

New evidence shows Rediroom reduces an airborne viral load in patient spaces

Independent testing demonstrates how Rediroom can reduce airborne viral load in patient environments, supporting safer care for patients, staff and visitors, using a first-of-its-kind method to assess performance under representative conditions.

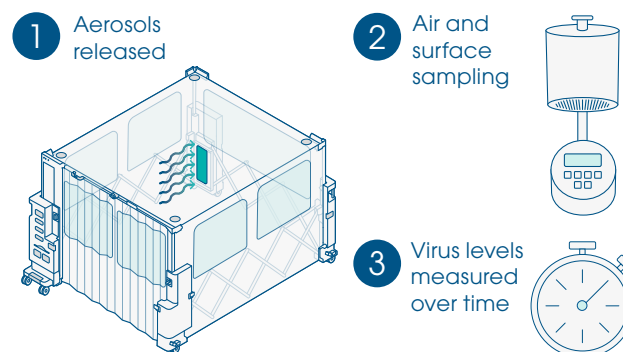
The challenge: managing airborne infection in healthcare

Airborne infections remain a significant challenge for healthcare environments, continuing to drive hospital admissions, outbreaks and staff absences in 2025¹. Managing infectious patients often requires relocation or access to specialised isolation rooms, both of which can be disruptive for patients and resource-intensive for healthcare systems. Rediroom is a rapid-deploy, mobile isolation solution designed to quickly create a controlled patient environment, without the need for permanent infrastructure or patient relocation.

How Rediroom was tested

To evaluate its performance, independent testing by the Dr Brill Institute was conducted under simulated-use conditions representative of real healthcare environments. This approach goes beyond conventional laboratory assessment, capturing how

airborne virus behaves by releasing virus-containing aerosols (airborne particles) and measuring levels in both air and on surfaces over time.



A recognised model virus (MVA) was used to represent common respiratory viruses, including influenza and SARS-CoV-2



Virus-containing aerosols were dispersed within the Rediroom environment for a controlled period (10 minutes), simulating airborne contamination



Air and surface samples were collected over a two-hour period using an air sampler and multiple settle plates positioned throughout the space



Testing was conducted both with and without HEPA filtration to enable direct comparison of performance



Experiments were repeated to ensure consistency of results

Key findings

Significant reduction in airborne viral load

With HEPA filtration:

Airborne viral load reduced to below detectable levels **~99.9% reduction**

Without filtration:

Airborne virus remained present

Reduction in surface contamination

With HEPA filtration:

Only minimal traces detected **~70% reduction**

Without filtration:

Virus detected across multiple surfaces

Performance under realistic conditions

The study was designed to reflect real-world use, by releasing virus-containing aerosols within the patient zone and measuring both airborne and settled virus over time. This helps demonstrate how Rediroom is likely to perform in clinical environments.



The findings show that Rediroom can significantly reduce airborne viral load and environmental contamination in patient spaces.



Turning evidence into real-world impact

For patients

- Supports a safer immediate care environment by reducing airborne viral load
- Enables patients to remain in their existing ward, minimising disruption
- Helps reduce the risk of onward transmission

For healthcare staff

- Contributes to a safer working environment by lowering airborne viral exposure
- Provides greater flexibility when isolation rooms are limited
- Enables rapid response with deployment (approximately 5 minutes)

For visitors

- Helps reduce potential exposure when visiting patients
- Provides reassurance that additional infection control measures are in place

For healthcare organisations

- Adds flexible, on-demand isolation capacity
- Reduces reliance on fixed isolation infrastructure
- Supports more effective management of infectious outbreaks

Airborne infection control remains a critical priority for healthcare organisations worldwide. The ability to rapidly deploy an effective isolation solution that reduces airborne viral load offers a practical and scalable way to enhance patient safety.

Rediroom combines rapid deployment with effective air filtration to support safer environments for patients, staff and visitors, while giving healthcare providers greater flexibility to manage isolation capacity within existing care settings.

Reference

1. UK Health Security Agency (UKHSA). *Respiratory infections surveillance report, 2025*