95% confidence intervals. Weights were calculated in each of the sampling stages in accordance with the probability of selection. The distribution of population in Spain obtained from the National Statistics Institute was taken into account.

Results: 4916 subjects were included in the study. 4753 completed their participation. Prevalence of rheumatic diseases were the following: The negative predictive value (NPV) of the initial screening questionnaire was 93.8%. The lower NPV corresponded to knee osteoarthritis (95.1%).

Conclusions: Prevalence of RA, PsA, AS, gout and SLE seems to be higher than previously published in other European countries.

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Acknowledgements: This study was funded by Celgene, Gebro Pharma, MSD, Novartis, Hopira/Pfizer and Sanofi Genzyme.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.6643

THU0685 CARDIOVASCULAR RISK ESTIMATION IN SLE PATIENTS: A COMPARISON OF THREE ALGORITHMS

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Background: Cardiovascular (CV) disease is a major cause of mortality and morbidity in SLE patients; several instruments have been developed to estimate the 10 years risk of major CV events in the general population according to the presence of traditional CV risk factors. However, it is well known that traditional CV risk factors cannot fully explain the increased CV disease in SLE. Recently, a new version of the Qrisk algorithm was released (QRISK3) incorporating new variables associated with increased risk of CV disease, including SLE diagnosis and the GC use.

Objectives: To assess the 10 years CV risk in a cohort of SLE patients by comparing three different algorithms.

Methods: Consecutive patients with a diagnosis of SLE according to the ACR criteria were recruited from the inpatients and outpatients clinics of our Unit. Previous major CV events (myocardial infarction and stroke) were considered exclusion criteria. Traditional CV risk factors, disease activity and damage as well as therapies and comorbidities were evaluated. Disease activity was assessed with the SLEDAI score, organ damage with the SLICC/DI. Three algorithms to estimate the 10 years risk of major events were applied: the Framingham score, the ACC/AHA score and the QRISK3. This latter incorporates new variables associated with increased risk of cardiovascular disease, including SLE and GC use.

Abstract THU0685 – Table 1

Cumulative organ involvement (%)	
Renal	45%
Articular	75%
Hematological	52%
Cutaneous	52%
Neuropsychiatric	10%
Serositis	20%
Ongoing therapies (%)	
Antimalarials	80%
Glucocorticoids	60%
Immunosuppressants	45%
Traditional CV risk factors (%)	
BMI > 30	5.8%
BMI > 25	12.5%
Sedentary life style	46%
Hypertension	33%
Diabetes	4%
Family history of CV events	15%
Actual smoking	20%
Dyslipidemia	35%
Metabolic syndrome	12%

Results: 115 SLE patients (90.5%) without previous major CV events were included in this analysis. They were predominantly females (93%), Caucasian (96.5%) with a mean age at enrollment of 42.8±12.5 and a mean disease duration

of 13.4±9.2 years. The prevalence of organ involvement and traditional risk factors are reported in table 1. Disease activity at enrollment was low (median SLEDAI 2, IQR 0–4) while 39.1% was presenting at least one organ damage.

The median Framingham risk score resulted 4.5% (IQR 2.4–8.6), the ACC/AHA resulted 1.2% (0.5–3.2), the QRISK3 resulted 5.4% (2.4–9.6). According to the three methods, there was a significant difference in the risk stratification: 10% of patients at medium-high CV risk according to the Framingham score, 5% with the ACC/AHA score and 21% with the QRISK3. The median “healthy heart age” of our cohort (the age at which a healthy subject has the same CV risk) provided by the QRISK3 resulted 62 years.^{52–68}

Conclusions: These data show that by applying the QRISK3 algorithm a significant percentage of patients would be reclassified at high risk of CV events with respect to the traditional CV risk scores. Longitudinal data are necessary to validate the QRISK3 accuracy against the traditional scores in the identification of SLE patients at higher risk of CV events.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.6643

THU0686 CHANGES IN HEALTH-RELATED QUALITY OF LIFE OVER 5 TO 8 YEARS IN 1347 PATIENTS WITH EARLY ARTHRITIS OR EARLY INFLAMMATORY BACK PAIN

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Background: Health-related quality of life (HRQoL) is a priority for patients.

Objectives: The objectives were to describe the changes in HRQoL over 5–8 years in patients with early arthritis (EA) or early inflammatory back pain (IBP), and to explore factors associated with HRQoL.

Methods: In 2 prospective observational French cohorts (ESPOIR for EA patients and DESIR for early IBP patients), HRQoL was assessed every 6 months during the first 24 months and then every year over 5–8 years, using the SF36 physical composite score (PCS) and mental composite score (MCS) (range 0–100, US population norm: 50). Disease activity was assessed by DAS28-ESR and ASDAS-CRP. Univariate and multivariate linear mixed-effect models, and trajectory-based mapping (k-means) were applied.

Figure: Evolution of SF36-MCS and PCS over follow-up in EA and early IBP

Lines represent changes of mean SF36-MCS and mean SF36-PCS for EA and IBP; 95% confidence intervals were not represented because they were very small. The number of available data is between 696 and 508 according to the timepoint for SF-36 in EA and 646 to 422 according to the timepoint for SF-36 in IBP.

Figure 1 Evolution of SF36-MCS and PCS over follow-up in EA and early IBP

Results: In all, 1 347 patients (701 EA and 646 early IBP) were analysed: mean age 48.4±12.2 and 33.9±8.7 years respectively; mean disease duration 3.4 ±1.7 and 18.2±10.8 months, 76.3% and 55.0% females. At baseline, in EA, mean PCS and MCS were respectively 40.2±9.1 and 40.4±11.2, and in early IBP respectively 38.5±8.5 and 39.8±10.9. Over follow-up, HRQoL mean levels and trajectories improved mostly over the first 6 months (p<0.001). Overall, 54%–61% of patients reached levels of HRQoL close to population norms. DAS28-ESR and ASDAS-CRP over time were related to PCS (range of explained variance: 9% >43%, p<0.001 in the mixed models) but not to MCS.

Lines represent changes of mean SF36-MCS and mean SF36-PCS for EA and IBP; 95% confidence intervals were not represented because they were very small; The number of available data is between 696 and 508 according to the timepoint for SF-36 in EA and 646 to 422 according to the timepoint for SF-36 in IBP.

Conclusions: HRQoL was altered similarly for both physical and mental aspects in EA and early IBP. More than half the patients reached levels of HRQoL close to the general population. Disease activity only partly explained HRQoL: the drivers of HRQoL should be further explored.

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Acknowledgements: DESIR was financially supported by unrestricted grants from both the French Society of Rheumatology (FSR) and Pfizer-Wyeth Ltd France. ESPOIR was financially supported by an unrestricted grant from Merck Sharp and Dohme for the first 5 years. Part of the biological database was supported by two additional grants from Institut National de la Santé et de la Recherche Médicale (INSERM). The ESPOIR cohort study was supported by the FSR, AbbVie, Pfizer and Roche Chugai.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.4470

THU0687

THE IMPACT OF URATE-LOWERING THERAPY ON KIDNEY FUNCTION (IMPULSKF): PRELIMINARY RESULTS

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Background: The extended 2016 EULAR updated report states that for patients on ULT, SUA level should be monitored and maintained to <6 mg/dL (360 µmol/L). SUA level <3 mg/dL (180 µmol/L) is not recommended in the long term. And among EULAR proposals for future research is mentioned the optimal duration for prophylaxis of acute attacks when starting ULT, long-term impact of very low urate levels on the central nervous system, impact of ULT on kidney function.

Objectives: This project aims to investigate the impact of two target levels urate-lowering therapy (ULT) caused by hyperuricemia (HU) on kidney function and CKD progression measured by eGFR and albuminuria (A).

This trial had been formulated by 2016 updated EULAR evidence-based recommendations for the management of gout as a perspective proposal task for future research.

The key points are: 1) an unknown target HU level and 2) the time duration of ULT resulting in preserved kidney function in two subject groups a) with gout and b) without gout but highly elevated uricemia and CKD.

Methods: The trial has a POEM design with 36 months duration. IMPULSKF is a Clinical Randomised Prospective Controlled Open Multicenter trial that randomly (by chance) assigns 180 participants in parallel groups. These patients with high SUA level (>8 mg/dL; 480 µmol/L) were divided into 2 arms (90+90) 1) with gout (EULAR's criteria) and 2) without gout but with presence of CKD 1–4 and 2 target SUA levels in each group as 5 mg/dL (300 µmol/L) and ultralow SUA <3 mg/dL (180 µmol/L) achieved either with allopurinol or febuxostat. The data obtained will be compared with control group (45 with gout without CKD and 45 with CKD).

Results: Retrospective analysis and 6 mothes in trial results has been shown that treatment with febuxostat improves GFR and BP control in patients with asymptomatic HU in non-diabetic CKD 2–3.²

Febuxostat treatment led to the most beneficial decrease in the level of uric acid (–223±16 µmol/L, p<0.01 with control and p<0.05 with allopurinol group), increased GFR (+10±2 ml/min, p<0.01 with control and p<0.05 with allopurinol group), blood pressure decrease (–7±2/–3±1 mm hg, p<0.05 with control and p=0.93 with allopurinol group), albuminuria (–131±19 mg, p<0.01 with control and p<0.05 with allopurinol group). Potential benefits of febuxostat were better tolerability compared with allopurinol group with target levels of uricemia less 180 µmol/L in 32% of people.

Conclusions: Treatment with febuxostat (better than allopurinol) improves GFR and BP in patients with asymptomatic hyperuricemia in non-diabetic CKD 2–3. Ultralow SUA levels seems to be safe in majority of patients but its effect on CKD function is not yet clear.

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Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.3962

THU0688

DO CERTAIN DMARDS INCREASE RISK OF NEW-ONSET TYPE 2 DIABETES? EVALUATION OF PATIENTS' BASELINE CHARACTERISTICS

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Background: The risk of cardiovascular morbidities is higher in patients (pts) with RA and is exacerbated with type 2 diabetes (T2D).¹ Recent analysis showed that abatacept (ABA), a biologic (b)DMARD, has a lower incidence of T2D in pts with RA in clinical practice.²

Objectives: To compare baseline characteristics of pts with RA on DMARDs and evaluate incidence of T2D among these pts based on DMARD exposure.

Methods: Administrative claims data (2006–2016) from Optum Clinformatics (database A), QuintilesIMS PharMetrics Plus (database B) and Truven Market-Scan® (database C). Inclusion criteria were: 2 RA diagnosis codes+1 DMARD prescription; age ≥18 years; ≥3 months baseline (pre-index date); and 3 months of follow-up (post-index date). Mutually exclusive treatment groups (grp) were created based on the first prescription (index date) using a hierarchy of ABA, non-ABA bDMARDs (TNF inhibitors [TNFi] and non-TNFi [excluding ABA]) and conventional DMARDs (cDMARD; MTX or hydroxychloroquine [HCQ]). Also, an RA grp without DMARD use (NoDMARD) was identified. The index date for NoDMARD was first diagnosis date. Incident T2D was identified as those without T2D prior to index using one International Classification of Disease (ICD)–9 or ICD-10 diagnosis code for T2D. Assessment of T2D risk between treatment grps was based on regression and disease risk score (DRS) models. Adjusted incidence rate for T2D was based on a Cox model (stratified by DRS grps and categorised into 4 equal grps using quartile scores) with treatment as the independent variable.

Results: In databases A, B and C, 84,875, 2 07 811 and 1 94 819 pts with RA were identified, respectively (table 1). The combined proportions of pts in each treatment grp were: 3%–4% ABA; 12%–16% non-ABA bDMARD; and 41%–45% cDMARDs. Pts treated with ABA were older compared with those on non-ABA bDMARDs and a greater proportion had T2D risk factors of obesity, hypertension, dyslipidaemia and heart failure (table 1). The adjusted hazard ratios for T2D were significantly higher for non-bDMARD grps of TNFi and other bDMARDs vs ABA (figure 1).

Abstract THU0688 – Table 1. Baseline Risk Factors for T2D in Pts With RA by DMARD Grps

	ABA	TNFi	Non-TNFi	MTX only	HCQ	cDMARD – others	NoDMARD
Database A (N)	2825	9569	632	12 676	18 233	4368	36 572
Age≥55 years	52.5	38.8	60.3	63.3	53.4	62.6	61.3
Smoking	11.3	9.8	8.7	11.2	11.2	11.7	14.1
Obesity	9.7	7.1	6.2	7.4	7.9	8.2	10.0
Hypertension	39.9	30.5	36.2	44.1	40.7	46.7	54.8
Dyslipidaemia	35.9	28.4	29.1	41.2	39.9	43.9	52.2
Database B (N)	6497	30 329	1664	29 821	49 652	10 358	79 490
Age≥55 years	45.5	34.1	39.6	49.7	41.7	48.9	45.0
Smoking	9.4	8.4	8.0	9.3	8.9	9.3	11.7
Obesity	8.4	6.4	5.1	6.5	7.5	7.1	9.3
Hypertension	36.1	25.2	27.2	34.4	31.9	35.8	42.4
Dyslipidaemia	31.2	24.4	23.1	33.6	32.6	36.7	42.0
Database C (N)	8853	29 671	1714	30 669	47 850	10 891	65 171
Age≥55 years	50.7	36.0	43.3	54.9	46.1	54.5	53.1
Smoking	4.7	5.0	5.5	5.4	5.2	5.3	6.8
Obesity	5.4	4.6	5.0	4.8	5.2	4.8	6.4
Hypertension	37.7	26.2	29.2	36.1	33.5	37.8	43.8
Dyslipidaemia	28.9	23.4	23.1	31.1	30.2	33.7	38.4

All data are % unless indicated otherwise