Management of Uncontrolled Gout Among Nephrology Professionals: Findings from a Medical Chart Audit

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Poster # TH-PO1079

CONCLUSION

- This study highlights that patients with uncontrolled gout (UG) and Stage 3b CKD face persistently high sUA levels and symptomatic burden despite available urate lowering therapies (ULTs), resulting in increased ER/hospital visits and reduced quality of life.
- The findings underscore unmet need for treatments that adequately manage the existing disease burden (dose-titration, compliance support, treat-to-target), patient education and access to new therapies suitable for patients with UG and CKD.

- UG, also referred to as chronic refractory gout, is characterized by having persistently high sUA levels (sUA ≥6.0 mg/dL) and clinical symptoms despite the use of oral ULTs.[1] UG can lead to increased morbidity among other outcomes.[1] An estimated 2% of gout patients have UG.[2]
- Patients with CKD have a 5x higher prevalence of gout than those without CKD; one study reported that the prevalence of stage ≥2 CKD among patients with gout is over 70%.[3]
- Managing gout in patients with CKD is complex due to limited treatment options and challenges in maintaining target sUA levels as kidney function declines.[3]

OBJECTIVES

- To describe the current management and treatment patterns, unmet needs, and presentation of UG in patients with Stage 3 CKD managed by nephrologists in the US.

METHODS

- A retrospective medical chart audit and physician perception survey of patients with UG was conducted in the US from March to June 2024 via a web-enabled case report form.
- Participants were US board-certified rheumatologists and nephrologists with ≥3 years' experience, managing ≥25 gout patients (≥5 with UG) in the past year.
- Physicians completed an online survey related to their perceptions of UG management and treatment using a 1-7 Likert scale.
  - Scores ≥6 indicate higher/strong satisfaction or agreement, while scores <6 indicate lower/moderate satisfaction or agreement.
- Data was abstracted from charts of individuals with ≥12-month history of uncontrolled gout, who experienced gout-related symptoms within that time period and had sUA levels >6 mg/dL.
- Key variables: patient demographics, disease characteristics, treatment history and experience, compliance, and healthcare resource utilization.
- Descriptive analysis conducted using Q Research Software v5.12.4.0

RESULTS

Sample Description

- A total of 75 nephrologists abstracted medical records of 202 patients with UG. **(Table 1)**
- Of these patients, 95% (192/202) presented with CKD, with 31% (60/192) classified as Stage 3b. **(Table 1)**

Table 1: Physician Demographics (N=75)

Number of Years as a Practicing Physician	
Mean (SD)	17.5 years (7.3)
Primary Practice Setting (% of physicians)	
Single-specialty group practice	56%
Multi-specialty group practice	24%
Academic / Teaching Hospital	13%
Solo private practice	5%
Local or Community Hospital	1%
Primary Practice Location (US) (% of physicians)	
Urban	71%
Suburban	27%
Rural	3%
Number of Gout Patients Managed per Physician in the Last 12 Months	
Mean (SD)	121.5 (184.0)
Number of UG Patients Managed per Physician in the Last 12 Months	
Mean (SD)	51.8 (41.8)

Note: continuous variables presented as mean (SD); discrete data presented as column percents.

- At initial gout diagnosis, most patients experienced high disease burden. **(Table 2)**
- About a third or more of patients had additional comorbidities, outside of renal impairment **(Table 2)**

Table 2: Demographics and Clinical Characteristics of Patients with UG and Stage 3b CKD (N = 60)

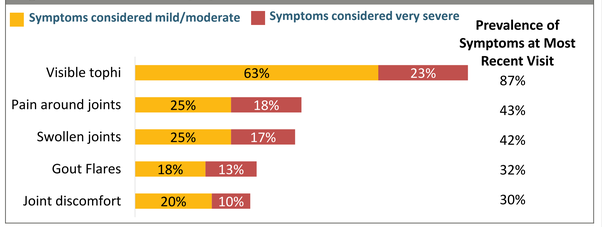
Age (Mean (SD))		**Current sUA Level** (Mean (SD)]	
At initial gout diagnosis	48.8 (11.2)	Mean (SD)	9.2 mg/dL (1.3)
Sex (% of patients)		**Most Common Symptoms at Initial Gout Diagnosis** (% of patients)*	
Male	78%	Swollen joints	78%
Race (% of patients)*		Gout flares	76%
White	55%	Visible tophi	75%
Non-White	42%	Joint pain	72%
I do not know	3%	Joint discomfort	69%
Number of Years from Gout Diagnosis to Most Recent Visit		**Most Common Comorbidities at Most Recent Visit** (% of patients)*	
Mean (SD)	7.1 years (6.6)	Hypertension	48%
sUA Level at Initial Gout Diagnosis (Mean (SD))		Obesity	35%
Mean (SD)	9.5 mg/dL (1.0)	Diabetes	32%
sUA Level at Most Recent Visit (Mean (SD))		Hyperlipidemia	27%
Mean (SD)	8.2 mg/dL (0.8)		

*Categories sum to >100% as these are multiselect questions given that patients may have more than one race or multiple symptoms/comorbidities

Symptom Burden at Most Recent Visit

- At their most recent visit, patients experienced multiple symptoms with most being reported as very severe. **(Figure 1)**

Figure 1: Gout Related Symptoms at Most Recent Visit

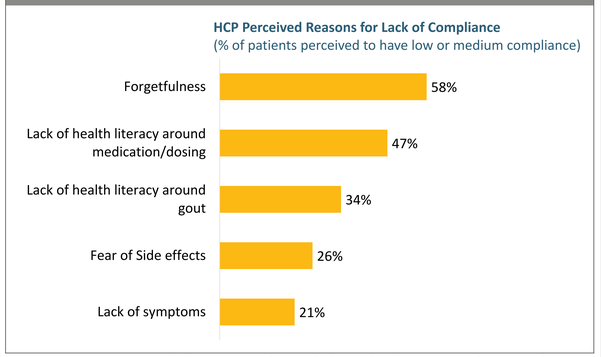


Note: "Symptoms Considered Very Severe" depicts the percentage of HCPs rating 6-7 on scale of severity where 1="Not at all severe" and 7="Extremely severe" per patient chart.

UG Treatment Experience

- In the 12 months prior to the study, 60% of patients received allopurinol (50 - 800 mg); other ULTs included febuxostat (35%), colchicine (18%), and pegloticase (7%).
- Regardless of treatment type, only 37% of patients were deemed compliant (≥75% adherence) with their most recent ULT by their nephrologist.
- Among non-compliant patients, forgetfulness (58%) was the most cited reason for poor adherence to ULT, as reported by HCPs. **(Figure 2)**

Figure 2: Reasons for Lack of Compliance

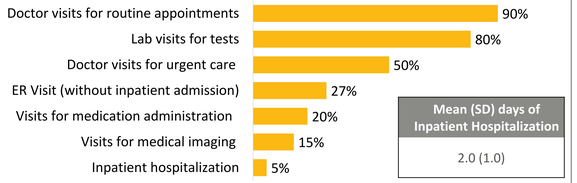


Note: categories sum to >100% due to question being asked as multiselect to account for patients having more than one reason for lack of compliance

Healthcare Resource Utilization and Monitoring

- In the 12 months prior to the study, 27% of patients had gout-related ER visits and 5% were hospitalized for a mean of 2 days (SD: 1). **(Figure 3)**

Figure 3: UG Related Healthcare Utilization within 12 Months Prior to Chart Abstraction

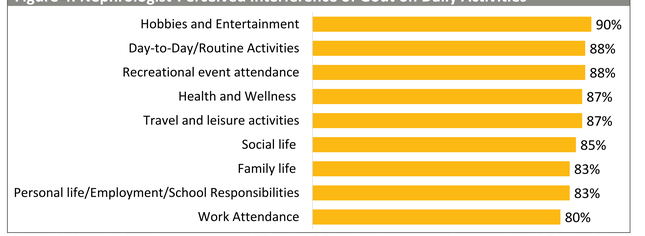


Note: categories exceed 100% as responses were multiselect to reflect various visit types.

Nephrologist Perception of UG Burden and UG Treatment

- Nephrologists indicated that due to gout, 98% of patients experience at least a moderate impact on their quality of life and many experience at least moderate interference in their daily activities. **(Figure 4)**
- Most nephrologists (93%) expressed a need for more suitable treatment options for patients with UG and Stage 3b CKD.

Figure 4: Nephrologist-Perceived Interference of Gout on Daily Activities



Note: this figure depicts the percentage of HCPs rating 3-7 to the above categories on a scale of 1-7 where 1 is "Does not interfere at all with my patient's ability to perform" and 7 means "Completely interferes with my patient's ability to perform"

Limitations

- Participants may be subject to recall bias, and the results may not be representative of all nephrologists treating gout patients.

Acknowledgments

- The authors wish to acknowledge Sandra Cox (Sobi) for publication coordination. This poster was developed by the authors in accordance with Good Publication Practice 2022 guidelines (https://www.ismpp.org/gpp-2022). Sobi reviewed and provided feedback on the poster. The authors had full editorial control and provided their final approval of all content.

Funding

- This study was funded by Sobi Inc.

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Disclosures: **NK:** employee of Sobi; **BD, AO:** employees of Sobi Inc.; **KS, HC:** consultants for Sobi Inc.; **AA, AG, BS:** employees of Trinity Life Sciences; **AA,:** equity in Trinity Life Sciences. Medical writing and editorial assistance, funded by Sobi, were provided by Trinity Life Sciences, Waltham, MA, USA.