



Title	Biologics for Early Rheumatoid Arthritis
Agency	NOKC, Norwegian Knowledge Centre for the Health Services PO Box 7004 St Olavs plass, NO-0130 Oslo, Norway; Tel: +47 23 25 50 00, Fax: +47 23 25 50 10; post@nokc.no, www.nokc.no
Reference	Kornør H, Burger E, Harboe I, Klemp M. Biologics in early rheumatoid arthritis. Oslo: NOKC; 2010. Report no. 9. ISBN no. 978-82-8121-338-8. www.kunnskapscenteret.no/Publikasjoner/9235.cms

Aim

To investigate the efficacy and safety of biologics compared to disease-modifying antirheumatic drugs (DMARDs) in patients with early (≤ 3 years) rheumatoid arthritis (RA).

Conclusions and results

We included 12 randomized controlled trials (RCTs) that examined the effect of biologics infliximab, adalimumab, etanercept, and abatacept. The results suggest that, compared with DMARDs alone, biologics in combination with DMARDs yield:

- more patients in remission
- neither more nor less serious adverse events
- more patients who achieve 50% improvement
- improved physical function
- less joint destruction

Due to methodological weaknesses in the included studies most results contain some degree of uncertainty.

Methods

We systematically searched for literature in EMBASE, MEDLINE (Ovid), and Cochrane Library. In addition, we searched the reference lists of relevant publications, searched for relevant websites, and contacted experts, affected companies, and the Norwegian Rheumatism Association. Two researchers independently reviewed abstracts and full-text publications for inclusion. We included RCTs that studied the efficacy and safety of biologics (etanercept, infliximab, adalimumab, rituximab, tocilizumab, anakinra or abatacept), alone or in combination with DMARDs, in people with RA of a maximum duration of 3 years. Relevant RCTs should have one or more DMARDs as comparison, and outcomes should include disease progression, quality of life, employability, functioning, and safety. We included publications in all languages, provided that the abstract was in English or one of the Scandinavian languages.

The included studies were critically appraised before we extracted relevant data. Where possible and appropriate, we combined results in meta-analyses. We also assessed the overall quality of the documentation for each outcome. The final report has been subject to internal and external peer reviews.

Further research/reviews required

Future research should focus on very early RA, and perhaps include only people who have been recently diagnosed with the new ACR-/EULAR criteria. Moreover, an important future research task is to identify subgroups of early RA patients who would achieve remission with biologics as first-line treatment. Head-to-head studies that examine the relative effects of the various biological agents are also an imminent research need.