

## Prevalence of infections with *Clostridium difficile* on potential pathology groups

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**Abstract.** Enterotoxins produced by *Clostridium difficile* cause a series of biochemical and immunological manifestations in the cascade leading to alteration of the enterocytus cytoskeleton, intestinal inflammation and diarrhea that can greatly impair the patient's biological status. The genome of the *Clostridium difficile* bacterium shows a series of evolutionary adaptations that can give it a high degree of resistance or adaptability to many known pharmacological classes. Changing the diversity of intestinal microbiota induced by the use of antibiotics creates a favorable environment from all points of view for *Clostridium difficile* spore activity. The theme addresses in an original way but related to the epidemiological studies presented in the literature a correlative aspect between the pathological group and the infection with *Clostridium difficile*. From the data presented, there is a direct correlation between *Clostridium difficile* infection and the use of antibiotic therapy as a curative or preventive treatment. Gastrointestinal and neurological pathologies, due to the use of curative but also preventive antibiotic therapy, are at increased risk for the installation of *Clostridium difficile* infection. The study presented may be a first step in raising awareness of the rational use of antibiotics and avoiding non-assisted community antibiotic therapy.

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