

## **Abstract**

**Background:** Cardiopulmonary resuscitation (CPR) is crucial for the survival and prognosis of patients, particularly in the context of specific diseases. Effective CPR can lead to the improvement of patient outcomes. However, limited information exists regarding CPR outcomes in patients with COVID-19.

**Aim:** The current study aimed to determine CPR outcomes in COVID-19 patients hospitalized at Ardabil Imam Khomeini Hospital, Ardabil.

**Materials and Methods:** This cross-sectional study was conducted from October to December 2020 on COVID-19 patients with a history of CPR at Imam Khomeini Hospital, Ardabil. Inclusion criteria were a confirmed diagnosis of COVID-19 and undergoing CPR. Exclusion criteria included incomplete patient file information and the absence of COVID-19 confirmation. Data on age, gender, CPR duration, CPR success/failure, CPR shift, hospital ward, and the number of CPR attempts were collected using a designed Ministry of Health form and analyzed using SPSS software.

**Results:** Out of 139 COVID-19 patients experiencing cardiac arrest, 76 (54.7%) were female, and 63 (45.3%) were male. At the onset of CPR, patient consciousness levels were as follows: 39 patients (28.1%) were conscious, 33 patients (23.7%) responded to sound, 25 patients (18%) responded to pain, and 42 patients (30.2%) showed no response to pain. Other patient details included 121 patients (87%) with an established airway, 41 patients (29.5%) with spontaneous breathing, and defibrillation performed on 7 patients (5%). Regarding CPR in different hospital wards and shifts: 70 patients (50.4%) were in the COVID ward, 52 patients (37.4%) in the ICU-COVID, 11 patients (7.9%) in the general ward, and 6 patients (3.4%) in the ICU-General. Among them, 30 patients (21.6%) were in the morning shift, 42 patients (30%) in the afternoon shift, and 67 patients (48.2%) in the night shift.

**Conclusion:** Results indicated that CPR success was not significantly correlated with factors such as age, gender, and CPR duration. However, the work shift and CPR ward were influential in CPR success on the first attempt. In summary, although CPR success on the first attempt in COVID-19 patients was 18%, these patients required repeated CPR in subsequent days and were not successfully discharged from the hospital.

**Keywords:** Cardiopulmonary resuscitation, COVID-19 patients, non-COVID patients