Leflunomide for the Management of Rheumatoid Arthritis: Comparative Clinical Effectiveness
**Research Question**

What is the clinical effectiveness of leflunomide compared with other disease modifying antirheumatic drugs for the management of rheumatoid arthritis?

**Key Findings**

One randomized controlled trial was identified regarding the clinical effectiveness of leflunomide for rheumatoid arthritis management.

**Methods**

A limited literature search was conducted on key resources including PubMed, the Cochrane Library, University of York Centre for Reviews and Dissemination (CRD) databases, Canadian and major international health technology agencies, as well as a focused Internet search. Methodological filters were applied to limit retrieval to health technology assessments, systematic reviews, meta-analyses and randomized control trials. Where possible, retrieval was limited to the human population. The search was also limited to English language documents published between January 1, 1998 and January 8, 2019. Internet links were provided, where available.

**Selection Criteria**

One reviewer screened citations and selected studies based on the inclusion criteria presented in Table 1.

**Table 1: Selection Criteria**

<table>
<thead>
<tr>
<th>Population</th>
<th>Adults with moderate to severe, active rheumatoid arthritis who have not responded to or are intolerant to methotrexate</th>
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<tr>
<td>Intervention</td>
<td>Leflunomide as monotherapy or in combination with other disease-modifying antirheumatic drugs (DMARDs)</td>
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| Comparator | Monotherapy or combination therapy of DMARDs  
| | • Conventional synthetic DMARD (methotrexate, sulfasalazine, hydroxychloroquine);  
| | • Tumour necrosis factor (TNF) inhibitors or their biosimilars (etanercept, infliximab, adalimumab, certolizumab pegol, golimumab);  
| | • Non-TNF inhibitors (rituximab, abatacept, tocilizumab, sarilumab);  
| | • Janus-associated kinase (JAK) inhibitors (tofacitinib, baricitinib) |
| Outcomes | Clinical benefit and harms using:  
| | • Disease severity (ACR 50);  
| | • Disease activity (DAS/ DAS-28);  
| | • Remission (DAS-28 remission);  
| | • Withdrawal due to adverse events  
| | • Serious adverse events |
| Study Designs | Health technology assessments, systematic reviews, meta-analyses, randomized controlled trials |
Results

Rapid Response reports are organized so that the higher quality evidence is presented first. Therefore, health technology assessment reports, systematic reviews, and meta-analyses are presented first. These are followed by randomized controlled trials.

One randomized controlled trial was identified regarding the clinical effectiveness of leflunomide compared with other disease modifying antirheumatic drugs for the management of rheumatoid arthritis. No relevant health technology assessments, systematic reviews, or meta-analyses were identified.

Additional references of potential interest are provided in the appendix.

Health Technology Assessments

No literature identified.

Systematic Reviews and Meta-analyses

No literature identified.

Randomized Controlled Trials

Appendix — Further Information

Previous CADTH Reports


Systematic Reviews and Meta-Analyses

Severity of Rheumatoid Arthritis Unspecified


Uncertain If Based Solely on Randomized Controlled Trial Information and Severity of Rheumatoid Arthritis Unspecified


Alternative Comparator and Severity of Rheumatoid Arthritis Unspecified


Severity of Rheumatoid Arthritis and Whether Patient Population was Intolerant/Failed Methotrexate Unspecified


**Information Not Solely Based on Randomized Controlled Trials and Severity of Rheumatoid Arthritis Unspecified**


**Randomized Controlled Trials**

**Severity of Rheumatoid Arthritis Unspecified**


**Severity of Rheumatoid Arthritis and Patient Population Intolerant/Failed Methotrexate Unspecified**

   PubMed: PM12416946

*Randomization Unspecified in Abstract*

   PubMed: PM15271770

   PubMed: PM11557646