for extended indication for immunisation against Haemophilus in vulnerable groups of adults and has implications for targeted adult Haemophilus influenzae vaccine development.

	Infection	Uninfected	Marginal Row Totals
Normal IG	18 (26.2) [2.57]	57 (48.8) [1.38]	75
Low IG	33 (24.8) [2.71]	38 (46.2) [1.45]	71
Marginal Column Totals	51	95	146 (Grand Total)

The chi-square statistic is 8.1083. The *p*-value is .004406. Significant at *p* < .05.

The chi-square statistic with Yates correction is 7.1494. The *p*-value is .007499. Significant at *p* < .05.

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SAT0113

DISCORDANCE OF CLINICAL REMISSION AND IMAGING REMISSION BY ULTRASONOGRAPHY IN PATIENTS WITH RHEUMATOID ARTHRITIS WITH BIOLOGIC AGENTS

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Background: Residual synovitis can be detected by sensitive modalities such as ultrasonography in patients with rheumatoid arthritis in clinical remission. On the other hand, a previous study has shown that ultrasound-guided treatment provides modest benefit compared to a conventional strategy aiming clinical remission in early patients. It is still unclear how discordant clinical remission is from imaging remission by ultrasonography in patients treated with biologic agents

Objectives: To clarify the discordance between clinical remission and imaging remission in patients with rheumatoid arthritis treated with biologic agents.

Methods: Patients with rheumatoid arthritis who were treated with biologic agents and in clinical remission defined as disease activity score for 28 joints (DAS28) < 2.6 were enrolled. All patients were performed comprehensive ultrasound examination of 44 joints as well as physical examinations. Ultrasound images of gray scale (GS) and power doppler (PD) were evaluated with a semi-quantitative score of 0-3. Imaging remission with ultrasound was defined as no PD signal detected in any joints. Clinical information was collected from their medical charts.

Results: A total of 41 patients were enrolled with 22 patients treated with tumor necrosis factor (TNF)-α inhibitors and 19 with interleukin (IL)-6 inhibitors. The mean age, female ratio, the mean disease duration, and the mean duration of clinical remission were 60 years old, 87%, 5.1 years and 11.5 years. The imaging remission by ultrasonography was observed only in 51.2 %. When patients were divided according to biologic agents, baseline characteristics including median age, disease duration and clinically remission duration were comparable between both groups, while the rates of seropositivity and the stage of radiological progression was higher in IL-6 group (seropositivity, *p*=0.04; radiological progression, *p*=0.02). The mean DAS28 was 1.93 in the TNFα group and 1.02 in the IL-6 group. The discordance of clinical remission and imaging remission was observed in 28.6% of the TNFα group and 71.4% of the IL-6 group (*p*=0.03). The residual synovitis scores of GS and PD in 44 joints were significantly lower in the TNFα than the IL-6 group (GS, 1.1±1.8 vs 4.7 ± 4.6, *p*<0.01; PD, 0.6 ± 1.3 vs 3.3 ± 3.5, *p*<0.01, respectively). A receiver

operating characteristic curve demonstrated an optimal score of DAS28 that discriminated imaging remission as 1.89 in the TNFα group and 1.25 in the IL-6 group.

Conclusion: Our results showed that there was substantial discordance between clinical remission and imaging remission, especially in the patients treated with IL-6 inhibitors. In patients treated with biologic agents, clinical remission should be assessed more stringently than the usual 2.6, and ultrasound-guided management may be useful.

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SAT0114

IMPACT OF DOSE TAPERING REIMBURSEMENT POLICY ON PRESCRIPTION PATTERN OF ADVANCED THERAPY FOR RHEUMATOID ARTHRITIS IN TAIWAN

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Background: Rheumatoid arthritis (RA) patients treated with advanced therapy (biologic disease-modifying antirheumatic drugs and targeted synthetic disease-modifying antirheumatic drugs) may be considered dose tapering after reaching treatment goal.¹ In EULAR 2016 recommendations, dose reduction can be considered if patients reach sustained remission.² A dose tapering policy of advanced therapy was introduced in the treatment guideline of RA since 2014 under the National Health Insurance (NHI) in Taiwan. The new reimbursement policy requests the dosage to be tapered in patients who received advanced therapy for 2 years and reached low disease activity defined by DAS28 (ESR).

Objectives: This retrospective study aims to investigate the impact of dose tapering policy on prescription pattern of advanced therapy for RA patients in Taiwan.

Methods: This study was an observational retrospective analysis on the population-based National Health Insurance Research Database (NHIRD) in Taiwan. Patients with RA aged ≥18, initiated an index advanced therapy - abatacept, adalimumab, etanercept, golimumab, tocilizumab, or tofacitinib, during 2011-2017 were included (Figure 1). Patients were followed-up until the index advanced therapy was switched/discontinued or the end of data, whichever came first. The 4-week moving average of proportion of days covered (PDC) of the index therapy within each 12-week period were assessed. The outcome variable was whether dose tapering occurred which was defined as PDC being less than 0.5. The odds ratios (ORs) and the 95% confidence intervals (CIs) were estimated using Generalized Estimating Equation (GEE) with logistic specification to examine the independent effect of tapering policy and treatment

duration on the probability of dose tapering, after controlling for age, sex, and index advanced therapy.

Figure 1. Flow chart of patient selection:

Results: The study comprised 9,094 patients initiated advance treatment for RA, with mean age of 57.3 (SD 13.3) years and 78.8% were female. The median PDC dropped remarkably after 28 months since treatment initiation (Figure 2). Probability of dose tapering increased significantly when treatment duration ≥ 24 -month (OR=2.73, $p<0.001$). When treatment duration < 24 -month, Dose Tapering policy was not significantly associated with tapering prescription. However, implementation of the policy further increased the probability of dose tapering for patients with treatment duration ≥ 24 -month, OR for interaction of policy by duration was 1.17, and test for interaction $p=0.014$. There were about 3 times increase in the odds of dose tapering probability for patient treated longer than 24 months after the policy implemented in April 2014.

Figure 2. The change of PDC of advanced therapy over the treatment period

Conclusion: For RA patients, PDC of advanced therapy dropped notably after patients received advanced therapy for more than 24 months. The tapering policy implementation significantly increased the probability of dose tapering of advanced therapy in patients with treatment duration ≥ 24 months.

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Table 1. effect of treatment duration and dose tapering policy on the probability of dose tapering

	Odds ratio	95% CI	p value
Effect of Treatment Duration (in pre-policy period) ≥ 24 -month vs < 24 -month	2.73	(2.45, 3.05)	$<.001$
Effect of Dose Tapering policy (in treatment duration < 24 months)	0.94	(0.87, 1.01)	0.110
Post-policy* vs Pre-policy			
Interaction of Treatment Duration by Dose Tapering policy ≥ 24 -month x Post-policy	1.17	(1.03, 1.32)	0.014

* Dose Tapering policy was implemented on April 1st, 2014

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SAT0115

COGNITIVE IMPAIRMENT WAS FREQUENT IN PATIENTS WITH RHEUMATOID ARTHRITIS STARTING A BIOLOGIC, WITH SIMILAR RATES OF INHIBITION OR OVERSTIMULATION: AN ANALYSIS OF 84 PATIENTS FROM THE SARIPRO STUDY

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Background: While cognitive impairment is an issue for patients with rheumatoid arthritis (RA), there are few data available on its frequency and possible link with other outcomes in RA.

Objectives: To assess cognitive impairment in RA and its association with RA and patients' characteristics.

Methods: The SariPRO study (NCT 03449758) was a French multicenter study assessing the effects of sarilumab 200mg on patient-reported outcomes in patients with moderately to severely active RA with an inadequate response or intolerance to conventional synthetic or biologic DMARDs. This report focuses on baseline data.

The main outcome of this analysis was cognitive impairment evaluated by the cognitive sub-score of the patient-reported multidimensional assessment of mood disorders (MATHyS) scale. This sub-score is scored between 0 (i.e. feeling that thoughts occur slower) and 40 (i.e. racing thoughts) where 20 is the best state. This sub-score was analyzed by tertiles where the lowest tertile indicates general inhibition, the second tertile includes normal states, and the highest tertile indicates general excitation. In addition to the MATHyS total score and sub-scores (Cognition, Emotion, Psychomotricity, Motivation and Sense perception), age, gender, duration of RA, methotrexate use, antibody status (rheumatoid factor/ACPA positivity), fatigue (FACIT-F), anxiety /depression (HADS), as well as patient global assessment (PGA) were collected. Cognitive impairment was defined as inhibition (first tertile) and excitation (third tertile). The association between cognitive inhibition and patients' characteristics (demographic, psychological and disease activity) was estimated by univariate and multivariate logistic regression in an exploratory analysis. There was no imputation of missing data.

Results: In all 84 patients were included, characteristics at baseline were as expected for an RA population initiating a biologic: mean (SD) age: 59.1 (12.3) years, 75.0% female, disease duration 10.0 (10.3) years, rheumatoid factor positivity 76.1%, ACPA positivity 81.3%, and DAS28 5.0 (1.1). The mean (SD) MATHyS cognition score was 18.2 (4.9). In the exploratory multivariate analysis, factors associated to cognitive inhibition were depression (HADS depression score ≥ 8 , odds ratio, OR=3.15 [95% confidence interval, 1.16; 8.59], $p=0.025$), emotion inhibition (lower tertile of the MATHyS emotion regulation: OR=4.76 [1.54; 14.28]; $p=0.007$) and low motivation (lower tertile of motivation: OR=4.17 [1.54; 11.11]; $p=0.005$).

Conclusion: Cognitive impairment was frequent in this population of patients with active RA, with similar rates of cognitive inhibition and cognitive excitation. The results suggest that there may be an association between cognitive inhibition, depression, emotion dysregulation and absence of motivation. Unexpectedly, this