OMERACT 5 Imaging Working Group Report on Plain Films: Introduction

The key objective set out for the imaging working group was to develop further what constitutes a minimal clinically important difference as a measure of progression on conventional films scored according to the modified Larsen (Scott modification) and the modified Sharp (van der Heijde modification) scoring methods.

During the working time prior to this meeting, data were collected and analyzed to obtain more results on the smallest detectable difference (SDD), which is based on the measurement error. The SDD for early RA was presented during OMERACT 4 and now this could be extended with other datasets. For comparison reasons, SDD on widely used clinical assessments were also obtained. Data were also collected from rheumatologists working in clinical practice to define which differences between films were considered meaningful differences, in a given clinical setting. Combining data on SDD that is strictly based on statistical grounds with those obtained from rheumatologists will help define a minimal clinically important difference. All results were obtained for both the modified Sharp and modified Larsen method.

Most of the results were presented to the participants in the preconference material. This was briefly iterated during the plenary session. Thereafter, most time was spent on small group discussions.

The papers in the section “Imaging I, Radiology,” which follows here, provide a summary of the key issues and the results of several key areas of research: (1) Recent rheumatoid arthritis clinical trials using radiographic endpoints — updated research agenda, Strand, et al; (2) Foundations of the MCID concept: implications for the imaging module, Lassere and van der Heijde; (3) Robustness and generalizability of the smallest detectable difference in radiological progression, Lassere, et al; (4) The reliability of measures of disease activity and disease damage in rheumatoid arthritis: Implications for the smallest detectable difference (SDD), the minimum clinical important difference (MCID), and the analysis of treatment effects in randomized controlled trials, Lassere, et al; (5) Minimum clinically important difference in radiological progression of joint damage over 1 year in rheumatoid arthritis: Preliminary results of a validation study with clinical experts, Bruynesteyn, et al; (6) Links between radiological change and other outcomes in rheumatoid arthritis, Kirwan; (7) Minimal clinically important difference in plain films in RA: Group discussions, conclusions, and recommendations, van der Heijde, et al.

The last paper summarizes the most important conclusions from the imaging module for plain films and shows the updated research agenda.

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