Table 2. Factor loads of the relationships identified between the concentration of IgA anti-CD74 and the activity indices of axial spondyloarthritis

Indicator	Factor loading (R)		
Factor	Factor 1	Factor 2	Factor 3
IgA anti-CD74	-	-	0.667
BASDAI	-	0.844	0.842
ASDAS	0.530	0.959	0.857
BASFI	-	0.614	0.820
CRP	0.760	-	-

«-» no significant association present.

Figure 1. Concentration of IgA anti-CD74 for healthy volunteers (left) and patients with axial spondylitis (right)

As compared to controls sensitivity of IgA to anti-CD74 was 64.7%, specificity of this method was 68.1%.

Conclusion: The concentration of IgA to anti-CD74 is increased in 70.1% of pts with axSpA and associated with an increase in disease activity detected with ASDAS and BASDAI, independently from CRP. More data are needed in detection of sensitivity and specificity of IgA to CD74 in axSpA.

References:

- [1] Turina MC, et al. RMD Open. 2017;3(1):e000319. doi: 10.1136/rmdopen-2016-000319
- [2] Elke Riechers, et al. Arthritis Rheumatol. 2019;71(5):729-735. doi: 10.1002/art.40777

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FRI0598

DMARD-FREE REMISSION IN RHEUMATOID ARTHRITIS: AN ACHIEVABLE AND SUSTAINABLE OUTCOME? A SYSTEMATIC LITERATURE REVIEW

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Background: Current treatment guidelines for rheumatoid arthritis (RA) suggest tapering DMARDs.¹ Discontinuation of DMARD-treatment is of increasing interest, and DMARD-free remission (DFR) is regarded an important future outcome.^{2,3} However, lack of knowledge on DFR prevalence, its sustainability, and the characteristics of patients achieving DFR currently hampers the use of DFR as primary outcome.

Objectives: To increase the understanding of DFR in RA, and to support studies aiming to include this as primary outcome, we systematically reviewed the literature to determine prevalence and sustainability of DFR. Potential predictors of DFR were evaluated to increase insight in patient characteristics favourable for achieving this outcome.

Methods: A systematic literature search was performed in March 2019 in multiple databases. All clinical trials and observational studies reporting on discontinuation of DMARDs in RA-patients in remission were included. Our quality assessment included a general assessment and assessment of the description of DFR. Prevalence of DFR and its sustainability, flares during tapering and after DMARD-stop were summarized. Also, potential predictors of achieving DFR were reviewed.

Results: From 631 articles, 51 were included, comprising 14 clinical trials and 5 observational studies. DFR-definition differed, especially for the duration of DMARD-free state. Considering only high and moderate-quality studies, DFR was achieved in 5.0%-24.3%, and sustained DFR (duration>12 months) in 11.6%-19.4%. Flares occurred frequently during DMARD-tapering (41.8%-75.0%) and in the first year after achieving DFR (10.4%-11.8%), whilst late flares, >1 year after DMARD-stop, were infrequent (0.3%-3.5%). Many patient characteristics lacked association with DFR. Absence of auto-antibodies and shared epitope alleles increased the risk of achieving DFR.

Conclusion: DFR is achievable in RA, and is sustainable in ~10%-20% of patients. ¹DFR can become an important outcome measure for clinical trials, and requires consistency in the definition. Considering the high rate of flares in the first year after DMARD-stop, a DMARD-free follow-up of >12 months is advisable to evaluate sustainability.

References:

- [1] Smolen JS, Landewe R, Bijlsma Jea. EULAR recommendations for the management of rheumatoid arthritis with synthetic and biological disease-modifying antirheumatic drugs: 2016 update. *Ann Rheum Dis* 2017;76(6):960-77. doi: annrheumdis-2016-210715 [pii];10.1136/annrheumdis-2016-210715 [doi]
- [2] Ajejanova S, van Steenberg HW, van Nies JA, et al. Disease-modifying antirheumatic drug-free sustained remission in rheumatoid arthritis: an increasingly achievable outcome with subsidence of disease symptoms. *Ann Rheum Dis* 2016;75(5):867-73. doi: annrheumdis-2014-207080 [pii];10.1136/annrheumdis-2014-207080 [doi]
- [3] Stamm TA, Machold KP, Aletaha D, et al. Induction of sustained remission in early inflammatory arthritis with the combination of infliximab plus methotrexate: the DINORA trial. *Arthritis Res Ther* 2018;20(1):174. doi: 10.1186/s13075-018-1667-z [doi];10.1186/s13075-018-1667-z [pii]

Figure 1. Summary of flare rates and DFR-prevalence depicted on a timeline, prevalence are grouped based on the reported duration of DFR. DFR percentages of all high and moderate-quality studies with confidence intervals, indicated parenthetical. Prevalence and confidence intervals were calculated using number of DFR patients divided by the number of patients eligible for tapering. Flares were calculated using number of flares, divided by the number of patients eligible for tapering. Patients were considered eligible for tapering when they had achieved remission and subsequently were allowed to start tapering. Results from observational studies are indicated in italic; others are clinical trials. * indicates that studies that allowed the use of i.a. or systemic corticosteroids in patients that were considered to be in DFR (absolute number of patients that used corticosteroids after DMARD-stop was not reported). * indicates moderate-quality studies. DMARD: Disease-modifying antirheumatic drugs; DFR: DMARD-free remission; SDR: sustained DMARD-free remission.

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FRI0599

USEFUL II: DERIVATION OF THE LUPUS ARTHRITIS AND MUSCULOSKELETAL DISEASE ACTIVITY SCORE (LAMDA) USING DATA FROM A MULTICENTRE LONGITUDINAL STUDY

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Background: Musculoskeletal (MSK) disease is the commonest manifestation of SLE. We showed that the MSK components of the BILAG index and SLEDAI have limited sensitivity, specificity and responsiveness compared to ultrasound