Leflunomide or methotrexate plus subcutaneous tumour necrosis factor-alpha (TNF-alpha) blocking agents in rheumatoid arthritis

Submission date	Recruitment status	Prospectively registered
18/05/2010	No longer recruiting	☐ Protocol
Registration date	Overall study status	Statistical analysis plan
06/07/2010	Completed	☐ Results
Last Edited	Condition category	Individual participant data
06/07/2010	Musculoskeletal Diseases	Record updated in last year

Plain English summary of protocol

Not provided at time of registration

Contact information

Type(s)

Scientific

Contact name

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Contact details

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Additional identifiers

Protocol serial number N/A

Study information

Scientific Title

Comparison between leflunomide or methotrexate plus subcutaneous tumour necrosis factoralpha (TNF-alpha) blocking agents in rheumatoid arthritis: a two year open label study

Study objectives

To compare the effectiveness and safety of a therapeutic regimen associating subcutaneous anti-tumour necrosis factor-alpha (anti-TNF-alpha) agents etanercept (ETN) and adalimumab (ADA) with leflunomide (LEF) or methotrexate (MTX), in a two year open-label study performed in clinical practice.

Background information:

New biological disease-modifying antirheumatic drugs (DMARDs) became available in 1999, including agents targeting anti-TNF-alpha agents. Among these, infliximab (INF), etanercept (ETN) and adalimumab (ADA) have been shown to reduce signs and symptoms of RA and to protect joints from structural damage in double-blind placebo-controlled randomised trials. Certain anti-TNF-alpha agents can be prescribed alone, but randomised trials have consistently demonstrated that the efficacy of these biological agents is significantly increased by concomitant MTX. However, not all patients tolerate or respond to MTX, and anti-TNF-alpha agents are commonly prescribed with DMARDs other than MTX in clinical routine.

Ethics approval required

Old ethics approval format

Ethics approval(s)

Local ethical committee of ASL10 Florence approved in 2005 (ref: CTS/2005/31057)

Study design

Randomised open label active controlled trial

Primary study design

Interventional

Study type(s)

Treatment

Health condition(s) or problem(s) studied

Rheumatoid arthritis (RA)

Interventions

Leflunomide 20 mg/ day or methotrexate 10-15 mg/ once week plus etanercept 50 mg /once week or adalimumab 14 mg/ every other week.

Total duration 104 weeks.

Intervention Type

Drug

Phase

Phase IV

Drug/device/biological/vaccine name(s)

Etanercept, adalimumab, leflunomide, methotrexate

Primary outcome(s)

All patients were assessed at the beginning of the study (baseline) and every 3 months for 2 years by measuring 28-item Disease Activity Scale (DAS-28) score and DAS-CRP score. Remission was considered for a value less than 2.6 while low disease activity was considered for a value between 2.6 and 3.2.

Key secondary outcome(s))

Effectiveness and safety of both groups assessed using the value of DAS 28 and DAS-CRP score every 6 months.

Completion date

20/09/2007

Eligibility

Key inclusion criteria

- 1. Adult patients (aged between 26 and 86 years, either sex) with active rheumatoid arthritis (RA) defined as follows: greater than or equal to 6 swollen joints and greater than or equal to 6 painful joints and at least two of the following:
- 1.1. Morning stiffness greater than or equal to 45 minutes
- 1.2. Erythrocyte sedimentation rate (ESR) greater than or equal to 28 mm/first hour
- 1.3. C-reactive protein (CRP) greater than or equal to 2.0 mg/dL
- 2. Stabilised low-dose of prednisone (less than or equal to 7.5 mg)
- 3. Stable dose of non-steroidal anti-inflammatory drugs (NSAIDs)
- 4. Intrarticular injections of corticosteroids not allowed

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Adult

Sex

All

Key exclusion criteria

Patients in stable therapy with LEF or MTX with a non-controlled disease activity with association therapy using a biological infusion (infliximab, rituximab, abatacept) or with a high dose of prednisone (greater than 10 mg)

Date of first enrolment

05/05/2005

Date of final enrolment

20/09/2007

Locations

Countries of recruitment

Italy

Study participating centre Ospedale S. Giovanni di Dio

Florence Italy 50122

Sponsor information

Organisation

St John of God Hospital (Ospedale S. Giovanni di Dio) (Italy)

ROR

https://ror.org/01c1ce922

Funder(s)

Funder type

Hospital/treatment centre

Funder Name

St John of God Hospital (Ospedale S. Giovanni di Dio) (Italy)

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary

Not provided at time of registration

Study outputs

Output type Details Date created Date added Peer reviewed? Patient-facing?

Participant information sheet

Participant information sheet 11/11/2025 11/11/2025 No