components: i.e. smoking, alcohol consumption, exercise and diet and in total a medium number of 7 (pre-RA: IQR 4-10, pre-SpA: IQR 5-8) while 35% of rheumatologists gave lifestyle advice to 45% of at risk patients (most often smoking cessation).

At 30% disease risk, the willingness to use 100% effective preventive medication with no side effects was 53% (pre-RA), 55% (pre-SpA) and 74% (rheumatologists) which increased at 70% disease risk to 69% (pre-RA) and 92% (pre-SpA and rheumatologists). At 30% disease risk and minor side effects, willingness was 26% in pre-RA, 29% in pre-SpA and 31% by rheumatologists and at 70% disease risk 40%, 66% and 76% for pre-RA, pre-SpA and rheumatologists respectively. Differences between rheumatologists and persons at risk are shown in table 1. Of the rheumatologists 16% indicated that a 30% RA risk in 3 years was needed to start preventive therapy and another 16% preferred a 70% risk before starting medication.

Table 1. Willingness to use preventive medication

<table>
<thead>
<tr>
<th>Disease risk</th>
<th>% of persons at risk for RA willing to use medication</th>
<th>% of person at risk for SpA willing to use medication</th>
<th>Difference between rheumatologists and persons at risk for RA</th>
<th>Difference between rheumatologists and persons at risk for SpA</th>
</tr>
</thead>
<tbody>
<tr>
<td>30%</td>
<td>53%</td>
<td>55%</td>
<td>p = 0.017</td>
<td>p = 0.076</td>
</tr>
<tr>
<td>70%</td>
<td>69%</td>
<td>92%</td>
<td>p = 0.002</td>
<td>p = 0.964</td>
</tr>
</tbody>
</table>

Conclusion: Disease risk perception and willingness to start preventive intervention were comparable between pre-SpA and pre-RA patients. They seem willing to make several lifestyle changes to decrease disease risk and were generally willing to use medication in case of a clearly increased risk. Rheumatologists were overall more likely than at risk individuals to start preventive medication. Lifestyle advice was given less frequently by rheumatologists contrasting with individuals high willingness to adjust lifestyle.

References:

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THU0118 FREQUENT SELF-ASSESSMENTS PROMOTED TREAT-TO-TARGET FOR RA VIA EMPOWERING PATIENTS: A COHORT STUDY FROM CHINA BY SMART SYSTEM OF DISEASE MANAGEMENT (SSDM)

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Background: Treat-to-Target (T2T) strategy are critical for the treatment of RA, but Chinese rheumatologists can hardly provide patients with a complete assessment in the clinic due to limited time. According to DAS28 scores, disease activity of the cohort was divided into four groups: remission (Rem), low (LDA), moderate (MDA) and high (HDA) disease activity, T2T, achieving a DAS28 score lower than 2.6 (Rem) or below 3.2 (LDA), is the main management strategy recommended by ACR and EULAR.

Objectives: To evaluate the patterns of T2T and related influential factors among RA patients after applying SSDM with repeated self-assessment in the real world.

Methods: SSDM is a mobile application for disease management. Patients were trained to do DAS28 assessment with SSDM and required for repeating self-assessment after leaving the hospital. After entry by patients, data can be synchronized to the SSDM terminal of authorized rheumatologists. Based on the patients’ data, rheumatologists will provide medical advices to them.

Results: From Jan 2015 to Jan 2020, 68,103 RA patients enrolled in SSDM. The mean age of 51.58±12.86 years old and median disease duration is 3.83 years. 52,355 patients performed self-assessment of DAS28, HAQ and morning stiffness duration totally for 114,792 times. Proportion of patients in Rem, LDA, MDA and HDA was 26%, 17%, 44% and 13% respectively at baseline. Among them, 5,486 RA patients from 219 hospitals across China were followed up for more than 12 months through SSDM.

The rate of T2T achievers were 50.20% (2,755/5,488) at baseline, and improved significantly to 65.14% (3,575/5,488) after 12 months follow up, p<0.05. Among T2T achievers at baseline, 77.20% (2,127/2,755) maintained T2T, 22.80% (628/2,755) relapsed. Of patients who didn’t achieve T2T at baseline, only 56.76% (1,551/2,733) achieved T2T after 12 months follow up.

The frequency of self-assessment for DAS28 on T2T has been analyzed. Results indicated that the more frequent of the self-assessments being performed by patients, the higher improvement of T2T rate will be. The improvement rates of T2T in the subgroups which self-assessed with SSDM by annually, semiannually, quarterly, bimonthly, monthly and more frequent than monthly were 74.9%, 10.40%, 16.29%, 18.73%, 20.13% and 22.77% respectively. The improvement rate (y) of T2T was positively correlated with the frequency of self-assessment for DAS28(x) independently. The regression equation as: Y = 0.0309x + 0.5171, r = 0.9785, p<0.01 (Figure 1).

Conclusion: Significant improvement was observed under applying SSDM through empowering RA patients. After proactive disease management via SSDM for more than 12 months, patients with DAS28<3.2 score at baseline had a significantly higher retention rate of Rem disease activity. The patients who performed more frequent self-assessments had lower probability of relapse and higher rate of T2T. SSDM is a valuable tool for long term follow-up through empowering patients.

Figure 1. The improvement rate of T2T in the subgroups with assessment frequency

Acknowledgments: SSDM was developed by Shanghai Gothic Internet Technology Co., Ltd.

Disclosure of Interests: None declared

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THU0119 COULD SYNOVITIS AND TENOSYNOVITIS DETECTED BY ULTRASOUND BE CONSIDERED A RISK FACTOR FOR SHORT-TERM FLARE IN RA PATIENTS IN CLINICAL REMISSION

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Background: The clinical value of ultrasound (US) detected synovitis and tenosynovitis as predictors of flares in RA patients in clinical remission is not clear.

Objectives: To investigate the value of US detected synovitis and tenosynovitis as risk factors for short term flare in RA patients in clinical remission.
Methods: Consecutive RA patients in clinical remission (DAS28 ESR < 2.6) for at least 3 months, underwent Power Doppler ultrasound (PDUS) examination of: 1st to 6th interphalangeal proximal (IPP). Synovitis and tenosynovitis were defined according to OMERACT. Patients were followed for one year. Disease flare was defined as any increase of disease activity generating the need of change in therapy by the attending rheumatologist.

Results: Ninety patients were included. Patients' characteristics are shown in the table. After one year of follow-up, 26 patients (29%) experienced a flare. At baseline 39%, 23% and 8% had US detected synovitis, tenosynovitis or both respectively. The presence of US detected tenosynovitis (RR: 4.9; 95% CI: 2.2-10.8), but not of US detected synovitis (RR: 1.3; 95% CI: 0.76-2.2), showed an increased risk of having a flare. In the multivariable analysis, and after adjusting by age, gender, disease duration, DAS28, DMARDs and biologics use, and the US detected synovitis, only subclinical tenosynovitis (OR: 9.8; 95% CI: 2.5-39.1; p=0.001) and baseline DAS28 (OR: 5.7; 95% CI: 1.1-31.6; p=0.047) were significantly associated with an increased risk of flare.

Conclusion: Subclinical tenosynovitis, but not synovitis, was associated with disease flare in patients with RA in clinical remission. This feature might have physio-pathological implications.

References:

Table 1. Demographic and clinical features from RA patients in clinical remission

<table>
<thead>
<tr>
<th>Feature</th>
<th>Patients with flares (n=26)</th>
<th>Patients without flares (n=64)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean age (SD)</td>
<td>63.1 (12.6)</td>
<td>575 (13.2)</td>
<td>0.0679</td>
</tr>
<tr>
<td>Females, n (%)</td>
<td>54 (84)</td>
<td>24 (92)</td>
<td>0.316</td>
</tr>
<tr>
<td>Mean Disease duration years (SD)</td>
<td>5.5 (5.5)</td>
<td>8.4 (5.9)</td>
<td>0.0344</td>
</tr>
<tr>
<td>Positive Rheumatoid Factor, n (%)</td>
<td>16 (61.5)</td>
<td>40 (62.5)</td>
<td>0.802</td>
</tr>
<tr>
<td>Mean Erythrocyte sedimentation rate (ESR)</td>
<td>18.3 (8)</td>
<td>14.1 (10.4)</td>
<td>0.0680</td>
</tr>
<tr>
<td>Mean DAS28 ESP (SD)</td>
<td>19.0 (5.0)</td>
<td>2.0 (2.3)</td>
<td>0.0091</td>
</tr>
<tr>
<td>Mean Swollen joint count (SS)</td>
<td>0.15 (0.4)</td>
<td>0.15 (0.4)</td>
<td>0.9806</td>
</tr>
<tr>
<td>Mean Patient’s Global VAS (0-10) (SD)</td>
<td>1.4 (1.3)</td>
<td>1.1 (1.1)</td>
<td>0.2471</td>
</tr>
<tr>
<td>Mean tender joint count (SD)</td>
<td>0.2 (0.5)</td>
<td>0.2 (0.5)</td>
<td>0.9653</td>
</tr>
<tr>
<td>Treatment with DMARDs, n (%)</td>
<td>54 (81)</td>
<td>26 (40.0)</td>
<td>0.018</td>
</tr>
<tr>
<td>Treatment with biologics, n (%)</td>
<td>19 (30)</td>
<td>3 (11)</td>
<td>0.069</td>
</tr>
</tbody>
</table>

Disclosure of Interests: Johana Zacariza H: None declared, martin brom: None declared, florencia mollerach: None declared, josefina marin: None declared, florencia mollerach: None declared, josefina marin: None declared, florencia mollerach: None declared, josefina marin: None declared.

Disclosure of Interests: None declared

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THU0121 COMORBIDITIES AT DIAGNOSIS OF RHEUMATOID ARTHRITIS

THU0121

COMORBIDITIES AT DIAGNOSIS OF RHEUMATOID ARTHRITIS

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Background: Although many studies have reported an increased burden of comorbidities in patients with rheumatoid arthritis (RA), and their impact on RA outcomes, few studies have compared the pattern of comorbidities already at diagnosis of RA, in relation to the burden among matched control subjects. Only such a comparison can inform on which comorbidities are increased already before RA diagnosis, presumably due to overlapping causal factors, and which arise as a consequence of the RA disease or its treatment.

Objectives: The aim of this study was to investigate the pattern of common chronic conditions in patients with RA, overall and stratified by serological status, at the time of diagnosis, compared to a matched control group reflective of the general population.

Methods: This nationwide study included patients with a new-onset RA diagnosis, using data from the Swedish Rheumatology Quality register, from 2006 to 2015. We included 11,086 incident RA cases, of whom 62% were seropositive. From the Total Population Register, we identified 54,813 population controls, individually matched on age, sex and county of residence. Information about registered comorbidity diagnoses during the five years up until the RA diagnosis was retrieved from the Swedish National Patient Register. Information on dispensed drugs during the year up until the RA diagnosis was collected from the Prescribed Drug Register. Comorbidity diagnoses were grouped into 10 different categories (see table 1). Logistic regression was the