Continuance rate of TNFi (IFX and ADA) treatment was significantly lower in ADRa-positive patients than in those negative ($p=0.0066$ and $p=0.0127$, respectively). In IFX group, patients with ANA titers of ≥ 160 before treatment and those with ANA titers of ≥ 320 after treatment positive showed worse EULAR treatment response ($p=0.037$ and $p=0.033$, respectively). In ADA group, 7 of 9 ANA-negative patients before treatment showed moderate or good EULAR response, but positive ANA both before and after treatment was not connected with the clinical response.

Conclusion: The presence of ANA before IFX or ADA is a risk factor for the appearance of ADRa, while ADRa did not appear in any patient negative for ANA before treatment. ANA of high titers before and after IFX treatment predicted existence of ADRa and possibly leading to the treatment failure.

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SAT0156

METHOTREXATE DISCONTINUATION AND DOSE DECREASES AFTER THERAPY WITH TOCILIZUMAB: RESULTS FROM THE CORRONA RHEUMATOID ARTHRITIS REGISTRY

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Background: Methotrexate (MTX) is frequently prescribed with biologic disease-modifying antirheumatic drugs. Evidence has shown that tocilizumab (TCZ) monotherapy is effective in the treatment of patients with rheumatoid arthritis (RA).^{1,2} Similar outcomes have been shown in patients responding to TCZ combination therapy who discontinued MTX or remained on combination therapy.³

Objectives: To examine MTX discontinuation and dose decreases in patients with RA initiating TCZ and to describe disease activity outcomes in a real-world setting.

Methods: TCZ-naïve patients enrolled in the Corrona RA Registry who initiated TCZ and had a 6-month follow-up visit without discontinuation of TCZ were included. Patients were grouped by MTX dose at the time of TCZ initiation (≤ 10 mg, > 10 to ≤ 15 mg, > 15 to ≤ 20 mg, > 20 mg). The primary outcome was the proportion of patients with changes in MTX use at 6 months. Changes in disease activity (Clinical Disease Activity Index [CDAI]) and patient-reported outcomes (PROs) over the follow-up period are described.

Results: Of 444 eligible patients, 82.7% were female, and 83.7% were white, with a mean (SD) disease duration of 11.6 (9.3) years and a baseline CDAI score of 24.0 (15.4). The mean (SD) MTX dose at baseline was 17.7 (5.8) mg. Overall, a total of 139 patients (31.3%) discontinued or decreased MTX at 6 months (overall mean [SD] dose change, -3.0 [7.5] mg); across baseline MTX dose groups, the proportion of patients who discontinued or decreased MTX at 6 months ranged from 28.2% to 38.2%. Improvements in CDAI scores and PROs were observed at 6 months in all baseline MTX dose groups and in patients who discontinued, decreased, maintained, or increased MTX doses at 6 months (Table 1). Similar patterns and results were observed at 12 months (not shown).

Conclusion: A considerable proportion of patients initiating TCZ were able to discontinue or decrease the dose of MTX after TCZ initiation. Patients who were able to discontinue or decrease MTX experienced similar improvements in disease activity and functionality. Discontinuing or decreasing MTX may be an effective treatment strategy for patients initiating TCZ combination therapy.

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Table 1. Change in Disease Activity and PROs* at 6 Months in Patients With RA

	All Patients (N = 444)	Discontinued MTX (n = 72)	Decreased MTX Dose (n = 67)	No Change in MTX Dose (n = 289)	Increased MTX Dose (n = 36)
CDAI	-7.8 (14.3)	-5.5 (13.1)	-7.1 (13.6)	-8.4 (14.7)	-9.8 (15.2)
DAS28	-1.2 (1.7)	-1.0 (1.7)	-1.1 (1.5)	-1.3 (1.6)	-0.9 (2.4)
Tender joint count	-3.2 (7.9)	-1.3 (7.1)	-1.8 (7.5)	-3.8 (8.1)	-4.2 (7.6)
Swollen joint count	-2.6 (5.6)	-2.2 (5.2)	-2.2 (5.1)	-2.7 (5.8)	-3.1 (6.1)
Physician global assessment	-13.1 (23.1)	-13.3 (23.4)	-17.0 (20.7)	-11.8 (23.4)	-16.2 (24.0)
Patient global assessment	-7.6 (25.9)	-6.4 (25.9)	-13.5 (28.5)	-6.4 (25.0)	-7.3 (26.4)
mHAQ	-0.1 (0.4)	-0.1 (0.4)	-0.1 (0.4)	0 (0.4)	-0.2 (0.5)
Patient pain	-7.3 (24.4)	-6.2 (23.7)	-8.2 (24.8)	-7.0 (24.3)	-10.8 (26.2)
Patient fatigue	-6.3 (26.6)	-7.3 (26.5)	-8.6 (30.7)	-5.0 (26.3)	-10.3 (20.2)
Morning stiffness present, n (%)	-29 (7.1)	-6 (9.4)	-5 (8.2)	-17 (6.8)	-1 (3.0)
Morning stiffness time, h	-0.1 (3.7)	-0.7 (2.8)	0 (2.1)	-0.1 (3.8)	0.3 (6.1)

CDAI, Clinical Disease Activity Index; DAS28, Disease Activity Score in 28 joints; mHAQ, modified Health Assessment Questionnaire; MTX, methotrexate; PRO, patient-reported outcome; RA, rheumatoid arthritis.
* Changes in disease activity and PRO measures are presented as mean (SD) unless otherwise indicated.

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SAT0157

REAL-WORLD EVALUATION OF PERSISTENCE WITH EARLY-LINE ABATACEPT VERSUS TUMOR NECROSIS FACTOR-INHIBITORS FOR RHEUMATOID ARTHRITIS COMPLICATED BY POOR PROGNOSTIC FACTORS

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Background: Abatacept reduces signs and symptoms, inhibits the progression of structural damage, and improves physical function in adult patients with moderately to severely active rheumatoid arthritis (RA). Real-world data on its use as an early-line biologic agent are limited.

Objectives: To assess 12-month treatment persistence in early-line abatacept versus tumor necrosis factor inhibitor (TNFi) treated patients with RA complicated by poor prognostic factors.

Methods: We performed a multicenter retrospective medical record review of adult RA patients with poor prognostic factors treated at 5 United States clinics located in the West, Midwest, and Southeast. Patients were treated with abatacept or TNFi as the first biologic treatment at the clinic (defined as early line). Poor prognostic factors included positive anti-cyclic citrullinated peptide antibodies, positive rheumatoid factor antibodies, increased C-reactive protein levels, elevated erythrocyte sedimentation rate levels, or presence of joint erosions. TNFis included adalimumab, etanercept, infliximab (and their biosimilars), certolizumab pegol, or golimumab. Data were collected from biologic treatment initiation (between 8/9/11 and 11/14/16) for ≥ 1 year. Patients with Crohn's disease, ankylosing spondylitis, ulcerative colitis, psoriatic arthritis, or anal fistula were excluded. Demographic, disease, and treatment information (start, stop, reason for discontinuation) was abstracted. Treatment persistence (continuation of index treatment with gap ≤ 60 days) at 12 months and time to discontinuation were reported. Multivariate logistic and Cox regressions were used to compare 12-month persistence and overall discontinuation rate between abatacept and TNFi, controlling for demographic and clinical characteristics (age, sex, Charlson comorbidity index, RA duration), baseline utilization, and clinic.

Results: Data on 209 patients (88 abatacept, 121 TNFi) were collected. Abatacept patients were older than TNFi patients (64.36 vs. 57.23 years, $p<0.001$). There were no significant differences in either gender (79.55% vs. 72.73% female, $p=0.257$) or duration of treatment at the clinic (5.79 vs. 5.10 years, $p=0.226$) in the abatacept and TNFi cohorts. Median time to discontinuation was 1,672 days for abatacept vs. 612 days for TNFi ($p=0.002$). At 12 months, 86.36% of abatacept patients were persistent

vs. 65.29% of TNFi patients ($p<0.001$). In the Cox model, rate of discontinuation was 77% higher in TNFi patients (Hazard Ratio 1.767, 95% Confidence Interval (CI) 1.113-2.806, $p=0.0158$). In the logistic regression, the odds of TNFi patients being persistent at 12 months was 52% lower than abatacept patients, although this difference was not statistically significant (Odds Ratio 0.485, 95% CI 0.208-1.133, $p=0.0947$). Reasons for discontinuation of index treatment differed between cohorts, including discontinuation due to disease progression (27.78% vs. 53.85%), insurance coverage (19.44% vs. 12.82%), and adverse events of medication (2.78% vs. 11.54%) in abatacept and TNFi patients, respectively ($p<0.001$).

Conclusion: In a real-world setting, RA patients with poor prognostic factors are significantly less likely to discontinue abatacept compared with TNFi. This difference may be explained by the lower proportion of patients discontinuing abatacept due to disease progression or adverse events related to medication.

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SAT0158 FACTORS ASSOCIATED TO PERSISTENCE OF TREATMENT WITH GOLIMUMAB IN THE BIOBADASER REGISTRY, WITH UP TO 6 YEARS OF FOLLOW-UP

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Background: Survival, or persistence in treatment with a biological drug can be considered an indirect measure of efficacy, safety and tolerability.

Objectives: We assessed the probability of persistence (survival) of treatment with golimumab in patients with rheumatic diseases and the factors associated to persistence with up to 6 years of follow-up.

Methods: BIOBADASER is the Spanish registry of biological drugs of the Spanish Society of Rheumatology and the Spanish Medicines Agency. A data-base analysis was done in December 2018 on all the patients aged 18 years or more who had initiated golimumab for one of the approved indications (rheumatoid arthritis [RA], axial spondyloarthritis [SpA] or psoriatic arthritis [PsA]). The probability of persistence was calculated with a Kaplan-Meier test. Factors related to persistence were analyzed with a Cox-regression model.

Results: 581 patients were included (165 [28.4%] RA, 249 [42.9%] axial SpA and 167 [28.7%] PsA), mean age 51 [12] years, 53% women). Median duration of disease at the onset of golimumab was 8.0 (3.0-14.7) years. Golimumab was prescribed as first biological drug in 37.9% of the patients, as second in 32.1% and as third or further in 30.0%. Concomitant medications at golimumab initiation included steroids (28.2%), methotrexate (MTX) (35.5%), sulphasalazine (7.2%) and leflunomide (13.9%). The probability of persistence of treatment with golimumab since treatment initiation was 74.3% at year 1 (95% CI 70.3 – 77.8), 63.5% at year 2 (59.0 – 67.6), 60.5% at year 3 (55.9 – 65.8), 54.5% (49.1 – 59.7) at year 4 and 5, and 52.1% (44.9 – 57.7) at year 6. Persistence was higher when golimumab was used as first biological agent (p log-rank <0.001) and for the treatment of axial SpA or PsA compared to RA (p log-rank <0.001). As first biological drug the probability of persistence was 82.8% (year 1) and 66.5% at year 4. At year 5, survival rates (all lines of therapy) were 59.7%, 63.4% and 37.3% for axial SpA, PsA and RA respectively. Cox-regression analysis (table) showed that the probability of persistence in treatment with golimumab therapy was higher in first vs second or third biological line patients (Hazard Ratio [HR] for discontinuation: 1.78 for second and 2.41 for third or further line versus first line), in SpA and PsA patients (HR discontinuation of RA patients: 1.94 versus PsA), and lower in women (HR: 1.62), in those needing steroids (HR: 1.47) or DMARDs

different to MTX (HR: 2.17). Patients treated with MTX had higher but non-significant persistence rate (HR discontinuation 0.79, table).

Conclusion: The probability of persistence (survival) on therapy with golimumab was high up to 6 years of follow-up and was higher in patients treated with golimumab as first biological drug or for PsA and SpA, and lower in those needing steroids, DMARDs different to MTX and in women.

Table. Cox-regression analysis. HR for discontinuation of golimumab

	Hazard Ratio	95% Confidence interval	p
Gender (women vs men)	1.62	(1.17-2.25)	0.004
Age at golimumab initiation	1.00	(0.99-1.02)	0.516
Smoking habit (smoker vs non-smoker)	1.32	(0.94-1.85)	0.107
Smoking habit (past smoker vs non-smoker)	1.10	(0.69-1.77)	0.686
Overweight (vs normal)	1.29	(0.87-1.92)	0.200
Obesity (vs normal)	1.17	(0.77-1.77)	0.467
Second vs first biological drug	1.78	(1.24-2.55)	0.002
Third vs first biological drug	2.41	(1.69-3.43)	<0.001
RA vs PsA	1.94	(1.33-2.82)	<0.001
Axial SpA vs PsA	1.22	(0.83-1.79)	0.321
Methotrexate	0.79	(0.58-1.07)	0.122
Steroids	1.47	(1.07-2.02)	0.017
Other DMARD	2.17	(1.23-3.83)	0.008

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SAT0159 CHANGING PATTERN OF THE USE OF BIOLOGIC DISEASE-MODIFYING ANTIRHEUMATIC DRUGS IN RHEUMATOID ARTHRITIS, PSORIATIC ARTHRITIS AND ANKYLOSING SPONDYLITIS

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Background: During the last 15 years, the comprehensive understanding of the safety, effectiveness, expanding access, and availability of new biologic disease-modifying antirheumatic drugs (bDMARDs) has likely contributed to the pattern of use of these compounds in patients with rheumatoid arthritis (RA), psoriatic arthritis (PsA) and ankylosing spondylitis (AS).

Objectives: To assess changes in the baseline characteristics of patients who underwent biological therapy from 2007 to 2018 in a real world setting.