

## Impact of Emergency Medicine Department Crowding on Mortality

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**Abstract :** Introduction: Emergency department (E.R.) crowding is a serious widespread problem in hospitals that leads to irregularities, a slower rate of delivery of services to patients, and a long-term stay. In addition, the long-term stay in the E.D. reduces the possibility of providing services with appropriate quality to other patients who are undergoing medical emergencies, which leads to dissatisfaction among patients. This study aimed to determine the relationship between ED-crowding and the mortality rate of the patients referred to the E.D. In a retrospective cohort study, all patients who expired in first 24 hours of admission were enrolled in the study. Crowding index at the moment of admission was calculated using Edwin Score. The data including history and physical examination, time of arrival in the E.D., diagnosis (using ICD 10 code), time of death, cause of death, demographic information was recoded based on triage forms on admission and patients' medical files. Data analysis was performed by using descriptive statistics and chi square test, ANOVA tests using SPSS ver. 19. The time of arrival in E.D. to death in crowded E.D. conditions, with an average of five hours and 25 minutes, was significantly higher than the average admission Time of arrival in E.D. to death in active and crowded E.D. conditions. More physicians and nurses can be employed during crowded times to reduce staff fatigue and improve their performance during these hours.

**Keywords :** mortality, emergency, department, crowding

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