

Health care workers' COVID-19 infections driven mainly by community exposure

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In a well-resourced health system with adequate PPE (Personal Protection Equipment), health care worker risk for SARS-CoV-2 infection was more strongly driven by community exposure than patient

exposure early in the pandemic, reports a new Northwestern Medicine study.

The study of 6,510 [health care workers](#) is the largest systematically collected cohort study of health care worker risk for SARS CoV-2 in the United States.

Nurses were the only occupation group with higher risks once community exposure was accounted for, the study reports.

Participation in high-flow oxygen therapy and hemodialysis were associated with a higher likelihood for having antibodies to SARS-CoV-2, but other high-risk procedures were not associated with higher risk.

"This suggests that PPE is highly effective in acute exposures to SARS-CoV-2, but some longer exposures may still expose health care workers to increased risks for infection," said co-lead author Dr. John Wilkins, an associate professor of medicine at Northwestern University Feinberg School of Medicine and a Northwestern Medicine physician.

"Fortunately, with adequate PPE and vigilant infection control policies, we can keep most providers safe while they are at work."

The paper was published Dec. 8 in the journal *Open Forum Infectious Diseases*.

Data from the Centers for Disease Control and Prevention (CDC) found 11% of the [total number](#) of reported COVID-19 cases in the U.S. were health care workers. As of November 2020, there have been 797 deaths among health care workers in the U.S. It is a high priority to identify factors associated with SARS-CoV-2 infection in health care settings to protect the essential workforce that delivers care.

A total of 6,510 health care workers, including 1,794 nurses, 1,260 doctors, 904 non-patient facing administrators and 2,552 other staff members were included in the study. The academic health care system included 10 hospitals, 18 immediate care centers and 325 outpatient practices in the Chicago area and surrounding Illinois.

Co-lead author Dr. Charlesnika Evans, professor of preventive medicine at Northwestern, said hospitals may need to enhance infection control approaches for nurses and other health care workers exposed to hemodialysis and high-flow oxygen therapy.

"Continued infection prevention vigilance is needed within and outside of [health](#) care settings," Evans said.

Wilkins and Evans will continue to follow this cohort over time and understand the incidence rates of infection and their predictors.

More information: John T Wilkins et al. Seroprevalence and Correlates of SARS-CoV-2 Antibodies in Healthcare Workers in Chicago. *Open Forum Infectious Diseases*. doi.org/10.1093/ofid/ofaa582

Provided by Northwestern University

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