SAT0703 – Table 1. ORs of Gout and Hyperuricemia Accoding Race/Ethnicity, NHANES 2007–16

<table>
<thead>
<tr>
<th></th>
<th>Gout</th>
<th>Hyperuricemia</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Age-adjusted OR (95% CI)</td>
<td>Age-adjusted OR (95% CI)</td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>1.00 (Referent)</td>
<td>1.00 (Referent)</td>
</tr>
<tr>
<td>African</td>
<td>1.65 (1.14–2.39)</td>
<td>0.92–1.92)</td>
</tr>
<tr>
<td>American</td>
<td>2.38</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>1.00 (Referent)</td>
<td>1.00 (Referent)</td>
</tr>
<tr>
<td>African</td>
<td>1.31 (1.05–1.63)</td>
<td></td>
</tr>
<tr>
<td>American</td>
<td>1.63</td>
<td></td>
</tr>
</tbody>
</table>

Conclusions: These nationally-representative data indicate that AAs have a larger disease burden of gout and hyperuricemia than Whites, particularly among women. This burden appears to be at least partly due to a higher prevalence of risk factors for hyperuricemia in AAs.

REFERENCE:

SAT0704

COLLECTION OF ANTI-RHEUMATIC MEDICATION DATA FROM BOTH PATIENTS AND RHEUMATOLOGISTS SHOWS STRONG AGREEMENT IN A REAL WORLD CLINICAL COHORT: RESULTS FROM THE ONTARIO BEST PRACTICES RESEARCH INITIATIVE (OBRI)

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Disclosure of Interest: M. Chen-Xu: None declared, C. Yokose: None declared, H. Choi Grant/research support from: Ironwood and Aredea/AstraZeneca, Consultant for: Horizon and Selecta

CONCLUSIONS:
- There was a good and very good agreement for reported administration route of bDMARDs and csDMARDs, respectively. The median absolute time gap (IQR) of start dates and stop dates for ARM use reported by two data sources was 7 days 1–27 and 19 days, 5–48 respectively.

BACKGROUND:
- The two cohorts were significantly different in age; therefore, an age-adjusted data source has strong agreement in the OBRI. This agreement is even better for patients who have post-secondary education and are being treated by an academic rheumatologist.

SAT0705

ASSOCIATION BETWEEN FRACTURE SITES IN PATIENTS WITH A HISTORY OF PARENTAL FRACTURE

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BACKGROUND:
- Few data exist on the association between sites of fracture in patients with a history of parental fracture, especially whether they co-exist at several sites and if particular factors are associated with discrete sites.

OBJECTIVES:
- We aimed to find the correlation between sites of FF in patients with a history of parental fracture, and identify and examine the clinical association with any clusters of fractures.

METHODS:
- 2094 patients with a history of parental FF and personal history of at least one FF, presenting for BMD estimation from their primary or secondary care practitioner, from 2006–2016, were included. Parameters recorded: height, weight, age at scan, average fat mass, site of fracture(s), smoking, alcohol, corticosteroid use, aromatase inhibitor use, Depo-Provera use, hormone replacement therapy (HRT), rheumatoid arthritis (RA), polymyalgia rheumatica (PMR), breast or prostate cancer, and coeliac disease.

Factor analyses with polychoric correlation matrices were applied to determine association between fracture sites. Any associations with Eigenvalues of more than one were then examined using a logistic model to analyse the effect of the above risk factors.

RESULTS:
- Fracture sites with Eigenvalue of more than one (tibia/iliuba, spine, ribs, pelvis) were compared to sites with least co-variability (humerus, forearm, femur).

The two cohorts were significantly different in age; therefore, an age-adjusted model is reported below (table 1). Smoking, HRT, and increased age significantly impacted clustering of fractures in the tibia/iliuba, spine, ribs, and pelvis, compared with clustering at the humerus, forearm, and femur.

Abstract SAT0705 – Table 1. Age-adjusted predictors of fracture for tibia/iliuba/spine/ribs/ pelvis vs. humerus/forearm/femur (* denotes significance)

<table>
<thead>
<tr>
<th>Variable/Fracture cluster</th>
<th>OR (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corticosteroid</td>
<td>0.878 [0.748–1.031]</td>
</tr>
<tr>
<td>Smoking</td>
<td>0.879 [0.779, 0.992]</td>
</tr>
<tr>
<td>Alcohol</td>
<td>0.954 [0.898–1.087]</td>
</tr>
<tr>
<td>Rheumatoid arthritis</td>
<td>1.903 [1.820–2.007]</td>
</tr>
<tr>
<td>Polygargia rheumatic</td>
<td>0.907 [0.846–0.981]</td>
</tr>
<tr>
<td>HRT</td>
<td>0.635 [0.320, 0.961]</td>
</tr>
<tr>
<td>Armatase inhibitors</td>
<td>0.959 [0.772, 1.170]</td>
</tr>
<tr>
<td>Breast/prostate cancer</td>
<td>1.498 [0.610–3.637]</td>
</tr>
<tr>
<td>Gender</td>
<td>0.804 [0.589–1.098]</td>
</tr>
<tr>
<td>Age at scan (years)</td>
<td>0.011 [1.003, 1.019]</td>
</tr>
<tr>
<td>Height (cm)</td>
<td>0.999 [0.997–1.000]</td>
</tr>
<tr>
<td>Weight (kg)</td>
<td>0.999 [0.997–1.000]</td>
</tr>
</tbody>
</table>

Conclusions: In this cohort of patients, there was overlap between all fracture sites, with significant clustering seen in fractures of the tibia/fibula, spine, ribs, and pelvis. After adjusting for age, predictors of fracture in this cluster were smoking, HRT and increased age. This indicates that risk factors for FF are different at different sites, and affects the association of fracture between sites. Further work validating this finding is currently underway.

REFERENCES:
[1] A family history of fracture and fracture risk: a meta-analysis. Bone [Inter-
[2] Strong familial association of bone mineral density between parents and

Disclosure of Interest: None declared

SAT0706 INCIDENCE OF PSORIATIC ARTHRITIS IN GERMANY:
ANALYSIS OF CLAIMS DATA FROM 65 MILLION
PEOPLE FROM 2009 TO 2012

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Background: Epidemiological studies are important for understanding the etiol-
ogy and burden of psoriatic arthritis (PsA). Currently, there are no data available about the incidence of PsA in Germany.

Objectives: This study aims to estimate the age-standardised incidence of diag-
nosed PsA for German men and women during 2009 to 2012.

Methods: Estimation of the incidence of a chronic disease from prevalence data is possible if information about the general mortality and excess mortality of dis-
 eased compared to non-diseased people is available in terms of the hazard ratio (HR). Prevalence was extracted from the complete diagnosis data (in- and outpa-
tient) from about 80% of the overall German population during 2009 to 2012. Diag-
noses are based on claims data from all insurances of the German statutory health insurance (SHI) system. After determining the age-standardised sex-spe-
cific prevalence of PsA for each of the four years, the age-standardised incidence
for men and women has been estimated. General mortality was obtained from the Federal Statistical Office of Germany. Since the HR is unknown in Germany, we use different scenarios motivated from a systematic review in the range from 1.3 to 1.6.

Results: For each of the years from 2009 to 2012, a total of 127, 138, 146 and
156 thousand patients with diagnosed PsA were identified in about 65 million peo-
ple from the SHI, respectively. The age-standardised prevalence increases from
1.8 to 2.1 per mil in men, and from 2.1 to 2.5 per mil in women. The estimated age-
standardised incidence over the study period is shown in the figure 1. Over the study period, the incidence rate of PsA decreases for both sexes and the rate of
men is lower than the rate of women. The average incidence rates are 11.5 and
14.5 per 100,000 person-years for men and women, respectively. This means that about 4700 men and 5900 women contract PsA each year. The impact of the dif-
ferent scenarios in HR is small.

Conclusions: These data from about 65 million people insured in the German
SHI for the first time allow an estimation of the incidence of PsA in Germany.
A selection bias is likely to be present, because the roughly 20% of the overall Ger-
man population who could not included in the analysis (mainly privately insured
people) are known to have other health risks. However, the results refer to the vast majority of the German population. The analysis cannot be adjusted for potential confounders other than age and sex (e.g., socio-economic position or
presence of co-morbidities).

REFERENCES:
S62.

Disclosure of Interest: None declared

SAT0707 TRENDS IN THE INCIDENCE OF RHEUMATOID
ARTHRITIS IN DENMARK FROM 1995–2016: A
NATIONWIDE REGISTER-BASED STUDY

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Background: Previous studies have shown conflicting results regarding temporal
trends in the incidence of rheumatoid arthritis (RA).

Objectives: To investigate annual incidence rates of RA in Denmark from 1995–
2016 using nationwide health care registers, and to explore how these are
affected by different case definitions of RA.

Methods: The Danish National Patient Register captures all in- and outpatient
(since 1977 and 1994, respectively) contacts at private and public hospitals.
Excluding prevalent cases (ICD-8: 712), and using two different case-definitions,
we identified all incident RA patients (ICD-10 codes M05.1; 3; 8; 9 and M06.0; 8; 9)
aged >18 in each year from 1995–2016, and calculated annual age-standardised
incidence rates (per 100 000 person years). We used the NORDCAN population
data for direct standardisation, and the number of adults alive in Denmark at the begin-
ing of each year as the denominator. We furthermore calculated the age- and
sex specific incidence rates during the period. Strict case definition: incident
patients were required to have at least two in- or outpatient visits at a rheumatol-
ygy- or general internal medicine clinic/department within 90 days with RA listed
as the main diagnosis. Liberal case definition: patients with at least two in- or
outpatient contacts listing RA as a main- or contributory diagnosis within 1 year.

Results: We identified 26 090 and 43 080 patients using the Strict and Liberal
case definitions, respectively. Patient characteristics according to choice of defini-
tion are presented in the Table. The overall incidence rates were 23.7/100,000
person years (23.4–23.9) using the Strict and 39.7/100,000 person years (39.4–
40.1) using the Liberal definition. As seen from the figure 1, a slightly increasing
trend in RA was observed from 1995 to 2016 independent of choice of case defini-
tion, and this increase was more pronounced in 2010.

The age-specific incidence rates were highest in women (Strict: 75/100,000 per-
son years; Liberal: 134/100,000 person years) as well as men (Strict: 47/100,000
person years; Liberal: 81/100,000 person years) aged 70–79 years.

Table. Demographics and characteristics of rheumatoid arthritis patients diagnosed at hospitals in Denmark 1995–2016 according to case definition.

<table>
<thead>
<tr>
<th></th>
<th>Strict case definition</th>
<th>Liberal case definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>26 090</td>
<td>43 080</td>
</tr>
<tr>
<td>Mean (s.d) age at diagnosis</td>
<td>58.1 (15.2)</td>
<td>59.3 (15.5)</td>
</tr>
<tr>
<td>Females, n (%)</td>
<td>18 238 (70)</td>
<td>30 749 (70)</td>
</tr>
<tr>
<td>% with COPD</td>
<td>3.1</td>
<td>3.7</td>
</tr>
<tr>
<td>% with DM</td>
<td>3.3</td>
<td>3.8</td>
</tr>
<tr>
<td>% with CVD</td>
<td>7.2</td>
<td>8.4</td>
</tr>
</tbody>
</table>

Conclusions: We found a slightly increasing trend in the incidence rate of RA
from 1995–2016. Further, we found that using the Liberal case definition, the over-
all and age- and sex specific incidence rates were remarkably similar to those
reported from Sweden, whereas the Strict definition resulted in lower incidence
rates than previously reported from other countries.