

# Leflunomide and Hydroxychloroquine combination therapy for primary Sjögren's Syndrome

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<b>Ethische beoordeling</b>	Niet van toepassing
<b>Status</b>	Werving nog niet gestart
<b>Type aandoening</b>	-
<b>Onderzoekstype</b>	Interventie onderzoek

## Samenvatting

### ID

NL-OMON22318

### Bron

Nationaal Trial Register

### Verkorte titel

RepurpSS-II

### Aandoening

Primary Sjögren's Syndrome

### Ondersteuning

**Primaire sponsor:** UMC Utrecht

**Overige ondersteuning:** ZonMW

### Onderzoeksproduct en/of interventie

### Uitkomstmaten

#### Primaire uitkomstmaten

Primary endpoint is change in ESSDAI scores from baseline to endpoint at 24 weeks.

## Toelichting onderzoek

### Achtergrond van het onderzoek

Primary Sjögren's Syndrome (pSS) affects 0.5-1% of the general population (female to male ratio 9:1) which makes it the second most prevalent autoimmune rheumatic disorder after rheumatoid arthritis (RA). There is still a large unmet medical need to inhibit morbidity, including severe dryness and invalidating fatigue, and to reduce the risk development of extraglandular manifestations and B cell malignancies (34). Currently, no therapeutic option is available for this debilitating disease.

Recently, we conducted a randomized, double-blind, placebo-controlled, monocenter, phase 2a trial in patients with pSS. Clinically active (European Sjogren syndrome disease-activity index/ESSDAI $\geq$ 5) patients were randomized to receive leflunomide (LEF) 20mg and hydroxychloroquine (HCQ) 400mg daily or placebo/placebo (2:1) for 24 weeks. Twenty-one patients received LEF/HCQ therapy and eight received placebo. Overall, LEF/HCQ appeared to be safe and showed a meaningful clinical improvement. From 0 to 24 weeks, ESSDAI scores, the primary clinical endpoint, were on average 4.35 points (95% CI -7.44707 to -1.25178,  $p=0.0078$ ) lower in the LEF/HCQ group compared to the placebo group (47).

Hence, repurposing LEF and HCQ using combination-therapy for the treatment of pSS holds great therapeutic potential. However, the small sample size warrants replication in larger RCTs before its implementation in daily clinical practice. We hypothesize that the combination of LEF/HCQ significantly and safely inhibits activity of primary Sjögren's syndrome and molecular fingerprints will allow prediction of therapy response as well as identification of pathways that confer lack of response.

#### Objectives:

- 1) Assess clinical efficacy and safety of Leflunomide/Hydroxychloroquine in pSS patients in a phase IIb placebo-controlled randomized clinical trial at 24 weeks, followed by a single-arm crossover and an open extension (total duration of 48 weeks)
- 2) Identify predictive clinical or molecular measures for response to therapy.
- 3) Pinpoint underlying molecular pathways associated with lack of clinical response.

Study design: Single-center, randomized, double-blind placebo controlled trial, followed by a single arm cross-over open extension

Study population: In total 52 patients with primary Sjögren's syndrome, 18-75 years, will be treated with either verum ( $n=26$ ) or placebo ( $n=26$ ).

Intervention: For 24 weeks, patients will receive 1 capsule with LEF (20 mg) and 2 capsules with HCQ (2x 200 mg) orally once per day as compared to 1 capsule with LEF-placebo and 2 capsules with HCQ-placebo once per day. For patients with a bodyweight  $<60$  kg the HCQ dosage will be reduced to 200 mg a day. After 24 weeks all patients remain blinded and placebo-patients will receive LEF and HCQ (open label extension).

Main study parameters/endpoints: Primary endpoint is change in ESSDAI scores from baseline to endpoint at 24 weeks. The secondary endpoint includes changes in unstimulated/stimulated whole saliva output, ESSPRI (European SS patient reported index), ocular dryness and serological and blood inflammatory features at 24 weeks interval. Exploratory endpoints include: ESSDAI and UWS at 48 weeks and other clinical measures at 48 weeks (ESSPRI, etc.) and the validation of possible biomarkers to predict response to therapy.

## **Doel van het onderzoek**

We hypothesize that the combination of LEF/HCQ significantly and safely inhibits activity of primary Sjögren's syndrome and molecular fingerprints will allow prediction of therapy response as well as identification of pathways that confer lack of response.

## **Onderzoeksopzet**

Baseline, week 8, week 16, week 24, week 32, week 40, week 48.

## **Onderzoeksproduct en/of interventie**

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# **Contactpersonen**

## **Publiek**

UMC Utrecht  
Safae Hamkour

xxxxx

## **Wetenschappelijk**

UMC Utrecht  
Safae Hamkour

xxxxx

## Deelname eisen

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

1. Women and men, aged 18-75 years
2. pSS diagnosed according to the ACR-EULAR 2016 Criteria for pSS
3. ESSDAI  $\geq 5$
4. Use of a reliable method of contraception
5. Signed written informed consent

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

1. Since LEF has teratogenic effects patients who are pregnant or who are wishing to conceive (also men with a female partner of childbearing age) during or within two years after the study are excluded. During the screenings visit, pregnancy will be excluded in all female patients of childbearing age.
2. Patients that breastfeed
3. Patients with therapy resistant hypertension are excluded since this might be aggravated by LEF
4. In case of maculopathy or retinitis pigmentosa the patient will be excluded from participation. Examination by an ophthalmologist will take place on indication.
5. Patients with secondary Sjögren's Syndrome (Sjögren's syndrome associated with other connective tissue disease)
6. Patients with hepatic or renal impairment
7. Patients with a severe infection (including hepatitis B,C or HIV)
8. Presence of a malignancy other than mucosa-associated lymphoid tissue lymphoma (MALT lymphoma)
9. Significant cytopenia
10. Concomitant heart- and inflammatory bowel disease
11. Patients suffering from sarcoidosis
12. Usage of HCQ or LEF <6 months prior to inclusion
13. Usage of immunosuppressive drugs, with the exception of a stable dose of non-steroidal inflammatory drugs and a stable, low dose ( $\leq 7.5$  mg) of oral corticosteroids
14. Inadequate mastery of the Dutch language

## Onderzoeksopzet

## Opzet

Type:	Interventie onderzoek
Onderzoeksmodel:	Cross-over
Toewijzing:	N.v.t. / één studie arm
Blindering:	Dubbelblind
Controle:	Placebo

## Deelname

Nederland	
Status:	Werving nog niet gestart
(Verwachte) startdatum:	01-11-2020
Aantal proefpersonen:	52
Type:	Verwachte startdatum

## Voornemen beschikbaar stellen Individuele Patiënten Data (IPD)

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

## Ethische beoordeling

Niet van toepassing	
Soort:	Niet van toepassing

## Registraties

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

ID: 55143  
Bron: ToetsingOnline  
Titel:

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

Geen registraties gevonden.

## In overige registers

Register	ID
NTR-new	NL8756
CCMO	NL73828.041.20
OMON	NL-OMON55143

## Resultaten