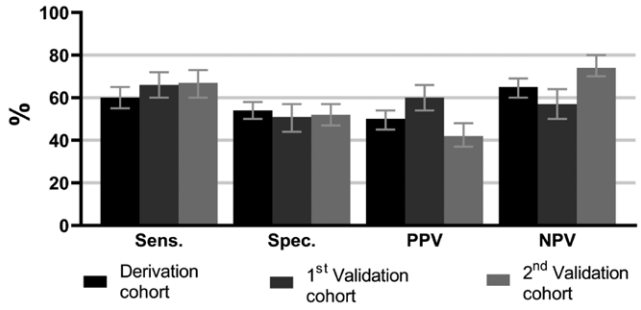
Figure. Test characteristics of the presence of difficulties with dressing, with IA at physical examination as outcome



Error bars indicate the 95% confidence interval.
Sens.: sensitivity; Spec.: specificity; PPV: positive predictive value; NPV: negative predictive value.

Conclusion: A yes/no answer on a simple question ("Are you able to dress yourself, including shoelaces and buttons?") was helpful in discriminating patients with and without IA. Findings were validated in independent 1.5-line settings and need to be validated further in primary care. This is a step forward to arrive at practical tools that are helpful for GPs in identifying early IA.

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FRI0596 NOVEL AUTOANTIBODY BIOMARKERS FOR THE PREDICTION OF THERAPY RESPONSE IN RHEUMATOID ARTHRITIS

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Background: Rheumatoid arthritis (RA) is an autoimmune disorder that is characterized by chronic inflammation of the joint synovium and presence of autoantibodies in most patients. For RA, many treatments are currently available but each treatment will only induce disease remission in a subset of patients. Moreover, finding out which patients respond well to first-line therapy with classical synthetic disease modifying anti-rheumatic drugs (csDMARDs), still largely depends on trial and error.
Objectives: In this study, we aim to find novel RA autoantibody biomarkers that predict therapy response to csDMARDs before the initiation of treatment.
Methods: In the CareRA trial, a Flemish multicenter study of different treatment regimes, serum samples were collected from RA patients that did or did not show disease remission (DAS28(CRP)<2.6) in response to csDMARDs, combined with a step down glucocorticoid treatment. In our study, baseline samples, collected before the start of treatment, were used to determine predictive antibody reactivity. A cDNA phage display library, representing the antigens from RA synovial tissue, was constructed and screened for antibody reactivity in baseline serum samples of RA patients that failed to reach remission at week 16. Using enzyme-linked immunosorbent assays (ELISA), antibody reactivity against the identified antigens was initially determined in pooled baseline serum samples of RA patients that did (n=50) or did not (n=40) reach disease remission at week 16. Antigenic targets that showed increased antibody reactivity in pools from patients that did not reach disease remission, were further validated in individual serum samples of 69 RA patients that did not reach DAS28(CRP) remission at week 16, and 122 RA patients that did.
Results: Screening and validation of antibody reactivity resulted in 41 novel antigens. The retrieved antigenic sequences correspond to (parts of) known proteins and to randomly formed peptides. A panel of 3 of these peptide antigens could be composed, whose baseline antibody reactivity correlated with lack of therapy response at week 16. Presence of antibodies against at least one of these 3 antigens was significantly higher in individual samples of RA patients that did not reach DAS28(CRP) remission (43 vs. 29%, p=0.041), or that failed to reach ACR 70 (42 vs. 26%, p=0.029) response criteria at week 16, compared to RA patients that did reach these respective criteria. In addition, RA patients which were positive for this antibody panel at baseline, also showed less DAS(CRP) remission at week 4 and week 8.
Conclusion: We have identified a set of 3 antibody biomarkers that can predict failure of early disease remission after first-line RA therapy, which might contribute to personalized medicine decisions.

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FRI0597 IMMUNOGLOBULIN A FOR CD74 AS AN ALTERNATIVE LABORATORY MARKER FOR DETERMINING THE ACTIVITY OF AXIAL SPONDYLOARTHRITIS

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Background: The level of acute phase indicators does not always correspond to the activity of axial spondyloarthritis (axSpA). The level of C-reactive protein (CRP) is remain normal in a third of cases of axSpA with present of active clinical symptoms [1]. Search for new biomarker that should have increased sensitivity and specificity compared to the CRP is needed. An alternative biomarker of axSpA activity could be an immunoglobulin (Ig) A antibody to an invariant chain peptide associated with class II human leukocyte antigen (HLA) (anti-CD74) [2].
Objectives: is to determine the level of IgA anti-CD74 in patients with axSpA and its relationship with traditional indicators of disease activity.
Methods: Totally, 137 patients with a reliable diagnosis of axial spondylitis (ASAS criteria, 2009) and 47 healthy volunteers were involved in the study. AxSpA activity indices (ASDAS, BASDAI) were calculated for all patients and IgA levels of anti-CD74, ESR and CRP were determined. The normal level according to the instructions for the laboratory kit for determining the level of IgA anti-CD74 is 12.0 U/L.
Results: Patients and volunteers characteristics are present in Table 1.

Table 1. Characteristic of the patients with axial spondyloarthritis (n=137) and healthy volunteers (n=47)

Indicator	Results	
	AxSpA patients	Healthy volunteers
Male, n (%)	101 (73.7)	19 (40.4)
Age, years (mean±SD)	43.4±13.3	49.0±11.0
Disease duration, years (mean±SD)	12.6±8.3	
Activity indices		
ASDAS, points (mean±SD)	2.29±1.17	
BASDAI, points (mean±SD)	3.02±2.0	
Laboratory markers		
CRP, mg/L (mean±SD)	9.61±18.3	2.3±1.9
Abnormal level of CRP, n (%)	114 (83.2)	4 (8.5)
IgA anti-CD74, U/L (mean±SD) (fig.1)	16.9±11.0	9.3±5.5
Abnormal level of IgA anti-CD74, n (%)	96 (70.1)	15 (31.9)
ESR, mm/h (mean±SD)	24±7.8	8.5±7.9

A direct relationship was found with a high power between an increase in the level of anti-CD74 (R=0.667) and an increase in the ASDAS (R=0.857) and BASDAI (R=0.842). The factor analysis showed that an increase in activity level according to ASDAS, BASDAI indices was associated with an increase in concentration of IgA anti-CD74. While CRP indicators (R=0.530) were associated only with the ASDAS index (R=0.760) (Table 2).