

Tumour necrosis factor- α inhibitors for ankylosing spondylitis and non-radiographic axial spondyloarthritis: a systematic review and economic evaluation

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Plain English summary

Anti-TNFs for ankylosing spondylitis and nr-AxSpA

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Plain English summary

Axial spondyloarthritis is a progressive form of arthritis which causes severe back pain because of inflammation of spinal and/or pelvic joints. If definite changes on plain radiographs are present, the disease is classified as ankylosing spondylitis (AS), but if they are absent the disease is classified as non-radiographic axial spondyloarthritis (nr-AxSpA). Usual therapy includes anti-inflammatory drugs, exercise and physiotherapy. Tumour necrosis factor inhibitors (also known as anti-TNFs) are typically used when the disease has not responded adequately to this.

This project systematically reviewed the evidence on five anti-TNF treatments (adalimumab, certolizumab pegol, etanercept, golimumab and infliximab), for treating severe active AS or nr-AxSpA. The objective of this project was to assess the benefits and adverse effects of these anti-TNFs and to run an economic model using both response to treatment and the impact of disease progression, to evaluate if their use to treat these patients is a cost-effective use of NHS resources.

In total, 28 eligible randomised controlled trials were identified and 26 were placebo controlled (most of the trials which used a placebo did so for no more than 12 weeks); the majority were good quality and 17 were extended into active treatment-only phases. In both AS and nr-AxSpA populations, anti-TNFs produced clinically important benefits to patients in terms of improving function and reducing disease activity. The benefit of treatment was consistently slightly smaller for nr-AxSpA than for AS. In AS the different anti-TNFs are approximately equally effective and effectiveness appears to be maintained over time. The results of the economic model indicated that anti-TNFs may be an effective use of NHS resources depending on which assumptions are considered appropriate.

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This report

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