Conclusion: The immunogenicity of patients treated with RTX is a rare event with possible clinical and biological consequences, especially in patients with high antibody levels.

REFERENCES:

[1] Smolen et al, Ann Rheum Dis 2017

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Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2021-eular.954

POS0601

DIFFERENCES IN DRUG SURVIVAL BETWEEN ORIGINATOR AND BIOSIMILAR PRODUCTS AMONG FIRST USERS OF EACH MOLECULE

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Background: Biosimilar products of biological disease-modifying antirheumatic drugs (bDMARDs) entered the Swedish market in 2015, with regulatory approvals based on head to head trials of limited duration. Longer-term comparative drug survival, in clinical practice, remains less well documented.

Objectives: To compare survival on drug between biosimilars and their originator products among first starters of etanercept, infliximab, adalimumab and rituximab.

Methods: Data from the Swedish Rheumatology Quality register (SRQ) was used to identify and follow patients who started a first ever treatment with etanercept since April 2015 (originator=ETA, biosimilar= SB4), infliximab since March 2014 (originator=IFX, biosimilar= CT-P13), adalimumab since January 2018 (originator=ADA biosimilars=SB5, ABP501), or rituximab since January 2018 (originator=RIT, biosimilar= GP2013), through December 31st, 2019, date of first discontinuation of the drug, or death. Discontinuation was defined as lack of effectiveness or adverse events, while other reasons for interruption of the drug (including non-medical switch) were considered censoring events. Descriptive characteristics were collected from the SRQ and tabulated. Hazard ratios (HR) of discontinuation were estimated using Cox regression, with each drug analyzed separately, adjusted for age, sex, indication, line of treatment, disease duration, year of treatment start, region and concomitant use of csDMARD.

Results: 9274 patients started etanercept (49% SB4), 3609 started infliximab (64% CT-P13), 3117 started adalimumab (27% SB5, 14% ABP 501), and 763 started rituximab (39% GP2013), Table 1. Patients starting CT-P13 and GP2013 were less likely to be biologics-naïve compared to those starting the originator product. Initiators of SB5, ABP501 and GP2013 were more likely, and those starting CT-P13 were less likely, to be on concomitant csDMARDs compared to those starting the originator products. Patients characteristics of ETA and SB4 were similar.

The introduction of a biosimilar was typically followed by a decrease in the uptake of the originator, but for ETA a change in pricing in 2018 later led to a reversal of this pattern (Figure 1).

For IFX, ADA, and RIT, survival on drug was similar for the originator and its biosimilar(s). For ETA, risk of discontinuation was somewhat lower for the biosimilar than for the originator (adjusted HR: 0.87, 95% confidence interval: 0.79-0.95), Table 1.

Table 1. Hazard ratios of discontinuation and descriptive characteristics of biosimilar vs. originator among first starters of each molecule, until 31st December 2019.

	Etanercept		Infliximab		Adalimumab			Rituximab	
	Originator	SB4	Originator	CT-P13	Originator	SB5	ABP 501	Originator	GP2013
N	4721	4553	1308	2301	1834	852	431	465	298
Discontinuation	1289	1236	582	878	399	139	80	57	26
Adjusted hazard ratios*	Ref	0.87 (0.79-0.95)	Ref	1.14 (0.99-1.31)	Ref	1.02 (0.83-1.26)	1.16 (0.88-1.52)	Ref	1.12 (0.68-1.85)
Age, mean years (std)	51 (16)	51 (15)	49 (16)	49 (16)	48 (15)	52 (15)	51 (15)	59 (15)	60 (15)
Female, %	67%	65%	61%	64%	62%	64%	65%	75%	76%
RA, %	46%	48%	39%	35%	33%	42%	43%	61%	76%
Bionative, %	72%	72%	76%	69%	45%	52%	43%	53%	38%
Disease duration, mean years (std)	11 (12)	11 (11)	11 (11)	11 (11)	12 (13)	12 (11)	14 (15)	14 (19)	15 (11)
DAS28, mean	4.0 (1.3)	4.0 (1.4)	4.1 (1.4)	4.1 (1.4)	3.7 (1.4)	3.8 (1.3)	4.0 (1.3)	4.5 (1.4)	4.7 (1.4)
Concomitant csDMARDs, %	45%	47%	57%	48%	37%	49%	42%	36%	43%

Abbreviations: RA=rheumatoid arthritis. csDMARDs=conventional synthetic DMARD, std=standard deviation.

Figure 1. Number of starts of biosimilars compared to the originator during the follow-up time, by molecule

Conclusion: Despite their identical indications and therapeutic positioning, there are some differences in the baseline characteristics between patients who start ADA, IFX and RIT and their biosimilars. There are no differences in drug survival between originator and biosimilar with the possible exception of etanercept although the observed difference should be interpreted in light of possible unmeasured or residual channeling.

Disclosure of Interests: Daniela Di Giuseppe: None declared, Hannah Bower: None declared, Bénédicte Delcoigne: None declared, Thomas Frisell: None declared, Katerina Chatzidionysiou Consultant of: Eli Lilly, AbbVie and Pfizer, Ulf Lindström: None declared, Christopher Sjöwall: None declared, Elisabet Lindqvist: None declared, Johan Askling Grant/research support from: Abbvie, Astra-Zeneca, BMS, Eli Lilly, MSD, Pfizer, Roche, Samsung Bioepis, Sanofi, and UCB, **DOI:** 10.1136/annrheumdis-2021-eular.977

POS0602

ROLE OF INTRAARTICULAR BIOLOGICS AND METHOTREXATE IN THE MANAGEMENT OF ACTIVE INFLAMMATORY MONOARTHRITIS

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Background: Expansion of immunosuppressive medications has greatly improved disease activity control in rheumatoid arthritis (RA) patients. However, persistent symptomatic monoarthritis can be a problem in some patients who otherwise have satisfactory disease control. Intra-articular (IA) corticosteroid (CS) injections have remained a treatment cornerstone for these patients, but the need for other therapies is clear. Patients can fail such therapy, may develop adverse effects or have comorbidities that are exacerbated by IA CS. 50% of patients relapse after IA CS therapy. Several studies have looked at other agents such as methotrexate (MTX) or tumor necrosis factor inhibitors (TNF-i) as IA treatment options.

Objectives: To systematically review the evidence regarding utility of IA methotrexate and biologics in managing inflammatory monoarthritis in patients with RA.