

Background

- Gout is the most common inflammatory arthritis with a prevalence of 3.8% in British Columbia (BC)¹
- Suboptimal quality of care of gout has called for novel models of care delivery
- An interdisciplinary care model for gout, supported by eHealth, offers promising solution to improving patient outcomes

Objective

- To pilot the feasibility of a collaborative care model for gout involving rheumatology, pharmacy, and dietetics
- Use shared access of **electronic medical records (EMRs)** to facilitate communication on patient care

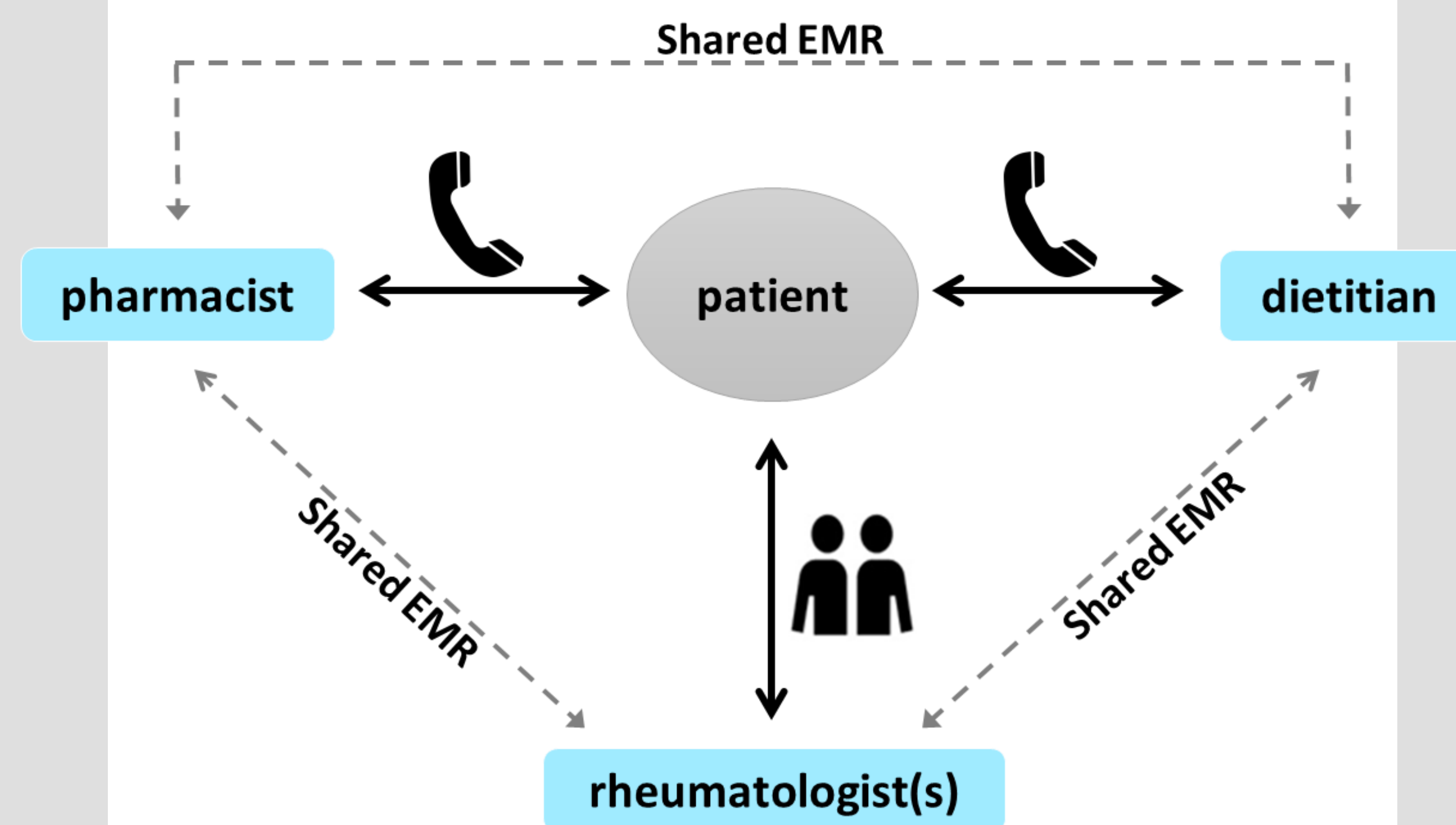
Design

- 1-year proof-of-concept observational study

Patient eligibility

- Gout diagnosis for ≥ 1 year by rheumatologist
- ≥ 19 years of age
- ≥ 1 flare in the past year
- Serum uric acid (SUA) level $> 360 \mu\text{mol/L}$ within last 2 months

Virtual Gout Clinic Study (VGCS)



8 Rheumatologists in 4 participating practices across BC
-see gout patients in-person as needed basis

Pharmacist coordinator

-provides monthly medication management via phone, titrate medications, order and assess lab results, assess adherence

Dietitian

-provides one phone counselling session on diet and lifestyle

Information sharing facilitated by EMR (Plexia)

- Patient profile
- Clinical notes
- Laboratory, imaging requisitions and results
- Prescription fills (rheumatologists & pharmacist only)

Communications

- Inter-provider memos

Outcomes

Primary outcome: SUA levels; % achieving SUA $< 360 \mu\text{mol/L}$ at 12 months

Secondary outcomes: Assessed at baseline, 3, 6, and 12 months

- Frequency of acute gout flares
- Functional status (HAQ)
- Quality of life (EQ-5D)
- Medication adherence (CQR5)

Results

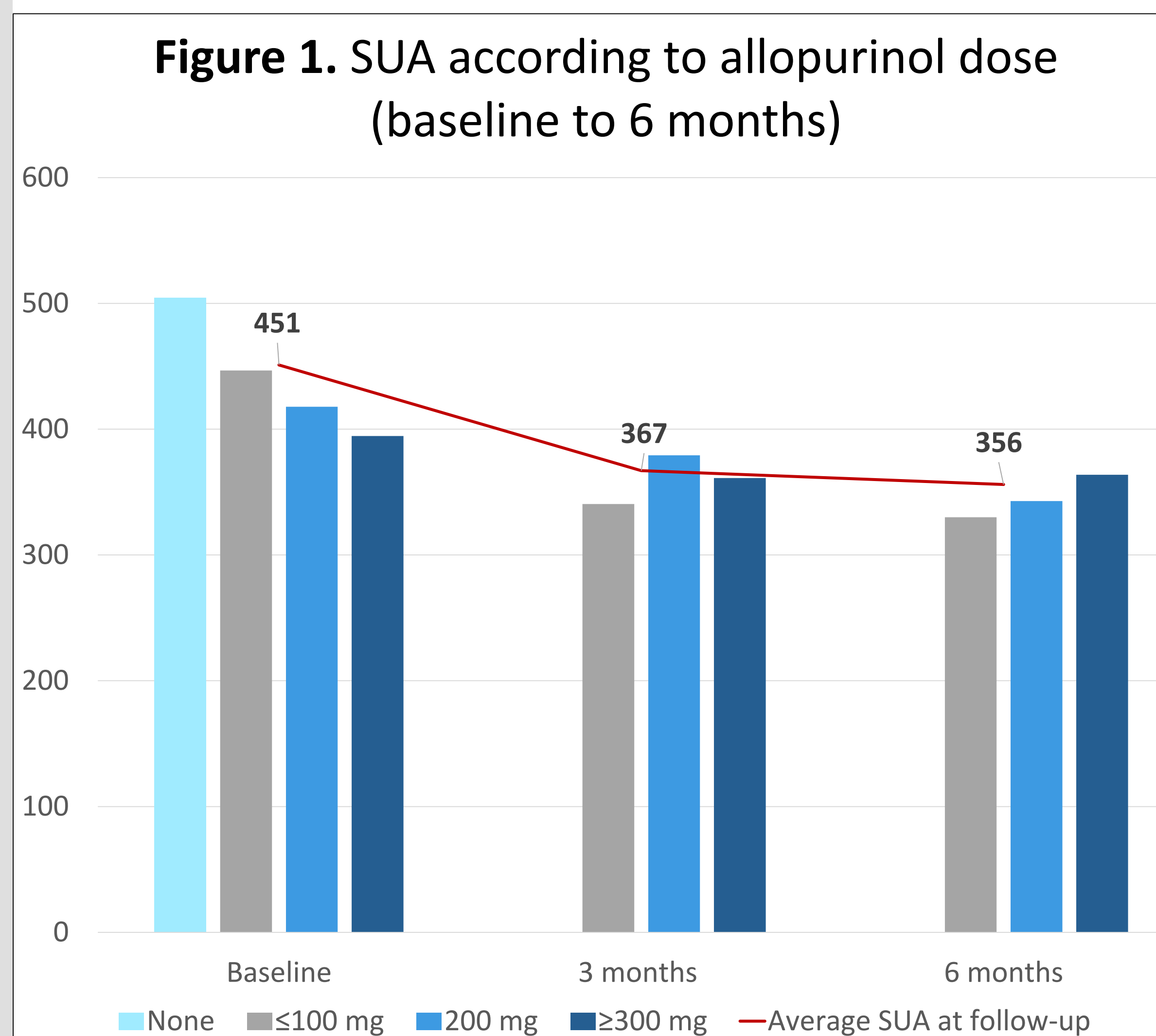
Table 1. Characteristics at baseline and 6 months

Parameter	Baseline	6 months
Participants	33	28
Males	29 (88%)	25 (89%)
Urate-lowering therapy (ULT) prescribed (n(%))	22 (67%)	28 (100%)
Allopurinol (n(mean))	21 (218mg)	27 (300mg)
Febuxostat (n(mean))	1 (80 mg)	1 (80 mg)
SUA (mean)	451 $\mu\text{mol/L}$	356 $\mu\text{mol/L}$
CQR5 Adherence (%)	57%	73%



26% participants with SUA $< 360 \mu\text{mol/L}$ at baseline

71% participants with SUA $< 360 \mu\text{mol/L}$ at 6 months



Anecdotal Interventions

- 4 ULT medication restart for non-adherent patient
- 4 prescription renewals using electronic communications
- 12 discontinuations of unnecessary medications



126
pharmacist consults



24
dietitian consults



15
ULT up-titrations (n= patients)

Conclusion

Findings provide preliminary evidence for the feasibility and effectiveness of the VGCS.

- established the shared EMR framework to facilitate communication and collaborative care
- declining SUA over follow-up to 6 months and improved adherence

References

- Rai SK, Aviña-Zubieta JA, McCormick N, De Vera MA, Shojania K, Sayre EC, et al. The rising prevalence and incidence of gout in British Columbia, Canada: Population-based trends from 2000 to 2012. Seminars in Arthritis and Rheumatism.

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