Adequate ULT was defined as a mean daily dose of at least 300 mg of allopurinol and a duration of therapy of at least 2 years. Patients that had received adequate ULT were matched using propensity score on the basis of baseline eGFR and length of follow-up time to patients that received non-adequate ULT. Change from baseline in SU and eGFR was calculated and compared between groups.

Results: We identified 5433 patients with an incident gout diagnosis during 2000-2012 (and no gout diagnosis or prescription for ULT during 1997-1999).

Of these, 2393 (44%) received at least one prescription for allopurinol. SU was measured at some time point after initiation of ULT in 58% of patients. Adequate ULT as defined above was prescribed for 154 patients (3%), of these, 112 (73%) had a SU measurement at some time point after initiation of therapy and 35 (23%) had such a measurement done within 6 weeks of starting treatment.

Matched controls could be identified for 109 of the patients with adequate ULT. Mean urate and eGFR at the start of therapy and end of follow up for the group with adequate ULT treatment and the controls are shown in table 1.

Table 1. Values are mean (SD) or n (%)

	Adequate ULT, n=109	Matched controls, n=109	p-value
Age	66 (14)	68 (13)	0.19
Female, n (%)	25 (23)	38 (35)	0.05
Allopurinol daily dose in mg	359 (61)	119 (63)	<0.0001
Baseline s-urate, $\mu\text{mol/L}$	511 (111)	509 (100)	0.91
Baseline eGFR, ml/min	66 (21)	66 (21)	0.84
Length of follow-up, years	4.2 (3.5)	5.2 (3.9)	0.05
Δ s-urate, (baseline compared to last available value)	-168 (153)	-78 (125)	<0.0001
Δ e-GFR (baseline compared to last available value)	-1 (15)	-5 (16)	0.039
Last eGFR worse than baseline measurement, n (%)	50 (46)	67 (61)	0.021

Conclusion: ULT was prescribed to less than half of the patients identified. Adequate ULT was rare in clinical practice during the time period studied. Urate monitoring occurred in less than half of ULT-treated patients. The patients with adequate ULT achieved greater lowering of serum urate than matched controls and were more likely to maintain unchanged renal function over time.

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SAT0446

GOUT IN THE US: SIGNIFICANT ASSOCIATIONS WITH CARDIOVASCULAR AND RENAL DISEASE HOSPITALIZATIONS

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Background: Gout is a disorder of uric acid metabolism and often presents as acute severe joint pain. Previous work from our group suggests that all-cause hospitalizations in patients with gout in the United States (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. The current study focused on identifying potential reasons for the excess hospitalizations.

Objectives: To compare the primary reasons for hospitalizations in patients with gout to those in age-matched patients without gout in the US in 2016.

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 the NIS in 2016 among patients 40 years or older with a primary or secondary diagnosis of gout and compared them to total all-cause hospitalizations in patients without a gout diagnosis in the same age group during the same period. Over 69,800 ICD 10 diagnoses codes were collapsed into a smaller number of clinically meaningful categories, consistent with the Centers for Disease Control (CDC) Clinical Classification Software. The top 15

primary causes for hospitalization were evaluated and compared between the two cohorts.

Results: In 2016, there were 892,379 all-cause hospitalizations in the US in patients with gout with 14,135 (1.6%) of these for a primary diagnosis of gout. The primary diagnoses for 878,244 hospitalizations in patients with gout were compared with those in 21.9 million hospitalizations in the general US population without gout. The most common primary cause of hospitalizations in both cohorts was septicemia (7.8% in gout vs. 7.4% in general population). Significant differences were seen in several other categories. For example, acute renal failure was twice as frequent among gout patients (39,455 hospitalizations, 4.5%) compared to the general population (458,920 hospitalizations, 2.1%) (Relative Risk (RR) 2.11, 95% CI 2.08 – 2.13, $p < 0.0001$). Hospitalizations for "hypertensive complications and secondary hypertension" were also higher (35,435, 4.0% in gout vs 370,400, 1.7% in general population, RR 2.35, 95% CI 2.32 – 2.37, $p < 0.0001$). Hospitalizations from gastrointestinal bleeding were 30% more common in gout patients, perhaps associated with concomitant NSAID treatments (Figure).

Conclusion: Among patients with gout, a far greater proportion of serious hospitalizations are related to renal and cardiovascular complications as compared to age-matched general population. This calls for an increased awareness and management of serious co-morbid conditions in patients with gout.

REFERENCES

- [1] Singh G, Mithal A, Mithal A. NOT JUST A SWOLLEN BIG TOE: INCREASING ALL-CAUSE HOSPITALIZATIONS IN PATIENTS WITH GOUT IN THE UNITED STATES: 1993-2014: Presented at EULAR Congress 2017

Figure

Primary reasons for comorbid hospitalizations more common in patients with gout compared with age-matched patients without gout, classified by Centers for Disease Control Clinical Classification Software (CDC CCS).

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SAT0447

MANAGEMENT OF GOUT: AN AUDIT IN PRIMARY CARE GENERAL PRACTICE IN LEICESTERSHIRE, UNITED KINGDOM

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Background: Both acute and long-term management of gout in primary care in UK is reportedly suboptimal¹, with patients rarely being offered lifestyle advice or urate Lowering Therapy (ULT). Further, ULT is often not titrated according to the patient's serum uric acid (sUA) levels, so that they fail to achieve target sUA levels.

Objectives: To audit and evaluate the management of gout in patients in a primary care setting against the current guidelines treat to target guidelines set by the British Society of Rheumatology (BSR)².