

Incidence of Clostridium Difficile infections in patients receiving antimicrobial and acid-suppression therapy

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Goal of the study

- ◆ To establish if concomitant use of antibiotic and acid-suppression drugs are risk factors for development of Clostridium Difficile infection.



The study

- ◆ Retrospective study
- ◆ Medical record review
- ◆ 350-bed community hospital
- ◆ 11 010 admissions between January 1, 2009 and December 31, 2009.

Method

- ◆ Identifying patients with stool samples positive for C.Difficile toxin A or B.
- ◆ Compare the incidence with the national estimated incidence in 2008.



Results

- ◆ Of the 11010 admissions, 115 patients had a positive stool sample for C.Difficile.
- ◆ 10,4 cases /1000 patient admissions at the community hospital.
- ◆ The overall national incidence in 2008 were 13,1 cases/1000 patient admissions.
- ◆ It was more common among women and elderly to develop CDI, and they were more likely to develop it during hospitalization.

Results

- ◆ 95 of the 115 patients received acid suppression therapy and 91 received antibiotics.
- ◆ Out of the 95 cases that got acid-suppression therapy, 51% received both a proton pump inhibitor and an antibiotic

Results

- ◆ Patients receiving carbapenems developed CDI more frequently compared to the other classes
- ◆ Patients who received both antibiotics and acid-suppression therapy were more likely to develop CDI than those who did not take these drugs.

Conclusion

- ◆ *Combinations of fluoroquinolones, cephalosporins, carbapenems and proton pump inhibitors were identified as risk factors for development of CDI in hospitalized patients.*



Source

- ◆ <http://www.ncbi.nlm.nih.gov/pubmed/21923450> Published 31st of July 2011.