Clostridium difficile infection in the healthcare setting

Clostridium difficile infection (CDI) is one of the most common causes of healthcare-related infection in hospitals and is thus a leading cause of morbidity and mortality. Furthermore, asymptomatic carriage of C. difficile is believed to occur in about up to 7% of healthy adults and in about 11-25% of hospitalized patients and may therefore contribute to healthcare transmission. Despite specific antibiotic therapy, approximately 14-25% of patients will develop recurrence of CDI. The most important risk factor for CDI is prior or ongoing antibiotic therapy which can disrupt the normal intestinal flora and allow C. difficile to colonize the gut. Other risk factors include chemotherapy, solid organ and bone transplantation and chronic treatment with proton pump inhibitors. Specific patient groups are also considered to be at risk, e.g., elderly, chronically ill, individuals with inflammatory bowel disease and immunocompromised patients. However, CDI is becoming an increasingly common cause of community-acquired diarrhea in low-risk populations, such as children, healthy adults and pregnant women. Specific guidelines to limit the spread of CDI in the healthcare setting have been recently issued that incorporate diagnosis, isolation measures, hand hygiene, environmental control including cleaning and disinfection, measures for improving the hospital layout, antimicrobial stewardship programs and prevention of recurrent CDI in patients requiring antimicrobial therapy.

Biography

Nicola Petrosillo has obtained his degree in Medicine in 1977 and Specialization in Infectious Diseases in 1981 and Internal Medicine in 1985. He is the Director of the Clinical and Research Department at the National Institute for Infectious Diseases “Lazzaro Spallanzani”, Rome, Italy. He is the Professor at the University “La Sapienza”, Rome, Researcher at Clinical Microbiology Institute of University of Groningen UMCG, Netherlands and Lecturer at the Faculty of Medicine for Foreigners, Zagreb University, Croatia. His clinical and research interests focus on severe, healthcare acquired infections, in particular those caused by multidrug resistant organisms. He is the author of 270 articles in peer reviewed journals.

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