

# Surface testing for SARS-CoV-2 in hematology/oncology settings reveals negligible detection

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Researchers from Rutgers Cancer Institute of New Jersey, the state's only National Cancer Institute-designated Comprehensive Cancer Center, evaluated the frequency of SARS-CoV-2, the virus that causes COVID-19, on various environmental surfaces in outpatient and

inpatient hematology/oncology settings located within Rutgers Cancer Institute and Robert Wood Johnson University Hospital, an RWJBarnabas Health facility. The study revealed extremely low detection of SARS-CoV-2 on environmental surfaces across multiple outpatient and inpatient oncology areas, including an active COVID-19 floor. Andrew M. Evens, DO, MSc, FACP, associate director for clinical services and director of the Lymphoma Program at Rutgers Cancer Institute and medical director of the oncology service line at RWJBarnabas Health, is senior author of the work, which has been published in the February 18 online edition of *Cancer*.

Patients harboring hematologic malignancies, which are cancers that affect the blood, bone marrow, and lymph nodes, have demonstrated a potential higher mortality rate due to the virus. While COVID-19 is transmitted person to person through respiratory droplets, it has been hypothesized that there is a potential risk of SARS-CoV-2 spreading via contact with contaminated surfaces and equipment, especially in healthcare settings, creating additional concern for patients with blood cancers.

"For patients with blood cancers who may be at higher risk of developing complications from the virus, our findings provide a layer of assurance that these patients are safe when frequenting high impact areas where they receive their [cancer](#) care," notes Dr. Evens, who is also a professor of medicine at Rutgers Robert Wood Johnson Medical School. "The results of this study help us further understand how COVID-19 is transmitted in hematology/oncology and other medical settings, and confirm that strategies like enhanced cleaning and disinfecting policies are extremely effective."

Environmental swabbing took place in two outpatient clinics including the malignant hematology and medical oncology units and infusion suites as well as inpatient areas which included the leukemia/lymphoma/CAR

T-cell unit, and an inpatient unit caring for patients actively infected with COVID-19. Surfaces were sampled on Mondays, Wednesdays and Fridays from June 17, 2020 through June 29, 2020. Areas included waiting rooms, infusion areas, bathrooms, floors, elevator banks, doors, and exam rooms, computer equipment, pneumatic tubing stations, pharmacy benches, and medication rooms. Medical equipment was also swabbed from these areas including intravenous poles, chemotherapy bags, vitals monitor, telemetry stations, and linen carts.

Analysis of the 130 samples collected were separated into three categories: patient/public areas (85), staff areas (22), and medical equipment (23). In the two outpatient clinics and inpatient leukemia/lymphoma/CAR T-cell unit, no SARS-CoV-2 was detected on any swabbed surfaces. In the inpatient COVID unit, one patient/public sample was positive for detection of SARS-CoV-2 in an area where a patient with recent infection was receiving treatment.

Thus, the overall positive test rate for SARS-CoV-2 across all surfaces in the combined outpatient and inpatient hematology/oncology units was a low 0.5 percent.

The authors note study limitations including the inability to analyze the complete surface area of the varied locations, which may have reduced sensitivity. In addition, researchers did not attempt to culture SARS-CoV-2 from the one positive sample; it is unknown if it contained live virus. Continued studies are needed to monitor rates of virus transmission and the environmental factors involved in the propagation of the SARS-CoV-2 infection.

**More information:** Mansi R. Shah et al. SARS-CoV-2 nosocomial infection: Real-world results of environmental surface testing from a large tertiary cancer center. *Cancer*. First published: 18 February 2021 [doi.org/10.1002/cncr.33453](https://doi.org/10.1002/cncr.33453)

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