ACR 7: Gout: Serum Urate Target

**Measure Type:** Process

**NQS Domain:** Clinical Process/Effectiveness

**Description:**
Percentage of patients aged 18 and older with a diagnosis of gout treated with urate-lowering therapy (ULT) for at least 12 months, whose most recent serum urate result is less than 6.8 mg/dL.

**Denominator:**
Adult patients aged 18 and older with a diagnosis of gout treated with urate lowering therapy (ULT) for at least 12 months.

**Denominator Exclusions:**
Patients with a history of solid organ transplant

**Denominator Exceptions:**
Documentation of medical reason(s) for not expecting a serum urate target level of < 6.8 mg/dL (ie, any eGFR level < 30 mL/min or Stage 3 or greater chronic kidney disease in the measurement year or year prior)

**Numerator:**
Patients whose most recent serum urate level is less than 6.8 mg/dL

**Rationale:**
Patients with hyperuricemia are subject to recurrent gout flares and formation of tophi, which can lead to joint and other tissue damage. Urate lowering therapy reduces the frequency of acute gouty attacks [1,2] and reduces the rate of growth of tophi and decreases the size of tophi [5].

For patients with indications for serum urate lowering therapy, after starting therapy, the goal of treatment is serum urate < 6 mg/dl. Lower serum urate levels are associated with fewer acute gout attacks [3] and decreased formation (and improvement) of tophi [4]. Patients on ULT that do not achieve target serum urate < 6 mg/dl are 75% more likely to flare than patients who reach target [5].

The American College of Rheumatology (ACR) guidelines on gout recommends that if a patient with gout has been treated with urate lowering therapy for at least 12 months, then the serum urate should be checked at least once yearly and the most recent serum urate should be < 6.8 mg/dl.

As a quality measure, the ACR quality improvement panel recommended a less stringent target and selected the solubility concentration of urate 6.8 mg/dl for a quality target.


**Clinical Recommendation Statement:**

The 2012 American College of Rheumatology Guidelines for Management of Gout. Part 1: Systematic Nonpharmacologic and Pharmacologic Therapeutic Approaches to Hyperuricemia recommend that all gout patients with indications for ULT should have their serum urate lowered to 6 mg/dl. Serum urate is the hemoglobin A1C of gout. Lower levels of serum urate are associated with less frequent gout attacks and reduction of tophaceous deposits. Based on feedback from public comment and expert panel, the less stringent level of 6.8 mg/dl cut-off was used to evaluate quality of care. 6.8 mg/dl is the solubility concentration of urate crystals. Serum urate responds to changes in urate lowering therapy within 14-days. The Guidelines recommends dose titration every 2-5 weeks. Twelve months was selected as sufficient time to achieve serum urate target, evidence Level C.