and 406 (36.09%) biologic therapy. The frequency of use of the biologic therapy was: abatacept (73 patients/6.49%), etanercept (66/5.87%), tocilizumab (60/5.33%), adalimumab (54/4.8%), infliximab (50/4.44%), rituximab (49/4.36%), golimumab (37/3.39%), certolizumab (17, 1.51%). The time of use of the biological drugs is presented in table 1.

Abstract AB0417 – Table 1. Time (in years) of use of biological drugs in patients with rheumatoid arthritis

<table>
<thead>
<tr>
<th>DRUG / OTHER DMARDS</th>
<th>MEAN</th>
<th>MAXIMUM</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABATACEPT</td>
<td>1.95</td>
<td>8</td>
</tr>
<tr>
<td>TOCILIZUMAB</td>
<td>0.63</td>
<td>2.0</td>
</tr>
<tr>
<td>ETANERCEPT</td>
<td>1.49</td>
<td>9.0</td>
</tr>
<tr>
<td>GOLIMMAB</td>
<td>0.65</td>
<td>2.0</td>
</tr>
<tr>
<td>INFliximab</td>
<td>1.56</td>
<td>9.0</td>
</tr>
<tr>
<td>RITUXIMAB</td>
<td>1.27</td>
<td>6.0</td>
</tr>
<tr>
<td>TOCILIZUMAB</td>
<td>2.0</td>
<td>6.0</td>
</tr>
</tbody>
</table>

Conclusions: The therapeutic profile of this cohort of Brazilian RA patients shows some interesting results. The relatively high number of patients on biologics, compared to other studies, may be related to fact that the centres involved were reference centres, probably dealing with more difficult cases.

REFERENCES:
[1] Azevedo AB, Ferraz MB, Ciconelli RM. Indirect Costs of Rheumatoid Arthritis were reference centres, probably dealing with more difficult cases.

Disclosure of Interest: None declared

AB0418

THE EFFECT OF CONCOMITANT METHOTREXATE ON SERUM TNF INHIBITORS LEVELS AND CLINICAL RESPONSE IN PATIENTS WITH RHEUMATOID ARTHRITIS - IS DOSE DEPENDENT AND GREATER THAN OTHER DMARDS

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Background: Several factors influence the pharmacokinetics (PK) of TNF inhibitors (TNFi). One of the most relevant influencing factors is the development of antidrug antibodies (ADA), which is associated with low circulating drug levels and loss of clinical efficacy. Previous studies, mostly about Adalimumab (Ada), have demonstrated a beneficial effect of concomitant use of methotrexate (MTX) in patients/pts under TNFi therapy by reduction of immunogenicity. There are other csDMARDs (OD) as leflunomide, hydroxychloroquine or sulfasalazine which may have also an effect on PK.

Objectives: To investigate the effect of csDMARDs on the presence of serum TNFi levels and on the clinical response during the first year of Ada or Infliximab (IFX) treatment in RA pts.

Methods: To evaluate if MTX has a dose-dependent effect on these outcomes.

Results: This is an inception cohort including pts with RA starting IFX or ADA in a tertiary hospital since 1999. At baseline, 6 and 12 months clinical (DAS28, EULAR response and ΔDAS28) and serological (drug and ADA levels) parameters were measured. Patients were clustered according to the use of concomitant csDMARDs at baseline in three groups: i) TNFi mono therapy (ii) TNFi +MTX <15 mg/week (iii) TNFi +MTX >15 mg/week.

Conclusions: Results of 92 RA pts (Ada=25 or IFX=67) under TNFi were included. The number and percentage of pts in each group were as follows: TNFi monotherapy; 12 pts (13%); TNFi +MTX, 59 pts (64%); TNFi +OD 21 pts (23%).

Disclosure of Interest: None declared

AB0419

FREQUENCY OF DISEASE FLARE AND STUDY OF THE CD4+CD25+HIGHCD127LOW/- CELL POPULATIONS AFTER DISCONTINUATION OF ANTI-TNF THERAPY IN PATIENTS WITH RHEUMATOID ARTHRITIS - PERSISTENT REMISSION

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Background: Rheumatoid arthritis (RA) patients in a prolonged remission status represent a population whose future management has yet to be established. Treg cell function in patients with active RA is assumed to be impaired, a trend that seems to be reversed by TNFalpha antagonist therapy (aTNF). Theoretically a deeper remission may be represented by an immunological resetting of immune system, a condition which could enable to consider the possibility of a drug-free remission.

Objectives: To evaluate the incidence of disease flare after cessation of aTNF in pts in remission together with reconstitution of the CD4+CD25+HIGHCD127LOW/- Tcell subset respect to those patients in the same remission status with persistent low CD4+CD25+HIGHCD127LOW/- Tcell population, assuming the Treg populations as a markers of deep remission allowing a better selection of those patients at low risk of flare after aTNF withdrawal.

Methods: inclusion criteria: patients with RA (>18 years) fulfilling the 1987 ACR classification criteria treated with aTNF and synthetic DMARDs for at least 12 months, in remission (DAS28 <2.6/DAS44 <1.6)>6 months, without glucocorticosteroid. Exclusion criteria: <18 years, glucocorticosteroids within the three months before; another inflammatory disease other than RA; ongoing infections. Intervention: aTNF drug withdrawal with continuation of DMARDs previously associated (MTX or LFN); a 24 months of follow up was performed. Serial clinical and instrumental evaluation, blood sampling and radiographs have been performed according to the scheduled protocol. Treg population and several cytokines/chemokines/growth factors were analysed (Human Cytokine/Chemokine Panel I, Millipore).

Results: 23 patients were included, mean age 53 years (SD 12.3), 68% RF +, 52% ACPA +, DAS28 medium 1.41 (SD 0.48); average duration of illness 9.62 years (SD ±5.73). During the 24 month post-suspension follow-up, for a total of 267 person-months, 11 patients presented a flare, for a flare rate of 3.74/100 person-months (CI95% 1.79–6.88). The average observed exacerbation time from aTNF withdrawal was 14.8 months (SD ±3.32). None statistical predictive value of Treg levels regarding disease outcome after aTNF withdrawal was observed (HR 0.54; CI 0.20–0.73). There was no significant correlation among cytokines concentrations and disease status/Treg levels was observed. A correlation was observed between the presence of a synovitis with PD1+ at the baseline and the loss of remission (HR 7.062 (1.64–30.41, p =0.009); higher values were exclusion criteria). All 3 patients with positive US (PD1+) had who flare-ups were asymomatic at baseline.

Conclusions: 47.8% of pts maintained aTNF-induced remission at 24 months continuing only csDMARDs therapy (MTX). Only in 1 case reintroduction of Adalimumab did not allow to regain clinical remission, which was obtained using another therapeutic target (anti-CTLA4). The presence of a residual synovitis, although mild (PD1+), was correlated with the risk of exacerbation. Further results will be discussed.
**REFERENCES:**


**Acknowledgements:** Study financed with funds from the Emilia-Romagna Region deriving from the “Alessandro Liberati” young researchers in the framework of the Region-University research program 2013

**Disclosure of Interest:** None declared

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**AB0420**

**DRUG SURVIVAL ON CERTOLIZUMAB AND PREDICTORS THEREOF IN PATIENTS WITH RHEUMATOID ARTHRITIS, PSORIATIC ARTHRITIS, AND AXIAL-SPONDYLOARTHRITIS FROM THE APUOLIAN BIOPURE REGISTRY

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**Background:** In BIO.PU.RE. Registry are collected data from patients being treated with Biologics from rheumatologic centres in Apulia (Southern Italy).

**Methods:** We analysed longitudinal data of consecutive patients, affected with RA, PsA or axial-SPA starting a treatment with certolizumab (CTZ) in the time frame from 1st January 2011 to 30th June 2017. Demographic and disease related characteristics were collected at baseline and at last observation visit. Primary endpoint was the persistence on CTZ, and secondary endpoint was the search of baseline predictors of drug survival and clinical outcomes. Drug survival was evaluated by Kaplan-Meier life table analysis. Estimates hazard ratios (HRs), 95% confidence intervals (CI) of drug discontinuation or achievement of low-disease/remission in RA, and minimal disease activity (MDA) in PsA at last visit, adjusted for patient’s demographics, disease characteristics and prior biologic treatments were computed by Cox-regression stepwise backward models.

**Results:** 345 patients were included in this analysis (table 1), Global median survival time (95% CI) was 30 [23–36] months. Drug survival rate was significantly higher in PsA (63.9%, p=0.001) than in RA (54.0%) or PsA (54.5%). Within each disease, naïve-CTZ patients showed higher survival rates than biologic-experienced patients in RA (63.4% vs 45.7%, p=0.001), but not in PsA (59.1% vs 52.3%, p=0.60), or PsA (62.5% vs 64.4%, p=0.94). In the whole cohort, the only negative predictor of drug discontinuation was the CTZ-naïve status (HR 0.62, 95 CI 0.40–0.96, p=0.03). This association was even stronger for RA (HR 0.45, 95 CI 0.26–0.77, p=0.004). In SpA, patient’s age at baseline was weakly correlated to CTZ discontinuation (HR 0.99, 95 CI 0.93–0.99, p=0.02), but no predictor of CTZ discontinuation was detected in PsA. No factor did correlate to the achievement of low-disease/remission in RA, while co-medication with MTX was significantly related to the retention of bDMARD monotherapy in RA patients at the end of 1st year, approximately half of rheumatoid arthritis (RA) patients are being treated with biologic disease modifying anti-rheumatic drugs (bDMARDs) as monotherapy. Data regarding the retention of bDMARD monotherapy in real-life settings are limited.

**Conclusions:** In our real-life experience CTZ seems to have better drug survival in PsA rather in RA and SpA; in all these polyarthritides was observed CTZ-naïve status as negative predictor of drug discontinuation.

**Disclosure of Interest:** None declared

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**AB0421**

**LOW RATES OF RETENTION OF BIOLOGIC DMARD MONOTHERAPY IN PATIENTS WITH RHEUMATOID ARTHRITIS REAL LIFE SETTINGS


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**Background:** A number of cross-sectional studies have shown that approxi- mately one quarter of rheumatoid arthritis (RA) patients are being treated with biologic disease modifying anti-rheumatic drugs (bDMARDs) as monotherapy. Data regarding the retention of bDMARD monotherapy in real-life settings are limited.

**Objectives:** To study the survival rate of bDMARD monotherapy in RA patients in daily clinical practice.

**Methods:** Multicenter (11 hospital, 3 private office practices), prospective, epidemiological study in Greece. At baseline and after one year of follow-up, demographics, disease characteristics, treatments, co-morbidities and serious events (serious infections, cardiovascular events, neoplasms, osteoporotic fractures) were collected via a web-based platform.

**Results:** 1,323 RA patients with paired evaluations one year apart (mean interval: 13.2±3.7 months) were included. Among 611 bDMARD treated patients, 155 patients (25%) were on bDMARD monotherapy (women: 87%, mean age: 60.4 years, mean disease duration: 15 years, RF and/or anti-CCP positive: 66%, TNFi therapy: 57%). The majority had been previously on and had discontinued their csDMARDs (90%). During follow-up, 15% (n=24) discontinued their bDMARD; most of them stayed off any type of therapy (83%) while the rest continued with synthetic DMARD (csDMARD) monotherapy (17%). From the remaining 131 patients, 96 (73%) remained on bDMARD monotherapy (85%, n=82 on the same bDMARD), 11.54, p=0.01) in AxSpA (n=83) and 20.8%, p=0.01) in PsA. No factor did correlate to the achievement of low-disease/remission in RA, while co-medication with MTX was significantly associated to the achievement of MDA (HR 3.82, 95 CI 1.26–11.54, p=0.01) in PsA. Globally, the causes of discontinuation were: ineffectiveness (n=94, 27.2%), adverse event (n=40, 11.8%), pregnancy (n=1, 0.3%), remission (n=3, 0.9%), others (n=13, 3.8%).

**Abstract AB0420 – Table 1

<table>
<thead>
<tr>
<th></th>
<th>All (n=345)</th>
<th>RA (n=172)</th>
<th>PsA (n=88)</th>
<th>AxSpA (n=83)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (mean)</td>
<td>46.9±11</td>
<td>48.8±12</td>
<td>44.4±11</td>
<td>45.7±11</td>
</tr>
<tr>
<td>Female</td>
<td>72.9%</td>
<td>86.2%</td>
<td>81.6%</td>
<td>74.0%</td>
</tr>
<tr>
<td>BMI (mean)</td>
<td>27.3±5</td>
<td>26.4±14</td>
<td>29.4±15</td>
<td>26.7±15</td>
</tr>
<tr>
<td>Dis Durat (mean)</td>
<td>8.6±8</td>
<td>7.8±11</td>
<td>8.6±7</td>
<td>9.2±9</td>
</tr>
<tr>
<td>NSAID</td>
<td>37.1%</td>
<td>47.1%</td>
<td>52.0%</td>
<td>28.9%</td>
</tr>
<tr>
<td>Prior biologics</td>
<td>62.9%</td>
<td>52.9%</td>
<td>75.0%</td>
<td>71.1%</td>
</tr>
<tr>
<td>Glucocorticoids</td>
<td>64.6%</td>
<td>73.9%</td>
<td>50.0%</td>
<td>41.0%</td>
</tr>
<tr>
<td>Methotrexate</td>
<td>60.3%</td>
<td>74.0%</td>
<td>43.5%</td>
<td>27.3%</td>
</tr>
<tr>
<td>Comorbidities</td>
<td>62.3%</td>
<td>58.0%</td>
<td>62.9%</td>
<td>65.1%</td>
</tr>
</tbody>
</table>

DAS28 (mean) | 4.8±1 | 5.4±2 | 21.7% | 64.8% |

**Conclusions:** In our real-life experience CTZ seems to have better drug survival in PsA rather in RA and SpA; in all these polyarthritides was observed CTZ-naïve status as negative predictor of drug discontinuation.

**Disclosure of Interest:** None declared

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**AB0422**

**COST EFFECTIVENESS ANALYSIS OF MODIFIED DOSE REGIMEN OF BIOLOGICAL THERAPY IN CHRONIC INFLAMMATORY DISORDER: AN OBSERVATIONAL STUDY

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**Background:** Cost of biologics in rheumatology is a prime concern in India. Due to lack of reimbursement system, a majority of the patients need to pay from their pocket for the therapy.