SAT0357

COMPLIANCE AND PERSISTENCE TO URATE LOWERING THERAPY FOR THE TREATMENT OF GOUT AND HYPERURICEMIA: A RETROSPECTIVE ANALYSIS OF MEDICATION PRESCRIPTION RECORDS

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Background: Hyperuricemia is the predominant risk factor for gout, a common crystal-induced disease, manifested as an acute inflammatory arthritis. Urate lowering therapy (ULT) is an effective and recommended life-long treatment for lowering and managing serum urate levels in gout patients.¹ However, recurrent attacks of gouty arthritis are commonly observed in practice, even during long-term ULT.² This is often attributed to poor medication adherence and continuance.³ Gaining insight into the dispensing patterns and medication adherence of ULT, provides a reflection of the current gout care delivered by health professionals.

Objectives: To examine the levels of compliance and persistence to commonly prescribed ULT for the treatment of hyperuricemia and gout in the Netherlands.

Methods: Anonymous medication prescription records were obtained from IQVIA's longitudinal prescription database in The Netherlands, containing ULT dispensing data (allopurinol, febuxostat and benzbromarone) from November 2013 to July 2017. Compliance to ULT was determined by calculating the proportion of days covered (PDC) over a period of 12 consecutive months. Good compliance was defined as a PDC ≥ 0.80 . Persistence over 12 months was evaluated by determining the time to discontinuation, without surpassing a refill gap of >30 days. The association of PDC and persistence with age, gender and first prescriber were examined using beta regression- and cox-regression models, respectively.

Abstract SAT0357 – Table 1. Variables associated with PDC

	Univariate analyses			Multivariate analyses ¹		
	Gender	Age	Prescriber	Gender	Age	Prescriber
β -coefficient	-0.044*	0.011**	0.336**	-0.127**	0.012**	0.348**
SE	0.014	<0.000	0.015	0.014	<0.000	0.015
Pseudo R ²	<0.000	0.011	0.011	0.024	0.024	0.024

¹ Model: PDC~gender+ age+prescriber. *p<0.01; **p<0.001; SE, standard error; PDC, proportion of days covered.

Abstract SAT0357 – Figure 1. Survival curves of persistence of ULT drugs one year after initiation of treatment.

Results: In total, 45 654 patients were identified meeting the enrollment criteria, of which 76.1% were male. The initial ULT drug prescribed most frequently among general practitioners and rheumatologists was allopurinol 100 mg, 75.9% and 72.1%, respectively. In total, 51.7% of the cases had good compliance after one year. The median time to discontinuation was 248 days, and after one year 42.7%

of the cases were still persistent. In general, men, older patients and patients whose first prescriber was a rheumatologist were more persistent, and had a higher PDC, although effect sizes were modest (table 1 and Abstract SAT0357 – figure 1).

Conclusions: Our results show that medication adherence to ULT after one year is suboptimal, considering that current guidelines recommend ULT as a life-long treatment. Future studies addressing the reasons for treatment cessation and improving treatment adherence are warranted.

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SAT0358

DIABETES AND GOUT: REAL-WORLD EVIDENCE EVALUATING PATIENT CHARACTERISTICS, TREATMENT PATTERNS, AND HEALTH CARE UTILISATION

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Background: Gout and type 2 diabetes mellitus (T2DM) are common in the United States (US), but little is known about potential associations of T2DM and hyperuricemia/gout with clinical outcomes. This study examined variations in gout severity, management, and health care utilisation among gout patients with and without T2DM.

Methods: Data were assessed from a survey of US physicians and patient chart audits. Participating physicians managed the care of ≥ 50 patients with gout annually; chart audits were of their last 5 consecutive adult patients with confirmed gout. Gout severity was measured by physician global assessment, flares, organ/joint damage, and tophi. Treatment characteristics, presence of clinician-confirmed T2DM, and socio-demographics were identified. Descriptive and multivariate (stepwise logistic regression) statistics analysed the differences among gout patients with and without clinician-confirmed comorbid T2DM and assessed urate-lowering therapy (ULT) use and gout control.

Results: Overall, 1159 charts of patients with gout were abstracted (246 with T2DM, 913 without T2DM; 81% male; 71% Caucasian); the proportion of patients aged ≥ 61 with gout was greater for those with T2DM than without T2DM (69% vs 31%; p<0.01). Patients with gout and T2DM had longer mean duration of gout (63 vs 41 months), were more likely to have tophi (37% vs 20%), joint damage (24% vs 13%), and clinician-rated severe gout (27% vs 13%) than those without T2DM (all p<0.01). Patients with gout and T2DM were also more likely to receive ULT than those without T2DM (86% vs 71%; p<0.01), and among those patients with gout and T2DM receiving allopurinol, mean daily doses were not significantly different (321 mg vs 298 mg; p=0.17). Gout patients with T2DM were more likely to have additional comorbidities (cardiovascular disease, kidney disease, COPD, depression, diabetes, hyperlipidemia, hypertension, obesity, prostate problems [men]) and have chronic pain than those without T2DM (all p<0.05). On average, gout patients with T2DM vs. those without T2DM reported more office visits (4.1 vs 3.5), were more likely to have an emergency department visit (17% vs 9%) and were more likely to have a hospitalisation (5% vs 2%) (all p<0.01). In both groups, ULT use was associated with better gout control, but the specific factors predictive of ULT use and disease control varied between those with and without T2DM.

Conclusions: Gout patients with T2DM were more likely to have a greater impact on health system utilisation and spending, with additional comorbidities and more severe gout than those without T2DM. These data suggest that patients with gout and T2DM constitute a less healthy group in need of careful monitoring and more aggressive gout management.

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