Poster Presentations

PP001 Ultrasound To Guide Treatment Decisions In Rheumatoid Arthritis

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INTRODUCTION:

Ultrasound (US) detects synovitis more accurately than clinical examination (CE) in people with rheumatoid arthritis (RA). This review aimed to investigate the use of US, compared to CE alone, in treatment strategies for RA, and to estimate its potential to be cost-effective in making treatment decisions.

METHODS:

A systematic review was conducted of studies: investigating RA treatment response or strategies that compared US with CE-assessed synovitis; and of tapering RA treatment (1). A model was constructed to investigate the potential cost-effectiveness of US in (i) selecting patients suitable for treatment tapering; and (ii) avoiding treatment escalation (2).

RESULTS:

Seven prospective cohort studies suggested US-detected synovitis was significantly associated with a treatment response or tapering failure, whereas in most cases clinical examination alone was not. Two randomized controlled trials (RCTs) identified suggested that US added to the Disease Activity Index (DAS)-based treatment strategies but did not significantly improve primary outcomes, but was associated with improved rate of DAS remission. The evidence showed that some patients (proportions varied widely) who had achieved low disease activity could have treatment tapered, with no, or little, short-term harm to the patient.

The model estimated that an average reduction of 2.5 percent in the costs of biological disease-modifying anti-rheumatic drug (bDMARDs) was sufficient to cover the costs of performing US every three months. This value increased to 4 percent and 13 percent for the costs of conventional disease-modifying anti-rheumatic drug (cDMARDs) depending on the assumed regimen.

CONCLUSIONS:

Use of US to monitor synovitis could potentially be a cost-effective approach, given that low proportions of patients for whom clinicians consider amending treatment, would need to taper treatment, or remain on therapy without escalation. US could provide clinicians with more confidence in reducing the drug burden. However, there is considerable uncertainty in this conclusion due to lack of robust data relating to key parameters.

REFERENCES:

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