of cases, adalimumab in 14% of cases, certolizumab pegol 13%, infliximab 6%, tocilizumab 6% and rituximab in 7% of cases, with an average DAS28 at baseline 6.01 ± 0.89 [5.37 – 6.50]. Association with methotrexate was observed in 59.6% case and with corticosteroid in 57.2% case. Drug persistency rate at 12 months was 85.8%; at 24 months, 69.9%; at 36 months, 60.6% and at 48 months, 55.9%. Survival was on average 41.7 months with 95% CI (39.47 – 43.91). The presence of rheumatoid factors, the co-prescription of methotrexate as well as good initial therapeutic response were predictor of a better survival of biologicals at a statistically significant level $p < 0.01$ (Hazard Ratios for pursuit of biotherapy were respectively 1.79, 1.91 and 2.3). The use of glucocorticoids was a negative predictor of retention (Hazard Ratio for therapy pursuit was 0.47 $p < 0.001$). This first biotherapy was stopped in 39% of cases and ineffectiveness was the major reason of interruption (52.7%). The anti-TNF α cycling was the most adopted therapeutic strategy with 64.6% of cases. The survival rates of the second biotherapy at 12, 24 and 36 months were 91%, 76.4% and 72.1%, respectively.

Conclusion: Our study provides information about biotherapy prescription practices in Tunisia and their effectiveness in “real life”. It informs us about the use of these new therapies in our country and has shown an efficacy and a tolerance profile close to those reported in international registers.

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AB0321

EFFECT ON RETENTION RATES OF A NOVEL AUTOINJECTOR E-DEVICE IMPLEMENTED IN CLINICAL PRACTICE IN PATIENTS WITH CHRONIC ARTHRITIS TREATED WITH CERTOLIZUMAB PEGOL: A MULTI-CENTRE STUDY

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Background: Anti-tumour necrosis factor (anti-TNF) adherence is suboptimal and impacted by multiple psychological, practical and physical barriers, such as patient needle phobia, lack of confidence in self-administration skills and forgetting injection dates (1,2). ava®, a reusable electro-mechanical self-injection device (e-Device) developed for certolizumab pegol (CZP) administration, aims to overcome some of these barriers.

Objectives: The objective of this study was to explore the clinical retention rate of an e-Device aimed at empowering chronic arthritis patients using CZP.

Methods: Patients treated with CZP were recruited from the Netherlands, Denmark and Sweden through rheumatology clinics to evaluate patient experience with the e-Device. Patients were adults (aged between 18 and 85 years) with RA, axSpA or PsA. After being trained on how to use the e-Device, patients administered 3 consecutive self-injections on their own. Descriptive statistics for baseline characteristics, retention rates and reasons for withdrawal were assessed. Data on physical function (HAQ) are reported for Denmark and Sweden only due to lack of data from Holland.

Figure 1. Overall retention rate and reasons for withdrawal

Results: 59 patients participated in the study (Netherlands: 25; Denmark: 15; Sweden: 19). Most patients were women (71%), with a mean age of 55 years [16.2] and an average disease duration of 12 years [8.8]. A total of 42% and 39% had previously been treated with csDMARD(s) or were currently on csDMARD(s), respectively. 12% of the patients were bio-naïve. Only 6 (10%) patients started CZP de novo. The remaining switched device. The most used administration form prior to entering the study was pre-filled syringe (78%). At the time of inclusion, patients were mildly disabled with an average HAQ score of 0.5 [0.6] and a moderate VAS-pain score of 32 [25.1] (data not shown).

The overall retention rate was 42% after 52 weeks, declining to 38% after 104 weeks (Figure 1). A sharp decline is seen at week 8 which coincides with the end of the project phase. Between week 32 and 112 only 4 patients withdrew from the study (Figure 1). The primary reason for withdrawal was patient's request (Figure 1). Dropout rates due to lack of efficacy or adverse events were as expected compared to other cohorts of biologic therapies. When stratified by country the analysis showed no significant differences between countries (data not shown).

Conclusion: An initial large drop-out was evident within the first 8 weeks, whereas almost no drop-out was seen in the extension phase (after week 8). The reasons for withdrawal was primarily patient request. Thus, the injection experience must be tailored carefully when selecting patients for new autoinjector e-Devices to enhance retention on device and patient satisfaction. Not one device fits all.

References:

- [1] Maniadakis N, Toth E, Schiff M, et al. A Targeted Literature Review Examining Biologic Therapy Compliance and Persistence in Chronic Inflammatory Diseases to Identify the Associated Unmet Needs, Driving Factors, and Consequences. *Adv Ther* 2018;35:1333-1335.
- [2] Lopez-Gonzalez R, Leon L, Loza E, et al. Adherence to biologic therapies and associated factors in rheumatoid arthritis, spondyloarthritis and psoriatic arthritis: a systematic literature review. *Clin Exp Rheumatol* 2015;33:559-69.

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AB0322

LESSONS LEARNED FROM THE PAST THAT SHOULD IMPROVE THE FUTURE: 18 YEARS OF EXPERIENCE WITH BIOLOGIC THERAPIES IN RHEUMATOID ARTHRITIS IN A TERTIARY RHEUMATOLOGY CENTER IN ROMANIA

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Background: Rheumatoid arthritis (RA) is a chronic inflammatory disease, which affects approximately 1% of the population. Although diagnostic, monitoring and treatment strategies have improved noticeably over the last decades, allowing an early and sustained clinical and radiological remission, both direct and indirect costs of treatment and disease still create an economic burden for patients and society. The last few years have brought many therapeutic options and knowledge about them, which has led to the 2019 updated EULAR recommendations for the management of RA (1).

Objectives: This study aimed to evaluate the trends in prescribing of biologic therapies in RA over time, the factors that influenced them and the persistence of patients on these treatments.

Methods: In this retrospective study we evaluated patients with RA treated with biologic therapies in the last 18 years, who presented for routine clinical and biological evaluation, performed according to the standard of care principles in RA.

Results: 244 patients were enrolled in this study. Baseline characteristics are presented in Table 1.