



Fighting the Spread of COVID-19; Hands, Surfaces and Air

CASE STUDY
Uzsoki Hospital
Hungary

Why one Hungarian hospital deployed air dis-infection technology to combat COVID-19

As the novel coronavirus rapidly spread across the globe, healthcare facilities around the world scrambled to prepare for a pandemic. Stringent hand washing and surface cleaning protocols were implemented and reinforced, and healthcare workers were armed with masks, respirators, gowns, gloves, and goggles to control the spread of the virus. But one Hungarian hospital deployed an additional layer of protection against COVID-19; air dis-infection technology by Novaerus.

PROBLEM



In Hungary, the sudden public health crisis prompted the establishment of mandatory specialized COVID-19 facilities for all in-patient healthcare institutions. For Uzsoki Hospital, a busy, high-traffic hospital in Budapest, this meant transforming its Department of Pulmonology to a ward specially designed to deal with the virus. The site was chosen for two reasons; the high level of expertise their department's employees have in the treatment of respiratory infections and that the department's premises have been equipped with Novaerus air dis-infection technology since 2015.

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SOLUTION

Before the crisis, Uzsoki Hospital had been using Novaerus ultra-low-energy plasma technology to continuously dis-infect the air. The portable devices had been deployed in eleven departments, with one hundred and three units covering medium and high-risk areas. Twenty-eight of these devices were placed in the Department of Pulmonology.

When coronavirus hit, and the pulmonology department was transformed into a COVID-19 ward, it was all hands-on deck; 13 Novaerus devices from other parts of the hospital were transferred to the new ward, adding an additional layer of protection against the virus. Novaerus patented plasma technology has been independently tested and shown to reduce airborne MS2 bacteriophage, a surrogate for SARS-CoV-2, the virus causing COVID-19, by 99.99%.

Depending on the changing needs of the ward and its patients, some of the devices were moved around to different points of care, a task made easier by the portability of the units and their specially designed, height-adjustable stands. For optimum air flow, the devices were placed at a height capable of protecting the breathing zone of all rooms.

Throughout the two-and-a-half-month crisis period the COVID-19 ward staff observed that the devices provided continuous protection against airborne transmission of pathogens for both healthcare workers and patients.



Not a single staff member tested positive for SARS-CoV-2 antibodies, an outcome the hospital's chief COVID-19 nurse attributes in part to Novaerus continuous air dis-infection.

RESULTS

After the initial crisis period had ended, 60 pulmonology workers were screened for SARS-CoV-2 antibodies. Nationally, 8% of Hungary's healthcare professionals had been infected; in the Uzsoki COVID-19 department, not a single staff member tested positive for antibodies, an outcome the hospital's chief COVID-19 nurse attributes in part to continuous air dis-infection.

What's more, the staff noted that Novaerus devices are essentially self-operating, requiring no expertise, equipment, or maintenance staff, a considerable benefit given that outsiders were banned from the hospital for 10 weeks.

As the world battles COVID-19, Uzsoki Hospital will continue to deploy their Novaerus devices to protect the air in their facility. The hospital recognizes the role of clean, disinfected air in a comprehensive infection prevention and control protocol.