



## Back on the stand: Colchicine for secondary cardiovascular prevention update

### CLINICAL QUESTION

### Is colchicine effective for secondary cardiovascular prevention?

### BOTTOM LINE

**For secondary cardiovascular prevention, colchicine 0.5mg provides a relative risk reduction of ~25% in major adverse cardiovascular events but does not affect mortality. While 1 randomized, controlled trial (RCT) reported a neutral effect, overall, pooled effects remain in favour of colchicine for cardiovascular benefit.**

### EVIDENCE

- 17 systematic reviews<sup>1-17</sup> of RCTs published in 2025. Focusing on one including RCTs with  $\geq 12$  months follow-up and reporting absolute event rates for patient-important outcomes in secondary cardiovascular prevention (6 RCTs, 21800 patients, 12-34 months, colchicine 0.5mg daily):<sup>1</sup>
  - Major adverse cardiovascular events (MACE): Composite of cardiovascular death, myocardial infarction, ischaemic stroke, and urgent coronary revascularization.
    - Colchicine 8.2% versus placebo 10.3%; Relative risk reduction (RRR)=25%.
  - No difference in cardiovascular mortality, all-cause mortality or serious adverse events (including infections, hospitalizations for gastrointestinal effects, or cancer).
  - Limitations: 47% not randomized due to gastrointestinal symptoms during open-label colchicine run-in; data limited in stroke patients.

- Results were consistent across RCTs except for the CLEAR-SYNERGY RCT,<sup>18</sup> which showed no effect from colchicine on MACE.
- Other systematic reviews found similar.<sup>2-17</sup>
- CLEAR-SYNERGY RCT (7062 patients) randomized patients to colchicine 0.5mg versus placebo ~27 hours after percutaneous coronary intervention. At 3 years:<sup>18</sup>
  - MACE: No difference.
  - Cardiovascular or all-cause mortality: No difference.
  - Diarrhea: 10% versus 7% (placebo), Number needed to harm=28.
  - Limitations: Potentially underpowered due to underreporting of MACE outcomes during COVID-19 pandemic.<sup>1,18</sup>

## CONTEXT

- Low-dose colchicine is approved by Health Canada in patients with coronary artery disease for reducing atherothrombotic events.<sup>19</sup>
- Canadian, European and American guidelines suggest low-dose colchicine in post-acute coronary syndrome patients.<sup>20-22</sup>
- Cost (3 months): \$90 (0.5mg), \$25 (0.6mg).<sup>23</sup>
- Despite neutral findings of CLEAR-SYNERGY, colchicine appears to lower the risk of cardiovascular events better than (example: ezetimibe, RRR ~6%) or comparably to (examples: acetylsalicylic acid or statins, RRR ~25%) other preventive therapies.<sup>24,25</sup> Of the above, only statins and ASA lower the risk of mortality.

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