No-Switch pts respectively. The improvement of initial DAS28-ESR category or maintenance in remission/LDA was comparable in both groups at M6 and M12 (table 1).

Abstract AB0444 – Table 1. DAS28-ESR improvement or maintenance in remission/LDA category

% of pts*, 95% CI	Switch, n=94	No Switch, n=220
M6, n/N	66/90	137/195
	73.3% [63.0–82.1]	70.3% [63.3–76.6]
M12, n/N	63/91	118/204
	69.2% [58.7–78.5]	57.8% [50.8–64.7]

* Permanent discontinuation of TCZ considered as failure.

Using the IPTW for balancing on baseline characteristics between groups, similar proportions were observed at both M6 and M12. TCZ retention rates at M12 were 78% (95% CI^{68–85}) and 80% (95% CI: 74–85 $p=0.555$ for Switch and No-Switch groups respectively. In the 208 pts with a DAS28 ≤ 3.2 at inclusion, multivariate analysis showed no parameters associated to the switch. Conversely in the 106 pts with a DAS28 > 3.2 at inclusion, rheumatoid nodules (OR=4.78, 95% CI [1.23–18.55], $p=0.024$) and duration of IV TCZ before inclusion (OR=1.37, 95% CI [1.08–1.73], $p=0.009$) were significantly associated to the switch.

Conclusions: The RoSwitch study showed the maintenance of efficacy at 6 and 12 months in RA pts switching from IV to SC TCZ. Similar efficacy and therapeutic retention rates were observed for No-Switch pts. No factor was associated with the switch in pts in remission/LDA at inclusion suggesting that patient's personal appreciation was preponderant in the choice of the switch.

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AB0445 THERAPEUTIC MAINTENANCE OF ABATACEPT IN RHEUMATOID ARTHRITIS: RESULTS OF THE RIC-ABA STUDY (517 PATIENTS)

J.H. Salmon^{1,2}, J.G. Letarouilly³, P. Coquerelle⁴, V. Goeb⁵, M.H. Guyot⁶, E. Houvenagel⁷, N. Lecuyer⁸, L. Le Dantec⁹, L. Marguerie¹⁰, G. Morel¹¹, G. Baudens¹², E. Solau¹³, R.-M. Flipo³. ¹Rheumatology, Maison Blanche Hospital, Reims University Hospitals; ²University of Reims Champagne-Ardenne, Faculty of Medicine, EA 3797, Reims; ³Rheumatology, CHRU Lille, Lille; ⁴Rheumatology, CH Bethune, Bethune; ⁵Rheumatology, CHU Amiens, Amiens; ⁶Rheumatology, CH Roubaix, Roubaix; ⁷Rheumatology, Hôpital Saint Philibert, Lomme; ⁸Rheumatology, Cabinet médical, Saint Quentin; ⁹Rheumatology, Cabinet médical, Liévin; ¹⁰Rheumatology, Institut Francois Calot, Berck-sur-Mer; ¹¹Rheumatology, CH Valenciennes; ¹²Rheumatology, Cabinet médical, Valenciennes; ¹³Rheumatology, CHU Poitiers, Poitiers, France

Objectives: Study the therapeutic maintenance, associated factor with maintenance at 12 months and reasons for abatacept (ABA) stop in daily practice.

Methods: Retrospective multicentric study, from the RIC Nord de France network, of patients treated for rheumatoid arthritis who received at least one ABA treatment between January 2008 and July 2016. We studied the therapeutic maintenance at 12 months, according to the number of previous bDMARDs and according to the date of initiation (group 1: from 2008 until 31/07/2010 (ABA authorised in anti-TNFi failure) and group 2 from 01/08/2010 (ABA authorised in the first line)). Therapeutic maintenance was evaluated using the Kaplan-Meier method.

Results: Of the 517 patients (74% women) who were included, the mean age was 61.4 $\pm$ 13.3 years. There were 76% positive anti-CCP. ABA was used as monotherapy in 176 patients (34%) and 22% of patients were naïve to bDMARDs. The mean DAS 28-VS at initiation of ABA was 4.7 $\pm$ 1.3.

Therapeutic maintenance at 12 months was 68%. Among the 166 patients (32%) stopped ABA, the reason for discontinuation was primary ineffectiveness (n=54, 32.5%), loss of efficacy (n=40, 24%), adverse events (n=43, 26%) and other (n=29, 17.5%). On multivariate analysis CRP < 10 mg/L was associated with better maintenance at 12 months.

No significant difference in therapeutic maintenance was found at 12 months according to the date of initiation and according to the number of previous bDMARDs.

Abstract AB0445 – Figure 1. Therapeutic maintenance of Abatacept at 12 months

Conclusions: Therapeutic maintenance at 12 months was 68%, this rate is similar to Pan-European Registry. The rate of CRP at initiation seems to have an impact on the maintenance of ABA at 12 months.

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AB0446 PHYSICIAN-REPORTED BEHAVIOURS AND TREATMENT TRENDS OF TUMOUR NECROSIS FACTOR INHIBITOR USE: CYCLING VERSUS SWITCHING IN FIVE EUROPEAN COUNTRIES: FRANCE, GERMANY, ITALY, SPAIN AND THE UK

J.R. Curtis¹, E. Sullivan², J. Kershaw², S. Blackburn², P. Mahajan³, S. Boklage⁴. ¹University of Alabama at Birmingham, Birmingham, USA; ²Adelphi Real World, Manchester, UK; ³Sanofi, Bridgewater, ⁴Regeneron Pharmaceuticals, Inc., Tarrytown, USA

Background: Previously, most biologics prescribed for treating rheumatoid arthritis (RA) were tumour necrosis factor inhibitors (TNFi) and it was common practice to prescribe a second TNFi after failure of the first. Biologics with different mechanisms of action (MOA) have become available and 2016 European League Against Rheumatism guidelines recommend cycling to another TNFi or switching to a biologic with a new MOA following failure of the first TNFi.

Objectives: Describe the proportion of patients in 5 EU countries who, after failure of a first TNFi, cycle to a second TNFi ('TNFi cycling') vs switch to a treatment with a different MOA ('Switch'), and identify patient characteristics and physician attitudes associated with TNFi cycling vs switching.

Methods: Data were from the Adelphi Disease Specific Programme (DSP), a cross-sectional survey conducted in 2017 in France, Germany, Italy, Spain and the UK. Rheumatologists prospectively completed records about the next 10 patients with RA who consulted them during the study period; records captured treatment history and clinical details. Patients were included in the analysis if they had been prescribed at least 2 different biologics, their first was a TNFi and their second was known. Patients were assigned to 2 cohorts: 'TNFi cycling' patients received a TNFi at first- and a different TNFi at second-line; 'Switch' patients received a TNFi at first-line and a non-TNFi at second-line. Bi-variate comparisons of groups were conducted using nonparametric tests as appropriate.

Results: All physicians in the DSP sample (n=301) were questioned on their beliefs around TNFis; 86.4% believed that there is a class effect with TNFis regarding efficacy and/or safety (table 1). Data from 359 patients were included in the analysis (75.8% female; mean [SD] age 56.5 [12.7]), of whom 167 (46.5%) were TNFi cycling, and 192 (53.5%) were Switch patients (female: 70.7% vs 80.2%, respectively; $p=0.04$; age: 55.8 [13.1] vs 57.1 [12.4], respectively; $p=0.42$). The most common reasons for discontinuing first-line therapy among the TNFi cycling and Switch cohorts were worsening condition (36.3% vs 45.3%,

respectively; $p=0.13$) and loss of efficacy (48.9% vs 48.3%, respectively; $p=1.0$). Prior to the second biologic, patients in the TNFi cycling cohort spent a numerically longer amount of time on first-line therapy vs the Switch cohort (2.0 [2.2] years vs 1.7 [1.9] years; $p=0.35$), and had a longer disease duration at the time of initiation of second-line non-TNFi (7.3 [6.6] years vs 6.6 [7.8] years; $p=0.15$).

Abstract AB0446 – Table 1. Physician beliefs around tumour necrosis factor inhibitors

	n, %
Do you believe that there is a class effect with the TNFis?	
Yes, with regards to efficacy	81 (26.9)
Yes, with regards to safety	30 (10.0)
Yes, with regards to both efficacy and safety	149 (49.5)
No	41 (13.6)
When do you believe there is a benefit in prescribing another TNFi?	
After primary lack of efficacy (non-response) to a first TNFi	127 (42.2)
After secondary lack of efficacy (response decreasing over time) to a first TNFi	160 (53.2)
After poor tolerability with a first TNFi	127 (42.2)
After primary lack of efficacy (non-response) to a second TNFi	28 (9.3)
After secondary lack of efficacy (response decreasing over time) to a second TNFi	47 (15.6)
After poor tolerability with a second TNFi	31 (10.3)
None of the above	25 (8.3)
How do you believe the practice of TNFi cycling is changing?	
Decreasing	188 (62.5)
Not changing	93 (30.9)
Increasing	20 (6.6)
Assuming no restrictions, which biologics would you prefer to use first for RA?	
Non-TNFi	50 (16.6)
TNFi	251 (83.4)
Assuming no restrictions, which biologics would you prefer to use second for RA?	
Non-TNFi	123 (40.9)
TNFi	178 (59.1)
Assuming no restrictions, which biologics would you prefer to use third for RA?	
Non-TNFi	190 (63.1)
TNFi	111 (36.9)

Conclusions: Despite evidence from literature suggesting that RA patients have a better treatment response switching to a non-TNFi after initial TNFi inadequate response¹ and despite the majority of physicians in our study believing that there is a class effect with TNFis, regarding efficacy and safety, 46.5% of patients still cycled to a second TNFi rather than switched to a non-TNFi as second-line therapy.

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AB0447 AUDIT OF THE CLINICAL EFFICACY AND SAFETY OF ETANERCEPT BIOSIMILAR TO ITS REFERENCE PRODUCT IN PATIENTS WITH INFLAMMATORY ARTHRITIS: EXPERIENCE FROM A DISTRICT GENERAL HOSPITAL IN THE UNITED KINGDOM

J. Ma, S. Petford, L. Jones, K. Douglas, H. John. *Rheumatology, Russells Hall Hospital, Dudley, UK*

Background: Etanercept has been widely used in rheumatology practice since NICE approval in 2000. Biologics have been pivotal treatments for inflammatory arthritis but are associated with a considerable economic burden. The expiry of patent protection has led to the introduction of biosimilar drugs at competitive prices. SB4 was the first biosimilar of etanercept approved by the European Medicine Agency. SB4 was launched in February 2016 in the UK for use in all adult indications for which reference etanercept is approved. The rheumatology team at the Dudley Group of Hospitals (DGH) negotiated with commissioners to share the cost savings of switching the cohort of patients who were on reference etanercept to SB4.

Objectives: This audit aimed to compare the clinical efficacy and safety profile of etanercept biosimilar SB4i (post switch) with its reference etanercept (pre switch).

Methods: The first 50 patients switched were sampled and followed up for 6 months. Data was collected from hospital databases and patient records (demographic; disease activity scores 6 months pre and post switch; adverse events (AE)). Inclusion criteria: all patients established on reference etanercept for more than 12 months. Exclusion criteria: patients attempting to conceive, pregnant or breast feeding women, patients on 25mg of reference etanercept or with JIA.

Results: Of the 194 patients on reference etanercept in the Dudley area, 160 (83%) were successfully switched at the time of audit. Of the first 50 patients who switched, 32 (64%) patients had rheumatoid arthritis (RA), 15 (30%) ankylosing spondylitis (AS), and 3 (6%) psoriatic arthritis (PsA). The mean age was 60 years (range 29-83 years) with equal gender distribution. Mean years on reference etanercept was 6 years (range 1-13 years). In the RA cohort: 23(72%) patients were female with mean change of DAS28: +0.1(SD:0.87). In the AS cohort, 14(93%) patients were male with mean change of BASDAI: -0.6 (SD:1.34). PsA: 2 patients' symptoms were unchanged, 1 patient's tender and swollen joint count decreased. At 6 months post switch, 84% patients continued etanercept biosimilar SB4. Reasons for discontinuation included: AE (n=4), inefficacy (n=3) and new contraindication (cancer n=1).

Conclusions: Following switching to etanercept biosimilar SB4, no clinically significant change in DAS28 or BASDAI were observed during the audit period. Switching from reference etanercept to SB4 has resulted in a potential yearly saving of £660,000, from which the rheumatology department has secured funding to employ an additional clinical nurse specialist and secretary. Our audit found SB4 to be as safe and effective as its reference etanercept and has demonstrated a positive experience with biosimilar switching. This is relevant given the expiry of their biologic drugs' patent protections and further biosimilar drugs becoming available.

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AB0448

PATIENT-REPORTED OUTCOMES FOLLOWING DISCONTINUATION OF METHOTREXATE IN PATIENTS WITH RHEUMATOID ARTHRITIS TREATED WITH SUBCUTANEOUS TOCILIZUMAB: RESULTS FROM A RANDOMISED CONTROLLED TRIAL

J. Kremer¹, W. Rigby², N. Singer³, C. Birchwood⁴, D. Gilt⁴, W. Reiss⁴, J. Best⁴, J. Pei⁴, M. Michalska⁴. ¹Albany Medical College and The Center for Rheumatology, Albany; ²Geisel School of Medicine, Dartmouth College, Lebanon; ³Case Western Reserve University and the MetroHealth System, Cleveland; ⁴Genentech, Inc., South San Francisco, USA

Background: Patients with rheumatoid arthritis (RA) often receive methotrexate (MTX) in combination with biologics; however, MTX may be discontinued due to intolerance or to reduce the medication burden once disease control is achieved. Whereas previous studies have established the efficacy of tocilizumab (TCZ) initiated as monotherapy (MONO) for the treatment of RA,^{1,2} patient-reported outcomes (PROs) after MTX withdrawal in patients achieving good clinical response to TCZ +MTX have not been evaluated. PROs are important measures when determining response to therapy in patients with RA with respect to health-related quality of life (HRQOL).^{3,4}

Objectives: This study evaluated PROs between patients with RA who achieved low disease activity with TCZ +MTX and then continued or discontinued MTX in the COMP-ACT trial (NCT01855789).

Methods: US patients with RA who were inadequate responders to MTX were enrolled; initial combination therapy included MTX (≥ 15 mg/week orally) plus TCZ 162 mg subcutaneous either weekly (qw) or every 2 weeks (q2w). Patients who achieved DAS28-ESR ≤ 3.2 at Week 24 were randomised 1:1 to receive TCZ-MONO or continue TCZ +MTX until week 52 (double-blind). Changes in PRO scores were measured between Week 24 and Weeks 40 and 52, and included patient global assessment of disease activity (PtGA; visual analogue score [VAS], 0–100 mm), pain (VAS), Health Assessment Questionnaire Disability Index (HAQ-DI, 0–3) and Functional Assessment of Chronic Illness Therapy (FACIT)-Fatigue.

Results: Of the 296 randomised patients (TCZ +MTX, n=148; TCZ-MONO, n=148), 74.8% were women, mean age was 55.5 years, mean RA duration was 6.8 years and mean DAS28-ESR was 6.3 at baseline. At Week 24 (randomization), PRO scores were similar between the randomised treatment groups. The mean changes in PtGA, pain, HAQ-DI and FACIT-fatigue scores from Week 24 to Weeks 40 were similar between the TCZ +MTX and TCZ-MONO groups (table 1). The proportion of patients with HAQ-DI <0.5 was similar between the groups at Week 24 (randomization), and remained similar at Weeks 40 and 52.