

Clostridium difficile Infection (CDI):

What is Clostridium difficile Infection?

(CDI) is a serious illness resulting from infection of the internal lining of the colon by C. difficile bacteria. The bacteria produce toxins that cause inflammation of the colon, diarrhoea and, in some cases, death.1

HOW DOES IT OCCUR? CDI mostly occurs from use of broad-spectrum antibiotics that disrupt normal bowel flora allowing C. difficile bacteria to flourish. 1,2

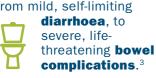
C. difficile exists in the environment as spores (dormant seed-like structures)2

C. difficile spores can be transmitted to patients from the environment or from contaminated hands.2



Clinical Outcomes

CDI SYMPTOMS range from mild, self-limiting





Increased risk of developing further infections:

Patients with recurrence are at a higher risk of repeated infections.4

In hospitals, CDI causes/contributes to

death in 3-30%

of patients within 30 days of

diagnosis^{10,15}





Extended hospitalisation:

typically by around **6-21** days or greater. 5,6,7,8,9

25% of people treated with current C. difficile therapies may suffer a second infection.¹¹



How common is CDI?



Approximately 71% of CDI infections occurred in a healthcare facility in 2011 with 78% of these occurring in hospital.12



The proportion of CDI cases occurring or originating in nursing homes has increased in recent years to 13%.15,16





times more common than MRSA in healthcare facilities. 13,14



CDI is seen most commonly in hospitals, nursing homes and long-term care facilities.12 It affects the most vulnerable members in society:



- > The elderly (over 65 years) 17,20
- Chronic underlying illness: CDI is a particular risk in those
- treated for cancer 21,22 Recent hospitalisation²³





CDI cases are now reported to originate in the community.15

How can CDI be prevented? **Soap and Water**

Hands should be washed with soap and water before and after contact with patients. 15

Disposable gloves and gowns Wear disposable gloves and gowns when

visiting or attending to a patient with CDL.24 Prudent use of antibiotics Taking antibiotics only when an infection has been caused by bacteria.24







Latest Irish Findings on CDI²⁵

Only one in three Irish people

have heard of CDI²⁵ despite the

fact that it is significantly more





35%



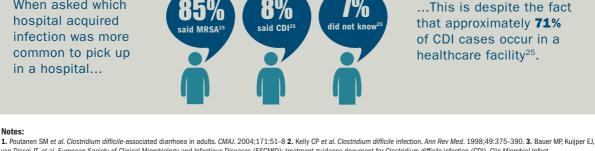
When asked which hospital acquired infection was more common to pick up

common than MRSA15.

in a hospital...







that approximately 71% of CDI cases occur in a healthcare facility²⁵.

...This is despite the fact

van Dissel JT, et al. European Society of Clinical Microbiology and Infectious Diseases (ESCMID): treatment guidance document for Clostridium difficile infection (CDI). Clin Microbiol Infect 2009;15:1067-79. **4.** McFarland LV et al. Breaking the cycle: treatment strategies for 163 cases of recurrent Clostridium difficile disease. Am J Gastroenterol 2002; 97:1669-1775. **5.** Wilcox MH, Cunniffe JG, Trundle C, et al. Financial burden of hospital-acquired Clostridium difficile infection. J Hosp Infect 1996;34:23-30. **6.** Al-Eidan FA, McElnay JC, Scott MG, et al. Clostridium difficile-associated diarrhoea in hospitalised patients. J Clin Pharm Ther 2000;25:101-9. **7.** Vonberg RP, Reichardt C, Behnke M, et al. Costs of nosocomial Clostridium difficile-associated diarrhoea. J Hosp Infect 2008;70:15-20. **8.** Pakyz A, Carroll NV, Harpe SE, et al. Economic impact of Clostridium difficile infection in a multihospital cohort of academic health centers. Pharmacotherapy 2011;31:546-51. **9.** Forster AJ, Taljaard M, Oake N, et al. The effect of hospital-acquired infection with Clostridium difficile on length of stay in hospital. CMAJ 2012;184:37-42. **10.** Wiegand PN, Nathwani D, Wilcox MH, et al. Clinical and economic burden of Clostridium difficile infection in Europe: a systematic review of healthcare-facility-acquired infection. J Hosp Infect 2012;81:1-14. 11. Louie TJ, et al. Fidaxomicin versus vancomycin for Clostridium difficile infection. N Engl J Med. 2011;364:422-31. 12. http://www.hpsc.ie/hpsc/AZ/Gastroenteric/Clostridiumdifficile/CdifficileSurveillance/AnnualReports/File,13975,en.pdf) Accessed Jan 2014. 13. UK Health Protection Agency. English national point prevalence survey on healthcare-associated infections and antimicrobial use, 2011: preliminary data. London; Health Protection Agency. 2012. 41. Meyer E, Gastmeier P, Weizel-Kage D, et al. Associations between nosocomial meticillin-resistant Staphylococcus aureus and nosocomial Clostridium difficile-associated diarrhoea in 89 German hospitals. J Hosp Infect 2012;82:181-6. 15. CDI Europe report. 16. http://ndsc.newsweaver.ie/epiinsight/1bj6le5o7f18725ugff0q?a=1&p=20220395&t=17517774 Accessed November 2013.

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