

**Acute Gout, Recurrent Gout, Severe Hypertension**

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**A Question from a Colleague and from the Guidelines**

**1) Diagnosis and Treatment of Acute Gout**

**Question:** I've already seen my first case of acute "post-Thanksgiving gout." Anything new regarding management?

**Answer:** While there are no new guidelines regarding gout, this question provides a wonderful opportunity for a review of a common and often misunderstood malady. Gout is one of the most common forms of inflammatory arthritis, caused by accumulation of excess monosodium urate crystals in joint fluid, cartilage, bones, tendons, bursas, and other sites. An estimated 4% of adults report being told that they had gout. In some patients, the frequency and duration of acute attacks can increase over time and lead to chronic gout, which may be associated with the development of tophi. Risk factors for gout include overweight or obesity; HTN, alcohol intake; diuretic use; a diet rich in meat, seafood, and fructose; and poor kidney function.

The American College of Physicians (ACP) published the most recent national guidelines regarding gout in 2016. For the treatment of an acute flare, the recommendations include:

**Diagnosis:**

- *Use synovial fluid analysis when clinical judgment indicates that diagnostic testing is necessary in patients with possible acute gout. (Grade: weak recommendation, low-quality evidence)*

**Treatment:**

- *Choose corticosteroids, NSAIDs, or colchicine to treat patients with acute gout. (Strong/high-quality)*
- *Use low-dose colchicine when using colchicine to treat acute gout (1.2 mg, then 0.6 mg 1 hour later). (Strong/moderate-quality)*

Treatment should start as soon as possible after the onset of symptoms, which means that for patients with an established gout history, they should have the medications readily available. More rapid and complete resolution of symptoms occurs the earlier that treatment is introduced, especially if treatment is initiated at the full recommended dose of the chosen anti-inflammatory agent. Present evidence indicates all NSAIDs are equally effective at their anti-inflammatory dose.

Patients should be continued on treatment for the duration of the flare, usually at reduced doses once a significant reduction in symptoms is achieved. Complete cessation of treatment for a flare can usually be safely done within two to three days of complete resolution of symptoms. Total duration of therapy may range from only a few days (eg, in a patient treated within hours of symptom onset) to several weeks (eg, in a patient begun on treatment after four or five days of symptoms).

### **My Comment:**

Note that NSAIDs appear equally effective in optimum doses for treatment of acute gout. I see many clinicians using indomethacin for gout when they don't use it for anything else, likely out of "habit" and training. In communicating with Dr. Adegbenge Bankole, who is the Section Chief for Rheumatology at Carilion Clinic, he indicated that his group does not use indomethacin due to its hazardous side effect profile compared with other options. Note as well that "pushing colchicine to diarrhea," which some may have learned during their training, is discouraged.

### **References:**

- Qaseem A, et al. Diagnosis of Acute Gout: A Clinical Practice Guideline From the American College of Physicians (ACP). Ann Int Med 1 November 2016. [Guideline](#)
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## **From the Guidelines**

### **2) Management of Recurrent Gout**

In the 2016 American College of Physicians (ACP) guideline on gout, they also provided recommendations for management beyond the acute phase. These recommendations included:

#### **Treatment:**

- *Do not initiate long-term urate-lowering therapy in most patients after a first gout attack or in patients with infrequent attacks. (Strong/moderate)*
- *Discuss benefits, harms, costs, and individual preferences with patients before initiating urate-lowering therapy, including concomitant prophylaxis, in patients with recurrent gout attacks. (Strong/moderate)*

The ACP guidelines turn away from "treat-to-target" emphasis on controlling serum uric acid (SUA) levels to < 6 and recommend that for most patients, clinicians focus on relieving acute gout symptoms rather than addressing underlying urate pathophysiology, citing insufficient evidence. "Although there is an association between lower urate levels and fewer gout flares, the extent to which use of urate-lowering therapy to achieve various targets can reduce gout flares is uncertain."

This guideline generated some heated editorial response, and in particular regarding no recommendation to "treat-to-target" of 6.0 for uric acid. The committee responded that they chose to adhere to strict standards for guidelines and that the American College of Rheumatology (ACR) recommendation regarding this was based on the consensus of an expert panel which did not meet those standards.

For the management of recurrent gout the ACR recommends the following:

- Indications for urate lowering therapy (ULT) include
  - Frequent attacks of acute gouty arthritis (2 or more attacks in 12 months)
  - Tophus or tophi on clinical examination or imaging
  - Chronic kidney disease stage 2 or worse or past urolithiasis
- Xanthine oxidase inhibitor (XOI) therapy with either allopurinol or febuxostat (Uloric) is recommended as the first-line pharmacologic urate-lowering therapy.
- The starting dosage of allopurinol should be no greater than 100 mg/day and less than that in moderate to severe chronic kidney disease (CKD), followed by gradual

upward titration of the maintenance dose, which can exceed 300 mg daily even in patients with CKD.

- Combination ULT with 1 XOI agent and 1 uricosuric agent (probenecid) is appropriate when the urate target has not been met by appropriate dosing of an XOI.
- Pegloticase (Krystexxa) is appropriate for patients with severe gout and refractoriness to, or intolerance of, appropriately dosed oral ULT options.
- The established pharmacologic urate-lowering therapy should be continued, without interruption, during an acute attack of gout.
- Pharmacologic anti-inflammatory prophylaxis is recommended for all gout patients when pharmacologic urate lowering therapy (ULT) is initiated. Low dose NSAIDs or Colcrys (colchicine) are an appropriate choice. General guidelines include:
  - Non-tophaceous gout: Uric acid target **less than 6 ml/dl** with continued prophylaxis for 3 months after target has been reached.
  - Tophaceous gout: Uric acid target **less than 5 ml/dl** with continued prophylaxis for 6 months after target has been reached.

### **My Comment:**

It is certainly not “wrong” to treat an elevated uric acid level in a patient, particularly if they have recurrent symptoms. However, the ACP guideline acknowledges that, like many other things we do in medicine, we really aren’t sure if doing so really helps, and it may even possibly cause harm. My experience is that most patients who are started on XOI are not followed-up for serum uric acid monitoring. Note that generic colchicine is available from GoodRx for \$13 for a month supply.

### **References:**

- Qaseem A, et al. Management of Acute and Recurrent Gout: A Clinical Practice Guideline From the ACP. Ann Int Med 1 November 2016. [Guideline](#)
- 2012 American College of Rheumatology Guidelines for Management of Gout. Parts 1 and 2. Arthritis Care & Research Vol. 64, No. 10, October 2012. [Guideline](#)

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## **From the Literature and a Request From a Colleague**

### **3) Managing Asymptomatic Significantly Elevated Blood Pressure**

It is not unusual for patients to present to our offices with or call in about significantly elevated blood pressure measurements. Severe hypertension in an adult is typically defined as systolic blood pressure  $\geq 180$  mmHg and/or diastolic blood pressure  $\geq 120$  mmHg. Patient in this range who are demonstrating symptoms or signs of end-organ damage (ie, sx of acute stroke, cardiac ischemia, pulmonary edema, encephalopathy, or congestive heart failure) require immediate intervention for what is defined as a hypertensive emergency. This has previously been described as malignant HTN.

More commonly patients with severe HTN are asymptomatic or have only a mild headache. In these situations, the patients are more appropriately classified as having hypertensive urgency. Clinical practice varies widely as to how they manage these patients, based on both patient comorbidities and setting (ED vs outpatient).

The American College of Emergency Physicians (ACEP) released a policy guideline regarding this group of patients in 2013 looking at two questions:

- In ED patients with asymptomatic elevated blood pressure, does screening for target organ injury reduce rates of adverse outcomes?

**Answer:** Patients with asymptomatic markedly elevated blood pressure do not benefit from routine screening for acute target organ injury (eg, serum creatinine, urinalysis, ECG). Select patients (those with poor follow up) may benefit from testing (level C).

- In patients with asymptomatic markedly elevated blood pressure, does ED medical intervention reduce rates of adverse outcomes?

**Answer:** Emergent intervention does not reduce the rates of adverse outcomes

The literature supports that patients with severe HTN who do not have symptoms of end-organ damage can be managed in the outpatient setting. These patients will still benefit from lowering blood pressure, but does not need to be done emergently. Blood pressure should be lowered no more than 25-30% of baseline blood pressure over the first 24-48 hours to avoid complications of potential hypoperfusion. This can be accomplished with initiation/modification of oral medications. IV medications are not necessary and can be dangerous. Thought it may not be accomplished, the target blood pressure is 160/95 by 48 hours.

#### **My Comment:**

The request for this Pointer came from our Carilion Chair of Emergency Medicine due to some patterns he was seeing in our emergency departments. My thanks to Drs. Amanda Pallone and Jonathan Stewart, who serve as co-Chairs of our Departmental Quality Committee, for their initial review of the literature on this topic. It should be noted **there is no support in the literature for the need for “immediate” (in the office) initiation of treatment** for patients with hypertensive urgency, and this practice is strongly discouraged.

#### **References:**

- Patel KK, et al. Characteristics and Outcomes of Patients Presenting With HTN Urgency in the Office Setting. JAMA Intern Med 2016 Jul 1;176(7):981. [Link](#)
- Wolf SJ, et al. Critical Issues in the Evaluation and Management of Adult Patients in the ED With Asymptomatic Elevated BP. Ann Emerg Med. 2013;62:59-68. [Link](#)

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*Mark*

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