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Background: Healthcare workers (HCWs) have an increased risk of transmitting SARS-CoV-2 infection to frail patients and are also at higher risk of exposure. Hence, it is essential to understand the risk factors for infection of HCWs to limit adverse events occurring in healthcare facilities. This study aimed to identify risk factors for symptomatic COVID-19 infection among HCWs in the hospital context.
Methods: We used data from a hospital-based cohort study followed between December 2020 and January 2022 in three central Portuguese hospitals. Following the study protocol, RT-PCR testing was performed whenever an HCW reported any symptom compatible with COVID-19. Characteristics of infected (at least one positive RT-PCR with symptoms) versus non-infected HCW were compared using the Chi-square test.
Results: A total of 3034 HCWs were followed during 13 months and 533 had a positive test for SARS-CoV-2. A higher percentage (> 40 %) of infections were in individuals without a primary vaccination scheme. Other than age, no differences were found regarding individual characteristics: infected HCWs had a higher percentage of individuals aged 18 to 50 years old compared to the non-infected HCWs (74.7 % versus 66.2 %, $p < 0.001$). Regarding work functions, no differences were found for self-report of working in direct contact with COVID-19 patients. Additionally, the percentage of HCWs who declared to perform tracheal intubation procedures was similar in infected versus non-infected HCWs (6.2 % versus 8.9 %, $p = 0.080$).
Conclusions: Infected HCWs were younger than the non-infected. HCWs working in direct contact with patients or performing tracheal intubations didn't exhibits increased rates of infection suggesting the success of preventive measures and other standard procedures in limiting infection transmission in healthcare facilities.
Key messages:
- HCWs working in direct contact with COVID-19 patients or performing tracheal intubations were not the most infected personnel.
- Preventive measures and other standard procedures were successful in limiting COVID-19 infection transmission in healthcare facilities.

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Risk factors for COVID-19 among healthcare workers: a hospital-based cohort study in Portugal

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