

Treating Clostridium Infection and Preventing Recurrence

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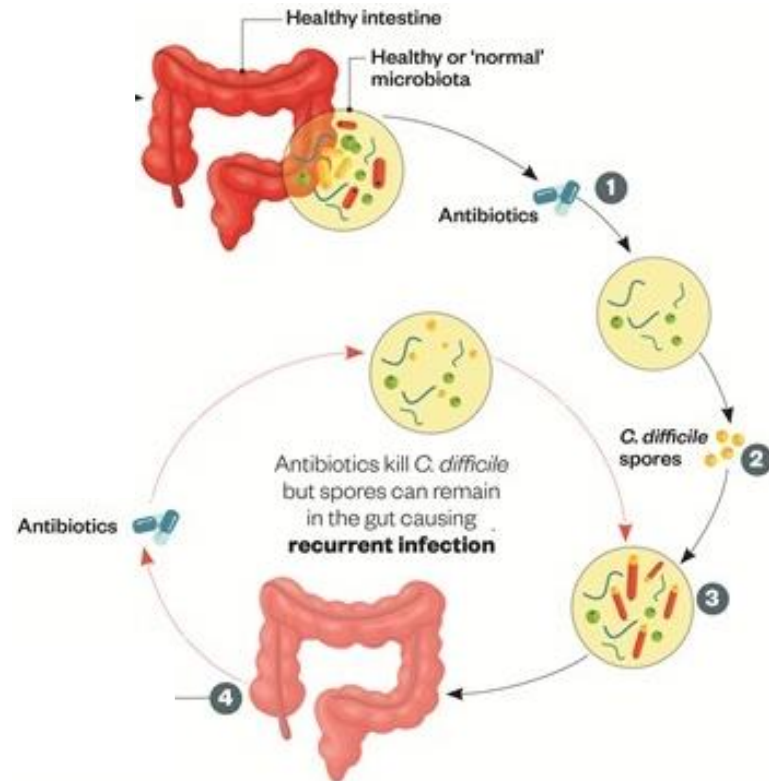
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Clostridium difficile infection (CDI)

- **CDI is the most common cause of antibiotic-associated hospital-acquired diarrhea**
- **More than 100,000 CDI cases among residents of U.S. nursing homes each year**
- **Clinical Problem:**
 - **While discontinuation of the antibiotic is ideal, antibiotic therapy remains the standard due to the severity of the GI disease or other active infections**
 - **Current antibiotic treatments lead to a high rate of relapse**
 - **10-30% recurrence after first CDI**

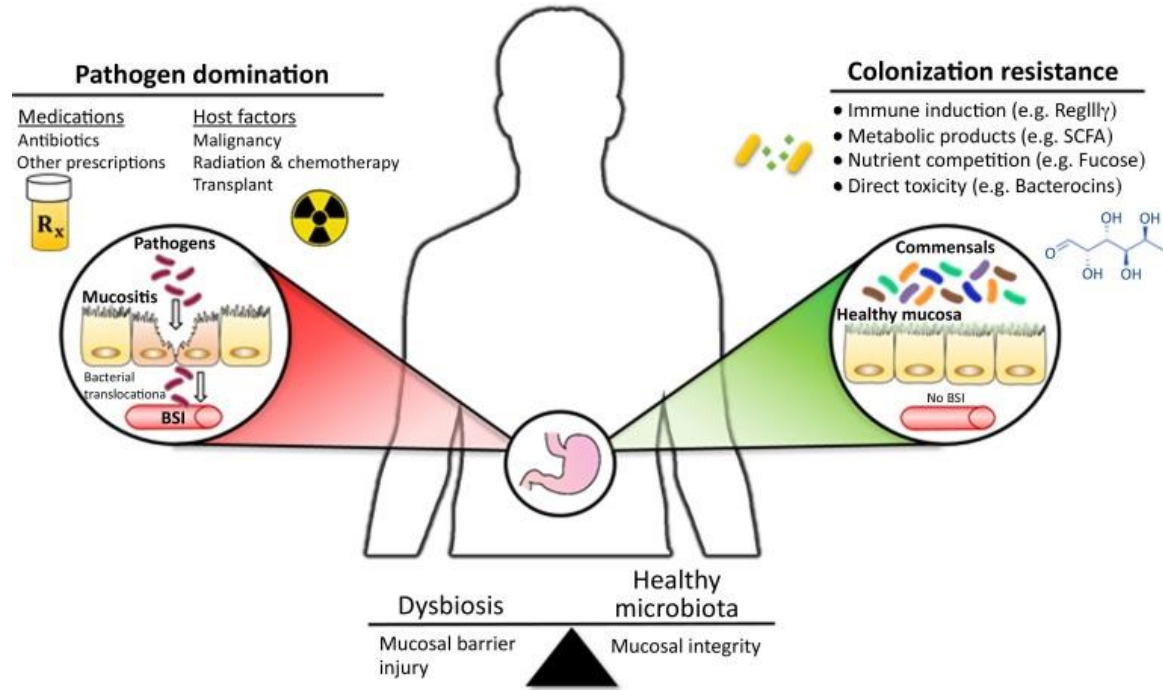


Clinical Pharmacist 2016. Geoghegan et al.

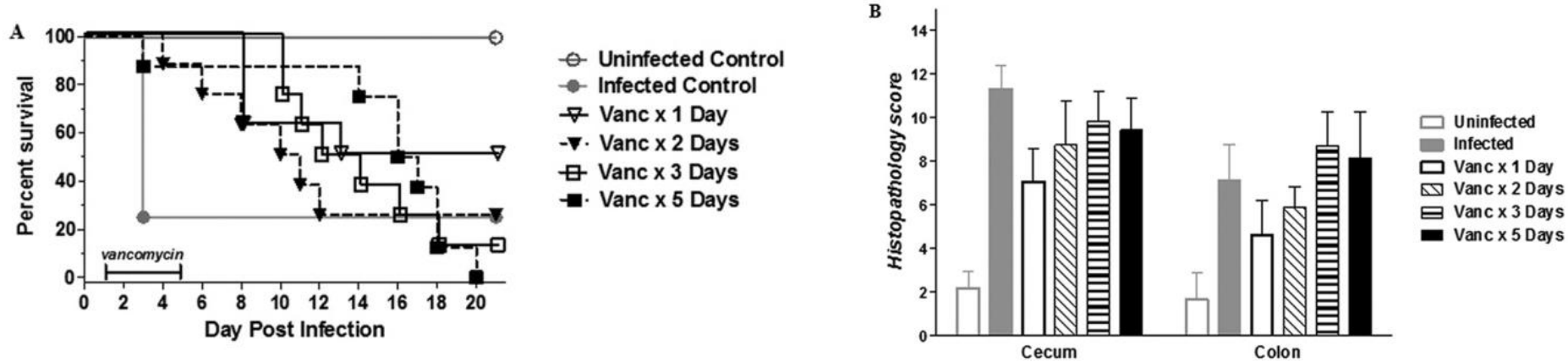
Low-Dose Antibiotic Treatment

Solution: Researchers at the University of Virginia have discovered that lower doses or shorter courses of antibiotic treatment are sufficient to treat infection and prevent or reduce disease recurrence

- Lowering CDI recurrence rate by preserving the normal gut flora
- Preserved immunologic response to infection by low-dose treatment regimen



1-day antibiotic treatment most effective for CDI treatment



Vancomycin regimen for treatment of CDI in mice. Higher percentage survival and lowest histopathology score when treated with 1-day of antibiotics.

Relevant Publications

- Antimicrob Agents Chemother. 2013 Feb; 57(2): 689-696.
Guerrant, et. al.

Intellectual Property

- UVA Tech ID: GUERRANT-DOSE
 - Title: Compositions and methods for treating Clostridium infection and preventing recurrence of infection
 - U.S. Issued Patent 9,387,199 B2 Jul. 12, 2016