

Table 2. Feasibility of EMR Data for Gout QI Assessment

Quality Indicator	Operationalizing QI # Potential EMR Variables Identified	Assessing Feasibility of EMR for QI Assessment			Comparison with Administrative Data		
		# Patients with Data to Assess QI Eligibility	# Patients QI Pertains to	Availability of EMR Data (%)	Mikuls 2005(4) (GPRD)	Singh 2007(5) (VA)	Kerr 2015(9) (VA)
1 IF a gout patient is given allopurinol <i>and</i> has significant renal impairment THEN dose allopurinol at <300 mg/day	26	36	52	69%	assessed	assessed	assessed
2 IF a gout patient is given a xanthine oxidase inhibitor <i>and</i> either 1) AZA or 2) 6-MP, THEN reduce dose of AZA/6-MP by ≥50%	24	+	+	*	assessed		
3 IF a tophaceous gout patient is given ULT <i>and</i> lacks both 1) renal impairment and 2) peptic ulcer disease, THEN give prophylactic anti-inflammatory agent	39	11	14	79%			
4 IF a patient has asymptomatic hyperuricemia characterized by 1) no gouty arthritis or tophi, 2) no nephrolithiasis or hyperuricosuria, <i>and</i> 3) no malignancy treatment, THEN do not give ULT	27	-	-	not feasible	assessed		
5 IF a gout patient is given ULT <i>and</i> has either 1) nephrolithiasis or 2) renal insufficiency, THEN give xanthine oxidase inhibitor rather than uricosuric agent	32	40	57	70%			
6 IF hyperuricemia patient has gouty arthritis characterized by 1) tophi or 2) gouty erosive changes on xrays, <i>or</i> 3) ≥2 gout attacks per year, THEN give ULT	35	-	-	not feasible			
7 IF a gout patient is given a prescription for a xanthine oxidase inhibitor, THEN check SUA at least once during the first 6 months	21	29	35	83%		assessed	assessed
8 IF a gout patient has 1) obesity or 2) frequent alcohol use, THEN provide	31	10	125	8%			assessed

	counselling on lifestyle modifications								
9	IF a patient has acute gouty arthritis <i>and</i> no 1) significant renal impairment and 2) peptic ulcer disease, THEN give an anti-inflammatory agent	20	+	-	not feasible				
10	IF a gout patient receives prophylactic colchicine <i>and</i> has renal insufficiency, THEN do CBC and CK at least once every 6 months	30	8	12	75%		assessed	assessed	

Abbreviations: *AZA* – azathioprine; *6-MP* – 6-mercaptopurine; *ULT* – urate-lowering therapy; *SUA* – serum uric acid; *CBC* – complete blood cell count; *CK* - creatine kinase; *GPRD* – UK General Practice Research Database; *VA* – US Veterans’ Affairs Database

+: translated into EMR variables;

-: could not translate into EMR variables;

*Could not assess *QI 2* as study cohort did not include gout patients with xanthine oxidase inhibitor prescription with *AZA* or *6MP* prescription