Objectives: In patients with rheumatoid arthritis (RA) to explore the agreement at a joint level between tenderness, spontaneous patient reported joint pain, swelling and US synovitis.

Methods: 174 patients with established RA (mean (SD) age 52¹³ years, disease duration 10⁸ years, 82% women, 79% anti-CCP positive were assessed when they initiated bDMARD treatment and after 1, 2, 3, 6 and 12 months. An experienced study nurse assessed presence/absence of joint tenderness and swelling (wrist, MCP1–5, PIP2–3, elbow, knee, ankle and MTP1–5 bilaterally). The same 32 joints were assessed by use of a manikin for Patient Reported Spontaneous Joint Pain (PRSJP) the last day as well as US (GS and PD, both scored 0–3) by an experienced sonographer (HBH). Agreement at joint level was explored between categorical variables using Cohens kappa (US scores transformed to presence (PD score 1–3/GS score 2–3) versus absence (PD score 0/GS score 0–1), and in addition agreement between presence of tenderness/swelling and the different US scores were explored.

Results: A total of 4091 (baseline) and 22 885 (all visits) joints were assessed. Tender joints had moderate agreement with PRSJP and swollen joints, and lower with US synovitis. Swollen joints had high agreement with US synovitis (table 1), and US synovitis was found in 75% of swollen joints. There were no differences in agreement between results at baseline and all visits, or if subgroup analyses were performed of only finger joints. A clear relationship was found between increasing GS/PD scores and percentages of joints being swollen, but this association was not found for tender joints (table 2).

Abstract FRI0042 – Table 1. Kappa values for agreement between categorical variables at baseline (4091 joints)/all visits (22885 joints)

	PRSJP	Swollen joint	GS US	PD US
Tender joint	0.34/0.40	0.32/0.32	0.21/0.21	0.20/0.20
PRSJP		0.25/0.26	0.23/0.24	0.25/0.23
Swollen joint			0.57/0.56	0.56/0.54

Abstract FRI0042 – Table 2. At joint level; percentages of agreement between joints being tender and/or swollen and US synovitis (all visits, number of joints in parenthesis)

	GS=0 (n=13874)/PD=0 (n=18656)	GS=1 (n=4077)/ PD=1 (n=1888)	GS=2 (n=3079)/ PD=2 (n=1791)	GS=3 (n=1855)/ PD=3 (n=550)
Swollen joints	3.8%/7.9%	16.3%/45.7%	47.1%/70.1%	77.7%/86.7%
Swollen, but not tender joints	2.1%/4.4%	8.8%/28.2%	26.7%/42.0%	49.4%/51.8%
Tender joints	9.7%/12.7%	20.4%/27.5%	29.7%/33.1%	32.7%/39.3%
Tender, but not swollen joints	8.0%/9.1%	12.8%/10.0%	9.3%/4.8%	4.4%/3.8%

Conclusions: Tender joints had weak agreement with presence of US synovitis, while swollen joints had strong agreement. PRSJP had moderate/weak agreement with all the other assessments. Presence of swelling was highly associated with the degree of US synovitis, while this association was not found for tenderness. Our results raise questions regarding the prominent role of tender joint count in RA clinical composite scores for disease activity.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.2236

FRI0043 TRENDS IN ALL-CAUSE AND CARDIOVASCULAR MORTALITY IN PATIENTS WITH RHEUMATOID ARTHRITIS. A 10- TO 20-YEAR FOLLOW-UP STUDY IN 3 CONSECUTIVE INCIDENCE COHORTS

S.A. Provan, S. Lillegraven, E.A. Haavardsholm, T.K. Kvien, J. Sexton, T. Uhlig. *Department of Rheumatology, Diakonhjemmet Hospital, Oslo Norway, Oslo, Norway*

Background: The mortality rate in patients with rheumatoid arthritis (RA) has been estimated to be 1.5–1.6 compared to the general public. Moreover, RA patients are still not benefitting fully from the declining mortality rate that the general population has enjoyed and cardiovascular disease (CVD) continues to be a major concern.

Objectives: To examine the all-cause and CVD mortality in 3 consecutive cohorts of patients with incident RA, compared to population controls

Methods: The Oslo RA register (ORAR) was established in 1994. The inclusion criteria were a diagnosis of RA according to the 1987 ACR criteria and residency in Oslo. The register was updated annually until 2009, and validated for completeness.¹ In January 2012, 3328 patients were registered in ORAR. We grouped patients into 3 successive incidence cohorts; 1996(1994–1998), 2001 (1999–

2003) and 2006(2004–2008). For each patient we identified 5 historical population controls matched according to age at disease incidence, gender and postal code of residence. Patients and controls were linked to the Norwegian Cause of Death Registry. Counts were compared using chi² tests. The hazard ratio (HR) for survival was calculated using stratified cox-regression models adjusted for highest achieved level of education.

Results: 422, 477 and 459 patients in the 1996, 2001 and 2006 cohorts were matched to 2110, 2385 and 2295 controls respectively. 20, 15 and 10 years follow-up for 1996, 2001 and 2006 cohorts were available in 201, 292 and 311 patients respectively. Results are presented in the table 1.

	1996		2001		2006	
	ORAR	Controls	ORAR	Controls	ORAR	Controls
Age years mean (SE)	55.9 (0.8)	55.9 (0.4)	54.1 (0.7)	54.1 (0.3)	54.7 (0.7)	54.7 (0.3)
Female gender n (%)	308 (73.0)	1540 (73.0)	358 (75.1)	1790 (75.1)	328 (71.5)	1640 (71.5)
Deaths at 5 years n(%)	37 (8.8)	180 (8.5)	30 (6.3)	130 (5.5)	25 (5.5)	104 (4.5)
Deaths at 10 years n (%)	95 (22.5)	371 (17.6)*	78 (16.4)	297 (12.5)*	38 (12.2)	257 (11.2)
Deaths at 15 years n (%)	147 (34.8)	586 (27.8)*	82 (28.1)	482 (20.2)*		
Deaths at 20 years n(%)	88 (43.8)	801 (38.9)				
CVD deaths 5 years n(%)	20 (4.7)	57 (2.7)*	8 (1.7)	30 (1.3)	6 (1.3)	26 (1.1)
CVD deaths 10 years n (%)	39 (9.2)	128 (6.1)	28 (5.9)	74 (3.1)*	9 (2.8)	59 (2.6)
CVD deaths 15 years n (%)	57 (13.5)	210 (10.0)*	27 (9.2)	138 (5.8)		
CVD deaths 20 years n (%)	43 (21.4)	290 (13.7)*				
HR 5 year all-cause mortality (95% CI)	1.01 (0.71–1.44)		1.01 (0.67–1.51)		1.17 (0.75–1.81)	
HR 10 year all-cause mortality (95% CI)	1.27 (1.01–1.61)*		1.18 (0.91–1.52)		0.98 (0.69–1.40)	
HR 15 year all-cause mortality (95% CI)	1.39 (1.15–1.69)*		1.41 (1.10–1.83)*			
HR 20 year all-cause mortality (95% CI)	1.49 (1.16–1.90)*					
HR 5 year CVD mortality (95% CI)	1.68 (1.00–2.82)		1.13 (0.51–2.51)		1.20 (0.49–2.95)	
HR 10 year CVD mortality (95% CI)	1.49 (1.03–2.16)*		1.69 (1.07–2.69)*		0.97 (0.47–2.02)	
HR 15 year CVD mortality (95% CI)	1.55 (1.13–2.12)*		1.67 (1.05–2.65)*			
HR 20 year CVD mortality (95% CI)	2.27 (1.56–3.31)**					

*p<0.05.

Conclusions: RA patients with disease incidence in the period 1994–2003 had increased all-cause and CVD related mortality after 10–15 years of disease duration, compared to the population of Oslo. The increased mortality was not observed in the 2004–2008 cohort. Improved survival in recent years may be related to more effective therapies and earlier diagnosis, but further analyses are warranted.

REFERENCE:

[1] Kvien, Uhlig. J Rheumatol 2004.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.5458

FRI0044 EXCEEDING PREDEFINED THRESHOLDS FOR MRI BONE OEDEMA AND EROSION AND HAQ-DI CAN PREDICT RELAPSE AFTER WITHDRAWAL OF ALL TREATMENT IN MTX-NAÏVE PATIENTS WITH RA IN REMISSION AFTER 12 MONTHS OF ABATACEPT THERAPY IN THE AVERT TRIAL

H.A. Ahmad¹, J.F. Baker², M. Østergaard³, P. Emery⁴, T. Huizinga⁵, Y. Elbez⁶, S. Banerjee¹, P.G. Conaghan¹. ¹Bristol-Myers Squibb, Princeton; ²Philadelphia VA Medical Center and the University of Pennsylvania, Philadelphia, USA; ³Rigshospitalet and University of Copenhagen, Copenhagen, Denmark; ⁴University of Leeds and NIHR Leeds Biomedical Research Centre, Leeds, UK; ⁵Leiden University Medical Center, Leiden, Netherlands; ⁶Excelya, Boulogne-Billancourt, France

Background: To assist in clinical decision making it is important to understand the factors, and their thresholds, that might predict relapse following treatment