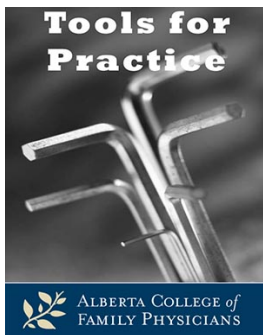


**Tools for Practice** is proudly sponsored by the Alberta College of Family Physicians (ACFP). ACFP is a provincial, professional voluntary organization, representing more than 4,000 family physicians, family medicine residents and medical students in Alberta. Established over fifty years ago, the ACFP strives for excellence in family practice through advocacy, continuing medical education and primary care research. [www.acfp.ca](http://www.acfp.ca)

**Reviewed: December 9, 2014**  
**Evidence Updated: Cochrane review but no new RCTs**  
**Bottom Line: Wording Change**  
**First Published: November 29, 2011**



**Is colchicine an effective alternative to NSAIDs for the treatment of acute gout?**

**Clinical Question: For patients with acute gout, is colchicine an effective treatment, and when would its use be indicated?**

**Bottom-Line: Colchicine is a reasonable option for the treatment of acute gout, especially in patients in whom NSAIDs are contraindicated. Optimal dosing that balances treatment benefit with potential adverse events still remains to be determined, but low dose is recommended.**

**Evidence:**

- A Cochrane review<sup>1</sup> of two randomized controlled trials (RCTs) provides the best-available evidence to answer this question. The two RCTs are described separately:
  - Industry-funded trial<sup>2</sup> with unclear risk of bias:
    - Population: 575 patients with gout randomized in a blinded fashion to low- or high-dose colchicine or placebo for the next gout attack (185 patients had a gout attack requiring study drug).
    - Interventions:
      - Low-dose: 1.2 mg, then 0.6 mg one hour later (1.8 mg total)
      - High-dose: 1.2 mg, then 0.6 mg every one hour x 6 hours (4.8 mg total).
    - Primary outcome: Achieved  $\geq 50\%$  reduction in pain at 24 hours without use of 'rescue' medicine.
      - Statistically significant benefit with low-dose colchicine vs. placebo (37.8% vs. 15.5%, Number Needed to Treat (NNT)=5).
      - No difference between low- and high-dose colchicine (37.8% vs. 32.7%).
    - Adverse events:
      - Low-dose colchicine had statistically significantly fewer adverse events than high-dose.
        - Diarrhea: 26% vs. 77%, NNT=2.
        - Nausea: 4% vs. 17%, NNT=8.
  - The only other placebo-controlled trial<sup>3</sup> of colchicine for acute gout showed a similar benefit (NNT=3), however:

- High-dose regimen (1 mg, followed by 0.5 mg every two hours until complete pain relief or adverse events) resulted in 100% adverse event rate (vomiting or diarrhea).

**Context:**

- The latest guidelines<sup>4</sup> recommend low-dose colchicine, NSAIDs, or oral corticosteroids for acute gout.
- No published studies have directly compared colchicine to NSAIDs or corticosteroids,<sup>1</sup> and no specific NSAID appears superior to another NSAID in treating acute gout.<sup>5</sup>
- Caution is recommended when using:
  - NSAIDs in patients with hypertension, cardiovascular or renal impairment, or those at risk of gastrointestinal events.<sup>6</sup>
  - Colchicine in patients with renal or hepatic impairment and patients on CYP3A4 inhibitors (clarithromycin, calcium-channel blockers, oral antifungals, and many more) or P-glycoprotein inhibitors (e.g. cyclosporine).<sup>6,7</sup>

**Original Authors:**

Michael R Kolber BSc MD CCFP MSc, Christina Korownyk MD CCFP

**Updated:**

Ricky D Turgeon BSc(Pharm) ACPR

**Reviewed:**

G Michael Allan MD CCFP

**References:**

1. van Echteld I, Wechalekar MD, Schlesinger N, *et al.* Cochrane Database Syst Rev. 2014; 8:CD006190.
2. Terkeltaub RA, Furst DE, Bennett K, *et al.* Arthritis Rheum. 2010; 62:1060-8.
3. Ahern MJ, Reid C, Gordon TP, *et al.* Aust N Z J Med. 1987; 17:301-4.
4. Khanna D, Khanna PP, Fitzgerald JD, *et al.* Arthritis Care Res. 2012; 64:1447-61.
5. van Durme CM, Wechalekar MD, Buchbinder R, *et al.* Cochrane Database Syst Rev. 2014; 9:CD010120.
6. Keenan RT, O'Brien WR, Lee KH, *et al.* Am J Med. 2011; 124:155-63.
7. e-CPS [Internet]. Ottawa (ON): Canadian Pharmacists Association; c2014 [revised 2014 Sept; cited 2014 Dec 4]. Colchicine (CPhA Monograph) [product monograph].

**Tools for Practice** is a biweekly article summarizing medical evidence with a focus on topical issues and practice modifying information. It is coordinated by G. Michael Allan, MD, CCFP and the content is written by practicing family physicians who are joined occasionally by a health professional from another medical specialty or health discipline. Each article is peer-reviewed, ensuring it maintains a high standard of quality, accuracy, and academic integrity.

The ACFP has supported the publishing and distribution of the Tools for Practice library since 2009. If you are not a member of the ACFP and would like to receive the TFP emails, please sign up for the distribution list at <http://bit.ly/signupfortfp>. Archived articles are available at no extra cost on the [ACFP website](#).

**You can now earn credits on Tools for Practice!** In August 2014, the ACFP launched [GoMainpro, an online accreditation tool](#) to help facilitate MAINPRO® accreditation for the ACFP's Tools for Practice library which has been accredited for Mainpro-M1 credits by the College of Family Physicians of Canada (CFPC). The combination of the CFPC's Direct Entry Program and GoMainpro's tracking and reporting features provide an easy and convenient way to earn Mainpro-M1 credits.

This communication reflects the opinion of the authors and does not necessarily mirror the perspective and policy of the Alberta College of Family Physicians.