already mentioned. The program director or an assistant professor was asked to fill the survey out between April 2019 and January 2020. The sample was described through means and standard deviations or frequency and percentages according to the type of variable.

Results: Data was obtained from all the programs of specialization in internal medicine ($n = 29$), family medicine ($n = 9$), pain medicine ($n = 8$), physical and rehabilitation medicine ($n = 6$), geriatrics ($n = 4$). All the programs of internal medicine, geriatrics, and physical/rehabilitation medicine have rheumatology as a mandatory subject within the curriculum, while in family medicine and pain medicine programs: 33% ($n = 3$), and 57% ($n = 4$) respectively, does not have a rheumatology training. In internal medicine the average duration of rheumatology training is 56 days (28 to 90 days), in geriatrics, it is 56 days (45-60 days), in family medicine 26.1 days (3 to 30), in medicine physical and rehabilitation medicine 35 days (30 to 60) and in pain medicine 40 days (30 to 60). 93.8% ($n = 45$) of the programs surveyed have a rheumatologist as a teacher in charge of both, the academic activities and the external rheumatology consultation and in the rest of the programs these activities are done by a specialist in internal medicine, family medicine or pain medicine. The theoretical components most frequently offered in seminars or master classes are: rheumatoid arthritis, lupus, vasculitis, spondyloarthritis, gout, osteoarthritis, sjogren's syndrome and osteoporosis. The specialization programs have an average of 3 rheumatologists as professors (range 1 to 8). 43.8% of the programs use some virtual resources to complement the teaching in rheumatology such as video conferencing in virtual platform or YouTube (8.3%), online course (6.3%), mobile application (16.7%), others such as moodle and webcast platform (12.5%). 92.9% ($n = 52$) offer their students an elective rotation in the rheumatology service, in addition to the mandatory one. Finally, 89.6% ($n = 43$) of the interviewees agree with the way in which the curriculum is structured in their programs, to approach initial diagnostic and therapeutic in patients with suspected or established rheumatic disease. However, 23.2% ($n = 13$) of the professors of the surveyed programs (6 of internal medicine, 4 of family medicine, 2 of pain medicine and 1 of physical/rehabilitation medicine), consider that the rheumatology subject should not be mandatory within their programs.

Conclusion: All physicians need to be familiar with rheumatological conditions since the rate of rheumatologists in Colombia is low. Knowing rheumatology is an increasingly important role in a clinical scenario in many postgraduate curriculums as we explain in this study.

References:

- [1] Sivera F, et al; Working Group on Training in Rheumatology across Europe. Differences and similarities in rheumatology specialty training programmes across European countries. *Ann Rheum Dis*. 2015 Jun;74(6):1183-7

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2020-eular.6490

AB1355-HPR THE IMPACT OF A STRUCTURED TRAINING PROGRAMME FOR THE DETECTION OF SYNOVITIS WITH MUSCULOSKELETAL ULTRASOUND (MSUS) IN RHEUMATOLOGY NURSING

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Background:

Objectives: To analyse the effect of a teaching intervention for the technical performance of a reduced index of ultrasound synovitis by nurses without previous experience in musculoskeletal ultrasound (MSUS).

Methods: Design: Quasi-experimental study of the before-after type. Protocol: The nurses received a theoretical-practical, face-to-face and intensive training of 8 hours, by an expert rheumatologist in musculoskeletal ultrasound (MSUS), to perform the Perricone index, which assesses the presence of grey-scale synovitis (GS) and quantifies the presence of a power-doppler (PD) signal semiquantitatively (0-3), in 6 joints (Wrists, 2nd Metacarpophalangeal (MCP) joints and knees). The theoretical knowledge acquired was assessed by an exam test type at the end of the training, and the technical skills were assessed by an ultrasound examination in patients with rheumatoid arthritis, immediately after the teaching session and at 18 months later. Variables: Illumination of the consultation, protection of privacy and unequivocal identification of the patient, technique (explorer ergonomics, bilateral comparison, use of both hands, measurement, marking and saving data), GS (probe position, centred image, cortical-cartilage-tendon display, depth, focus, frequency, gain), PD (probe pressure, PRF, position-width-depth of the box, focus, frequency, gain), synovial recesses (dorsal and palmar examination of the wrist, 2nd Metacarpophalangeal (MCP) joints and supra and parapatellar medial and lateral examination of the knees) and semi-quantitative gradation of synovitis in GS and PD. Statistical analysis: descriptive analysis, and in relation to the statistical significance tests for paired variables (pre and post teaching intervention) the McNemar test was used for dichotomous qualitative variables and McNemar-Bowker test for those of more than two categories.

Results: 5 nurses, 80% women, aged between 36 and 54 years participated. They adequately answered 100% of the 4-student test questions, and the remaining one

matched 80% of them. The average time of baseline exploration was 45.2 ± 3.8 minutes and the final time was 32.6 ± 3.5 , improving the 5 students in an average of 12.6 ± 4.4 minutes. The technical aspects not performed correctly in the baseline ultrasound examination were the bilateral comparative, centred image, grey scale gain, measuring, correct anatomical image of the synovial recess of the wrist and position-width-depth of the Doppler box. An improvement was observed at 18 months in the unequivocal identification of the patient, adequate illumination of the consultation, bilateral comparison, correct anatomical acquisition of synovial recesses and the quantification of GS synovitis, but no statistically significant differences were observed, before and after the teaching intervention, in possible relation with the difficulty to use the ultrasound in their respective Rheumatology Units in clinical practice, but mainly because the aspects correctly performed in the baseline exploration were numerous.

Conclusion: A formal training of rheumatology nurses in musculoskeletal ultrasound (MSUS) could be very useful, and cost-efficient, in the health care of patients with rheumatoid arthritis.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2020-eular.4732

AB1356-HPR GOUT IN SPANISH PRIMARY HEALTHCARE CENTERS: STILL A LONG WAY TO GO

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Background: Gout has a prevalence $>2.5\%$ in the Spanish adult population. It is a chronic disease that without proper treatment causes pain, joint deformity and increased cardiovascular risk and mortality. Recent advances have demonstrated that if correctly treated the disease can be controlled and even 'cured'. Most gouty patients are diagnosed and treated by general practitioners (GPs). There is evidence that the management if these patients is not good neither at Rheumatology Units nor at Primary Healthcare (PHC) centers. Several causes of this mismanagement can be found in the literature.

Objectives: Design and evaluation of the results of a questionnaire created from a bibliographic search focused on areas of improvement of gout management in PHC.

Methods: A search was made in Pubmed to identify the main barriers described in the management of patients with gout in primary care. The terms used were: "Gout", "primary healthcare" and "education". A Google Form of gout knowledge and management questionnaire was designed, taking into account what is described in the literature. The Google Form was sent to all GP from an urban area via mail and to other contacts via WhatsApp and twitter.

Results: Responses were obtained from 224 GPs; 69.5% were women; 73.1% had between 11 and 30 years of professional experience; 96.4% answered that gouty are mostly controlled in primary care; 99.6% performs the diagnosis of gout without analysis of synovial fluid and 17% diagnosed only by clinics without urate levels; 55.9% of GPs do not use any reference guide. Of those who use, the 73% use GUIPCLINGOT and 40% use SEMGs one; 80.5% have not done any gout course in the last 5 years; 26% did not have access to a rheumatologist to confirm the gout diagnosis; only 30.8% knew the therapeutic objective of the urate lowering therapy (ULT); 28.6% considered the beginning of ULT after the first attack; 62% believed that the most important part of the treatment was changing diet and life-styles; 88.8% did not perform any specific education for these patients by the nurse; just 37.2% carried out a treat-to-target strategy to lower urate levels.

Conclusion: The questionnaire identifies multiple points of improvement for the management of this pathology in accordance with the described in the literature. Most GPs are unaware of the therapeutic objective of the ULT.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2020-eular.3117

AB1357-HPR DESIGNING THE ROYAL COLLEGE OF NURSING COMPETENCY FRAMEWORK FOR RHEUMATOLOGY NURSES

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Background: The 1st Edition of the RCN Competency Framework for Rheumatology Nurse Specialists (RNS) will be published in March 2020. The role of the RNS is complex, and can include caring for children and young people. The importance of RNS's was highlighted by the National Rheumatoid Arthritis Society (NRAS 2017). The British Society for Rheumatology (BSR) outlined the need for education, training supervision and work force development. Education for RNS isn't currently centralized but is key to improving skills and developing workforce for the future. RNS are in short supply resulting in problems of access to services and delays in care (BSR 2019). In all 4 UK nations the titles of RNS and proficiency vary greatly (Titrate trial 2019) This is likely to have an impact on patient experience and outcomes. The European League Against Rheumatism (EULAR) developed

recommendations for the role of the RNS which were recently updated (Beech et al., 2019). This framework maps all of these requirements.

Objectives: This work supports the development of roles, improve access for patients and reduce. This document will act as a foundation for building sustainability and a more robust education and role development strategy. This work will strengthen rheumatology nursing and support all 4 UK nation's issues regarding recruitment, retention, sustainability, succession planning and benchmarking. Dissemination is key and we will work hard with stakeholders to ensure centralization of a nationally adopted framework. This abstract submission will increase dissemination opportunities.

Methods: Online data sources were searched for the most relevant and current evidence. Where research evidence wasn't available, existing and new knowledge was utilised from a consensus of clinical expert and patient opinions, several rounds of discussions took place virtually and face to face. RCN Rheumatology Nurse Forum Workshop attendees in June 2019 also answered a questionnaire to elicit views and demographic information regarding roles.

Results: The questionnaire results demonstrated 100% (n37) agreement with the development of the framework and that only 2 respondents had completed a competency process. 60% were RNS. Of these 52% (n13) were band 6, 47% (n9) were band 7, and 1% were band 8 consultant nurses. The questionnaire highlighted the need to develop the framework. Results were fed back to the working party to inform the domains to be included.

Conclusion: Document will be at BSR 2020 having successfully submitted a session proposal and abstract. Evaluation will begin later in the year 6 to 12 months from launch. We will measure impact using a variety of methods including membership Facebook pages and the questionnaire at point of download request. We will measure where and how the competency is being used and adoption of the framework throughout the UK.

References:

- [1] Beech B, Primdahl J, van Tubergen A, et al., (2019) 2019 update of the EULAR recommendations for the role of the nurse in the management of chronic inflammatory arthritis. *Ann Rheum Dis*. <http://dx.doi.org/10.1136/annrheumdis-2019-215458> (accessed 13 December 2019). Benner, P (1984) From novice to expert, excellence
- [2] British Society of Rheumatology (2019) State of Play, London: BSR. Available at: www.rheumatology.org.uk/Portals/0/Documents/Policy/BSR_State_Of_Play_Scotland2018.pdf?ver=2019-03-11-094117-440 (accessed 13 December 2019).
- [3] Martin N, Ibrahim F, Tom B, et al., (2017) Does intensive management improve remission rates in patients with intermediate rheumatoid arthritis? (the TITRATE trial): study protocol for a randomized controlled trial. *Trials*. 2017;18:591. doi.org/10.1186/s13063-017-2330-8.

Disclosure of Interests: Polly Livermore: None declared, Diana Finney Speakers bureau: Nordic

Abbvie, Julie Begum: None declared, Ruth Wyllie: None declared, Trish Cornell Employee of: Consultant Nurse for Abbvie, Helen Smith: None declared, Lisa Howie: None declared, Louise Parker: None declared

DOI: 10.1136/annrheumdis-2020-eular.6681

AB1358-HPR

DIAGNOSIS OF AXIAL SPONDYLOARTHRITIS: A PRIMARY UNMET EDUCATIONAL NEED FOR RHEUMATOLOGISTS

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Background: Diagnosis of axial spondyloarthritis (axSpA) is challenging because of absent physical findings in early disease and the limited diagnostic performance of laboratory markers. Considerable reliance is placed on imaging of the sacroiliac joints (SIJ) but specialty training is primarily focused on interpretation of plain radiographic abnormalities.

Objectives: We aimed to identify what might be the primary unmet educational needs of rheumatologists completing fellowship training by using clinical and imaging data from an inception cohort of patients presenting with undiagnosed back pain. We hypothesized that concordance would increase after imaging is reviewed after the clinical data.

Methods: The diagnosis of axSpA was compared between local rheumatologists, axSpA experts and pF using clinical and imaging data from the multicenter Screening for Axial Spondyloarthritis in Psoriasis, Iritis, and Colitis (SASPIC) Study. In this inception cohort, patients ≤45 years of age with ≥3 months back pain undergo diagnostic evaluation by a local SASPIC rheumatologist, including

imaging of the SIJ, who then records a global evaluation of presence/absence of axial SpA. This is done at 3 consecutive stages: 1. After the clinical evaluation. 2. After the results of labs (HLA B27, CRP) and radiography. 3. After review of the local MRI. In this exercise, 20 cases were selected from the SASPIC cohort and the rheumatologist global evaluations were removed from the eCRFs. Four experts in axSpA reviewed the clinical and imaging data in each eCRF and provided their global evaluations for stages 1, 2, and 3 of these 20 cases. Subsequently, 4 pF rheumatologists conducted the same exercise blinded to the assessments of the local rheumatologist and experts in axSpA. Concordance (% agreement) between the assessors was analyzed.

Results: Diagnosis of axSpA by the local SASPIC rheumatologist was made in 90%, 65%, and 75% of cases after stages 1, 2, and 3, respectively. Majority diagnosis of axSpA by experts was made in 84.2% (16/19), 57.9% (11/19), and 63.2% (12/19), after stages 1, 2, and 3, respectively. Majority diagnosis of axSpA by pF rheumatologists was made in 94.4% (17/18), 100% (16/16), and 93.8% (15/16). Concordance among experts and between experts and local SASPIC rheumatologists increased after review of imaging data. For pF-rheumatologists concordance with experts increased after review of imaging for 2 assessors and decreased for the other 2 assessors. For the latter, the primary reason for decrease in concordance with experts was false positive diagnosis of axSpA in 35% and 30% of the cases after review of the imaging.

Conclusion: A structured case-based and sequential evaluation of clinical and imaging data suggests a gap in the training of recently graduated rheumatologists, with over-interpretation of imaging leading to false positive diagnosis of axSpA.

Assessors	Mean % Concordance (range) for diagnosis of axSpA		
	Stage 1	Stage 2	Stage 3
Experts in axSpA	64.2 (45-80)	75.8 (65-85)	84.2 (70-95)
Local rheumatologist vs Experts in axSpA	73.8 (70-80)	83.8 (80-85)	83.8 (80-90)
pF rheumatologist 1 vs Experts consensus	78.9	94.4	94.7
pF rheumatologist 2 vs Experts consensus	89.5	61.1	68.4
pF rheumatologist 3 vs Experts consensus	63.2	72.2	84.2
pF rheumatologist 4 vs Experts consensus	89.5	66.7	68.4

Disclosure of Interests: Walter P. Maksymowych Grant/research support from: AbbVie, Novartis, Pfizer, and UCB, Consultant of: AbbVie, Boehringer Ingelheim, Celgene, Eli Lilly, Galapagos, Janssen, Novartis, Pfizer, and UCB, Employee of: Chief Medical Officer of CARE Arthritis Limited, Speakers bureau: AbbVie, Janssen, Novartis, Pfizer, and UCB, Liron Caplan: None declared, Atul Deodhar Grant/research support from: AbbVie, Eli Lilly, GSK, Novartis, Pfizer, UCB, Consultant of: AbbVie, Amgen, Boehringer Ingelheim, Bristol Myer Squibb (BMS), Eli Lilly, GSK, Janssen, Novartis, Pfizer, UCB, Speakers bureau: AbbVie, Amgen, Boehringer Ingelheim, Bristol Myer Squibb (BMS), Eli Lilly, GSK, Janssen, Novartis, Pfizer, UCB, Soha Dolatabadi: None declared, Mark Hwang: None declared, Adam Carlson: None declared, Kelly Steed: None declared, Amanda Carapellucci: None declared, Joel Paschke: None declared, Lianne S. Gensler Grant/research support from: Pfizer, Novartis, UCB, Consultant of: AbbVie, Eli Lilly, GSK, Novartis, UCB

DOI: 10.1136/annrheumdis-2020-eular.6115

AB1359-HPR

PERCEPTION ABOUT FIBROMYALGIA AND ITS ACCOMPANYING SYMPTOMS AMONG MEXICAN PHYSICIANS

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Background: Previous studies showed that 93% of rheumatologists consider fibromyalgia (FM) as a clinical entity. However, accompanying symptoms such as fatigue, widespread pain, sleep disturbance and headache are underrecognized among physicians. According to a previous study, most recognized symptoms by general practitioners are fatigue and widespread pain (72.6%), while about thirty percent of physicians recognize sleep disturbance and depression as symptoms.

Objectives: To investigate physicians' point of view of FM accompanying symptoms in northeastern Mexico.

Methods: We designed an electronic survey about physicians' perceived importance of depression, fatigue, widespread pain, sleep disturbances, headache and irritable bowel disease symptoms (pain and cramping) in patients with FM. Questions were answered using a 5-point Likert scale: 1, strongly disagree; 2, disagree; 3, neutral; 4, agree; 5, strongly agree. General practitioners, rheumatologists, neurologists, psychiatrists were included.

Results: A total of 236 physicians were included: general practitioners, 149 (59.3%); rheumatologists, 21 (8.9%); neurologists 18 (7.6%); psychiatrists 8