Table. Summary of treatment-emergent AEs

n (%) [number of events per 100 PYs]	Group 1 Withdrawn csDMARD during Wks 0–96 (N=42) [PYs=104]	Group 2 Continued csDMARD during Wks 0–96 (N=1851) [PYs=5870]	Group 3 Sarilumab monotherapy (N=111) [PYs=230]
Any AE	41 (97.6) [225]	1626 (87.8) [184]	83 (74.8) [138]
Serious AE	17 (40.5) [17]	475 (25.7) [13]	16 (14.4) [10]
AEs leading to sarilumab discontinuation	15 (35.7) [16]	382 (20.6) [7]	8 (7.2) [3]

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Figure. Percentage of patients achieving CDAI ≤10 (low disease activity), CDAI ≤2.8 (remission), DAS28-CRP <3.2 (low disease activity), and DAS28-CRP <2.6 (remission). Last observation carried forward (LOCF) was used to impute missing values and/or for patients who discontinued treatment

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EFFECTIVENESS OF TNF INHIBITORS VS. NON-TNF INHIBITORS (ABATACEPT, TOCILIZUMAB AND RITUXIMAB) AFTER FAILURE OF NON-TNFI BIOLOGIC DMARD IN RHEUMATOID ARTHRITIS – COLLABORATION BETWEEN FIVE NATIONAL REGISTERS

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Table 1. Baseline (=start of 2nd bDMARD) characteristics of RA patients who switched to a 2nd bDMARD after a non-TNFi and clinical effectiveness. Results are not shown when N<20.

1 st → 2 nd bDMARD	N. patients	Age, years (mean, SD)	Sex (% female)	Disease duration, years (median, IQR)	RF (% pos)	Anti- CCP (%pos)	Concomitant csDMARDs (%)	Concomitant GCs (%)	DAS28 baseline (mean, SD)	DAS28 6 months (mean, SD)	DeltaDAS28 0-6m N=126	N (%) of patients still on drug at month 6 from start of 2 nd bDMARD
ABA→TNFi	185	56.1 (13.1)	77.8	4 (2-10)	73.5	64.1	74.1	21.1	4.4 (1.3)	3.5 (1.3)	-0.9 (1.5)	109 (59%)
ABA→RTX	22	57.7 (17.9)	72.7	4.3 (2-7.6)	71.4	100	40.9	31.8	4.5 (1.0)	N<20		19 (86%)
ABA→TCZ	37	59.4 (11.1)	86.5	6.3 (2.6-11.9)	73.5	54.5	29.7	32.4	4.9 (1.3)	3.3 (1.3)	N<20	21 (57%)
RTX→ABA	56	64.3 (12.6)	83.9	12.3 (4.9-21.4)	83.6	57.1	50.0	39.3	4.4 (1.3)	3.8 (1.4)	-0.7 (0.9)	35 (63%)
RTX→TNFi	99	60.1 (12.9)	76.8	8.1 (3-14.2)	76.8	82.4	53.5	42.4	5.2 (1.3)	3.6 (1.4)	-1.5 (1.4)	64 (65%)
RTX→TCZ	31	60.2 (11.6)	87.1	6.7 (3-21.5)	75	66.7	41.9	58.1	5.6 (1.1)	3.3 (1.1)	N<20	21 (68%)
TCZ→ABA	29	55.9 (14.6)	86.2	5.0 (2.3-14.8)	65.5	80	31.0	20.7	4.5 (1.4)	3.9 (1.3)	N<20	18 (62%)
TCZ→TNFi	131	57.6 (12.8)	84	4.0 (2-8.1)	77	71.4	36.6	24.4	3.9 (1.4)	3.5 (1.4)	-0.5 (1.6)	83 (64%)
TCZ→RTX	15	60.8 (14.6)	73.3	4.0 (1.9-13.8)	92.9	100	40.0	26.7	4.4 (2.3)	N<20	N<20	11 (73%)

Background: The optimal sequencing of biologic Disease Modifying Anti-Rheumatic Drugs (bDMARDs) in Rheumatoid Arthritis (RA) is unknown. Evidence regarding the effectiveness of a 2nd non-TNFi bDMARD, as well as of TNFi, in patients whose 1st bDMARD has been a non-TNFi is limited.

Objectives: To characterize patients switching for medical reasons after failure of a non-TNFi used as 1st bDMARD, and to assess the effectiveness of rituximab (RTX), abatacept (ABA) or tocilizumab (TCZ) vs. a TNFi.

Methods: Patients from 5 national registers (Sweden, Norway, Denmark, Iceland and Finland) with RA who started treatment with a non-TNFi as a 1st bDMARD after 2010 and switched to a 2nd bDMARD within 3 months after the discontinuation of the 1st (with the exception of RTX for which a 6-month window was used), were identified. Clinical effectiveness was assessed by DAS28 change at 6 months.

Results: 611 patients were included in the analyses. 80% were female, the majority were positive for RF (76%) and anti-CCP (69%). The mean ($\pm$ SD) age, DAS28 and HAQ at baseline was 58 (13), 4.5 (1.4) and 1.3 (0.7), respectively, while the median (IQR) disease duration was 5.0 (2.2-12.0) years. Baseline characteristics of patients and the clinical response for each switching strategy are shown in table 1. Moderate responses were observed for most switching strategies. 63% of patients were still on treatment with their 2nd bDMARD at 6 months after switch.

Conclusion: The six-month drug retention for a 2nd bDMARD in patients with RA switching due to failure of a non-TNFi bDMARD as 1st ever bDMARD was lower than two thirds (63%). More detailed analyses are exploring potential subgroups of patients for whom specific switching strategies are more effective.

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IS A HIGH LEVEL OF IGA PREDICTIVE OF THE EFFICACY AND TOLERANCE OF RITUXIMAB DURING RHEUMATOID ARTHRITIS NAIVE OF PRIOR BIOLOGICAL TREATMENTS?

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Background: The elevation of immunoglobulin A levels during rheumatoid arthritis is not an exceptional situation although not as commonly found in spondyloarthritis. Hypothetically, this elevation should translate into multiple clinical as well as biological significance.

Objectives: The objective of the study is to identify whether or not a high level of IgA would have an effect on the tolerance and response of rheumatoid arthritis treated with Rituximab.

Methods: This is a retrospective study within which a total number of 33 patients with rheumatoid arthritis treated with Rituximab has been collected, whose peculiarity is the naivety to biological treatment (anti-TNF as it happens). We used regression models of Cox with univariate and multivariate analysis. The main criteria of judgment for efficiency were the EULAR response at 6 months treatment and the recourse to another cycle of rituximab. As regards tolerance, the existence of at least one adverse effect of an infectious, paradoxical or other nature constituted the eligibility argument

Results: 33 patients were included, the average age was 47.46 years. 87.9% of patients were of female gender to 12.1% of male gender. All the patients had structural articular damage. The average initial DAS28 was 6.08. The average DAS28 at 6 months of treatment was 2.98.

13 patients had to go under the use of another cycle of rituximab and an average period of 16.8 months was observed between the 1st and 2nd courses of treatment. 75.8% of the patients achieved a good EULAR response at 6 months. The average serum levels of IgA were 3.86 g/L (1.20-7.29). 33.3% of the patients showed at least one adverse effect. High IgA levels were significantly correlated with recourse to Rituximab retreatment ($p < 0.005$), to prior tuberculosis infection and also to the increase of Alpha 2 globulins on the electrophoresis of blood proteins. We could not prove a relationship between high levels of IgA and the occurrence of side effects.

Conclusion: Polyclonal elevation of IgA during rheumatoid arthritis is possible, although rare. Theoretically, several clinical eventualities should be sought in similar situations. Such as, the existence of a positive rheumatoid factor IgA Isotype, a chronic infection, Spondyloarthropathy, or associated celiac disease. More rarely, a lupus or a Sjogren syndrome. In our series, the existence of high levels of IgA was significantly correlated with recourse to rituximab retreatment, suggesting that there is an underlying entity or a particular etiopathogenic leading to incomplete anti CD20 response. At the same time, a history of tuberculosis and high levels of alpha-2-globulin also correlated with high IgA levels suggesting the existence of an infection with inflammatory reaction of chronic type.

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