% of patients presented with RA, OA or OP. Mean age ($\pm$ SE) was 78 ± 7 in PEMF-45 and 77 ± 7 in PEMF-60. As expected, all physical performance tests improved significantly from baseline to 6 months in both groups. Mean ($\pm$ SE) 4MGS increased significantly more in PEMF-45 (from 3.24 ± 0.12 sec to 2.83 ± 0.18 sec) compared to PEMF-60 (from 3.22 ± 0.21 sec to 3.02 ± 0.30 sec, $p=.018$). Likewise, mean ($\pm$ SE) CST improved more in PEMF-45 (from 12.4 ± 0.9 sec to 8.7 ± 0.4 sec) compared to PEMF-60 (from 11.1 ± 1.5 sec to 9.8 ± 0.7 sec, $p=.002$). No significant difference between groups was found for the other tests, although a trend toward better results in PEMF-45 was manifest: SPPB improved by 6.4% in PEMF-45 and by 3.0% in PEMF-60, and TUG decreased by 7.8% in PEMF-45 and by 6.1% in PEMF-60. During the 6 months observation period no adverse event was observed.

Conclusion: Preliminary results of our ongoing prospective observational study suggest that a more frequent administration of PEMF produces greater improvements in some but not all physical performance parameters compared to a standard validated regimen^{1,2}.

REFERENCES:

- [1] Giusti A et al., *Geriatr Gerontol Int* 2013. ²Giusti A et al., *J Am Geriatr Soc* 2014.

Disclosure of Interests: Massimo Giovale: None declared, Giuseppina Tramontano: None declared, Rossana Galli: None declared, Simone Rando: None declared, Andrea Giusti Speakers bureau: UCB, Amgen, Kyowa Kirin, Abiogen Pharma, and Eli Lilly, outside the submitted work, Consultant of: EffRx and Abiogen Pharma, outside the submitted work, Lorenzo Bandi: None declared, Francesca Russo: None declared, Stefano Rampoldi Employee of: THS Therapeutic Solutions SRL, Luigi Carlo Bottaro: None declared, Gerolamo Bianchi Speakers bureau: Abbvie, Abiogen Pharma, Amgen, BMS, Celgene, Eli Lilly, GSK, Janssen-Cilag, Medac, MSD, Novartis, Pfizer, Roche, Sanofi, Genzyme and Servier, outside the submitted work

DOI: 10.1136/annrheumdis-2021-eular.2383

Education

POS1448

EVIDENCE BASED PRACTICE: WHAT IS THE EVIDENCE THAT BRITISH SOCIETY FOR RHEUMATOLOGY GUIDELINES ARE EVIDENCE BASED?

M. Lee¹, G. Reynolds², M. Yates³, J. Galloway³. ¹Mohammed Bin Rashid University Of Medicine and Health Sciences, Rheumatology, Dubai, United Arab Emirates; ²Newcastle University, Translational and Clinical Research Institute, Newcastle, United Kingdom; ³King's College London, Rheumatology, London, United Kingdom

Background: Clinical practice guidelines are designed to ensure that patients are treated according to best evidence, with the goal of optimizing clinical outcomes and reducing unwarranted variation in care. They compile, rate and translate the data available into recommendations that form the basis of evidence-based practice for most clinicians. Despite their importance, the evidence base informing different guidelines varies in quality. A recent study of American College of Rheumatology (ACR) Practice Guidelines demonstrated only 17 of 35 class I (strong benefit to harm ratio) recommendations were supported by level A evidence (high quality randomized controlled trials or meta-analyses)¹.

Objectives: To review the evidence supporting the British Society for Rheumatology (BSR) guidelines.

Methods: Thirteen sets of guidelines that were available on the BSR website as of October 16th 2019 were reviewed (<https://www.rheumatology.org.uk/practice-quality/guidelines>). A range of methodologies (including Grading of Recommendations Assessment, Development and Evaluation (GRADE), Scottish Intercollegiate Guidelines Network (SIGN), EULAR and Royal College of Physicians (RCP) recommendations) were used to assess the quality of evidence and strength of recommendation. For comparability between guidelines the level of evidence was converted to a score between I (highest quality) and IV (lowest quality) and the strength of recommendation was converted to a rating between A and D. The polymyalgia rheumatica guideline was not assessed due to unclear methodology and lack of level of evidence for all recommendations.

Results: Of the 12 BSR guidelines assessed, there were 554 recommendations in total. The number of recommendations per guideline ranged between 13 and 80. Across all assessed guidelines, 94 recommendations (17.0%) were classified as level I, 161 (29.1%) as level 2 and 299 (54.0%) as level 3 or 4. These figures are similar to those reported in the ACR guidelines (23%, 19% and 58% respectively)¹. The proportion of level I evidence varied from 46.2% (Axial Spondyloarthritis guideline) to 0% (Hot Swollen Joint guideline).

Conclusion: Over half of all BSR guideline recommendations have level of supporting evidence of III/IV. A wide range of methodologies are used to generate BSR guidelines (GRADE, SIGN, RCP / EULAR). This makes it challenging for

readers unfamiliar with these approaches to interpret evidence and hinders comparisons between guidelines. A standardized methodology for future guideline development would overcome these barriers.

REFERENCES:

- [1] Duarte-Garcia A, Zamore R & Wong JB. The Evidence Basis for the American College of Rheumatology Practice Guidelines. *JAMA Intern Med*, 2018 Jan 1;178(1):146-148.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2021-eular.822

POS1449

SEGMENTED SHORT-FORMAT ONLINE EDUCATION SIGNIFICANTLY INCREASES PREDICTION, PROGNOSIS, AND MANAGEMENT OF FIBROSING INTERSTITIAL LUNG DISEASE ASSOCIATED WITH CONNECTIVE TISSUE DISEASE

C. Rohani-Montez¹, M. Calle¹, C. Allen¹, T. Maher², V. Smith³, J. Jacob⁴, G. Riemekasten⁵, M. Kolb⁶. ¹Medscape Education Global, Medscape Education Global, London, United Kingdom; ²Keck Medicine of USC, Clinical Medicine, Los Angeles, United States of America; ³Ghent University Hospital, Department of Rheumatology, Gent, Belgium; ⁴University College London, UCL Respiratory, CMIC UCL, London, United Kingdom; ⁵University Medical Center Schleswig-Holstein, Department of Rheumatology and Clinical Immunology, Lubbeck, Germany; ⁶McMaster University, Division of Respiratory, Department of Medicine, Hamilton, Canada

Background: Identifying fibrosing interstitial lung disease (ILD) at the earliest opportunity remains one of the most urgent challenges for the effective management of this potentially rapidly progressive and burdensome condition, which is frequently associated with several connective tissue diseases (CTDs). However, knowledge on how to identify early hallmarks and predictors of fibrosing ILD, as well as knowing which steps to take next is frequently lacking in clinical practice. **Objectives:** This study was conducted to determine whether online independent medical education could improve rheumatologists' and pulmonologists' knowledge and competence in identifying and managing progressive fibrosing ILDs earlier in the disease course.

Methods: Rheumatologists and pulmonologists participated in five ~10-min presentations about the early identification of fibrosing ILD in patients with or without CTDs and completed all pre- and post-questions.¹ The effects of the education on knowledge and competence were assessed using a 3-question, repeated pairs, pre-assessment/post-assessment study design. For all questions combined, the chi-square test assessed differences from pre- to post-assessment. P values <.05 are statistically significant. The activity launched on October 9, 2020, and data were collected through December 18, 2020.

Results: Overall significant improvements were seen after participation for both rheumatologists (average correct response rate of 28% at pre-assessment vs 74% at post-assessment; $P<.001$, representing a 165% relative percentage change [RPC]; N=39), and pulmonologists (average correct response rate of 39% at pre-assessment vs 67% at post-assessment; $P<.001$, representing a 72% RPC; N=102). Specifically, significant improvements were observed in clinicians' knowledge of predictors of fibrosing ILD in patients with CTD, as well as competence in selecting the right HRCT parameters to assess prognosis and select a treatment approach to reduce the risk of disease progression (Figure 1).

Figure 1.

After participating in the activity, 59% of rheumatologists and 50% of pulmonologists had measurable improved confidence related to identifying early disease progression in patients with progressive fibrosing ILDs.

Given the very low rates of correct responses at baseline regarding predictors of fibrosing ILD and assessing prognosis, it will be important to continue to reinforce these learnings in ongoing educational programs.

Conclusion: This study demonstrates the success of segmented online education in improving rheumatologists' and pulmonologists' knowledge and competence in evaluating risk and prognosis of fibrosing ILD and managing patients with CTD-ILDs. This could lead to earlier changes in therapeutic approach for those with signs of progression and result in improved overall outcomes for these patients.

REFERENCES:

[1] Kolb M, Maher T, Smith V, Jacob J, Rimekasten G. Catching and Managing Progressive Fibrosing Interstitial Lung Disease Progression Earlier. Launched: Oct 9, 2020. Data as of Dec 18, 2020. Available at www.medscape.org/viewarticle/938826

Disclosure of Interests: Christy Rohani-Montez: None declared, Marinella Calle: None declared, Chris Allen: None declared, Toby Maher Speakers bureau: Astra Zeneca, Bayer, Blade Therapeutics, Boehringer Ingelheim, Bristol-Myers Squibb, Galapagos, Galacto, GlaxoSmithKline R&D, Indalo, IQVIA, Pliant, Respivant, Roche and Theravance, Consultant of: Astra Zeneca, Bayer, Blade Therapeutics, Boehringer Ingelheim, Bristol-Myers Squibb, Galapagos, Galacto, GlaxoSmithKline R&D, Indalo, IQVIA, Pliant, Respivant, Roche and Theravance, Grant/research support from: Astra Zeneca and GlaxoSmithKline R&D, Vanessa Smith Speakers bureau: Boehringer-Ingelheim Pharma GmbH&Co and Janssen-Cilag NV, Consultant of: Boehringer-Ingelheim Pharma GmbH&Co, Grant/research support from: Research Foundation - Flanders (FWO), Belgian Fund for Scientific Research in Rheumatic diseases (FWRO), Boehringer-Ingelheim, Pharma GmbH&Co, and Janssen-Cilag NV, Joseph Jacob Speakers bureau: Boehringer-Ingelheim; Roche, Consultant of: Boehringer-Ingelheim, Grant/research support from: GlaxoSmithKline, Gabriela Rimekasten Speakers bureau: AbbVie; Actelion; Boehringer-Ingelheim, Consultant of: Actelion; CellTrend; Janssen, Grant/research support from: AbbVie; Actelion, Martin Kolb Speakers bureau: AstraZeneca; Boehringer-Ingelheim; Novartis; Roche, Consultant of: AbbVie Inc.; Algonon Pharma; AstraZeneca; Boehringer-Ingelheim; Cipla; Covance; EPG Health; Galapagos NV; Gilead; GlaxoSmithKline; Indalo; Mitolimmune Therapeutics Inc; Novartis; Pieris; Prometic (now Liminal Biosciences); Roche; Third Pole Inc.; TwoXAR Inc., Grant/research support from: Boehringer-Ingelheim; GlaxoSmithKline; Novartis; Prometic; Roche; Avalyn
DOI: 10.1136/annrheumdis-2021-eular.1510

POS1450

PATIENTS' SAFETY SKILLS ASSESSMENT WITH BIOLOGICS AND JAK INHIBITORS: UPDATE OF THE BIOSECURE QUESTIONNAIRE

C. Beauvais¹, V. Gaud-Listrat², J. Sellam³, F. Fayet⁴, M. Beranger⁵, N. Deparis⁶, M. Antignac⁷, C. Sordet⁸, M. Rodere⁹, L. Gossec⁹ on behalf of On the behalf of the therapeutic patient education section of the French Rheumatology Society, ¹Centre Hospitalier Universitaire Saint Antoine, Sorbonne Université, Rheumatology Department, Paris, France; ²Cochin Hospital, Rheumatology Department, Paris, France; ³Hospital Saint-Antoine Ap-Hp, Rheumatology Department, Paris, France; ⁴Centre Hospitalier Universitaire Gabriel Montpied, Rheumatology Department, Clermont-Ferrand, France; ⁵Centre Hospitalier Universitaire Orléans, Rheumatology Department, Orleans, France; ⁶Association Nationale de Défense Contre l'Arthrite Rhumatoïde, ANDAR, Paris, France; ⁷Centre Hospitalier Universitaire Saint Antoine, Sorbonne Université APHP, Pharmacy Department, Paris, France; ⁸Hôpitaux Universitaires de Strasbourg, Rheumatology Department, Strasbourg, France; ⁹Sorbonne Université, Hôpital Pitié Salpêtrière, Rheumatology Department, Paris, France

Background: Biologic disease-modifying anti-rheumatic drug (bDMARDs) and JAK inhibitors (JAKi) may lead to an increased risk of infections, which could be prevented by enhancing patients' safety skills (ref). We developed a self-administered questionnaire (BioSecure1, ref) in 2013 to assess the patients' safety skills (Table 1). Following the appearance of new bDMARDs and JAKi and new information on safety, this questionnaire needed updating.

Table 1. Nine domains of core safety skills and number of corresponding questions in BioSecure questionnaires.

Domain of competence	BioSecure1	BioSecure2
General knowledge	4	2
Dealing with infectious symptoms and fever	10	11
Dealing with other infectious symptoms	4	4
Dealing with injuries, preventing infectious complications, vaccinations	8	8
Dental hygiene, preventing infectious complications, information to share with the dentist	2	2
Planning surgery, information to share with the surgeon/anesthesiologist	7	7
Planning child conception	2	1
Communication: who to contact?	2	2
Subcutaneous treatments: cold chain/cold storage, subcutaneous injection techniques	3	0

Objectives: To update the BioSecure questionnaire assessing patients' safety skills

Methods: Four steps by a 10 participants multidisciplinary steering committee. Step1: critical analysis of content and formulations of BioSecure1 on the basis of i) the participants' own experience of the questionnaire use in current practice (5/10 participants) or research (6/10 participants) ii) assessment of BioSecure1 consistency with current guidelines for management of targeted drugs. Step2: development of a first updated version by a core group of 10 persons. Step3: comments by an extended panel of rheumatology teams interested in therapeutic patient education (TPE). Step4: testing of the final version (BioSecure2) by ten patients through cognitive debriefing.

Results: In total, 10 rheumatologists, 6 rheumatology nurses, 1 pharmacist and 1 patient from a patient association participated. Inadequate formulations were reported regarding some situations for which recommendations had the most shifted since BioSecure1 development such as planning pregnancy, remission management and prevention measures before surgery. Features of some infectious conditions were clarified; barriers measures against infection and complications such as sigmoiditis and Herpes Zoster infection were added. BioSecure2 continues to assess the 9 domains of core safety skills (Table 1). The questionnaire was shortened to 50 items (mean filling in time is 10 minutes) with a good understanding and scoring was simplified (mean scoring time 3.5 minutes).

Conclusion: BioSecure2 represents an updated outcome measure to evaluate the patient's skills to prevent adverse events with targeted therapies. This questionnaire can be useful in the context of patient-health professional communication, and as a tool to measure TPE on safety issues.

REFERENCES:

[1] Gossec et al, Joint Bone Spine. 2013;80:471–476

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2021-eular.1628

POS1451

DEVELOPING A TOOL TO MEASURE THE LEARNING CURVE: ENTHESITIS ULTRASOUND IN PSORIASIS ARTHRITIS

S. Brådlund¹, P. Ande^{1,2,3}, A. Diamandopoulos^{4,5}, G. Haugeberg^{1,6}. ¹Hospital of Southern Norway, Department of Rheumatology, Kristiansand, Norway; ²Østfold Hospital Trust, Department of Cardiology, Kalnes, Norway; ³University of Oslo, Department of Clinical Medicine, Oslo, Norway; ⁴Akershus University Hospital, Department of Rheumatology, Oslo, Norway; ⁵Martina Hansens Hospital, Department of Rheumatology, Bærum, Norway; ⁶Norwegian University of Science and Technology, Department of Neuromedicine and Movement Science, Faculty of Medicine and Health Sciences, Trondheim, Norway

Background: Enthesitis is defined as inflammation of the tendon inserting the bone encompassing the adjacent trabecular bone network, the fascia and surrounding soft tissues as the cartilage, the bursa and the fat pad. In enthesitis clinical examination alone is a method with significant limitations in terms of diagnostic accuracy and does not correlate strongly with imaging diagnostics (1,2).

Ultrasound (US) is a widely used imaging technique in Rheumatology. But while learning curricula and standardization for joint US are available, other US techniques as vascular-, enthesitis- or serosa-US gets usually less attention in rheumatologic US curricula. Though both OMERACT (4) and GRAPPA (3) have recently published qualitative and semi quantitative criteria in enthesitis US, few publications explicitly address the learning curves in these particular domain.

Objectives: To describe the development of a tool to measure the learning curve for enthesitis US.

Methods: 3237 US images of 561 enthesitis were obtained by one experienced ultrasonographer (PMA) in B- and color Doppler (CD) mode in longstanding psoriasis arthritis patients of different disease activity. Due to duplicity and poorer image quality 2115 images were eliminated. The remaining fully anonymized 1122 images (561 enthesitis) were afterward implemented in a random multiple choice algorithm presenting a B-mode and a CD image of the same enthesitis at the same time without timely limitation. Rating follows qualitative GRAPPA criteria as well as semiquantitative OMERACT criteria (3, 4). The enthesitis scoring application was than written in.NET/ C#, TypeScript and ReactJS and is hosted in Azure Cloud platform. The scoring is stored in a database allowing extraction to SPSS for statistical analysis.

Results: The interface of the functional program is shown in image 1 (Screenshot). In a next step the program will be presented to different raters of different ultrasound experience (>10 years, 5-10 years, 1-5 years, <1 years). The program will be presented a multitude of times in different order to every rater to adjust for inter-rater reliability. Correlation between raters will be given to depict a learning curve on enthesitis ultrasound assuming the rater with the highest experience as gold standard.