

Prevalence of Nosocomial Toxigenic *Clostridium difficile* in Children Under 5 Years in Hajar Hospital, Shahrekord, Iran

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Diarrheal disease is still a main cause of morbidity and mortality in children across the world [1].

Nosocomial diarrhea is a common complication in inpatients [2]. *Clostridium difficile* is the most common cause of nosocomial diarrheal and antibiotics-associated diarrheal diseases [3-5].

Hospitalization period of patients was from three to 18 days with the mean 5.5±2.21 days. Duration of antibiotic consumption was three to 18 days with the mean 5.4±2.1 days. Diarrhea duration was from one to three days with mean 1.67±0.56 days. The frequency of diseases leading to hospitalization is summarized in [Table/Fig-1].

Disease	Number	Percent
Respiratory tract infection	124	62
Fever without localizing sing	27	13.5
Febrile convulsion	12	6
Urinary tract infection	5	2.5
Total	200	100

[Table/Fig-1]: Causes of hospitalization.

The types of antibiotic which were administered to children are summarized in [Table/Fig-2].

Antibiotic	Number	Percent
Cefotaxime	102	51
Ceftriaxone	59	29.5
Cefotaxime+ Vancomicine	10	5
Ceftriaxone + Clindamycin	9	4.5
Clindamycin	5	2.5
Cefotaxime + Clindamycin	5	2.5
Others	10	5

[Table/Fig-2]: Types of antibiotic consumption.

Two patients of positive cases were boy and four were girl. Five positive cases were observed among other antibiotic treatments. Positive results were not related to sex and age of the patients,

duration of hospitalization, antibiotic consumption and diarrhea ($p>0.05$).

In this study the prevalence of nosocomial diarrhea due to *C. difficile* was 6 (3%).

Statistical tests indicated no significant difference in the ELISA positivity prevalence in stool samples of the patients with nosocomial regarding for the duration of hospitalization in day. This could be due to the low number of ELISA-positive stool samples of patients with nosocomial diarrhea.

It is concluded that *C. difficile* is an important reason for nosocomial diarrhea and the most important prescribed antibiotic is cefotaxim. Determining the prevalence of *C. difficile* and the types of strategies that can deal with this pathogen is important. It is recommended in future studies polymerase chain reaction be used to test and determine the strains of bacteria because this test is more accurate.

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IMPLICATION OF YOUR MANUSCRIPT

This study investigated the frequency of nosocomial toxicogenic *C. difficile* in children aged less than 5 years.

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