# Hospital policy allowing nurses to initiate C. difficile testing could reduce infection spread and associated morbidity

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Credit: CDC

A new study published today in the *American Journal of Infection Control* (*AJIC*) suggests that allowing bedside nurses to independently

order testing for C. difficile significantly decreased the amount of time to receive test results as compared to requiring physician approval. The findings suggest that the testing policy change could potentially decrease the risk of additional patient infections and the corresponding hospital economic burden.

Individuals with C. difficile infection (CDI) can be asymptomatic or have symptoms ranging from mild diarrhea to severe and life-threatening inflammation of the colon. CDI is responsible for 223,000 healthcare-associated infections (HAIs) resulting in more than 12,000 deaths and $6.3 billion in costs in the United States annually.

Despite numerous implementation strategies to address prevention of the infection, it remains one of the most common HAIs. Early detection, isolation and contact precautions, environmental cleaning, and appropriate antibiotic treatment greatly decrease the rate of morbidity and mortality and can prevent further spread to other patients, decreasing the overall clinical and economic impact.

"Given the implications of CDI on both a hospital and patient level, incentives exist for improving approaches to the prevention and spread of this infection in the clinical environment," said Ashley Bartlett, MD, Fargo VA Healthcare System, Fargo, ND, and the lead author on the published study. "Our findings suggest that allowing bedside nurses with appropriate training to order C. diff testing based on patient symptomology could be a valid strategy to help healthcare systems achieve this goal."

At a single site within the Veterans Affairs (VA) Healthcare System in Fargo, ND, infectious disease and nursing staff developed a policy change allowing nurses to independently order stool samples for new patients displaying CDI symptoms, rather than requiring a physician's electronic signature. Researchers then evaluated the effectiveness of the

new policy by comparing the frequency of tests being ordered, the time to obtain test results, the number of positive and negative tests, and the time to initiate treatment for positive C. difficile tests for the 44 months prior to and 59 months after the change.

Results show:

- After the policy change, there was a relatively even proportion of physicians and nurses ordering the stool PCR labs (51.1% vs. 48.9%, respectively).
- The percent of positive and negative tests results before and after the policy change was relatively unaffected (13.9% vs. 11.5% respectively), suggesting that allowing nursing staff to order stool samples does not lead to increased unnecessary laboratory resource use or financial burden to the hospital.
- Following the policy change, the average difference in time to obtain the test result after the PCR lab order was statistically significant before versus after the policy change (mean [sd]; 2.1 (1.3) vs. 1.3 (0.7) hours; p