Conclusion: The prevalence of RA-BR in this systematic review and meta-analysis was 18.2%, emphasizing that bronchiectasis is a common extra-articular feature of RA. However, some studies may have identified sub-clinical RA-BR through research imaging or RA-BR may have been secondary to RA-ILD. Future studies should standardize methods to identify RA-BR cases and investigate the natural history and clinical course given the relatively high prevalence that we report.

Disclosure of Interests: Lily Martin: None declared, Lauren Prisco: None declared, Weixing Huang: None declared, Gregory McDermott: None declared, Nancy Shadick Consultant of: Consultant < 5K Bristol-Myers Squibb, Grant/research support from: BMS Amgen Lilly, Mallinckrodt, and Sanofi, Tracy Doyle Consultant of: Boehringer Ingelheim (<5K), Grant/research support from: Bristol Myers Squibb and Genentech, Jeffrey Sparks Consultant of: Bristol-Myers Squibb, Gilead, Inova Diagnostics, Optum, and Pfizer, Grant/research support from: Bristol-Myers Squibb

DOI: 10.1136/annrheumdis-2021-eular.1650

POS0523

RISK OF CARDIOVASCULAR DISEASE IN NEWLY DIAGNOSED RHEUMATOID ARTHRITIS: A CURRENT RISK ASSESSMENT

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Background: Patients with rheumatoid arthritis (RA) are known to have an increased risk of developing, mainly ischemic cardiovascular diseases (CVD). This is partly explained by a higher incidence of traditional CV risk factors as hypertension and/or hypercholesterolemia but also due to the systemic inflammation characteristic to RA. RA is considered an independent CV risk by National and International CVD risk management guidelines, and therefore CVD risk screening is recommended. However, the implementation of CV risk management is often poorly performed in daily clinical practice.

Objectives: The aim of the current study was to investigate the cardiovascular disease risk of newly diagnosed RA patients, and review if and to what extent implementation of CVD risk management had previously taken place.

Methods: Every newly diagnosed RA patient in a large Dutch outpatient rheumatology clinic had CV screening within their first year post-diagnosis during a regularly scheduled visit, where among others smoking habits, blood pressure and lipid profile were measured. A 10-year cardiovascular risk was calculated using a modified SCORE calculator from www.u-prevent.com, which predicts the risk of myocardial infarction, stroke, heart failure, peripheral arterial disease and CV death based on several CV risk factors. To account for RA as a risk factor, the calculator multiplies the risk by 1.5, in accordance with the Dutch CV risk management guideline. The calculated 10-year cardiovascular morbidity risk was categorized in low (<10%), intermediate (10-19%) and high (≥20%), and the 10-year mortality risk was also categorized in low (<1%), intermediate (1-4%) and high (≥5%).

Results: A total of 53 patients were included up to this point. Of these, the average age was 57 (±8.5), and 39 (74%) were women. Mean systolic blood pressure was 129 (±17.7) mmHg, with 38 (72%) patients having hypertension. Mean total cholesterol, LDL and HDL were respectively 5.5 (±1.0) mmol, 3.43 (±0.82) mmol and 1.78 (±0.54) mmol, with 30 patients having hypercholesterolemia. The average calculated 10-year morbidity risk of all patients was 13%, and the mortality risk was 3%. Distribution of the 10-year risk in low, intermediate and high is presented in figure 1. Only one patient reported having previous used medication for hypercholesterolemia, but not at the time of enrollment in this study.

Figure 1. Distribution of 10-year cardiovascular risk in rheumatoid arthritis patients. CV = cardiovascular

Conclusion: 43% of newly diagnosed RA patients had an intermediate or high calculated 10-year CV morbidity risk, and 76% had an intermediate or high mortality risk. Patients with early RA still often have underdiagnosed and severely undertreated risk factors of CVD, such as hypertension and hypercholesterolemia. Early CV risk assessment and management in patients with RA is critical and needs to be implemented as standard care.

REFERENCES:

[1] Ortec. (2020, November 20). U-prevent. Retrieved from U-prevent (u-prevent.nl)

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2021-eular.1734

POS0524

CARDIOVASCULAR DISEASE RISK IN INFLAMMATORY ARTHRITIS PATIENTS STILL SUBSTANTIALLY ELEVATED IN 2020

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Background: Patients with inflammatory rheumatic diseases such as rheumatoid arthritis (RA), psoriatic arthritis (PsA) and ankylosing spondylitis (AS) are at a higher risk for developing cardiovascular diseases (CVD) than the general population. This increased risk is partly due to a higher incidence of traditional cardiovascular (CV) risk factors, such as hypertension and dyslipidemia, and partly due to the underlying systemic inflammation. During the past two decades, the burden of the systemic inflammation has been reduced by more efficacious anti-inflammatory treatment, which somewhat attenuated the increased CV risk of rheumatic patients. However, it remains important to monitor the effects of these new treatment strategies on the prevalence of CVD in patients with a rheumatic disease in systematically controlled cohorts.

Objectives: The aim of the current report was to evaluate whether the CV risk of patients with inflammatory rheumatic diseases still differs from the general population, despite advances in anti-rheumatic treatment strategies.

Methods: In March 2020, all adult patients with an inflammatory rheumatic disease from the Amsterdam Rheumatology and Immunology Center, location "Reade" were systematically asked to participate in a prospective cohort study. The primary aim of this study was to monitor the impact of the COVID-19 pandemic on patients with inflammatory rheumatic diseases compared to age and sex matched healthy controls. Between April 26, 2020 and May 27, 2020, participants completed the first online questionnaire of the study. Amongst others, information on demographic data, including CV comorbidities and risk factors, and medication use was collected. The baseline characteristics and prevalence of CVD were compared between RA, PsA or AS and healthy controls.

Results: In total, 1455 consecutive patients with an inflammatory rheumatic disease (979 RA patients, 261 PsA patients and 215 AS patients), and 414 healthy controls completed the first questionnaire, as shown in table 1. CV comorbidities were more frequently reported in RA, PsA and AS patients compared to healthy controls; 107 (11%), 28 (11%) and 22 (10%) compared to 30 (7%), respectively.

Table 1. Biological DMARD usage in RA, PsA and AS patients

Patient characteristics	All patients (n=1455)	RA (n=979)	PsA (N=261)	AS (n=215)	Controls (n=414)
Mean age - yr	55 ± 13	58 ± 12	55 ± 13	48 ± 13	53 ± 13
Female sex - no (%)	934 (64)	728 (74)	119 (46)	87 (41)	298 (72)
BMI (IQR)	25 (23-28)	25 (22-28)	26 (24-30)	25 (22-28)	24 (22-27)
Smoking - no (%)	178 (12)	126 (13)	17 (7)	35 (16)	34 (8)
Cardiovascular disease - no (%)	157 (11)	107 (11)	28 (11)	22 (10)	30 (7)
Rheumatic medication - no (%)					
csDMARDs	877 (60)	712 (73)	148 (57)	17 (8)	N.A.
Oral glucocorticoids	161 (11)	139 (14)	17 (7)	5 (2)	2 (0.4)
TNF inhibitor	563 (39)	336 (34)	121 (46)	106 (49)	N.A.
IL-6 inhibitor	19 (1)	19 (2)	0	0	N.A.
IL-17 inhibitor	17 (1)	2 (0.2)	7 (3)	8 (4)	N.A.

Table 1. Baseline characteristics. Values are displayed as mean ± standard deviation (SD), median with interquartile range (IQR) or frequencies with percentages (%). RA = rheumatoid arthritis, PsA = psoriatic arthritis, AS = ankylosing spondylitis, BMI = body mass index, TNF = anti-tumor necrosis factor, IL = interleukin.

Conclusion: We demonstrated that the prevalence of CVD is approximately 1.5 times higher in patients with rheumatic diseases compared to healthy controls (11% vs. 7%, respectively). This corresponds with previous research, although the reported prevalence of CVD in PsA and AS patients is even higher compared to prior studies. This suggests that the CVD risk of patients with rheumatic diseases is still elevated in 2020 compared to the general population, despite the improved management of rheumatic disease activity. Therefore, adequate and timely treatment of CV risk factors remains relevant, not only in patients with RA, but in patients other rheumatic diseases as well.

REFERENCES:

- [1] Hooijberg F et al. (2020) Patients with rheumatic diseases adhere to COVID-19 isolation measures more strictly than the general population. *The Lancet rheumatology* 2(10), 583-585.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2021-eular.1739

POS0525

ARTHRITIC PAIN AS A SURROGATE MARKER FOR ASYMPTOMATIC CARDIOVASCULAR RISK FACTORS: OFFERING PRACTITIONERS A 'TEACHABLE MOMENT'

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Background: Cardiovascular diseases (CVD) are the number one cause of death worldwide. CVDs are linked to well established risk factors: obesity, hypertension (HTN), dyslipidaemia (DL) and diabetes mellitus (DM)¹. While targeting risk factors reduces the burden of CVD, this is often challenging because they are largely asymptomatic and patients are therefore unlikely to seek medical attention. Arthritis, in contrast, causes pain and functional impairment prompting presentation to a healthcare practitioner. Patients with arthritis of varying aetiologies (such as osteoarthritis², gout³, rheumatoid arthritis⁴) have been shown to have an increased risk of CVD.

Objectives: To examine the relationship between arthritis and DM, HTN and DL in adults of all age groups. A secondary objective was to examine whether this relationship existed independent of obesity.

Methods: Data from the 2017-18 Australian Bureau of Statistics National Health Survey included 13,776 participants, categorised into young (18-39 years), middle aged (40-64 years) and older (≥65 years) adults. Blood pressure, height and weight were measured. BMI was calculated and participants classified as obese (≥30kg/m²) or non-obese. HTN was defined as > 140/90mmHg. Participants were asked if they had arthritis of any form, DL or DM diagnosed by a doctor. Logistic regression models estimated odds ratios with 95% CI for prevalence of arthritis associated with CVD risk factors.

Results: Arthritis was reported by 3.9% of young adults, 28.8% of middle-aged adults, and 54.5% of older adults. In all three age groups, arthritis was associated with significantly increased odds of obesity, HTN, DL and DM. For example, in middle-aged adults, having arthritis was associated with increased odds of obesity (1.75, 95% CI 1.54-2.01), HTN (1.78, 1.60-2.04), DL (2.14, 1.84-2.49) and DM (1.64, 1.33-2.03). These associations remained statistically significant after adjustment for obesity.

Conclusion: Compared to those without arthritis, adults with arthritis were at increased risk of obesity, HTN, DM and DL. The increased risk of HTN, DM and DL was independent of obesity and tended to be higher in younger adults. These data suggest that a patient's presentation with symptomatic arthritis of any aetiology and at any age, may be used opportunistically as a "teachable moment" for screening for asymptomatic CVD risk factors in higher-risk individuals. This provides practitioners an opportunity to manage both arthritis and CVD risk in parallel, rather than in silos.

REFERENCES:

- [1] World Health Organisation. (2017). "Cardiovascular Diseases." from [https://www.who.int/en/news-room/fact-sheets/detail/cardiovascular-diseases\(cvds\)](https://www.who.int/en/news-room/fact-sheets/detail/cardiovascular-diseases(cvds)).
- [2] Wang, H., et al. (2016). "Osteoarthritis and the risk of cardiovascular disease: a meta-analysis of observational studies." *Scientific reports* 6: 39672.
- [3] Singh, J. (2015). "When gout goes to the heart: does gout equal a cardiovascular disease risk factor?" *Annals of the Rheumatic Diseases* 74: 631-634.
- [4] England, B. R., et al. (2018). "Increased cardiovascular risk in rheumatoid arthritis: mechanisms and implications." *British Medical Journal* 361: k1036.

Table 1. Prevalence of CVD risk factors in adults with and without arthritis.

	Young 18-39 yo			Middle Aged 40-64 yo			Older ≥65 yo		
	No arthritis n = 3773	Arthritis n = 157	OR (95% CI) *adjusted for obesity	No arthritis n = 4055	Arthritis n = 1638	OR (95% CI) *adjusted for obesity	No arthritis n = 1891	Arthritis n = 2262	OR (95% CI) *adjusted for obesity
Obesity	473	32	2.07 (1.36-3.16)	868	527	1.75 (1.54-2.01)	326	610	1.89 (1.62-2.21)
HTN	131	14	2.72 (1.53-4.84)	745	496	1.78 (1.60-2.04)	730	1091	1.48 (1.31-1.68)
			2.35 (1.17-4.70)*			1.59 (1.37-1.84)			1.35 (1.18-1.55)*
DM	19	4	5.7 (1.74-15.37)	236	151	1.64 (1.33-2.03)	256	399	1.37 (1.15-1.62)
			4.87 (1.34-17.69)*			1.37 (1.08-1.73)*			1.15 (0.95-1.39)*

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2021-eular.1763

POS0526

SEXUAL FUNCTION IN MALE AND FEMALE PATIENTS WITH RHEUMATOID ARTHRITIS: A POST-HOC ANALYSIS OF THE FINCH STUDIES

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Background: While sexual function is impaired in a high proportion of patients with rheumatoid arthritis (RA), it is often neglected in patient care.¹ FINCH 1 (NCT02889796), FINCH 2 (NCT02873936) and FINCH 3 (NCT02886728) were Phase 3 studies to assess the safety and efficacy of filgotinib (FIL) for moderate-to-severe RA; patient-reported sexual function was also evaluated.

Objectives: To analyse disease characteristics associated with sexual function and explore the effect of FIL and adalimumab (ADA) on sexual function in males and females in the FINCH studies.

Methods: Post-hoc analyses included data from patients who were randomised and received ≥1 dose of study drug in the FINCH studies. Male and female subgroup analyses were performed to describe the correlation between baseline disease characteristics and baseline visual analogue scale (VAS) sexual function score (using Pearson correlation coefficient) and to assess the treatment effect on the change from baseline in VAS sexual function (mm) up to Week 52 (FINCH 1 and 3) or Week 24 (FINCH 2). Patients indicated how RA affected their ability to have sex during the last week using an exploratory 0–100 VAS (0: no effect; 100: complete inhibition). Changes from baseline were analysed with a mixed-effects model for repeated measures. All P values are nominal for exploratory purposes.

Results: Baseline characteristics are shown in the Table 1. Univariate analyses revealed significant positive correlations (P<0.05) between disease duration and baseline VAS sexual function score in male and female subgroups in FINCH 1; no significant correlations were seen in male and female subgroups of FINCH 2 and 3. In all studies, significant correlations (P<0.05) were observed between baseline VAS sexual function score and baseline disease characteristics (swollen/tender joint count 28, Disease Activity Score-28, Health Assessment Questionnaire Disability Index, 36-Item Short Form Survey, patient global VAS, pain VAS or fatigue) in males or females. In all studies, analysis of least-squares mean changes from baseline in VAS sexual function revealed improvements in both males and females on FIL as early as Week 2, until Week 52 (Week 24 in FINCH 2). Figure 1 shows data for FINCH 1.

Conclusion: Sexual function should be considered as an important patient outcome in RA treatment. At baseline in the FINCH studies, disease activity