Conclusions: Adverse childhood experiences are reported frequently in individuals with SLE; accumulation of adverse experiences is associated with poor SLE outcomes. Higher scores in each domain, especially childhood neglect or abuse, were associated with poorer health measures in adulthood. Further research regarding ACE patterns and SLE outcomes is warranted.

Disclosure of Interest: None declared

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THU0601 CARDIOVASCULAR SCREENING AMONG PATIENTS WITH INFLAMMATORY ARTHRITIS: TO WHAT EXTENT DO PATIENTS FOLLOW RECOMMENDATIONS?

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Background: Patients with inflammatory arthritis (IA) have a substantially increased risk for cardiovascular (CV) disease and consequently regular screening is recommended (1).

Objectives: To investigate whether patients with known IA and high CV risk follow the recommendation, given in a nurse-led CV risk screening consultation, to consult General Practice in order to reduce their CV risk. Furthermore to investigate the influence of socioeconomic position and gender.

Methods: A register-based cohort study comprising outpatients at King Christian X's Hospital for Rheumatic Diseases, Graasten, Denmark, diagnosed with rheumatoid arthritis (RA), psoriatic arthritis (PsA) or spondyloarthritis (SpA), who had participated in at least one screening consultation based on the EULAR recommendations (1) between 1st of July 2012 and 1st of July 2015. The primary outcome was a consultation with their GP and at least one intervention of relevance for CV risk within 3 months after the screening consultation.

Results: 1266 patients, 18–85 years of age, were included; 72.5% with RA and 27.5% with SpA or PsA. Of the 447 (35%) with high risk of CV disease, 60% consulted GP after the screening visit compared to 55% for the 819 patients with low risk of CV disease. Of the 60% of patients with high risk who consulted their GP, 41% had at least one relevant intervention. Education ≥ 10 years increased the odds for non-compliance (Odds Ratio [Confidence interval]) (0.72 [0.56;0.92], $p=0.01$) and age above 65 years increased the odds for compliance (1.50 [1.15;1.95], $p=0.03$). Income, diagnosis, gender, Low Density Lipoprotein level and systolic blood pressure did not significantly influence the odds to consult their GP after the screening consultation. Among high risk patients, 7.4% had their blood glucose checked at a GP consultation and 6.3% had their blood-pressure measured with at-home equipment after the screening consultation as opposed to 4.8% and 1% among low risk patients.

Conclusions: After a screening consultation, 40% of the patients with high risk of CV disease did not consult their GP at all in the following 3 months. At least 33% of the patients with high risk followed the recommendations to consult their GP and 27% consulted their GP for reasons not possible to clarify in this study. Only age and higher education had a significant influence on the outcome.

References:

[1] Peters, M.J., et al., EULAR evidence-based recommendations for cardiovascular risk management in patients with rheumatoid arthritis and other forms of inflammatory arthritis. *Ann Rheum Dis*, 2010. 69(2): p. 325–31.

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THU0602 WORKER PRODUCTIVITY LOSS REMAINS A MAJOR ISSUE FOR PATIENTS WITH INFLAMMATORY ARTHRITIS AND OSTEOARTHRITIS: RESULTS FROM THE INTERNATIONAL EULAR-PRO WORKER PRODUCTIVITY STUDY

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Background: Rheumatic and Musculoskeletal Diseases such as Inflammatory

arthritis (IA) and osteoarthritis (OA) are one of the biggest causes of disability and worker productivity loss which has recently been recognized by European policy makers and the World Health Organization (WHO). However, limited information is available about job characteristics and the level of both presenteeism and absenteeism in employed persons with IA or OA across countries.

Objectives: To describe job characteristics and worker productivity loss in patients with IA and OA in Europe and Canada.

Methods: Patients with IA or OA in paid employment from seven countries within Europe and from Canada were recruited to the EULAR-PRO Worker productivity study. Patients completed a questionnaire including questions about their job, job characteristics and the Work Productivity and Activity Impairment Questionnaire (WPAI) measuring percent hours absent and the percentage their disease affected productivity while working (0–100% = disease completely prevented work). Patients also completed several health-related patient reported outcome measures, including: the Health Assessment Questionnaire (HAQ), Visual Analogue Scale (VAS) general well-being, and EuroQol-5D (EQ-5D).

Results: 503 patients were included in this large international study. Mean (SD) age was 47 (10) years, median [IQR] disease duration 12 [5, 21] years and 94% had IA. 42% had a predominantly mentally demanding job, 10% physically demanding job, and 48% a combination; with overall 34% reporting their job being very demanding (see table for country specific results). Respectively 12% and 5% of patients were able to often or always postpone work tasks if need be, whilst, respectively 19% and 51% never or sometimes received help from colleagues which may depend on job/employment type and company size. Twenty-one% of patients reported that they missed time off work due to ill-health in the past week (median [IQR] % time missed due to ill-health 20% [9–50]). Interestingly, a total of 11% were unsatisfied with their current job; and 23% of patients did not disclose their disease to their employer.

	United Kingdom N=76	France N=45	Netherlands N=96	Estonia N=81	Sweden N=66	Romania N=62	Italy N=31	Canada N=46
Age, years	48 (8)	46 (10)	49 (11)	46 (11)	49 (9)	42 (9)	47 (9)	51 (9)
Gender, female	53%	60%	54%	62%	73%	55%	84%	83%
VAS well-being, mm	39 [21-60]	28 [18-49]	30 [11-60]	43 [20-62]	38 [20-61]	35 [12-55]	32 [14-65]	28 [15-60]
HAQ-score	0.63 [0.25-1]	0.25 [0.13-0.63]	0.38 [0-0.5]	0.38 [0.1-0.75]	0.63 [0.38-0.88]	0.13 [0-0.63]	0.25 [0-0.5]	0.5 [0.13-1]
EQ-5D	0.62 [0.57-0.69]	0.69 [0.66-0.73]	0.73 [0.62-0.73]	0.66 [0.52-0.73]	0.66 [0.62-0.73]	0.69 [0.62-0.90]	0.69 [0.62-0.88]	0.62 [0.55-0.73]
General job demands:								
Slightly demanding	12%	11%	34%	66%	12%	16%	7%	20%
Demanding	41%	40%	40%	30%	41%	54%	50%	33%
Very demanding	47%	49%	26%	4%	47%	30%	43%	47%
Job satisfaction:								
Satisfied	57%	78%	84%	81%	67%	74%	73%	71%
Neutral	19%	11%	11%	13%	17%	21%	17%	11%
Unsatisfied	24%	11%	4%	6%	17%	5%	10%	18%
% Absent in previous week due to ill-health	16%	20%	15%	26%	23%	18%	26%	33%
% Work time missed due to ill-health*	24 [9-100]	20 [13-34]	50 [19-72]	19 [10-50]	15 [9-50]	15 [9-50]	19 [5-33]	15 [3-50]
% Impairment due to ill-health while working (WPAI)†	20 [0-50]	20 [0-30]	20 [0-50]	20 [0-40]	30 [5-45]	20 [10-50]	20 [0-50]	20 [10-60]

Scores are mean (SD) or median [IQR], depending on the distribution of the data.

Categorical data are presented as %.

* In those absent due to ill-health.

† WPAI (0 = condition no effect on work – 10 = condition completely prevented work) 100%.

Conclusions: This is one of the largest international studies investigating worker productivity loss in patients with IA and OA. It highlights the burden of the disease across countries and the importance of increasing awareness of rheumatological conditions in order to prevent presenteeism and long-term sick leave by providing the best available intervention to the individual patient in paid employment.

Disclosure of Interest: None declared

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THU0603 DISEASE BURDEN OF KNEE OSTEOARTHRITIS PATIENTS UNDERGOING JOINT REPLACEMENT COMPARED TO MATCHED CONTROLS: A POPULATION-BASED ANALYSIS OF A DUTCH MEDICAL CLAIMS DATABASE

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Background: Knee osteoarthritis (OA) is a progressive joint disease generally associated with increasing pain. In severe symptomatic knee OA, knee prosthesis

(KP) can improve health-related quality of life. In the Netherlands, the incidence of KPs and KP revisions has increased, but health care costs related to these procedures over time and their determinants are unknown.¹

Objectives: To provide estimates of age and sex-specific incidence of KPs, revision KPs, and prosthesis complications in patients with knee OA. To determine average annual health care costs of patients undergoing KP compared with matched controls in the Netherlands, and to understand drivers of costs.

Methods: All KPs in knee OA patients in the Achmea Health Database were identified and matched by age, sex, and region to a maximum of four controls. Incidence rates of KPs, KP revisions, and their complications (/1000 persons) from 2006–2013 were determined. Annual health care cost and excess costs compared to matched controls, preceding, during and after surgery were calculated and associated factors evaluated using longitudinal regression analysis.

Results: The incidence of KPs, KP revisions, and complications increased between 2006 and 2013. This increase was strongest in younger age categories and in men (Table 1). Annual health care costs slightly increased up to the year of surgery, with highest costs in the year of surgery. Post-surgery costs remained slightly higher than pre-surgery costs. High post-surgery costs were mainly associated with subsequent KPs. Other factors associated with high excess costs were younger age, female gender, and complications.

Table 1. Sex-specific incidence rates (per 1,000 person years) of all KPs, KP revisions, and complications associated with knee OA

	2006 IR	2007 IR	2008 IR	2009 IR	2010 IR	2011 IR	2012 IR	2013 IR
All KPs								
Male	0.81	0.86	1.04	1.04	1.11	1.19	1.26	1.26
Female	2.01	1.96	2.08	2.09	2.09	2.23	2.20	2.37
Total	2.82	2.82	3.12	3.13	3.20	3.42	3.46	3.62
KP revisions								
Male	0.04	0.06	0.08	0.07	0.07	0.07	0.12	0.10
Female	0.12	0.10	0.13	0.12	0.14	0.18	0.17	0.21
Total	0.16	0.16	0.21	0.20	0.22	0.26	0.29	0.31
Complications								
Male	0.11	0.13	0.16	0.15	0.19	0.20	0.24	0.27
Female	0.23	0.28	0.33	0.36	0.40	0.42	0.52	0.53
Total	0.34	0.41	0.49	0.52	0.59	0.62	0.76	0.80

Abbreviations: KP = Knee prosthesis, OA = Osteoarthritis, IR = Incidence rate.

Conclusions: These results underscore the increasing burden associated with severe knee OA, especially in younger age categories. Improved guidelines aimed at avoiding complications and revisions are required to counteract this trend.

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[1] Dutch Arthroplasty Register (LROI). Arthroplasty in the Picture, Annual Report of the Dutch Arthroplasty Register. 2014.

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THU0604 THE ASSESSMENT OF THE DUTCH QUALITY REGISTRY RHEUMATOID ARTHRITIS QUALITY INDICATORS IN THREE PILOT HOSPITALS

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Background: While practical guidelines and recommendations play an important role in the treatment of RA, rheumatologists often tend to deviate from these guidelines (1). This may result in disparity of quality of care among individual doctors and hospitals. To establish the best possible care, quality measures are needed. These aim to quantify the quality of the delivered care and will form the foundation of quality registries. Standardization of care processes in combination with public reporting of performance (by means of a quality registry) has been suggested to improve quality of care (2).

Objectives: To develop feasible quality indicators (QIs), endorsed by the different stakeholders of the Dutch Quality registry Rheumatoid Arthritis (DQRA).

Methods: An expert group of 8 rheumatologists, 2 patient representatives and 1 healthcare insurer representative developed a minimal set of QIs via a Delphi-like procedure (3), endorsed by the Dutch Society for Rheumatology. Since October 2015, these QIs have been registered by rheumatologists and rheumatology nurses, once a year in 26 hospitals, along with a patient evaluation questionnaire regarding the received care. To determine whether it is feasible to collect these QIs in daily practice, retrospective data from three hospitals was obtained (hospital A (university), B and C (non-academic)).

Feasibility was determined by evaluation of:

1. Completeness of registered data (figure 1)
2. Possibility to calculate disease activity categories (remission, low-high disease activity)
3. Possibility to calculate changes over time in disease activity categories
4. Extraction of data regarding (b)DMARD use

Results: Selected QIs are:

1. Percentage of patients in a certain disease activity category

2. Percentage of patients using a certain (b)DMARD

3. Patient reported experience with received care

Hospital B provided only data from one year (2014) and was not able to extract data on medication from their electronic record system.

Table 1. Assessment of feasibility of the DQRA QIs

Disease activity category				
Indicator (DAS28)	Hospital A (n=791)	Hospital B (n=1395)	Hospital C (n=822)	Mean
Remission	43.6%	45.1%	63.6%	50.8%
Low disease activity	16.3%	15.2%	14.1%	15.2%
Moderate disease activity	32.8%	30.1%	19.1%	27.3%
High disease activity	7.3%	9.6%	3.2%	6.7%
Changes over time in disease activity categories (2014–2015)				
Indicator (DAS28)	Hospital A (n=415)	Hospital B	Hospital C (n=653)	Mean
Stable over time	48.7%	N.A.	58.8%	53.8%
Decreased in disease activity category	24.8%	N.A.	17.9%	21.4%
Increased in disease activity category	26.5%	N.A.	23.3%	24.9%
DMARD use				
Indicator	Hospital A (n=1081)	Hospital B	Hospital C (n=1105)	Mean
sDMARD monotherapy	41.2%	N.A.	51.6%	46.4%
sDMARD combination therapy	29.4%	N.A.	27.8%	28.6%
bDMARD	29.4%	N.A.	16.0%	22.7%
No DMARDs	0%	N.A.	4.7%	0%

Figure 1: completeness of registered data

Conclusions: The DQRA is the first to incorporate perspectives from three stakeholders (patients, physicians and healthcare insurers) and successfully formed a limited set of QI. Collection of these indicators was feasible in two out of the three participating hospitals and offers insight in differences in provided and perceived care for RA patients.

References:

[1] Mahmood et al. Best Pract Res Clin Rheumatol 2015.

[2] Chassin et al. Health Aff 2002.

[3] Mahmood et al. ARD 2016.

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THU0605 IMPACT OF NON-PERSISTENCE TO SUBCUTANEOUS TNF-ALPHA INHIBITORS ON MEDICAL RESOURCE UTILIZATION AND COSTS

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Background: Biotherapies such as subcutaneous tumour necrosis factor-alpha inhibitors (SC-TNFis) have transformed the management of rheumatoid diseases. The assessment of SC-TNFis non-persistence and its impact on medical resource utilization and costs are needed.

Objectives: The objective was to assess the impact of non-persistence to subcutaneous TNF-alpha inhibitors on medical resource utilization and costs, for patients initiating treatment with an SC-TNFi in France.

Methods: The Système National d'Information Inter-régime [French national health insurance scheme information-sharing system] (SNIIRAM) database lists all outpatient and inpatient healthcare consumption for individuals covered by the general health insurance scheme. Using French claims data, conditions were diagnosed using Long Term Disease status and hospital admission, based on ICD-10 codes of rheumatoid arthritis, psoriatic arthritis and ankylosing spondylitis. Patients were then identified through first-line prescription filled for adalimumab (ADA), etanercept (ETA), certolizumab pegol (CZP) and golimumab (GLM) between 2012/07/01 and 2012/12/31. 12-months persistence status was