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 [Internet]. Elsevier 2004 Nov 1 [cited 2017 Oct 27];35(5):1029–37.
- [2] Strong familial association of bone mineral density between parents and offspring: KNHANES 2008–2011. Osteoporos Int 2017.

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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 etiology 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 diagnosed 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 diseased compared to non-diseased people are available in terms of the hazard ratio (HR).¹ Prevalence was extracted from the complete diagnosis data (in- and outpatient) from about 80% of the overall German population during 2009 to 2012. Diagnoses are based on claims data from all insurances of the German statutory health insurance (SHI) system. After determining the age-standardised sex-specific 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 review² 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 people 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 different 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 German 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:

- [1] Brinks R, Landwehr S, DOI: 10.1093/imammb/dqu024
- [2] Gladman DD. Mortality in psoriatic arthritis, Clin Experim Rheuma 26(5): S62.

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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 1 00 000 person years). We used the NORDCAN population for direct standardisation, and the number of adults alive in Denmark at the beginning 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 rheumatology- 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.¹

Results: We identified 26 090 and 43 080 patients using the Strict and Liberal case definitions, respectively. Patient characteristics according to choice of definition 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 definition, and this increase was more pronounced in 2010.

The age-specific incidence rates were highest in women (Strict: 75/100,000 person 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.

	Strict case definition	Liberal case definition
N	26 090	43 820
Mean (s.d) age at diagnosis	58.1 (15.2)	59.3 (15.5)
Females, n (%)	18 238 (70)	30 749 (70)
% with COPD	3.1	3.7
% with DM	3.3	3.8
% with CVD	7.2	8.4

Age-standardised annual incidence rates of rheumatoid arthritis in Denmark 1995–2016

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 overall and age- and sex specific incidence rates were remarkably similar to those reported from Sweden¹, whereas the Strict definition resulted in lower incidence rates than previously reported from other countries.