

## Hospital Readmissions Twice as Likely for C. Difficile Patients



A study published in the latest issue of the *American Journal of Infection Control* reports that Clostridium difficile infection (CDI) doubles hospital readmission rates and lengths of stay for infected patients. C. difficile causes inflammation of the colon, and diarrhoea associated with the microbe can be life threatening. CDI risk increases with antibiotic use, an alarming association since more than half of hospital patients receive antibiotics during their stay.

A research team at the seven-hospital Detroit Medical Center (DMC) in southeastern Michigan conducted a large study using data from 2012 to understand the epidemiology of CDI readmissions. Of 51,353 all-cause discharges, there were 615 patients who had a CDI diagnosis. For 318 of those patients, CDI was present upon admission and another 297 patients had it diagnosed during their stay in the hospital.

## More Readmissions and Longer Hospital Stays

A comparison of all-cause and CDI discharges revealed that 30.1 percent of CDI patients were readmitted after 30 days, while only 14.4 percent of other patients were readmitted. Furthermore, lengths of stay were longer for CDI patients versus non-CDI patients. Patients who were diagnosed with CDI in the hospital had an average of 6.4 days added to their stay, while those whose onset was out of the hospital stayed an average of 4.4 days longer, compared with non-CDI readmissions.

"We found that CDI readmissions for any reason had almost a one week longer average LOS than all-cause readmissions," said lead author Teena Chopra, MD, MPH, an expert in CDI at DMC's Division of Infectious Diseases. "This suggests that CDI readmissions place a burden on the health system by requiring patients to stay in the hospital longer, leading to less patient bed turnover and higher hospital costs."

## A Growing Threat to Healthcare Facilities

According to the Centers for Disease Control (CDC), C. difficile is now the most common microbial cause of hospital-associated infections in the US. It is responsible for as much as \$4.8 billion per year in extra healthcare costs for acute care facilities, with the CDC estimating that half a million infections were caused by C. difficile in 2011, with 29,000 of those cases resulting in patient death within 30 days of initial diagnosis.

"If nothing is done to try and curb CDI rates, healthcare systems may stand to face financial penalties because of high rates of hospital-acquired CDI and CDI-related readmissions for CMS-reportable conditions," Dr. Chopra said, adding that effective antibiotic stewardship should be emphasised across healthcare systems, involving acute care hospitals, long term acute care facilities and nursing homes.

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