

Intervention drops hospital infection rate by 1/3

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Clostridium difficile (*C. difficile*) is the one of the leading pathogens causing hospital-acquired infection in the United States. It may cause diarrhea, colitis, sepsis and lead to prolonged hospitalization and death. Mayo Clinic researchers say they've found a way to reduce the acquisition of this infection and drop its frequency to a fraction of what it had been.

The process involves consistent daily cleaning of all high-touch surfaces with a spore-killing bleach disinfectant wipe for all patients on units with high endemic rates of *C. difficile* infection. The findings are being presented today at a conference in Atlanta sponsored by the Society for Healthcare Epidemiology of America, the Infectious Diseases Society of America and the [Centers for Disease Control and Prevention](#).

"The goal was to reduce hospital-acquired *C. difficile* infection rates in two of our highest-incidence units by 30 percent," says lead investigator Robert Orenstein, D.O. "Our data show we far exceeded that. When the study concluded near the end of last year, one unit had gone 137 days without a hospital-acquired *C. difficile* infection." The team had hoped to increase the time between hospital-acquired cases to more than 20 days between infections.

The hospital rooms in the study were part of two units that housed general, gastrointestinal and pulmonary disease patients, averaging 39 patients a day. Each of these units has had high endemic rates of this infection. When the study began, one unit's infection frequency was 61

per 10,000 patient days. The other was higher, at 106 cases per 10,000 patient days. The bleach wipes -- containing 0.55 percent sodium hypochlorite -- were selected because the bleach solution is the only product registered with the U.S. [Environmental Protection Agency](#) as effective against *C. difficile* spores.

Patients and staff tolerated this daily cleaning with the bleach wipes without significant concerns. Researchers concluded that this type of disinfection process was effective at reducing *C. difficile* infections on these units and should be instituted in other hospital units with high infection rates.

Provided by Mayo Clinic

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