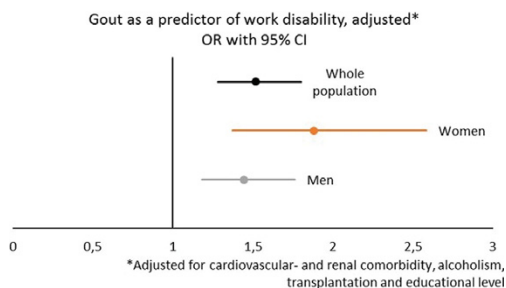


substantial association with several comorbidities. Studies on the impact of gout on work disability on a population level are scarce.

**Objectives:** The primary objective of the study was to investigate if gout was a predictor of work absenteeism exceeding 90 days in a calendar year, controlling for comorbidities and socioeconomic status in men and women separately. Another aim of the study was to explore if urate lowering therapy (ULT) attenuated the risk of work disability for gout cases.

**Methods:** Gout cases were defined in the population based health care database (VEGA) of the Western Swedish Health Care Region (WSHCR) by having a first diagnosis of gout in the years 2003–2009 by ICD-10 codes (M10 and M14.0) in VEGA. Cases were included if their age at the time of diagnosis of gout was  $\leq 62$  years. Five controls for each case, matched for age, sex and place of residence were chosen from the census register by Statistics Sweden. Individuals with any work disability in the year before the index year were excluded from analysis. Data on predefined comorbidities registered previous to the index year was collected from VEGA by ICD-10 codes. Data on prescribed medications was collected from the national prescription database. Data on educational level, income and number of days per calendar year with sick-leave and disability pension was provided by Statistics Sweden. Conditional logistic regression taking into account the 1-to-5 matched design of the study was performed in individuals without work disability in the year before the index date for the outcome of  $\geq 25\%$  ( $\geq 90$  days) work disability in the year after the index year. Possible predictors of work disability for gout cases were analyzed using logistic regression

**Results:** 3068 incident gout cases (females N=554 (18%)) of working age without prior work disability were matched to 15,077 population controls. After matching, 3258 controls with prior work disability were excluded leaving 11,819 controls for analysis. Of the women with gout, 69 (12.5%) became  $\geq 25\%$  work disabled in the year after the index-year as opposed to 117 (6.1%) of the female controls,  $p < 0.0001$ . 163 men with gout (6.5%) became  $\geq 25\%$  disabled vs. 377 (3.8%) of male controls,  $p < 0.0001$ . After adjusting for comorbidities and educational level gout increased the risk of work disability to a similar extent for men (OR 1.4, 95% CI 1.2–1.8) and women (OR 1.9, 95% CI 1.4–2.6). Cardiovascular and renal comorbidity as well as alcoholism, female sex and low educational level (less than 12 years) were important predictors of work disability in gout patients whereas receiving ULT during the time period being studied did not attenuate the risk (OR 0.8, 95% CI 0.5–1.1).



**Conclusions:** Gout is a significant independent predictor of work disability in both men and women. ULT did not attenuate the risk of work disability early after diagnosis for gout cases in this study, possibly explained by under-prescribing and sub-optimal dosage as previously shown in our region (1).

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**Disclosure of Interest:** None declared

**DOI:** 10.1136/annrheumdis-2017-eular.4022

### THU0409 NOT JUST A SWOLLEN BIG TOE: INCREASING ALL-CAUSE HOSPITALIZATIONS IN PATIENTS WITH GOUT IN THE UNITED STATES: 1993–2014

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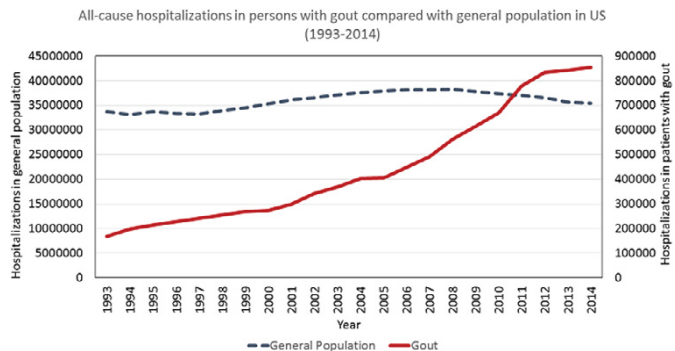
**Background:** Gout is a disorder of uric acid metabolism and often presents as acute severe joint pain. However, several recent studies have highlighted systemic complications of associated hyperuricemia in patients with gout, including possible increased risk of renal and cardiovascular comorbidities.

**Objectives:** To study all-cause hospitalizations in patients with gout in the United States (US) from 1993 to 2014.

**Methods:** The Nationwide Inpatient Sample (NIS) is a stratified random sample of all US community hospitals. It is the only US national hospital database with information on all patients, regardless of payer, including persons covered by Medicare, Medicaid, private insurance, and the uninsured. We examined all inpatient hospitalizations in NIS from 1993 to 2014 with a primary or secondary diagnosis of gout, and compared them to total all-cause US hospitalizations during the same period. US population estimates and projections for the resident US population were obtained from the US Census Bureau.

**Results:** There were 789.8 million all-cause hospitalizations in 6.4 billion person-

years of observation from 1993 to 2014 (123.4 hospitalizations per 1,000 person-years). During this time-period, 9,741,598 hospitalizations occurred in patients with gout (152.2 per 100,000 person-years). All-cause US hospitalizations increased from 33.7 million in 1993 to 35.4 million in 2014, an increase of 4.8% over 22 years (Figure, dotted blue line). All-cause hospitalizations in gout patients have increased from 167,441 in 1993 (64.2 per 100,000 person-year) to 854,475 in 2014 (267.9 per 100,000 person-years, a dramatic increase of over 410% ( $p < 0.0001$ , Figure solid red line). In 2014, hospitalizations in gout patients accounted for over 4.6 million hospital days at a total national cost of over US \$42.6 billion.



**Conclusions:** All-cause hospitalizations in patients with gout in the US have significantly increased by 410% in the last 22 years, almost hundred-fold of the 4.8% increase in US population all-cause hospitalization rate in the same time-period. This calls for an increase need for identification and management of serious co-morbid conditions in patients with gout.

**Disclosure of Interest:** G. Singh Grant/research support from: Horizon Pharmaceuticals, A. Mithal: None declared, A. Mithal: None declared

**DOI:** 10.1136/annrheumdis-2017-eular.5458

### THU0410 GOUT AND THE RISK OF INCIDENT ERECTILE DYSFUNCTION: A BODY MASS INDEX-MATCHED POPULATION-BASED STUDY

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**Background:** Gout is the most common inflammatory arthritis. Erectile dysfunction is common in the general population; however, evidence regarding erectile dysfunction among gout patients is limited.

**Objectives:** Our purpose was to study whether there was an increased risk of erectile dysfunction among gout patients, as compared with the general population.

**Methods:** We conducted a cohort study using The Health Improvement Network, an electronic medical record database in the United Kingdom. Up to five individuals without gout were matched to each case of incident gout by age, enrolment time, and body mass index. Multivariate Hazard Ratios for erectile dysfunction were calculated after adjusting for smoking, alcohol consumption, comorbidities and medication use.

**Results:** We identified 2290 new cases of erectile dysfunction among 38,438 patients with gout (mean age 63.6 years) and 8447 cases among 154,332 individuals in the comparison cohort over a 5-year median follow up (11.9 vs. 10.5 per 1000 person-years, respectively). Univariate (age, entry time and body mass index-matched) and multivariate Hazard Ratios for erectile dysfunction among patients with gout were 1.13 (95% CI, 1.08 to 1.19) and 1.15 (95% CI, 1.09 to 1.21), respectively. In our sensitivity analysis, restricting gout cases to those receiving anti-gout treatment ( $n=31,227$ ) the magnitude of relative risk was stronger than the primary analysis; (multivariate Hazard Ratios =1.29; 95% CI, 1.22 to 1.37).

**Conclusions:** This population-based study suggests an increased risk of erectile dysfunction among gout patients, supporting a possible role for hyperuricemia and inflammation as independent risk factors for erectile dysfunction.

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**Disclosure of Interest:** N. Schlesinger Grant/research support from: Astra Zeneca, Consultant for: Astra Zeneca, Horizon, Celgene, ProteoThera, Pfizer, N. Lu: None declared, H. Choi Grant/research support from: Astra Zeneca, Consultant for: Takeda, Selecta

**DOI:** 10.1136/annrheumdis-2017-eular.2710