

# OMERACT 5 Magnetic Resonance Imaging Module: Introduction

Given the benefits of having examined the measurement qualities of rheumatoid arthritis (RA) radiological scores according to the principles of the OMERACT filter, it seemed sensible to avail magnetic resonance imaging (MRI) of similar scrutiny and advice even before an agreed scoring system had been developed. Because this new technology can measure both rheumatoid synovitis and damage and can capture change with more sensitivity than radiography, it is even more important that clinicians, the pharmacological industry, and regulatory authorities can have confidence in the reliability, validity, and sensitivity of reported status and change. Recognition of this need by leaders in the field of MRI in RA led to fruitful collaboration with members of the OMERACT group, and the result of their efforts is detailed in the 4 articles on MRI in the following section.

Charles Peterfy outlines the advantages of MRI over radiography, notes potential RA endpoints — erosions, defects, bone edema, synovitis, tenosynovitis, cartilage loss — and, using the experience reported to date in the world literature, discusses some of the technical and conceptual problems that these pose. Lassere and Bird then review the published scoring methods for MRI changes in RA and describe the extent to which these methods were systematically evaluated for the elements of the OMERACT filter —

reliability, validity, and responsiveness to change. Østergaard, et al report on the OMERACT working group's interreader agreement in two multicenter MRI film reading exercises; finally, Conaghan and colleagues outline the current state of progress, a preliminary scoring method for the hand and wrist in RA, with many caveats, together with comments on steps needed to redress some deficiencies.

It seems that the ability to image tissues can only get better and better, which will be a boon to rheumatology, provided we can match the imaging technology with equally fine measurement techniques. The importance of the nascent steps taken by the OMERACT MRI Module is not primarily the formulation of a provisional RA scoring system, but the formation of a working group that could continue to collaborate towards the best systems to capture and report pathology, whatever the condition of interest and whatever the scope of new developments in MRI imaging techniques.

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