

# Contact tracing as an essential prevention tool for the spreading of COVID-19 among healthcare workers

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## Abstract

Healthcare workers, since the beginning of the COVID-19 pandemic, have been universally recognized as especially susceptible, with infection risks higher than the general population. Therefore, it is important to apply infection prevention and control measures in healthcare institutions to limit infections associated with the provision of healthcare services. In this context, contact tracing, in fact, is an essential public health measure to fight the COVID-19 pandemic, with active case finding and testing, and physical distancing. Globally, new weekly cases and deaths are decreased, but WHO emphasizes that cases and deaths should be interpreted with caution because several countries have been progressively changing COVID-19 testing strategies, resulting in lower overall numbers of tests performed and consequently lower numbers of cases detected. Health personnel, therefore, work at a high-risk department and this has been associated with a 2.13 times higher risk of COVID-19 compared to the general departments of any hospital and, if the healthcare workers had inability to continue working and if there was the possibility of hospitals turning into sources of infection, it could be an interruption in healthcare services. A coordination with the system of surveillance is important that remains in the hospital in order to fight COVID-19 and help restructure the response in the light of detected transmission and guarantee safe hospital care. *Clin Ter 2022; 173 (5):396-397 doi: 10.7417/CT.2022.2452*

**Key words:** Covid-19, SARS-CoV-2, contact tracing, Healthcare workers

Healthcare workers, since the beginning of the COVID-19 pandemic, have been universally recognized as especially susceptible, with infection risks higher than the general population (1). For their critical role in the control of the COVID-19 pandemic, if the healthcare workers had inability to continue working and if there was the possibility of hospitals turning into sources of infection, it could be an interruption in healthcare services (2). Therefore, it is important to apply infection prevention and control measures in healthcare institutions to limit infections associated with the provision of healthcare services. In this context, contact trac-

ing, in fact, is an essential public health measure to fight the COVID-19 pandemic, with active case finding and testing, and physical distancing. The aim of identifying and managing the contacts of a COVID-19 case is to support early diagnosis and to interrupt onward transmission through the rapid identification and management of secondary cases that may arise after transmission from the primary case, because there is no current treatment that can prevent COVID-19 disease after exposure, effective self-isolation is essential to avoid the risk of onward transmission (3). Globally, from 15 July to 15 August 2022, the Omicron variant of concern (VOC) remains the dominant variant circulating globally, accounting for 99.3% (170.905) of 172.042 sequences submitted to GISAID. There is now a large variety within the Omicron VOC, a phenomenon that is the result of the accumulation of mutations as part of the virus replication process and/or immune pressure from the host. More than 200 descendent lineages of Omicron have emerged and these are monitored by WHO. The surge of cases linked to a specific descendent lineage is either due to its higher intrinsic transmissibility or higher immune evasion characteristics. The extent to which the emergence of a variant causes a rise in the number of cases, hospitalizations, and deaths in a country depends on several factors, including the levels of population immunity following either SARS-CoV-2 infection, vaccination, or a combination of the two, and the stringency of public health and social measures in place. Current trends reported by the Weekly epidemiological update Covid-19 of 17th August, underline how the number of new weekly cases decreased by 24% during the week of 8 to 14 August 2022, as compared to the previous week, with over 5.4 million new cases. The number of new weekly deaths decreased by 6%, as compared to the previous week, with over 15.000 fatalities reported. As of 14 August 2022, 587 million confirmed cases and 6.4 million deaths have been reported, and also the WHO emphasizes that cases and deaths should be interpreted with caution because several countries have been progressively changing COVID-19 testing strategies, resulting in lower overall numbers of tests performed and consequently lower numbers of cases detected. Additionally, data from countries are continuously updated by WHO to incorporate changes

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in reported COVID-19 cases and deaths made by countries retrospectively (4). We must remember that since the beginning of Covid-19 pandemic, in a hospital in Wuhan, Healthcare-associated transmission accounted for 57 (41%) of 138 COVID-19 cases. The majority (70%, 40/57) of these were in healthcare workers (HCWs). During the severe acute respiratory syndrome (SARS) outbreak in 2002–2003, 1,707 (21%) of 8,098 patients globally were HCWs (5). A report of HCW COVID-19 infections in Victoria, Australia, the state Department of Health and Human Services (DHHS) reported that 72.9% of COVID-19 infections in HCWs were acquired in a healthcare setting (6). Therefore, they work at a high-risk department and this has been associated with a 2.13 times higher risk of COVID-19 compared to the general departments of any hospital (1), so a coordination with the system of surveillance is important that remains in the hospital in order to fight COVID-19. A lot of studies identify the importance of contact tracing, such as a study of Gordon and al. (6) describes of 45 staff who returned a positive test result for SARS-CoV-2, 19 were determined to be acquired at the hospital. Fifteen (15/19; 79% [95% CI: 54–94%]) of these were identified through contact tracing and testing following exposures to other infected staff and were presumed to be staff-to-staff transmission, including an outbreak in 10 healthcare workers (HCWs) linked to a single ward that cared for COVID-19 patients. The staff tearoom was identified as the likely location for transmission, with subsequent reduction in HCW infections and resolution of the outbreak following implementation of enhanced control measures in tearoom facilities. No HCW contacts (0/204; 0% [95% CI: 0–2%]) developed a COVID-19 infection following exposure to unrecognised patients with COVID-19, so this study discloses how unrecognised infections among staff may be a significant driver of HCW infections in healthcare settings. Control measures should be implemented to prevent acquisition from other staff as well as patient-staff transmission (6). This concept can be found also in the study of De-La Rosa Zaniboni (1), where the tracing COVID-19 source among health personnel in a paediatric hospital has brought to find in a total of 2,884 active hospital workers, 1,047 (36.3%) underwent clinical assessment and 850 (81.2%) required RT-PCR testing, of which 221 (26%) (7.7% of all personnel) were positive. This study is important because has demonstrated how the detection of symptoms and contact screening are essential to halt internal transmission. Also, another study demonstrates how 1,273 HCWs who were put under health surveillance and monitored for a period encompassing ten days after the date of contact, during which they undertook nasopharyngeal swab tests analysed through RT-PCR, 31 healthcare workers became positive (about 3,1%) (7). In order to apply infection prevention and control measures in healthcare institutions it is important to limit infections associated with the provision

of healthcare services. Management strategies of contact tracing it's important to for HCWs who have been in contact with a COVID-19 case and who have been infected, they could be encouraged to control infectious disease outbreaks and reporting the world of the article of Anna Llupia, the contact tracing" help restructure the response in the light of detected transmission and guarantee safe hospital care" (8).

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