

# Unnecessary antimicrobial use increases risk of recurrent infectious diarrhea

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The impact of antibiotic misuse has far-reaching consequences in healthcare, including reduced efficacy of the drugs, increased prevalence of drug-resistant organisms, and increased risk of deadly infections. A new study featured in the February issue of *Infection Control and Hospital Epidemiology*, the journal of the Society for Healthcare Epidemiology of America, found that many patients with *Clostridium difficile* infection (*C. difficile*) are prescribed unnecessary antibiotics, increasing their risk of recurrence of the deadly infection. The retrospective report shows that unnecessary antibiotics use is alarmingly common in this vulnerable patient population.

*C. difficile* is a bacteria that usually affects people with recent [antibiotic use](#) or hospitalization. The symptoms of *C. difficile* range from mild diarrhea to severe illness and death, and it is now one of the most common healthcare-associated infections. Patients with *C. difficile* often experience recurrent episodes of the infection, especially if they receive antibiotics again in the future.

Researchers at the Minneapolis Veterans Affairs Medical Center reviewed patient cases with new-onset *C. difficile* infection. In total, 57 percent (141) of patients with new-onset *C. difficile* infection received additional antimicrobials during or within 30 days after their initial *C. difficile* treatment, raising their risk of recurrence substantially. From this group, 77 percent received at least one dose of unnecessary antibiotic, and 26 percent of patients received unnecessary antibiotics exclusively. Common reasons noted for unnecessary antibiotic use included [urinary tract infections](#) and pneumonia (despite little-to-no evidence of either being present), inappropriate surgical prophylaxis, and asymptomatic bacteriuria.

"Our findings serve as a reminder to both doctors and patients to use antibiotics only when absolutely necessary, particularly in patients with a history of *C. difficile*," said lead researcher Megan

K. Shaughnessy, MD. "Patients with *C. difficile* are at high-risk for recurrence, especially with additional antibiotic use. Because of this heightened risk, clinicians should be exercising increased caution with antimicrobial therapy."

The researchers advise that providers contemplating antimicrobial therapy should be more aware of the risk of recurrent *C. difficile* with antimicrobial use, [patients'](#) previous *C. difficile* history, and which clinical conditions require antimicrobial therapy.

**More information:** Megan K. Shaughnessy, William H. Amundson, Michael A. Kuskowski, Douglas D. DeCarolus, James R. Johnson, Dimitri M. Drekonja. "Unnecessary Antimicrobial Use in Patients with current or Recent *Clostridium difficile* Infection." *Infection Control and Hospital Epidemiology* 34:2 (February 2013).

Provided by Society for Healthcare Epidemiology of America

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