Figure 1 – Persistence in 1st bDMARD (months) for elderly and adults

Efficacy and safety	Total	Adults	Elderly	P value
EULAR response at 3 month (Lundex corrected) %	77.8 (51)	78.4 (51)	75 (51)	
EULAR response at 6 month (Lundex corrected) %	80.6 (50)	81.7 (52)	76 (45.2)	
EULAR response at 12 month (Lundex corrected) %	81.5 (35.6)	83.8 (37)	71.5 (29.3)	0.01
N patients with AE during 1st bDMARD	409	319	90	
AE infection – N (%) N=407	237 (58.2)	176 (55.3)	61 (68.5)	0.03
AE opportunistic infection – N (%) N=408	30 (7.4)	21 (6.6)	9 (10)	
AE allergic reaction – N (%) N=407	71 (17.4)	59 (18.6)	12 (13.5)	
Severe AEs – N (%) N=391	82 (21)	64 (21)	18 (20.9)	
Hospitalization – N (%) N=407	56 (13.8)	42 (13.2)	14 (15.7)	
bDMARD suspension due to AE – N (%) N=407	171 (42)	130 (40.9)	41 (46.1)	
bDMARD reintroduction after AE – N (%) N=211	61 (28.8)	48 (30)	13 (25.5)	

Figure 2 – Efficacy and safety. AE: adverse event. When p value > 0.05 no value is presented.

Disclosure of Interests: None declared

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SAT0144

UNDERSTANDING THE LONG-TERM OUTCOME OF RITUXIMAB – IMPLICATIONS FOR MANAGEMENT

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Background: In patients with rheumatoid arthritis (RA), rituximab (RTX) is often prescribed after loss of response to TNF inhibitors; however, little is known about the long-term outcome of patients receiving treatment with RTX. Previous work [1,2] has shown that aiming for “complete B-cell depletion with clinical response” (CD-R) leads to an optimal management of the disease but unfortunately not all patients maintain this status. Whether CD-R can be regained with RTX retreatment remains unclear.

Objectives: To assess the outcome of RA patients treated with consecutive cycles of RTX, focusing on those who achieved complete B-cell depletion with clinical response.

Methods: A prospective 12 year observational study was conducted in RA patients who were treated with RTX in Leeds. Consecutive cycles of RTX consisting of 2 infusions of 1000mg were administered either on clinical relapse or a 6-monthly basis. B-cells were measured using highly sensitivity flow cytometry at 0 and 2 weeks post-RTX. Complete depletion (CD) was defined by total B-cell count $<0.0001 \times 10^9/L$ at week 2. Clinical response was defined by EULAR response criteria and CD-R was seen as the optimal outcome.

Results: 755 patients participated in the study of which 723 had complete data (see fig.1). The mean (range) number of RTX cycles administered was 3.8 (1-14). 76% (549/723) of patients reached CD-R at some stage during therapy while 24% (174/723) never did. The latter patients had a shorter period of RTX treatment vs CD-R with an OR of 7.98 after adjusting for age, gender, prior therapy with TNF-I and concomitant DMARDs (95% CI 5.86-10.86); $p < 0.001$ (see fig.2). 84% of those who were retreated with RTX recovered CD-R (77% of them did it in the following cycle). Half of the patients that reached CD-R maintained it in prospective cycles but 47% lost it subsequently. A third of the patients that lost either clinical response or B-cell depletion were switched to other medication without receiving further cycles. Overall, at the end of the study, 55% of all patients treated with RTX (400/723) remained in CD-R.

Conclusion: Most patients treated with RTX will achieve CD-R, but approximately half of them will lose this optimal status at some point. In patients who achieve CD-R but subsequently lose it, retreatment with

RTX appears to be an effective strategy since 80% of them will regain it and will maintain long-term treatment with therapy

REFERENCES

- [1] Md Yusof, et al. EULAR 2016
- [2] Garcia-Montoya, et al. EULAR 2018

Figure 1

Figure 2

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SAT0145

ON TAPERING THERAPY FOR RA PATIENTS IN CLINICAL REMISSION; FLARE ON CS-DMARDs IS PREDICTED BY CLINICAL PARAMETERS AND ULTRASOUND, WHEREAS T-CELL ABNORMALITIES ARE PREDICTIVE FOR B-DMARD TAPERING

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Background: Tapering of disease-modifying therapy (DMARDs) is recommended by EULAR/ACR for rheumatoid arthritis (RA) patients who achieve sustained remission on stable therapy(1,2). However, there is no guidance on how to manage this in clinical practice.

Objectives: We aimed to assess flare over 12 months in RA patients in sustained remission who were offered structured tapering of either conventional synthetic (cs) or biologic (b) DMARDs.

Methods: RA patients (ACR/EULAR 2010) prospectively attending a remission clinic were recruited when fulfilling the criteria of stable remission as defined by 3-variable DAS28CRP < 2.6 for ≥ 6 months (stable therapy & no corticosteroids). Patients were offered tapering according to a structured protocol (Figure 1). For patients receiving combination cs/b-DMARDs, only the b-DMARD was tapered. Clinical, ultrasound (US) + immunological (T-cell subsets: naïve, Treg (both age-corrected) and