

Evaluation of mortality rates in terms of demographic, clinical, and laboratory factors of patients with COVID-19 admitted to Ardabil educational and medical centers

Abstract

Background: The Covid-19 pandemic has imposed a huge burden on the health system and has caused unprecedented deaths worldwide. Accurate identification of factors related to the death of patients can lead to a more appropriate coping to the disease and reduce the mortality rate in similar conditions in the future.

Aim: To evaluate the mortality rates in terms of demographic, clinical, and laboratory factors of patients with COVID-19 admitted to Ardabil educational and medical centers.

Materials and methods: This study was conducted on patients infected with corona virus (based on CT scan or PCR) and had information in the data registration system of corona patients of Ardabil province. Information related to age, sex, body mass index, underlying disease, clinical symptoms, laboratory results, type of hospitalization, type of drug used, and outcome were determined for all patients. Based on the outcome, the patients were divided into two groups of survived or non-survived, and the factors affecting death were determined by comparing these two groups.

Results: 3088 patients were included in this study. The death rate was 10.9% (337 cases). The highest death rate in relation to the population was related to Khalkhal city and the lowest was related to Pars Abad. The death of patients is directly and significantly related to old age; overweight and obesity; suffering from an underlying disease, especially diabetes and cardiovascular disease; having clinical symptoms including weakness and lethargy, pneumonia, and shortness of breath; hospitalization in the intensive care unit, especially the need for intubation and mechanical ventilation; receiving remdesivir and hydroxychloroquine; and had high levels of d-dimer, ferritin, and troponin.

Conclusion: The results of the present study showed the risk factors that increase the risk of death in hospitalized patients with Covid-19. Paying attention to these

factors at the beginning of hospitalization of patients can help in identifying high-risk patients and improving the prognosis of patients.

Keywords: Mortality, covid 19, effective factors, hospitalized patients.