Nine (5%) and 48 (6%) of ETA-B and ETA-O patients had stopped their respective treatments by the 1st FU. The adjusted hazard ratio for stopping ETA-O versus ETA-B over this time period was similar (HR=0.8 (0.4-1.6); p=0.5). Risk of SAEs over the first 6 months was also similar between groups (HR (ETA-B versus ETA-O)=0.6 (0.3-1.1); p=0.1), with 10 (6%) and 73 (10%) SAEs reported in ETA-B and ETA-O patients respectively until 1st FU.

Abstract AB0429 – Table 1

Patients who are	Biological naive	Switched from a non-originator	Switched from originator
Number	36	17	5
Biosimilar			
Infliximab biosimilars	28 (77%)	17 (100%)	3 (60%)
etanercept biosimilar	8 (22%)	0 (0%)	2 (40%)
ILAR class			
Persistent Oligoarthritis	4 (11%)	4 (24%)	0 (0%)
Extended Oligoarthritis	8 (22%)	5 (29%)	1 (20%)
RF Negative Polyarthritis	13 (36%)	4 (24%)	1 (20%)
RF Positive Polyarthritis	0 (0%)	0 (0%)	0 (0%)
Psoriatic Arthritis	2 (6%)	3 (18%)	3 (60%)
Enthesitis Related Arthritis	8 (22%)	1 (6%)	0 (0%)
Unknown	1 (3%)	0 (0%)	0 (0%)
Active uveitis at start of therapy	4 (11%)	7 (41%)	2 (40%)
Female	22 (61%)	12 (71%)	2 (40%)
Age (years)	13 (9-15)	14 (11-15)	13 (12-16)
Disease duration (years)	2 (1-5)	6 (3-10)	7 (6-13)
Active Joints (71 joints)	2 (1-4)	0 (0-2)	0 (0-0)
Limited Joints (71 joints)	2 (1-4)	2 (0-4)	0 (0-1)
Physician Global (0-10cm)	2 (2-4)	1 (0-2)	0 (0-0)
Patient Global (0-10cm)	5 (1-7)	2 (0-4)	2 (0-4)
Pain VAS (0-10cm)	4 (1-7)	4 (2-5)	1 (0-1)
CHAQ (0-3)	1 (0-1)	0 (0-2)	0 (0-1)

All data presented are number (percentages) or median (interquartile range). International League of Associations for Rheumatology (ILAR), Rheumatoid Factor (RF), Visual Analog Scale (VAS), Childhood Health Assessment Questionnaire (CHAQ).

Conclusions: In the UK, etanercept biosimilars are now frequently used as first-line biologics in RA patients. These short-term follow-up data demonstrate in routine clinical care that ETA-B appears to be equivalent to ETA-O in terms of short term effectiveness, drug survival and safety.

Disclosure of Interest: None declared

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AB0430 SUBJECTIVE ASSESSMENTS OF PATIENTS WITH RHEUMATOID ARTHRITIS REPORTED THAT BIO-HOLIDAY THERAPY BROUGHT THEM FINANCIAL AND PSYCHOLOGICAL IMPROVEMENTS

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Background: At EULAR 2016 and 2017 we reported that it is possible to maintain disease activity, radiographic progression, physical function, and bone metabolism status in rheumatoid arthritis (RA) patients with clinical disease activity index (CDAI) remission using the biologic agents (Bio)-holiday therapy. Currently, in RA therapy, subjective assessment of patients as well as objective assessment of doctors is becoming more important⁽¹⁾. How does the patient think about Bio-holiday therapy?

Objectives: We conducted questionnaire survey in RA patients with CDAI remission who underwent Bio-holiday therapy or Bio-continue therapy to evaluate the benefits of their therapies and to clarify the number of patients concerned about flare-up.

Methods: The first and second survey comprised 9 and 11 questions, respectively; each provided predefined answers. In the first survey, we questioned 85 RA patients in CDAI remission: those treated with any DMARDs. We asked them about the expected elements of RA treatment. In the second survey, we questioned two groups of patients with CDAI remission; those treated with Bio-continue after achieved CDAI remission (BC group: n=26) and those treated with Bio-holiday therapy after achieved CDAI remission (BH group: n=28). We asked them by a questionnaire what was expected from the treatment effect and how much they felt anxiety about the activity of daily life (ADL) deterioration, RA flare-up and treatment costs.

For Bio-holiday therapy, patients with CDAI remission were treated with golimumab or tocilizumab. Bio was discontinued if they achieved CDAI remission. Patients were treated with Bio within 3 months after falling out of CDAI remission. They could be taken off Bio again when they reached CDAI remission.

Results: In the first survey (figure 1), pain improvement and inexpensive treatment were the most and the second expected treatment effect, respectively. In the second survey (Figure 2), for questions regarding expectation from RA treatment effect, the patients reported that the most beneficial points was pain improvement and the second one was the active daily living without difficulty. Patients in both groups equally recognised reduction in pain and recovery of activities of daily

living, which are important for patients with CDAI remission. Interestingly, improvement of emotional depression is the higher in BH group than in BC group. For question regarding anxiety, the high medical expense was the most anxious point. Anxiety regarding high medical expenses in BH group was lower than that in BC group. Anxiety regarding flare-up was equal to that in BC group as patients were assured of retreatment with Bio in case of a flare-up.

Abstract AB0430 – Figure 1. Questionnaire results of all RA patients with CDAI remission

Abstract AB0430 – Figure 2. Questionnaire results of RA patients with CDAI remission who underwent Bio-holiday therapy or Bio-continue therapy

Conclusions: Patients in both groups were equally satisfied with the improvement of their disease activity and progression of ADL. Reduction of the anxiety regarding treatment costs and flare-up in Bio-holiday therapy also helped to improve psychological aspects. Therefore, we recommended Bio-holiday therapy for RA patients with CDAI remission.

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AB0431 EARLIER AGE AT THERAPY INITIATION IS ASSOCIATED WITH BETTER RESPONSE TO TOCILIZUMAB THERAPY IN PATIENTS WITH JUVENILE IDIOPATHIC POLYARTHRITIS

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Background: The use of therapy with anti-cytokine biologics in routine practice has significantly increased the percentage of children showing good response to therapy and reduced the time to achieve pharmacological remission. Nevertheless, the problem related to selecting the optimal drug for a certain patient still remains to be solved.

Objectives: This study was aimed at identifying clinical and laboratory parameters associated with response to tocilizumab (TOC) treatment in patients with RF-negative polyarticular JIA.

Methods: The prospective study to assess TOC efficacy involved 55 patients with RF-negative polyarticular JIA aged 9.42 years (IQR 5.96–13.42), with females (85.5%) predominating was conducted at the National Medical Research Centre of Children's Health (Moscow). Treatment efficacy was evaluated using the ACRPed criteria; Wallace's criteria were used to assess whether a patient had reached inactive disease or remission. The potential baseline characteristics associated with treatment response were identified using univariate and multivariate logistic regression analyses. Baseline factors included the clinical, laboratory, and anamnestic data.

Results: TOC therapy showed high efficacy in children with RF-negative polyarticular JIA: 81.8/67.3/47.3/23.6% of patients reached the ACR30/50/70/90 criteria for the end of follow-up, respectively. The median time of achieving at least 30% improvement from baseline (ACR30) was 1 month (IQR 1.3).

Univariate analysis showed that earlier age at initiation of Tocilizumab therapy, higher physician's global assessment score using the 100-point Visual Analogue Scale, and longer morning stiffness were the factors associated with reaching ACR90. Younger age at therapy initiation, greater number of swollen joints and joints with limited range of motion, and history of using fewer biologicals are the factors associated with reaching inactive disease and remission. However, multi-factorial analysis showed that only earlier age at initiation of TOC therapy was a statistically significant factor associated with reaching the best response to therapy in all the models.

Conclusions: Earlier initiation of TOC therapy is associated with higher chances for reaching ACR90 and pharmacological remission in patients with RF-negative polyarticular JIA. Further studies in larger cohorts are needed to identify the optimal age at therapy initiation.

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AB0432 BIOLOGIC DMARDS TREATMENT RETENTION IN PATIENTS WITH RHEUMATOID ARTHRITIS ACCORDING TO THE MOSCOW ARTHRITIS REGISTRY (MERA)

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Background: Retention on treatment is a good index of efficacy and safety of treatment used in the real clinical practice. These data may be useful to planning the treatment among some years.^{1,2}

Objectives: To compare the drug survival of biological therapies.

Methods: We followed rheumatoid arthritis patients treated with biologics DMARD and registered in MERA 2012–January 2018. All patients had more than one visit in the registry.

Results: We analysed 799 patients (mean age 57.3±13, mean diseases duration 15.6±10.3 years). The average time until a change of treatment for infliximab was 399 days – the shortest treatment duration. Abatacept (median survival – 2922 days) demonstrated significant superiority over adalimumab (1339 days) ($p<0.001$), infliximab (399 days) ($p<0.001$), rituximab (2557 days) ($p=0.004$) and etanercept (1492 days) ($p=0.035$) when they was used as the first biologic drug. Among second-line therapy, the longest treatment survival has etanercept (3435 days), the shortest – infliximab (212 days).

Abstract AB0432 – Figure 1

Conclusions: The results of the trial show the differences in treatment survival of some biologics. It can be reasonable to take these significant differences into consideration by the long-term planning of the biologic treatment of rheumatoid arthritis patients.

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AB0433 TNF-INHIBITORS AND ANTI-B- CELL TREATMENT IN PATIENTS WITH RHEUMATOID ARTHRITIS. REAL-WORLD DATA FROM THE RUSSIAN NORTH-WESTERN BIOLOGICAL TREATMENT COHORT

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Background: Biologics are drugs that improved the status of rheumatoid arthritis (RA). At the same time real-world data (RWD) from large cohorts can give some additional information about efficacy and safety of the biological agents.

Objectives: The aim of the study was to analyse the efficacy and safety of biological treatment in large prospective cohort during 102 weeks of treatment.

Methods: The data from 1 400 patients on biological treatment from North-Western State Medical University Biological Treatment Cohort Study (St. Petersburg, Russia) were analysed. In final analysis data from 758 patients with RA/EULAR 2010 criteria, were included. Following drugs were used: adalimumab (n=22), certolizumab pegol (n=62), etanercept (n=64), golimumab (n=21) and infliximab (n=69), rituximab (n=520)). The disease activity index (DAS28) and high-sensitive C-reactive protein (C-RP) were evaluated as markers of RA activity. Side effects were registered during the study.

Results: RA activity, demographic characteristics, and concomitant treatment (including methotrexate, glucocorticoids, NSAIDs, analgesics) at baseline were similar in all the treatment groups ($p\geq 0.05$ for all the parameters). The faster response was found in golimumab and certolizumab pegol patients (p and It ; 0.01 for difference of DAS28 in golimumab, certolizumab pegol treatment and other treatment groups at week 6), figure 1. After week 12 the similar efficacy of all the TNF α -blockers (figure 1).

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The most frequent side-effects were opportunistic infections, OR=1.8 [95% CI 1.4–2.1]. Risk of infections was higher in patients, receiving monoclonal antibodies to TNF α , as compared to other TNF α inhibitors ($p<0.01$ for differences between infliximab/adalimumab/golimumab and etanercept, and $p<0.05$ for differences between infliximab/adalimumab/golimumab and certolizumab pegol).

The risk of cancer in RA patients on biological treatment and in total Russian population (including lymphomas and skin cancer) was comparable: for all the tumours OR=0.98 [95% CI 0.76–1.26], for lymphomas OR=1.23 [95% CI 0.92–1.41], for skin cancer OR=1.11 [0.88–0.36].

Abstract AB0433 – Figure 1. The dynamics of the disease activity index DAS28 in patients with RA receiving different TNF α -blockers

Conclusions: According to the RWD from the North-Western Biological Treatment Cohort, the efficacy of all the TNF α -inhibitors and rituximab in RA treatment