EFSUMB Minimum Training Requirements for Rheumatologists Performing Musculoskeletal Ultrasound

EFSUMB-Mindestanforderungen für die Schulung von Rheumatologen in der Sonografie des Bewegungsapparates

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- competency assessment
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- musculoskeletal ultrasound
- rheumatology

Zusammenfassung

Um die Schulung von Rheumatologen in der Sonografie des Bewegungsapparates zu optimieren und zu standardisieren, bedarf es Kompetenz-Beurteilungen bezüglich der geforderten Qualifikationen in Ausbildung, Praxis und Theorie. Die Arbeit beschreibt, wie diese Kompetenz-Beurteilungen für Rheumatologen entwickelt wurden und was diese beinhalten.

Abstract

In order to optimize and standardize musculoskeletal ultrasonography education for rheumatologists, there is a need for competency assessments addressing the required training and practical and theoretical skills. This paper describes how these competency assessments for rheumatologists were developed and what they contain.

Introduction

Musculoskeletal ultrasound (MSUS) has become an important tool in clinical practice in rheumatology. It enhances diagnostic confidence, visualizes pathologies and enables objective monitoring of disease outcome. However, the use of MSUS in rheumatology has developed very diversely across the individual European countries. A questionnaire exploring the reasons for these differences found that it was mainly due to the lack of training facilities, non-standardized training content and a relative lack of national registries and competency assessment [1]. Appropriate training is of utmost importance to ensure skilled and safe use of MSUS by rheumatologists and already a number of papers have addressed MSUS education, curriculum and competencies [2–4]. There is an ongoing collaboration of experts in MSUS under the umbrella of both the EULAR (European League Against Rheumatism) and the OMERACT (Outcome Measures in Rheumatology) group to standardize scanning methods, define normality and abnormalities, determine reproducibility and promote education through the conducting of MSUS courses at different levels of training under agreed guidelines. This ensures sufficient theoretical and practical quality during the courses [5]. However, there are no published international recommendations for how to assess the competencies of the rheumatologists performing MSUS. The European Federation of Societies for Ultrasound in Medicine and Biology (EFSUMB) recently published guidelines and recommendations for the use of elastography and contrast-enhanced ultrasound in the liver [6, 7] and published already in 2006 minimum training requirements for the practice of MSUS in Europe [8]. The target group for these requirements is every health professional performing MSUS, regardless of specialty. The minimum training requirements contain a 3-level competency assessment (COMPASS) describing in detail the theoretical and practical training including competencies to be acquired at each level with a related logbook. However, these assessments seem more appropriate for orthopedic surgeons and radiologists than for rheumatologists. An example of this is the level 1 requirements for diagnosing quadriceps rupture (which is hardly ever seen in a rheumatology clinic), while the ability to use Doppler which in a rheumatological setting is a basic skill, was a level 2 competency.

Based on the need to define a set of minimum training requirements in rheumatology, a working group was formed in EFSUMB with the aim of developing relevant COMPASS for that specialty.

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Bibliography
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In 2011 a 3-year "Task and Finish group (TFG) in Rheumatology" was founded with 13 members, all of whom had been engaged in MSUS training on an international, mainly European, level for several years.

Method

The TFG members together with 4 other rheumatologists with experience in teaching on international courses, who were attending the EUROSON 2012 meeting in Madrid, met to discuss and create the new rheumatology COMPASS (Appendix A). Based on the published recommendations on the content of MSUS courses under EULAR [5], the published competencies for rheumatologists [3] and the existing EFSUMB COMPASS [8] (that included the required theoretical and practical skills and how they should be obtained), we formulated the rheumatology-COMPASS based on consensus. After the meeting in Madrid, the rheumatology-COMPASS was distributed among 34 European rheumatologists teaching MSUS in international courses and through them – via email – to local rheumatologists. Everyone was asked to report back by late June 2012 about whether or not they could support the rheumatology-COMPASS.

Results

A total of 43 rheumatologists from Belgium, Bulgaria, Denmark, England, Finland, France, Germany, Hungary, Ireland, Italy, The Netherlands, Norway, Poland, Portugal, Romania, Serbia, Spain, Sweden, Turkey and the UK reported back supporting the rheumatology-COMPASS.

The rheumatology-COMPASS and Logbook may be seen in www.efsumb.org/guidelines.

The rheumatology-COMPASS addresses the theoretical knowledge (theoretical module), the practical training and the competencies relevant for each level. Finally there is a section on how to maintain acquired skills.

In level 1 the course contents resemble the EULAR MSUS basic and intermediate courses, level 2 resembles the EULAR MSUS advanced course, while level 3 requires attendance in a "teach-the- teachers course" or experience as a teacher of at least 2 international MSUS courses. Level 3 also includes an academic level requiring research activity and acceptance of level 1 and 2 sonographers for training.

In the guidelines for the rheumatology-COMPASS, relevant courses are defined as MSUS courses endorsed by national or international scientific societies with a description of what the contents of these courses should include.

Discussion

Because of the increasing use of MSUS in rheumatology, there has been a focus over the past years on training. The first attempt to define necessary competencies for rheumatologists performing US was published in 2006 by Brown et al. [3]. These competencies were based on a questionnaire distributed among both rheumatologists and radiologists defining the pathologies that were a "must know" or "should know" competency among rheumatologists performing MSUS in order to develop international recommendations. However, the above recommendations did not address the training requirement.

The EULAR MSUS courses have been organized since 1998 and the interest in these courses has been increasing over the last 10 years. In 2007, the first 3 level EULAR MSUS course was conducted in Sitges, Spain with great success and the 3 level courses have been running ever since in relation to the EULAR congress. The published guidelines for conducting these courses ensure standardized courses of high quality regardless of the host countries [5] focusing mainly on the relevant content on the individual levels and the distribution between practical and theoretical skills. The rheumatology-COMPASS levels are closely related to the levels of the EULAR MSUS courses, thereby ensuring that the content is supported by already provided courses such as the EULAR and EULAR-endorsed MSUS courses in order to facilitate the implementation of the rheumatology-COMPASS.

The rheumatology-COMPASS provides a detailed description of relevant competencies, minimum number of US scans required per year, minimum course activity, and definition of practical skills with the purpose of obtaining and maintaining acquired skills and ensuring further development within a standardized approach. We believe that this consensus-based rheumatology-COMPASS can facilitate uniform high-quality education for European rheumatologists performing MSUS.

Conclusion

For the first time a relevant COMPASS for rheumatologists is presented and takes into account the already existing and accepted COMPASS for sonographers performing MSUS as well as the existing knowledge on required competencies and content of MSUS courses for optimal MSUS education for rheumatologists.

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References

1 *Naredo E, D'Agostino MA, Conaghan PG et al.* Current state of musculoskeletal ultrasound training and implementation in Europe: results of a survey of experts and scientific societies. Rheumatology (Oxford) 2010; 49: 2438 – 2443

2 *Brown AK, O'Connor PJ, Wakefield RJ et al.* Practice, training, and assessment among experts performing musculoskeletal ultrasonography: toward the development of an international consensus of educational standards for ultrasonography for rheumatologists. Arthritis Rheum 2004; 51: 1018 – 1022

3 *Brown AK, O'Connor PJ, Roberts TE et al.* Ultrasonography for rheumatologists: the development of specific competency based educational outcomes. Ann Rheum Dis 2006; 65: 629 – 636

4 *Brown AK, O'connor PJ, Roberts TE et al.* Recommendations for musculoskeletal ultrasonography by rheumatologists: setting global standards for best practice by expert consensus. Arthritis Rheum 2005; 53: 83 – 92

5 *Naredo E, Bijlsma JW, Conaghan PG et al.* Recommendations for the content and conduct of European League Against Rheumatism (EULAR) musculoskeletal ultrasound courses. Ann Rheum Dis 2008 ; 67: 1017 – 1022

6 *Piscaglia F, Nolsøe C, Dietrich CF et al.* The EFSUMB Guidelines and Recommendations on the Clinical Practice of Contrast Enhanced Ultrasound (CEUS): update 2011 on non-hepatic applications. Ultraschall in Med 2012 ; 33: 33 – 59

7 EFSUMB. Guidelines and Recommendations in Elastography. Ultraschall in Med 2012; 33: 499

8 www.efsumb.org/guidelines

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