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 ≥50% 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

Disease risk	% of persons at risk for RA willing to use medication	% of person at risk for SpA willing to use medication	% of rheumatologist willing to use medication	Difference between rheumatologists and persons at risk for RA	Difference between rheumatologists and persons at risk for SpA
100% effective medication, no side effects					
30%	53%	55%	74%	p = 0.017	p = 0.076
70%	69%	92%	92%	p = 0.002	p = 0.964
100% effective medication, minor side effects					
30%	26%	29%	31%	p = 0.554	p = 0.866
70%	40%	66%	76%	p < 0.001	p = 0.320

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:
[1] Zaccardelli A et al. Clin Ther. 2019;41(7):1323-45
[2] Cope AP et al. Clin Ther. 2019;41(7):1299-311
[3] Brown MA et al. Ann Rheum Dis. 2000;59(11):883-6
[4] de Winter et al. Clin Rheumatol. 2019 Mar;38(3):755-759

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)**

J. Yang[1], R. Mu[2], C. Li[2], B. Wu[3], H. Wang[4], W. Fan[5], J. Zou[1], Y. Zhang[1], F. Li[6], X. Rong[7], J. Wu[8], Y. Wang[9], S. Li[10], Y. Zhao[11], X. Hou[12], H. Xiao[13], B. Wu[13], Y. Zhao[13], Y. Jia[13], F. Xiao[13], Z. Li[2] on behalf of SSDM Collaboration Group, China. *[1]Central Hospital of MianYang, MianYang, China; [2]People's Hospital, Beijing University Medical School, Beijing, China; [3]Chongqing Hospital of Traditional Chinese Medicine, Chongqing, China; [4]JiaXing First Hospital, JiaXing, China; [5]Central Hospital of XinXiang, XinXiang, China; [6]The Second Xiangya Hospital of Central South University, Changsha, China; [7]The First Affiliated Hospital of Chongqing Medical University, Chongqing, China; [8]Dazhou Central Hospital, Dazhou, China; [9]The First Hospital Affiliated to AMU, Chongqing, China; [10]Peking University International Hospital, Beijing, China; [11]Xuanwu Hospital, Capital Medical University, Beijing, China, Beijing, China; [12]Yichang Central People's Hospital, Yichang, China; [13]Shanghai Gothic Internet Technology Co., Ltd., Shanghai, China*

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, 5,488 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 56.75% (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 7.49%, 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 "$y = 0.0309x + 0.0517$", $r = 0.9785$, $p<0.01$ (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.
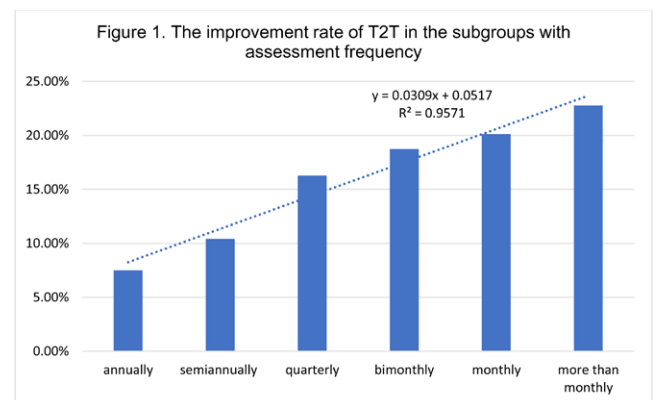
Figure 1. The improvement rate of T2T in the subgroups with assessment frequency

---

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

J. Zacariaz H[1], M. Brom[1], F. Mollerach[1], J. Marin[1], L. Ferreyra G[1], J. Rosa[1], E. Soriano[1]. *[1]Hospital Italiano de Buenos Aires, Ciudad Autonoma de Buenos Aires, Argentina*

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.