Results: From 2014 to 2017, 21,993 SLE patients were identified. Women represented 87.4% of the cases, and 5428 patients were selected to make up the sample of SLE patients. The number of patients without diagnosis of SLE was 19,419,540. From this population, it was drawn randomly a 10% size sample, to make up the potential control sample. To estimate the incremental cost of having SLE vs. non-SLE, on the direct cost in health, propensity scores analysis was used to reduce differences in the baseline characteristics. Three groups were formed based on disease severity: high (patients who had renal failure), medium (patients in intensive care unit at least once but without renal failure) and low (remaining SLE patients) (See table 1).

Table 1. Incremental cost by degree of severity

<table>
<thead>
<tr>
<th>Degree of Severity</th>
<th>Average adjust incremental cost per year (in COP)</th>
<th>Confidence interval construction method</th>
<th>Confidence interval (95%) (in COP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>$19,930,931.67</td>
<td>t-interval</td>
<td>$16,525,728.01</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bootstrap</td>
<td>$13,366,135.32</td>
</tr>
<tr>
<td>Medium</td>
<td>$7,248,201.04</td>
<td>t-interval</td>
<td>$2,123,742.99</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bootstrap</td>
<td>$1,098,098.2</td>
</tr>
<tr>
<td>Low</td>
<td>$885,300.40</td>
<td>t-interval</td>
<td>$642,925.6, $</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bootstrap</td>
<td>$688,197.5, $</td>
</tr>
</tbody>
</table>

Results: Frailty is a common amongst patients with rheumatological diseases, and there is increasing evidence that it is associated with poorer outcomes. Frailty scores worsen during the course of chronic inflammatory arthritis (IA) and connective tissue disease (CTD). Existing tools such as the Rockwood Clinical Frailty Scale (a nine-point scale from 1 very fit-9 severely frail) allow for rapid frailty assessment by doctors and nurses. Frailty assessment is recommended by NHS England as an important public health opportunity for targeted interventions for both primary and secondary care. We have limited understanding of frailty in rheumatology new patient cohorts, and it is not routinely assessed in most centres. We report the feasibility and utility of frailty scores in patients referred to rheumatology, and association with final diagnosis.

Objectives: This service evaluation assesses the utility and feasibility of implementing the Rockwood Clinical Frailty Score for new patient referrals at a single UK centre.

Methods: New patient assessments at a rheumatology consultant general new patient clinic were prospectively coded over 9-months (March-December 2019). Anonymised coded demographic data included age, gender, referral source, history of depression, RFCS and clinical diagnosis (coded against established categories, those requiring further tests coded ‘awaiting investigations’). RCFS coding was assisted by an online validated pictorial aide memoir for coding.

Results: Of the 181 referrals, 11 (6%) were excluded for incomplete data. The mean age of the remaining 170 patients was 53 years (SD 16.8, range 17-87), predominantly female (123/170; 72%). Most referrals, 57% (97/170) were from primary care, 39% (70/170) from musculoskeletal integrated triage services, 5% (9/170) from orthopaedics, 4% (7/170) from gastroenterology; 18 were from secondary-care specialties. The RCFS was: mean 2.6 (median 2, range 1-7) with depression in 61/170 (36%), but no effect of this on mean RCFS (2.6 in both). RCFS increased with age (70-79, n=21, mean 2.9; ≥80, N=12, 4.3). The majority of patients had non-inflammatory (NI) diagnoses (119/170, 70%) e.g. osteoarthritis, fibromyalgia. Overall 19% (32) ‘inflammatory arthritis’ (IA); rheumatoid arthritis, psoriatic, undifferentiated inflammatory arthritis, gout); 4% (6) were diagnosed with a form of connective tissue disease (undifferentiated CTD; SLE; Sjogren’s syndrome); 8% (13) were awaiting further investigations. Patients in both the NI and IA category were found to have an average RCFS of 2.6 (SD, NI 1.1; IA 0.9). Patients who received a diagnosis of CTD had an average RCFS of 3.5 (SD 1.8). We identified 30 patients who scored four or more (vulnerable/at risk) for targeted intervention by therapy and allied health professionals. The RCFS was positively evaluated by clinicians.

Conclusion: RFCS was simple to introduce to our centre and has provided us with additional data to plan our service provision for primary and secondary care support for our cohort. Our new patients with CTD, and who were elderly had higher frailty scores, we found no association between frailty and depression or presence of IA or NI. The RCFS was easy to use and can be integrated into routine clinical practice for new and follow up patients. Further studies are required to support these findings.

References:
[1]친화한 언어, 정확한 정보를 제공해야 합니다. 추가적인 주제나 자료를 포함하여 연구의 완전성을 보장해야 합니다.

Disclosure of Interests: None declared

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**SAT0850-HPR WHAT CAN WE LEARN FROM A ROUTINE FRAILTY ASSESSMENT IN RHEUMATOLOGY? A SERVICE EVALUATION OF 170 NEW PATIENT REFERRALS TO A SINGLE RHEUMATOLOGY CENTRE.**

N. Cleaton1, J. Bateman2, 1 New Cross Hospital, Heath Town, United Kingdom

Background: Frailty is common among patients with rheumatological diseases, and there is increasing evidence that it is associated with poorer outcomes. Frailty scores worsen during the course of chronic inflammatory arthritis (IA) and connective tissue disease (CTD). Existing tools such as the Rockwood Clinical Frailty Scale (a nine-point scale from 1 very fit-9 severely frail) allow for rapid frailty assessment by doctors and nurses. Frailty assessment is recommended by NHS England as an important public health opportunity for targeted interventions for both primary and secondary care. We have limited understanding of frailty in rheumatology new patient cohorts, and it is not routinely assessed in most centres. We report the feasibility and utility of frailty scores in patients referred to rheumatology, and association with final diagnosis.

Objectives: This service evaluation assesses the utility and feasibility of implementing the Rockwood Clinical Frailty Score for new patient referrals at a single UK centre.

Methods: New patient assessments at a rheumatology consultant general new patient clinic were prospectively coded over 9-months (March-December 2019). Anonymised coded demographic data included age, gender, referral source, history of depression, RFCS and clinical diagnosis (coded against established categories, those requiring further tests coded ‘awaiting investigations’). RCFS coding was assisted by an online validated pictorial aide memoir for coding.

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Conclusion: RFCS was simple to introduce to our centre and has provided us with additional data to plan our service provision for primary and secondary care support for our cohort. Our new patients with CTD, and who were elderly had higher frailty scores, we found no association between frailty and depression or presence of IA or NI. The RCFS was easy to use and can be integrated into routine clinical practice for new and follow up patients. Further studies are required to support these findings.

References:

Disclosure of Interests: None declared

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**SAT0851-HPR BARRIERS IN DIAGNOSING RHEUMATOID ARTHRITIS – A FOCUS GROUP STUDY ON THE GENERAL PRACTITIONERS’ PERSPECTIVES**

A. S. Lundberg1, 2, B. A. Esbensen3, E. M. Haugen4, 5, A. De Thuras5, A. Aarhus University Hospital, Department of Clinical Pharmacology, Aarhus N, Denmark; 2Institute of Public Health, Research Unit of General Practice, Aarhus C, Denmark; 3Rigshospitalet, Copenhagen Center for Arthritis Research, Center for Rheumatology and Spine Diseases, Copenhagen, Denmark; 4Aarhus University Hospital, Department of Rheumatology, Aarhus N, Denmark; 5Aarhus University, Department of Clinical Medicine, Aarhus N, Denmark

Background: Early treatment, before three months from symptom onset of rheumatoid arthritis (RA), is essential to increase the likelihood of remission and to...
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 look 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:
[3] Braun V. Qualitative research in psychology. 2006, 3(2), 77-101

Disclosure of Interests: Anne Sofie Lundberg: None declared, Bente Appel Petersen: None declared. OA562-HPR

**SAT0652-HPR**

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

A. Kocher1,2, E. M. Simon1,2, C. Chizzolini2, O. Distler2, A. A. Dwyer2, P. Viliiger2, U. Walker2, D. Nicca1,2,1. University 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 comprehensive, specialist 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, connects 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. 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: 50-88). Median disease duration was 8 years (IQR: 5-16), 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. Lower mean subscale scores related to Follow-up (Coordination (2.64±1.02), Goal setting (2.86±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 SA 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:

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 mi-29 for the treatment of systemic sclerosis (US2847389, EP2331143), Consultant of: Consultancy fees from Actelion, Acceleron Pharma, AnaMar, Bayer, Baecoon Discovery, Blade Therapeutics, Boehringer, CSL Behring, Catenion, ChemomAb, Curzon Pharmaceuticals, Ergonex, Galapagos NV, GSK, GlaxoSmithKline Pharmaceuticals, Inventiva, Italfarmaco, IQvia, medacs, 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 Viliiger Consultant of: MSD, Abbvie, Roche, Pfizer, Sanofi, Speakers bureau: Roche, MSD, Pfizer, 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

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**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