prevent permanent joint damage (1). However, it has been shown that only 20% of the patients are seen within the first three months, and the median delay in general practice has been estimated to 4 months (range 2–9) (2).

Objectives: To explore the barriers in diagnosing RA from the general practitioners' (GPs) perspective.

Methods: We conducted a qualitative study based on focus group interviews. We recorded the interviews digitally and transcribed verbatim. The transcribed interviews were analyzed based on content analysis (3), by using Nivo 12. Sample size was determined by thematic saturation.

Results: In total ten GPs participated in three different focus groups. 40 % were female, mean age was 53 years (range 37–64), and mean year since specialist authorization as GP was 16 years (range 5–23). 60 % of the GPs worked in a practice located within the referral area of a university hospital; the remaining within the referral area of a regional hospital.

Four themes emerged in the analysis: 1) *When the patient is not a text book example*, referring to the difficulty of identifying relevant symptoms among all clinical manifestations from the joints as described by the patients, 2) *The importance of maintaining the gatekeeper function*, referring to the societal perspective, and the GPs responsibility to refer the right patients to secondary care, 3) *Difficulties in referral of patients to the rheumatologist*, referring to perceived differences in the collaboration with rheumatologists. The GPs experienced that it was sometimes difficult to be assisted by rheumatologists, especially when the clinical picture was not 'clear cut'. Finally, (4) *Para-clinical testing, can it be trusted?* referring to challenges on the evaluation of especially biomarkers.

The overarching theme was: *Like finding a needle in a haystack*, covering the GPs difficulties in detecting RA among the many patients in general practice who appear to be well and at the same time have symptoms very similar to RA.

Conclusion: The GPs experienced that RA was a difficult diagnosis to make. The immediate challenge was that RA patient's initial symptoms often resembled those of more common and less serious conditions, and that investigative findings such as biomarkers can be negative at the early state of the disease. At the same time, the collaboration with rheumatologists was sometimes seen as a hurdle, when the clinical picture was not 'clear cut'.

In order to facilitate earlier diagnosis of RA in general practice, the GPs and rheumatologists need to focus on these barriers by strengthening mutual information and collaboration.

Physicians should remain vigilant to patients who have conditions that do not resolve as expected with treatment, who have symptoms that persist, or who do not look well despite negative investigative findings.

References:

- [1] Aletaha D, et al. JAMA, Oct 2018.
- [2] Kiely P, et al. Rheumatology, Jan 2009.
- [3] Braun V. Qualitative research in psychology. 2006, 3(2), 77–101

Disclosure of Interests: Anne Sofie Lundberg: None declared, Bente Appel Esbensen: None declared, Ellen-Margrethe Hauge Speakers bureau: Fees for speaking/consulting: MSD, AbbVie, UCB and Sobi; research funding to Aarhus University Hospital: Roche and Novartis (not related to the submitted work)., Annette de Thurah Grant/research support from: Novartis (not relevant for the present study)., Speakers bureau: Lily (not relevant for the present study).

DOI: 10.1136/annrheumdis-2020-eular.4387

SAT0652-HPR

CHRONIC DISEASE MANAGEMENT AND HEALTH TECHNOLOGY READINESS OF PATIENTS WITH SYSTEMIC SCLEROSIS IN SWITZERLAND – A CROSS-SECTIONAL STUDY

A. Kocher^{1,2}, M. Simon^{1,2}, C. Chizzolini³, O. Distler⁴, A. A. Dwyer⁵, P. Villiger², U. Walker⁶, D. Nicca^{1,6}. ¹University of Basel, Institute of Nursing Science, Basel, Switzerland; ²Inselspital Bern University Hospital, Bern, Switzerland; ³Immunology & Allergy, University Hospitals and School of Medicine, Geneva, Switzerland; ⁴University Hospital of Zurich, Zurich, Switzerland; ⁵Boston College, Connell School of Nursing, Massachusetts, United States of America; ⁶University Hospital of Basel, Basel, Switzerland

Background: People living with systemic sclerosis (SSc) often lack access to coordinated, specialized care and self-management support from qualified healthcare professionals. Such gaps lead to significant unmet health needs and inability to get preventive services. The Chronic Care Model (CCM) has been used to guide disease management across a wide range of chronic conditions. The CCM often uses e-health technologies to address self-management problems, connect patients with clinicians and reduce patient travel requirements.

Objectives: To evaluate current SSc care practice patterns and elicit patient health technology readiness to define relevant aspects and resources needed to improve SSc chronic disease management.

Methods: We employed a cross-sectional survey using the 20-item Patient Assessment of Chronic Illness Care (PACIC) instrument to assess how aspects of SSc care align with key components of the CCM.¹ Six items drawn from the '5A'

(ask, advise, agree, assist, and arrange) model of behavioural counselling were included (all 26 items scored on 5-point scale, 1=never to 5=always). Acceptance of health technology was evaluated by adapting and combining questionnaires from Vanhoof² and Halwas³. German and French speaking SSc patients (>18 years) were recruited from university/cantonal hospitals and the Swiss scleroderma patients' association. Participants completed anonymous paper/online questionnaires. Data were analysed descriptively.

Results: Of 101 SSc patients, most were female (76%), spoke German (78%) and had a median age of 60 years (IQR: 50–68). Median disease duration was 8 years (IQR: 5–15), spanning a range of severity (31% limited SSc, 36% diffuse SSc, 3% overlap syndrome). One-quarter (25%) did not know their disease subset.

The mean overall PACIC score was relatively low (2.91±0.95) indicating that care was 'never' to 'generally not' aligned with the CCM. Lowest mean subscale scores related to Follow-up/Coordination (2.64±1.02), Goal setting (2.68±1.07) and Problem-solving/Contextual Counselling (2.94±1.22). The single items 'Given a copy of my treatment plan' (1.99±1.38) and 'Encouraged to attend programs in the community' (1.89±1.16) were given the lowest ratings. The '5A' summary score was 2.84±0.97.

In terms of technology readiness, 43% completed the survey online. Most participants owned a smartphone (81%), laptop (63%) and/or desktop computer (46%). The overwhelming majority of patients (91%) reported using the Internet in the last year – primarily for communication (e.g. emails, text messages). Participants indicated relatively little experience with e-health applications and participating in SSc online forums or self-help groups.

Conclusion: To improve chronic disease management of SSc patients in Switzerland, current care practices warrant reengineering taking CCM components into account. Specific unmet needs relate to self-management support, help patients set individualized goals, and coordinate continuous care. Web-based technologies incorporating user-centred design principles may be a reasonable option for improving care.

References:

- [1] Glasgow, RE, et al. Development and validation of the Patient Assessment of Chronic Illness Care (PACIC). *Med Care* 2005; 43(5): 436–44
- [2] Vanhoof, JM, et al. Technology Experience of Solid Organ Transplant Patients and Their Overall Willingness to Use Interactive Health Technology. *J Nurs Scholarsh* 2018; 50(2): 151–62
- [3] Halwas, N, et al. eHealth literacy, Internet and eHealth service usage: a survey among cancer patients and their relatives. *J Cancer Res Clin Oncol* 2017; 143(11): 2291–99

Disclosure of Interests: Agnes Kocher Grant/research support from: Sandoz to support the development of an eLearning module for patients with rheumatic diseases., Michael Simon: None declared, Carlo Chizzolini Consultant of: Boehringer Ingelheim, Roche, Oliver Distler Grant/research support from: Grants/Research support from Actelion, Bayer, Boehringer Ingelheim, Competitive Drug Development International Ltd. and Mitsubishi Tanabe; he also holds the issued Patent on mir-29 for the treatment of systemic sclerosis (US8247389, EP2331143)., Consultant of: Consultancy fees from Actelion, Acceleron Pharma, AnaMar, Bayer, Baecon Discovery, Blade Therapeutics, Boehringer, CSL Behring, Catenion, ChemomAb, Curzion Pharmaceuticals, Ergonex, Galapagos NV, GSK, Glenmark Pharmaceuticals, Inventiva, Italfarmaco, iQvia, medac, Medscape, Mitsubishi Tanabe Pharma, MSD, Roche, Sanofi and UCB, Speakers bureau: Speaker fees from Actelion, Bayer, Boehringer Ingelheim, Medscape, Pfizer and Roche, Andrew A. Dwyer: None declared, Peter Villiger Consultant of: MSD, Abbvie, Roche, Pfizer, Sanofi, Speakers bureau: Roche, MSD, Pfizer, Ulrich Walker Grant/research support from: Ulrich Walker has received an unrestricted research grant from Abbvie, Consultant of: Ulrich Walker has act as a consultant for Abbvie, Actelion, Boehringer Ingelheim, Bristol-Myers Squibb, Celgene, MSD, Novartis, Pfizer, Phadia, Roche, Sandoz, Sanofi, and ThermoFisher, Paid instructor for: Abbvie, Novartis, and Roche, Speakers bureau: Abbvie, Actelion, Bristol-Myers Squibb, Celgene, MSD, Novartis, Pfizer, Phadia, Roche, Sandoz, and ThermoFisher, Dunja Nicca: None declared

DOI: 10.1136/annrheumdis-2020-eular.3232

SAT0653-HPR

COMMUNITY RHEUMATOLOGY SERVICE IN THE UK – WHO BENEFITS THE MOST?

K. Szabo-Kocsis¹, M. Dare². ¹Connect Health Ltd., Rheumatology, Newcastle upon Tyne, United Kingdom; ²Connect Health Ltd., Newcastle upon Tyne, United Kingdom

Background: Community rheumatology (CR) in the UK is a new form of rheumatologic service provision established in the last few years and run by few organisations such as Connect Health Ltd.

CR is based on the principle of sharing the management of rheumatologic patients between community service and secondary care aiming to reduce the

unreasonable referral flow from primary care to secondary care and to share the care of stable inflammatory patients between the services.

In the traditional service model patients are referred by General Practitioners (GP) to the secondary care with a wide spectrum of conditions: from fibromyalgia through soft tissues rheumatism to inflammatory or connective tissue diseases. Many of these patients will be discharged from the specialist service after their first visit with fibromyalgia, osteoarthritis, chronic pain syndrome or MSK diagnoses. The proportion of these patients versus those who have an inflammatory rheumatologic condition or connective tissue disease (CTD) varies significantly and can contribute to oversaturated specialist rheumatologic services with long waiting time where specialists deal with less relevant cases.

Objectives: To determine how CR can improve quality of care and decrease the waiting time for appointment in secondary care rheumatology services. To set standards for referral pathways and measured outcomes of effectiveness in patient care.

In the UK the regional Clinical Commissioning Groups would accept a maximum waiting time from the referral until patient treatment of up to 18 weeks and specialist services often breach that limit. This long interval may have a significant negative impact for the care of patients with rheumatological condition, reducing patient satisfaction and/or jeopardize patient safety. The solution to the above problem is the creation of CR service.

Methods: Extensive search about the available resources within UK NHS system in regards CR service creation and set up. Web search, literature review in relation to CR in the UK

Results: From the research different models of CR can be identified and one of these will be presented in details based on the experience of one of the largest organisation running CR services in the UK (Connect Health Ltd). This service is organised within community care set up and can accept patients referred by the primary care physicians with non-inflammatory symptoms (e.g. osteoarthritis, Ehlers - Danlos Syndrome, fibromyalgia) or PMR or gout. The service also can review stable inflammatory patients who are treated with DMARDs and are transferred from the secondary care service by their consultant. This presentation will demonstrate how CR provides safer, faster and more accessible services to the patients assisting the specialist services and allowing them to concentrate on the inflammatory and CTD patients who need faster access to these services than it is possible now. Particularly the presentation will emphasise on:

- Patient population cover
- Team structure, their experience and training
- Referral criteria and IT set up for multidisciplinary connection
- Time interval for appointment and patient feedback
- Impact on the secondary care rheumatology service
- Cases of misdiagnosis and inappropriate referrals
- Cost effectiveness of the CR
- Challenges in the CR service

Conclusion: The CR service can be a safe addition to the specialist services taking over significant workload and provide new career opportunities for a wide range of Allied Health Professionals (AHP) for the bigger satisfaction of the patients who can access rheumatology service earlier and easier.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2020-eular.6550

SAT0654-HPR

AN OUTCOME EVALUATION FOR THE NURSE-LED EARLY ARTHRITIS CLINIC ON THE DIAGNOSIS AND MANAGEMENT OF RHEUMATOID ARTHRITIS AT CARITAS MEDICAL CENTRE IN HONG KONG

D. K. H. Ng¹, Y. L. J. Yu², P. Y. K. Lin² on behalf of DOCTOR. ¹Hong Kong, CARITAS MEDICAL CENTRE, HONG KONG, Hong Kong (SAR); ²Hong Kong, CARITAS MEDICAL CENTRE, HONG KONG, Hong Kong (SAR)

Background: Rheumatoid Arthritis (RA) is a chronic, autoimmune, inflammatory disease that may cause progressive joint damage and deformity, leading to functional disability and reduced quality of life. However, there is often a long waiting time for the first assessment in Rheumatology Clinic by doctor. Development of rheumatology nurse-led clinic allows early assessment by qualified rheumatology nurse for patients with suspected RA. It may potentially facilitate the decision and treatment plan in the first doctor clinic. A nurse-led Early Arthritis Clinic (EAC) for RA patients had been established in Caritas Medical Centre (CMC) since January 2018.

Objectives: To determine the effectiveness of the EAC by early identification of new cases of RA and to facilitate decision in early initiation of disease-modifying anti-rheumatic drugs (DMARDs) during the first doctor clinic assessment.

Methods: New cases were screened and recruited by Rheumatology nurse from January to December 2018 to nurse-led EAC. The recruited new cases were seen in EAC around 1 to 4 weeks before the first doctor clinic. Rheumatology nurse performed nursing assessment in EAC according to the 2010 ACR-EULAR Classification of RA. These cases will be reviewed by Rheumatologist during the first doctor clinic for confirmation of diagnosis and formulation of treatment plan. If urgent problems were identified during assessment in EAC, patients would be prioritized to have an earlier doctor clinic appointment or hospitalization may be arranged.

Results: A total of 128 patients with articular symptoms were seen in nurse-led EAC during the study period. Nursing assessment revealed that 71 patients were required further evaluation for the diagnosis of RA (26 males and 45 females, mean age for males: 51, mean age for females: 56) and they were recruited into the study. 36 of these 71 patients were confirmed with the diagnosis RA by rheumatologist during the first consultation of doctor clinic. 13 of 36 patients were prescribed with DMARDs on the same day of consultation. Before the establishment of EAC, the mean time of confirmation of RA by rheumatologist was 8 weeks (range from 4 to 12 weeks). Therefore, EAC facilitates both the early diagnosis of RA and the prompt initiation of treatment after confirmation of diagnosis. Reduction in disease activity was also noted after treatment. The mean Disease Activity Score of 28 joints (DAS 28) during the assessment in EAC was 4.66 (range 3.22 to 6.54) while post treatment after EAC and the first doctor clinic was 3.30 (range 2.08 to 5.16) with mean difference of -1.36 ($p < 0.01$). Other diagnoses were also made among the 71 patients. 8 patients were diagnosed of Spondyloarthropathy, 2 patients were diagnosed of psoriatic arthritis and 2 patients were diagnosed of systemic lupus erythematosus. 3 of these 71 patients were identified urgent medical problems required early intervention. Among these 3 cases, two patients with liver function derangement and one of them needed hospital admission for assessment of acute hepatitis. Another patient was arranged hospitalization to rule out sepsis due to raised total white cell count and erythrocyte sedimentation rate.

Conclusion: Rheumatology nurse assessment in EAC is effective in assessing patients with suspected diagnosis of RA. It shortened the time to confirm the diagnosis of RA, and facilitated the decision on treatment plan. It effectively improved the disease activity of patients due to the prompt initiation of DMARDs by Rheumatologist.

References:

- [1] Aletaha et al. 2010 Rheumatoid arthritis classification criteria: An American College of Rheumatology/European League Against Rheumatism collaborative initiative. *Arthritis and Rheumatism* 2010; 62(9): 2569-2581.
- [2] Mok CC et al. Management of rheumatoid arthritis: 2019 updated consensus recommendations from the Hong Kong Society of Rheumatology. *Clin Rheumatol* 2019. (in press)

Acknowledgments: DR DANIEL KAM HUNG NG

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2020-eular.3464