12 deficiencies after treatment with

multivitamin tablets.

For precise details, see the research (Chapter 4 aims of the study)

## **Secondary outcome**

For precise details, see the research (Chapter 4 aims of the study)

# **Study description**

# **Background summary**

The number of bariatric surgeries has increased the past decades. There are several types of bariatric surgery; the most important are the gastric band, Gastric Sleeve and Roux - en-Y Gastric Bypass (RYGB). The RYGB is in our centre the most common type of bariatric surgery. The effect of the RYGB is a combination between malabsorption and restriction. In addition to the benefits that entails RYGB (weight reduction, improvement of co-morbidities, improved quality of life, etc. ) there are also disadvantages, including vitamin deficiencies. Despite the advice to use 150% RDA of multivitamins, additional supplementation of in particular iron, vitamin B12, Folic Acid, Vitamin D and Calcium are necessary. Almost 40% of the postoperative bariatric patients who visit our outpatient department are coming for examination or treatment of a vitamin or mineral deficiency. Any reduction in the number of deficiencies would not only reduce the morbidity of the patients but also the pressure on postoperative outpatient clinic. Based on literature on vitamin and mineral deficiencies a specifically multivitamin was developed for patients with Gastric Band, GS and RYGB. This multivitamin is freely available to all patients since 2010. In this multivitamin, the proportions of vitamins are adjusted so that the risk of shortages should be reduced and high values should be avoided.

## Study objective

The main objective is to optimize the supplementation of vitamins and minerals to prevent postoperative deficiencies after MB / RYGB or GS on the long term. We also examined whether the number of outpatient visits, blood tests, and costs can be reduced. Finally, this study compares the effect multivitamin tablets and vitamine B12 injections on the development of vitamin B12 deficiencies. For precise details, see the researchprotocol (Chapter 4 aims of the study)

# Study design

The majority of the study will be retrospectively on patients who underwent in the past MB / gastric sleeve or RYGB.

The treatment of vitamin B12 deficiencies with tablets or injections (hydroxocobalamin) will be done prospectively.

For precise details, see the researchprotocol (Chapter 5 methods)

## Study burden and risks

All visits will be within the regular care as that comes standard after bariatric surgery.

# **Contacts**

#### **Public**

Rijnstate Ziekenhuis

Wagnerlaan 55 Arnhem 6800TA NL

#### **Scientific**

Rijnstate Ziekenhuis

Wagnerlaan 55 Arnhem 6800TA NL

# **Trial sites**

## **Listed location countries**

Netherlands

# **Eligibility criteria**

## Age

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

# Inclusion criteria

Patients who underwent RYGB; Patients who developed a vitamin B12 deficiency postoperatively

# **Exclusion criteria**

Creatinine> 150 micromol / L;Liver enzymes> 2 times the upper limit;Previous operations on the gastrointestinal tract (except RYGB);Intercurrerende disease;Gastrointestinal disease;psychiatric illness;known pregnancy

# Study design

# Design

Study phase: 4

Study type: Observational non invasive

Masking: Open (masking not used)

Control: Uncontrolled

Primary purpose: Treatment

## Recruitment

NL

Recruitment status: Recruitment stopped

Start date (anticipated): 23-10-2014

Enrollment: 50

Type: Actual

# Medical products/devices used

Product type: Medicine

Brand name: Hydroxocobalamine

Generic name: Hydroxocobalamine

Registration: Yes - NL intended use

# **Ethics review**

Approved WMO

Date: 03-01-2014

Application type: First submission

Review commission: CMO regio Arnhem-Nijmegen (Nijmegen)

Approved WMO

Date: 05-06-2014

Application type: First submission

Review commission: CMO regio Arnhem-Nijmegen (Nijmegen)

# **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

EudraCT EUCTR2013-004835-60-NL

CCMO NL47058.091.13