# Using adalimumab serum concentration to choose a subsequent biological DMARD in rheumatoid arthritis patients failing adalimumab treatment

No registrations found.

**Ethical review** Positive opinion

**Status** Recruiting

Health condition type -

Study type Interventional

# **Summary**

#### ID

NL-OMON24414

Source

NTR

**Brief title** 

ADDORA-switch

**Health condition** 

Rheumatoid arthritis

## **Sponsors and support**

**Primary sponsor:** Reade Rheumatology Research Institute

Source(s) of monetary or material Support: ZonMw, Sanquin diagnostics

#### Intervention

#### **Outcome measures**

#### **Primary outcome**

The primary objective is to evaluate whether a switching strategy based on adalimumab

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concentration is superior to usual care switching in rheumatoid arthritis patients failing adalimumab treatment with regard to mean time weighted DAS28CRP at 28 weeks.

#### **Secondary outcome**

The secondary objectives include comparing response rates (EULAR good response), percentages of patients reaching low disease activity or remission (DAS28-CRP<2.9/2.4), percentages of non-responders to the subsequent biological, number and severity of adverse events and co-medication/rescue-medication use

# **Study description**

#### **Background summary**

Over the last decades biopharmaceuticals such as agents against tumor necrosis factor (TNF), are frequently prescribed to optimize rheumatoid arthritis treatment. Although TNFinhibitors such as adalimumab, etanercept and infliximab, have improved the treatment of rheumatoid arthritis, a proportion of patients discontinue the treatment because of inefficacy or intolerance. Where TNF-inhibitor have failed, mainly two treatment approaches are available: switch to another TNF-inhibitor or to a biological with a different mode of action (notably rituximab, abatacept or tocilizumab) or to a target synthetic DMARDs. The EULAR recommendation for the management of rheumatoid arthritis advocate that any biologic agent including a subsequent TNF-inhibitor can be used with equal chance for effect in case of non-response to a previous TNF-inhibitor. Although it seems that indeed on a group level response to a non-TNF-inhibitor is comparable to a second TNF-inhibitor after the first TNFinhibitor has failed, using therapeutic drug monitoring could identify subgroups of patient who would benefit more from either a non TNF-inhibitor or a TNF-inhibitor as next treatment. Here we explore the underlying pathophysiological mechanisms for this hypothesis. Nonresponse on adalimumab in RA can have different causes. Firstly, the patient might not be sensitive to TNF blockade at all, or the patient develops this trait later on (primary nonresponse or secondary nonresponse). In these patients, switching to a non-TNF-inhibitor might conceptually be superior to starting a second TNF-inhibitor. However, in other patients nonresponse (either primary or secondary) might be caused by inefficient drug concentration because of development of antidrug antibodies against adalimumab. In these patients a TNFinhibitor might be just as effective as a non-TNF-inhibitor, as these patients have drug-but not class failure. Thus, testing of adalimumab levels might be helpful in channelling patients to their most optimal treatment. However, a diagnostic study comparing a serum concentration guided versus usual care switching strategy has not yet been performed.

#### Study objective

We hypothesis that a switching strategy based on adalimumab concentration is superior to usual care switching in rheumatoid arthritis patients failing adalimumab.

#### Study design

-2,4,12,24 weeks

#### Intervention

Rheumatoid arthritis patients failing adalimumab treatment will be randomly assigned to switching strategy using drug concentration or usual care switching

## **Contacts**

#### **Public**

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#### **Scientific**

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# **Eligibility criteria**

#### Inclusion criteria

Rheumatoid arthritis patient, according to ACR 1987 or ACR/EULAR 2010 criteria; Recently failed treatment with adalimumab (defined as DAS28-CRP >2.9) and not treated with a subsequent biological DMARD (bDMARD) or target synthetic DMARD (tsDMARD) Who has agreed to participate (written informed consent);

Received adalimumab for at least 10 weeks in standard dosing (40mg subcutaneously every other week, either in monotherapy or combined with methotrexate or leflunomide); Stop adalimumab due to inefficacy, either alone or combined with side effects; Age 16 years or older.

#### **Exclusion criteria**

Treatment with another TNF inhibitor prior to adalimumab

Treatment with all non-TNFi options (abatacept, rituximab, sarilumab and tocilizumab) prior

to adalimumab

Scheduled surgery during the follow-up of the study or other pre-planned reasons for treatment discontinuation

Life expectancy shorter than follow-up period of the study;

No possibility to safely receive an TNF-inhibitor or a non TNF-inhibitor

# Study design

### **Design**

Study type: Interventional

Intervention model: Parallel

Allocation: Randomized controlled trial

Masking: Double blinded (masking used)

Control: Active

#### Recruitment

NL

Recruitment status: Recruiting
Start date (anticipated): 31-07-2020

Enrollment: 84

Type: Anticipated

## **IPD** sharing statement

Plan to share IPD: Yes

#### Plan description

To avoid duplication of research, the gathered data will be shared once all desirable data analysis have been performed and the results are published

# **Ethics review**

Positive opinion

Date: 03-12-2019

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 NL8210

Other

Commissie Mensgebonden Onderzoek Regio Arnhem-Nijmegen: METC 2019-5397

CCMO NL69841.091.19 EudraCT 2019-001754-25

# **Study results**

#### **Summary results**

N/A