

Educational Pearl

Clostridioides difficile Infection – Secondary Prophylaxis

Clostridioides difficile infection (CDI) is a bacterial infection of the colon that arises from gut dysbiosis allowing *C. difficile* to proliferate, germinate, and produce toxin. A common complication of CDI is recurrence with up to 25% of patients experiencing a recurrent episode after initial treatment. Avoiding unnecessary antibiotics in patients with a history of CDI helps prevent recurrence. However, in patients that require antibiotics, are there other ways to help prevent CDI?

What do guidelines recommend?

The 2021 American College of Gastroenterology (ACG) *C. difficile* infection guidelines recommend that oral vancomycin prophylaxis may be considered in patients with a history of CDI and who are high risk for recurrence as secondary prevention. High-risk groups include those aged \geq 65 years or immunocompromised who were hospitalized with severe CDI in the past 3 months. The ACG guideline suggest a dose of 125 mg PO once daily continued for 5 days after stopping non-CDI antibiotics.¹

What is the evidence?

No randomized controlled trials exist, however several retrospective studies have suggested a benefit with secondary CDI prophylaxis. In one study of hospitalized patients with a history of CDI, 71 patients received oral vancomycin prophylaxis while on systemic antibiotics compared to 132 that did not. Recurrent CDI occurred in 3/71 (4.2%) vs 35/132 (26.6%) in the prophylaxis groups and control groups, respectively. In another study, oral vancomycin prophylaxis in patients with a history of CDI was found to be protective against subsequent CDI recurrence in multivariate regression with an adjusted hazard ration of 0.47 (95: CI 0.32 – 0.69).

Key Takeaway: Patients with a history of CDI who require systemic antibiotics may benefit from secondary CDI prophylaxis with oral vancomycin.

References:

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- 3. Carignan A, Poulin S, Martin P, et al. Efficacy of Secondary Prophylaxis With Vancomycin for Preventing Recurrent Clostridium difficile Infections. *Am J Gastroenterol*. 2016;111(12):1834-1840. doi:10.1038/ajg.2016.417