

Study on nosocomial infections in an intensive care unit and the related factors

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Abstract

Background&Objective: Hospital infection is one of the important determinants on lengthening hospitalization and increasing the costs and mortality rates in hospitals. Intensive Care Unit (ICU) is one of the wards that are most afflicted with the incidence of this morbidity. This study involves investigating the incidence of infection in one of the Intensive Care Units.

Materials&Methods: This study was designed in the form of a prospective cohort which was implemented on patients who were hospitalized in the ICU of Khatamol Anbia Hospital from September 21st 2002 for at least 72 hours and didn't reveal signs of infection. The status and duration of using tracheal tube, ventilator, urinary catheter, and venous catheter, the duration of hospitalization in ICU and the time infection appeared were all recorded.

Results: During the six months spent on this study, 234 patients were hospitalized in ICU, among which 50 patients were investigated. The group of these 50 patients cumulatively spent 528 days in ICU. During their hospitalization, 9 cases of infection occurred in these patients. The incidence of infection was 18% (with a 95% confidence interval of 7.35% to 28.65%). The incidence rate was 17 patients in 1000 person-year of hospitalization in ICU (with a 95% confidence interval of 8.8 to 106.3).

Conclusion: Hospital infection is a relatively common complication among patients who have been hospitalized in ICU for at least 3 days. The frequency of infection reported in Iran is equal or more than the results of studies carried out in other parts of the world.

Key Words: Nosocomial Infections, Intensive Care Units, Surveillance Systems, Epidemiology