

Abstract

Seroprevalence of COVID-19 Among Health Care Workers in Primary Health Care Centers in Al-Sader City District, Baghdad, Iraq

Raheem Hussein¹; Faris Lami²

¹Public Health department, Al-Rusafa Health Directorate, Baghdad, Iraq

²Ministry of Higher Education and Scientific research, Baghdad, Iraq

Corresponding Author:

Raheem Hussein

Public Health department

Al-Rusafa Health Directorate

Al-Rusafa

Baghdad, 89WG+5P5

Iraq

Phone: 964 07706858337

Email: rhhu1965@gmail.com

Abstract

Background: The SARS-CoV-2 infection produces detectable immune responses in most cases reported to date. A serological test could capture previous asymptomatic infections and help to assess the immune status of a subject. Health care workers are highly vulnerable to COVID-19 infection, and providing personal protective equipment is the primary strategy to prevent disease transmission within the health care setting.

Objective: The aim of this paper was to determinate the seroprevalence of COVID-19 among health care workers in primary health care centers in the AL-Sader city district.

Methods: A cross-sectional study was conducted in 9 primary health care centers, which were selected using a cluster random sampling technique from November 1, 2020, to December 31, 2020.

Results: A total of 470 participants were enrolled in the study; 101 (21.5%) of them had a history of COVID-19 infection, and 76 (16.1%) were diagnosed by polymerase reaction chain. There was a significant association between rapid tests and history of COVID-19 infection ($P<.001$). Rapid test sensitivity was 56.6%, and specificity was 79.2%. The rapid test was positive in 125 (26.6%) participants: IgG 104 (83.2%), IgM 5 (4%), and both IgG-IgM 16 (12.8%).

Conclusions: The percent of COVID-19 infection is higher than the expected level among participants. A significant association was found between rapid tests and COVID-19 infection, smoking, comorbidity, personal protective equipment training, and household infection.

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KEYWORDS

COVID-19; cross-sectional; health care workers; infection

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