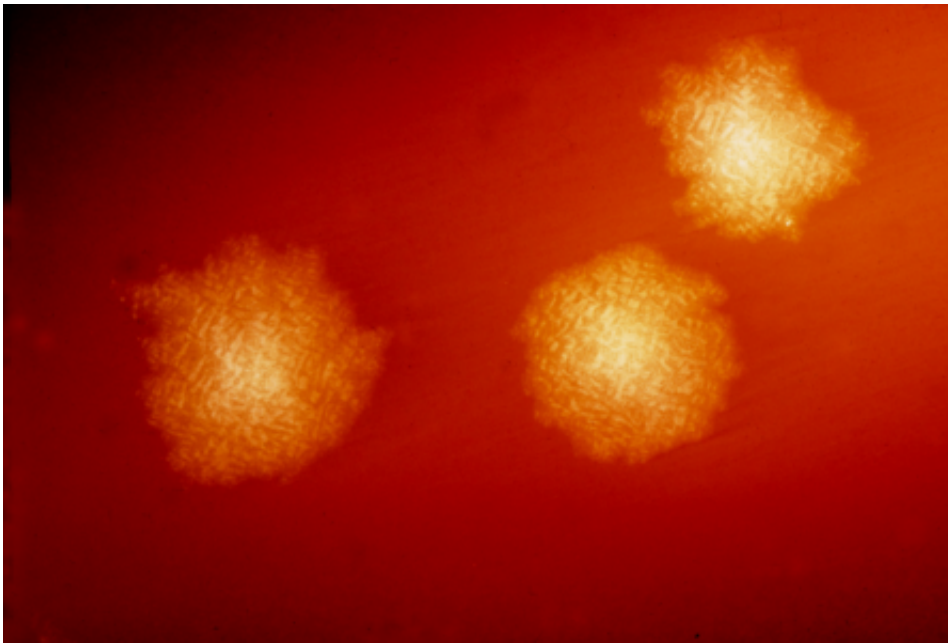


Effort to detect, isolate asymptomatic *C. difficile* carriers linked to lower incidence

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This photograph depicts *Clostridium difficile* colonies after 48hrs growth on a blood agar plate; Magnified 4.8X. *C. difficile*, an anaerobic gram-positive rod, is the most frequently identified cause of antibiotic-associated diarrhea (AAD). It accounts for approximately 15–25% of all episodes of AAD. Credit: CDC

An intervention at a Canadian acute care facility to screen and isolate asymptomatic *Clostridium difficile* carriers was associated with decreased incidence of health-care associated *C. difficile* infection, a finding that needs to be confirmed in additional studies, according to a new study published online by *JAMA Internal Medicine*.

C. difficile infection (CDI) is a major cause of health care-associated infection worldwide. CDI can cause symptoms from mild diarrhea to life-threatening toxic megacolon. About half a million cases happen each year in the United States, causing 29,000 deaths and creating \$4.8 billion in excess medical costs.

Infection control recommendations mainly focus on patients with CDI. But asymptomatic *C. difficile* carriers may also play a role in disseminating spores because they can contaminate the environment and caregivers' hands, and because they are not detected are not placed under isolation precautions.

Yves Longtin, M.D., of the Jewish General Hospital and McGill University, Montreal, Canada, reports on the effects of the intervention to reduce the incidence of health care-associated CDI (HA-CDI) at the Quebec Heart and Lung Institute, Quebec City, Canada.

The study, conducted between November 2013 and March 2015, screened patients at admission for the tcdB gene through a rectal swab and those found to be *C. difficile* carriers were put under contact isolation precautions during their hospitalization.

Among the 7,599 patients who were screened, 368 (4.8 percent) were identified as *C. difficile* carriers and placed under isolation. During the intervention, the incidence rate of HA-CDI decreased by more than 50 percent to 3.0 per 10,000 patient days compared to 6.9 per 10,000 patient days before the intervention. The authors estimate the intervention prevented approximately 63 cases.

Limitations of the study include the intervention was conducted at a single center and the findings still need to be confirmed in additional studies.

The authors note that the strategy to screen and isolate *C. difficile* carriers may be cost-effective. The intervention cost \$130,000 (U.S.) and prevented 63 cases; the estimated savings from averting CDI cases was greater than the cost of the intervention.

"The [intervention](#) is simple and could be easily implemented in other institutions. If confirmed in subsequent studies, isolating asymptomatic carriers could potentially prevent thousands of cases of HA-CDI every year in North America," the study concludes.

"The results of this study are promising for reducing HA-CDI. ... Longtin et al have shown the possible benefit of using active surveillance testing and isolation of [asymptomatic carriers](#) for preventing HA-CDI. Larger, well-designed studies, such as cluster randomized trials, are ultimately needed to confirm the effectiveness of this strategy," writes Alice Y. Guh, M.D., M.P.H., and L. Clifford McDonald, M.D., of the Centers for Disease Control and Prevention, Atlanta.

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