

Clostridium difficile infection

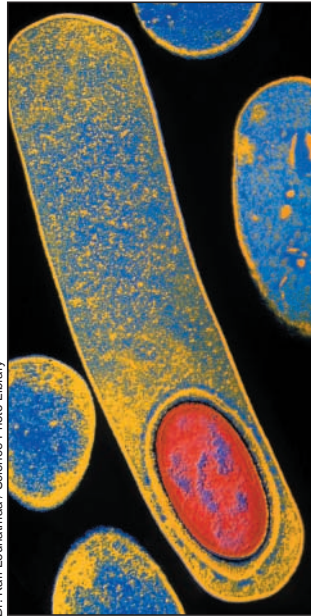
It is well known that *Clostridium difficile* infection is associated with antibiotic use: the disruption of normal gut flora allows the bacteria to thrive and produce toxins. Dial and colleagues present findings that suggest another risk factor. Using data from an outbreak of *C. difficile* infection in Montréal hospitals, the authors found that inpatients receiving antibiotics and proton pump inhibitors were more than twice as likely as those receiving only antibiotics to contract the infection. They postulate that the decrease in gastric acidity caused by the proton pump inhibitors reduces this natural host defence and allows *C. difficile* colonization of the gut.

The *C. difficile* outbreak in Montréal began 18 months ago and has involved more than 1400 inpatients in 6 hospitals.

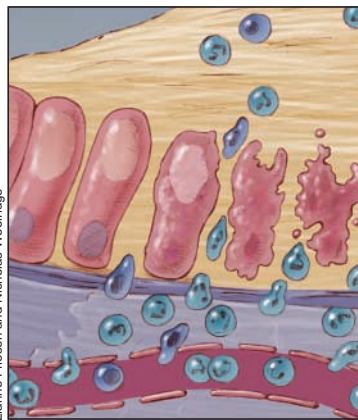
Numerous patients have required colectomy because of severe colitis, and the infection has contributed to more than 80 deaths in that period. Although many of these patients were elderly and had multiple comorbidities, younger patients have also been affected. Eggertson reports on the outbreak and the differing views on whether the hospitals should have informed the public. In related articles, Louie and Meddings point out other factors that may play a role in *C. difficile* outbreaks; Loo, director of infection prevention and control at the McGill University Health Centre, and colleagues provide their insights into the situation in Montréal; and Valiquette and colleagues provide background information on trends of *C. difficile* infection in Canada and elsewhere.

In a review article, Poutanen and Simor provide a detailed description of the current understanding of the pathophysiology of *C. difficile* infection, the clinical features of *C. difficile* diarrhea and colitis, as well as treatment options.

See pages 19, 27, 33, 45, 47, 51



Dr. Kari Lounamaa / Science Photo Library



Lianne Eriksen and Nicholas Woolridge

Private health insurance and glycemic control in diabetes

There is good evidence that tight glycemic control in patients with diabetes reduces the risk of associated microvascular complications. Patient self-testing of blood glucose levels is integral to achieving this; however, the cost of self-testing supplies over time may be an obstacle for patients without private health insurance. Bowker and colleagues compared glycemic control in patients with and without private health insurance. They found that lack of insurance coverage was significantly associated with higher mean hemoglobin A_{1c} concentrations, which suggests that the cost of self-testing supplies may indeed represent a barrier to tight glycemic control.

In a related commentary Heisler points out that, although public funding of testing supplies would be expensive, these costs may be insignificant compared with the costs of treating complications of the disease (e.g., hemodialysis for diabetic nephropathy).

See pages 39 and 48

In Synopsis

Freiman and colleagues present an interesting case of an infectious groin lesion (see page 32). Cheng reviews a clinical trial demonstrating that an infusion of glucose, insulin and potassium in diabetic patients undergoing coronary artery bypass graft surgery provides both short- and long-term benefits (see page 30).

