Abstract AB0217 – Table 1

	Factor analysis		Chi-square	df	p	Item-fit statistics			
	Loadings					Outfit mean square	Infit mean square	Outfit t	Infit t
	All [†]	HA							
Item no. 1	0.721	0.460	224.213	183	0.020	1.219	1.111	1.96	1.05
Item no. 2	0.629	0.522	205.899	183	0.118	1.119	1.132	1.17	1.29
Item no. 3	0.750	0.522	142.900	183	0.987	0.777	0.740	-2.18	-2.65
Item no. 4	0.660	0.675	95.060	183	1.000	0.517	0.523	-4.90	-5.34
Item no. 5	0.534	0.807	131.885	183	0.998	0.7171	0.682	-3.05	-3.45
	Factor 1	Factor 2							
Sum of square loadings	2.210	1.869							
Proportion Variance	0.442	0.374							
Cumulative Variance	0.442	0.816							

Abstract AB0216 – Table 1

	NAPLES (n.654)	BARFOT (n.805)	LEIDEN (n.848)	SPAIN (n.331)
Sex F/M ratio	470/184	530/275 (66%) p 0.0137	571/277 (67%) p 0.0592	244/87 p 0.5392
Age in years Mean ±SD	55.7 ±12.4	57.7 ±15.7 p 0.0080	56.8 ±15.8 p 0.1429	68.7 ±8.1 p 0.0001
RF+/RF-	270/162 (62.5%)	452/353 (56%) p 0.0308	489/359 p 0.0901	198/133 p 0.4513
ACPA+/ACPA-	188/172 (52%)	462/343 (57%) p 0.1008	445/403 p 0.9355	215/116 (64.7%) p 0.0007
HAQ-DI Mean ±SD	1.13 ±0.79	1.00 ±0.66 p 0.0006	1.00 ±0.71 p 0.0008	-
IMR	0.79	2.49 p < 0.0001	2.07 p < 0.0001	4.1 p < 0.0001
CV-IMR	0.46	1.57 p < 0.0001	0.92 p 0.0384	1.2 p 0.0039
NEO-IMR	0.17	0.65 p 0.0049	0.39 p 0.1206	0.6 p 0.0137
RESP-IMR	0.13	0.69 p 0.0012	0.36 p 0.0750	1.2 p < 0.0001
antiCarP+ (%) (homemade technique)	3.3% (95% C.I. 0.3-10.9)	35% (95% C.I. 31.7-38.4) p < 0.0001	45% (95% C.I. 41.6-48.4) p < 0.0001	32.9% (95% C.I. 27-37.3) p < 0.0001
antiCarP+ (%) (commercial kit)	10% (95% C.I. 3.8-20.4)	35% (95% C.I. 31.7-38.4) p < 0.0001	45% (95% C.I. 41.6-48.4) p < 0.0001	32.9% (95% C.I. 27-37.3) p < 0.0003

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Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.1328

AB0217 CONSTRUCT VALIDATION OF THE ITALIAN VERSION OF THE 5-ITEM COMPLIANCE QUESTIONNAIRE FOR RHEUMATOLOGY (I-CQR5)

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Background: The 5-item Compliance Questionnaire for Rheumatology (CQR5) allows the identification of patients likely to be high adherers (HA) to anti-rheumatic treatment (i.e. taking ≥80% of their medications correctly), or “low” adherers (LA).¹

Objectives: The objective was to validate the construct of an Italian version of CQR5 in rheumatoid arthritis (RA).

Methods: Cross-cultural adaptation comprised: forward translation, synthesis of the translations, back-translation, expert committee assessment and field-testing. Validation was conducted administering the adapted version (I-CQR5) to RA patients (disease duration >1 year, treated with ≥1 self-administered disease-modifying anti-rheumatic drug, capable of completing the questionnaire unaided) on one occasion. Questionnaires were anonymous but contained self-reported data. Construct validity and reliability were assessed with Rasch analysis (Partial Credit model Parametrisation, PCM). Martin-Loef Likelihood ratio test assessed invariance for gender, age, education, social status and disease duration.

Results: The adaptation process was closed by the expert committee assessment. I-CQR5 is reported in Figure 1. Among 604 patients, 274 were included in the validation process, 6 questionnaires were incomplete. Median age was 57 years (48–67), females were 201 (77%), disease duration was 13.5 years (8–19.3), most patients lived with partner/family (159,75%) and had a middle/secondary school education (184,69%). HA were 93 (67%) and LA 179 (35%). Factor analysis revealed ordered thresholds in most items, 2 factors were sufficient to explain variability (Chi-square=0.46, p=0.5) (Tab.1). Item-fit statistics showed overall agreement of items with parametrisation (Infit statistics=0.6–1.4; excluding item no.5). Chi-square showed agreement with PCM parametrisation by item (excluding the item no.1). Martin-Loef likelihood ratio test confirmed unidimensionality (Chi-square 65.8, df=53, p=0.11) and Separation Reliability Index confirmed internal consistency (Patient Separation Index 0.91) (Tab.1). I-CQR5 was invariant to age (Chi-square=40.6, df=28, p=0.059), education level (Chi-square=49.9, df=42, p=0.187), social status (Chi-square=10.5, df=15, p=0.79), disease duration (Chi-square=13.6, df=36, p=0.220); Martin-Loef test was significant for gender (Chi-square=25.4, df=14, p=0.031).

Abstract AB0217 – Table 2
Questionario sulla Compliance in Reumatologia a 5 domande (I-CQR-5)

Di seguito sono riportate delle affermazioni di pazienti affetti da una malattia reumatica. Indichi quanto è d'accordo con ciascuna affermazione cercando il numero che riflette maggiormente la Sua opinione.

	Completamente in disaccordo	In disaccordo	D'accordo	Completamente d'accordo
Prendo i farmaci antireumatici perché in questo modo ho meno disturbi.	1	2	3	4
Non mi permetto mai di saltare la somministrazione dei farmaci antireumatici.	1	2	3	4
Metto sempre le medicine nello stesso posto per non dimenticare di prenderle.	1	2	3	4
Prendo i farmaci prescritti perché ho completa fiducia nel mio reumatologo.	1	2	3	4
Seguo sempre le indicazioni del mio medico.	1	2	3	4

Conclusions: I-CQR5 was well understood by patients and construct validity, unidimensionality and internal consistency were confirmed by factor analysis and PCM.

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Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.4240

AB0218 HIGH LEVEL OF CARTILAGINOUS OLIGOMERIC MATRIX PROTEIN IS ASSOCIATED WITH THE RADIOGRAPHIC PROGRESSION IN PATIENTS WITH EARLY RHEUMATOID ARTHRITIS

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Background: Recent achievements have established that the very first years since the development of the RA are decisive in terms of the progression of the pathological process and the prediction of its remote consequences. This substantiated the need to reflect the heterogeneity and stage of the RA. First of all it concerns the early RA – a time point when the pathological process is in the primary exudative phase and its reversibility is significantly higher, because of not completely formed autoimmune mechanisms and the absence of pannus.

Objectives: Our aim was to establish the relationship between the levels of Anti-Citrullinated Peptide Antibody (ACPA), cartilaginous oligomeric matrix protein (COMP) and radiographic progression in patients with early RA

Methods: 75 patients with a diagnosis of early RA were examined, the duration of symptoms was less than 1 year (on average – 4.91 ± 2.90 month) that were observed repeatedly on average after 12 months (11.8 ± 1.2 months). The average age of patients was 46.4 years (from 34 to 62 years), 69.33% of the examined ones were women, the average duration of the disease at the time of the initial study was 107 days (57–194 days). Immune dysregulation in early RA was confirmed with the evaluation of the key proinflammatory cytokines – ACPA and COMP by the enzyme-linked immunosorbent assay (ELISA) according to the instructions for diagnostic kits. For the testing of articular cartilage lesions and injury of flexor's and extensor's tendons, MRI (1.5 T) and ultrasound diagnostics (US) were performed

Results: Immunological analysis of serum samples of ACPA, COMP was shown the role of these cytokines as prognostic factors of development and prognosis of early RA. The serological features of the obtained data revealed a correlation between the increased concentration of COMP and the progression of joint lesions without ACPA level increase. According to the baseline US data, the tendons of general flexor muscles and extensor brushes were most commonly observed in the examined patients: in general, 52 patients (69.3%) and 23 (30.7%), respectively. The injury of the tendons of individual fingers (I-V) in the mode of longitudinal and transverse scanning had its own patterns (table 1).

Conclusions:

1. In patients with seronegative (normal ACPA ranges) early RA and high levels of COMP – the highest frequency of erosive and destructive changes can be observed.
2. Injury of the tendons of flexors and extensors determined in major part of the patients with early RA.

Abstract AB0218 – Table 1. Injury of the flexor's and extensor's tendons

Fingers	Injury of flexor tendons			Injury of extensor tendons		
	Totally, n (%)	Exudative tenosinovitis, n (%)	Exudative – proliferative tenosinovitis, n (%)	Totally, n (%)	Exudative tenosinovitis, n (%)	Exudative – proliferative tenosinovitis, n (%)
I	1 (1,3)	1 (1,3)	0 (0,0)	4 (5,2)	3 (3,9)	1 (1,3)
II	58 (77,3)	52 (69,3)	6 (8,0)	26 (34,7)	24 (32,0)	2 (2,6)
III	36 (48,0)	35 (46,7)	1 (1,3)	18 (24,0)	18 (24,0)	0 (0,0)
IV	22 (29,3)	20 (26,7)	2 (2,7)	12 (16,0)	9 (12,0)	3 (3,9)
V	13 (17,3)	13 (17,3)	0 (0,0)	6 (8,0)	6 (8,0)	0 (0,0)

Abstract AB0218 – Table 2. Dynamics of radiographic progression after a 12-month follow-up

Value	Group 1	Group 2	Group 3
	1	2	3
ACPA positive, %	31±2,59	18±1,88 $P_{1-2}<0,01$	12±1,17 $P_{1-3}<0,01$ $P_{2-3}<0,01$
COMP, U/l	11,8±0,73	15,3±0,62 $P_{1-2}<0,01$	8,4±0,94 $P_{1-3}<0,01$ $P_{2-3}<0,01$
Frequency of erosions detection at baseline / after 12 months, %	48/90 $\chi^2=10,93$, $p<0,01$	10/65 $\chi^2=10,67$, $p<0,01$	10/32 $\chi^2=0,76$, $p=0,383$
Number of erosions at baseline / after 12 months, p.	8,04±0,28/ 18,11±0,71 $P_{1-2}<0,01$	2,21±0,23/ 15,42±0,68 $P_{1-2}<0,001$	3,14±0,42/ 7,08±0,55 $p.m.a.$
Frequency of synovitis and tendinitis detection at baseline / after 12 months, %	51/81 $\chi^2=4,61$, $p<0,05$	32/71 $\chi^2=4,9$, $p<0,05$	21/36 $\chi^2=0,18$, $p=0,676$

Note: P_{1-2} – the level of significance of differences in the pairwise comparison of the corresponding groups.

P_{1-2} – the level of significance of differences when comparing baseline values (frequencies) and after a 12-month observation period.

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Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.2398

AB0219 IMPACT OF EARLY DIAGNOSIS ON LONG-TERM EFFECTIVENESS OF FIRST-LINE ANTI-TNF-ALPHA TREATMENT IN RHEUMATOID ARTHRITIS PATIENTS

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Objectives: Aim of this work was to evaluate effectiveness and drug persistence of anti-tumour necrosis factor (TNF)-alpha therapies in early and late diagnosed rheumatoid arthritis (RA) patients naive for biological disease-modifying antirheumatic drug (bDMARD) use.

Methods: Baseline and follow-up (FU) charts RA patients with disease onset later than 2002 and access to rheumatology care between January 2007 and December 2016 were reviewed until December 2017. All patients fulfilled 2010 ACR/EULAR classification criteria. At baseline, demographic, anamnestic and serological characteristics were collected. Based on lag time between onset of symptoms and definite diagnosis, RA patients were categorised into two groups: early diagnosed (less than 12 months) and late diagnosed (more than 12 months). Disease activity and treatment response were assessed every three months by Simplified Disease Activity Index (SDAI). Anti-TNF-alpha survival was defined as the length of time from initiation to discontinuation of therapy due to loss of effectiveness over time. It was examined using Kaplan-Meier survival analysis.

Results: One hundred and fifteen RA patients (86.1% females, mean age 59.4) were included. The median disease duration between onset of symptoms and diagnosis was 25 months.^{20–43} 68 patients (59.1%) were labelled as early diagnosed and 47 (40.9%) as late diagnosed. At baseline, no differences were found in age, gender, smoking habits, body mass index, and rheumatoid factor positivity. The most frequently used first-line anti-TNF drug was etanercept (30.4%), followed by adalimumab (20%), golimumab (18.3%), infliximab (16.5%), and certolizumab (14.8%). All patients received anti-TNF-alpha therapy in combination with csDMARD (methotrexate or leflunomide). Average steroid dosage was 5 mg/day of prednisone (or its equivalent) over time. The median time to initiation of any anti-TNF-alpha treatment after definite diagnosis was 18 months.^{6–30} Kaplan-Meier analysis showed a lower anti-TNF-alpha discontinuation rate for early diagnosed RA patients than late diagnosed (9 year retention rate of 29.5% and 12.7%, respectively; $p=0.0049$) (figure 1).