Adalimumab, etanercept and infliximab for the treatment of rheumatoid arthritis after failure of a different TNF-α inhibitor

Committee documents

Background

NICE has previously appraised the use of the tumour necrosis factor-α (TNF-α) inhibitors adalimumab, etanercept and infliximab for the treatment of rheumatoid arthritis. During this appraisal NICE commissioned extra work investigating the clinical and cost effectiveness of the use of a second TNF-α inhibitor, this work included a systematic review of the clinical effectiveness, an analysis of data from the British Society of Rheumatology Biologics Register (BSRBR) and new cost effectiveness analysis. After reviewing this additional work, the Committee did not recommend the use of a second TNF-α inhibitor after the first had failed (i.e. sequential use), except where the first had been discontinued during the initial response assessment period of the first 6 months because of an adverse event. This aspect of the guidance was the subject of an appeal and the appeal panel requested that NICE revisit this issue and carry out further analyses of the sequential use of TNF-α inhibitors. Analyses of sequential use specifically requested by the appeal panel were:

- sensitivity analyses that consider a wider possible range of effectiveness for conventional disease modifying anti-rheumatic drugs (DMARDS)
- a wider possible range of doses of infliximab
- an examination of the minimum effectiveness that would be required of a second TNF-α inhibitor treatment for it to be marginally cost effective.

Following this decision the appraisal was split and guidance on the use of a first TNF-α inhibitor was published ('Adalimumab, etanercept and infliximab for the treatment of rheumatoid arthritis') NICE technology appraisal guidance 130. Since the appeal NICE has also produced 'Rituximab for the treatment of rheumatoid arthritis' (NICE technology appraisal guidance 126), which recommends rituximab for the treatment of severe active rheumatoid arthritis after the failure of at least one TNF-α inhibitor.

Documents for the Committee

Documents previously presented to the Committee:

1. The first overview written by the Institute's technical team.

This document describes the evidence submitted to the Institute at the start of the appraisal of TNF-α inhibitors for the treatment of rheumatoid arthritis. It

does not describe either of the sets of additional work commissioned by the Institute about the second use of a TNF-α inhibitor.

2. The FAD for technology appraisal 130 that went out for consultation and which was subject to appeal.

This document includes the Committees original consideration about the second use of a TNF-α inhibitor as well as the considerations about first use of TNF-α inhibitors. Note that this document is not the same as that published. In the published FAD for technology appraisal 130 the information about second use was removed.

3. Additional work about the clinical effectiveness of sequential use of TNF inhibitors.

These analyses are part of the first set of additional work (i.e. prior to appeal) that was commissioned by the Institute. The document focuses on clinical effectiveness data for the second use of a TNF-α inhibitor from the BSRBR. This register includes people on TNF-α inhibitors in the UK.

Documents not previously presented to the Committee:

4. The appeal panel decision.

This document describes the considerations of the appeal panel, their conclusions and the additional analyses that they requested.

5. Cost effectiveness analyses included in the Arthritis and Musculoskeletal Alliance (ARMA) appeal documents.

These analyses of second use of TNF-α inhibitors were completed in the economic model described in the original submission from ARMA using the clinical effectiveness data from the BSRBR described in document number 3.

Documents describing extra work commissioned after the appeal:

6. The effectiveness of sequential use of TNF-α inhibitors.

This document completed by the Institute's Decision Support Unit is an updated systematic review of studies examining the clinical effectiveness of the second use of a TNF-α inhibitor. An older version of this review was originally submitted to the Institute as part of the first set of additional work commissioned by the Institute.

7. The effectiveness of conventional DMARDs.

This document completed by the Institute's Decision Support Unit reviews the data for the clinical effectiveness of conventional DMARDs for the treatment of rheumatoid arthritis

8. The cost effectiveness of sequential use of TNF-α inhibitors.

This document developed by Pelham Barton from West Midlands Health Technology Assessment Consortium uses data included in documents 3, 6 and 7 to complete further cost effectiveness analyses. It includes comparisons

of the cost effectiveness of the use of a second TNF-α inhibitor in comparison with conventional treatments and rituximab. It also includes cost effectiveness analyses that explore alternative dosing assumptions for infliximab.

9. The second overview written by the Institute's technical team.

This document describes the additional work completed after the appeal (contained in documents 6, 7 and 8). It also provides a summary of the clinical evidence for the use of a first TNF-α inhibitor and the Committee considerations about the cost effectiveness of a first TNF-α inhibitor.