

Protecting those that care for patients as they reach end of life.

CleanLight is a powerful LED panel proven to clean the air by destroying viruses and bacteria, including COVID-19 wherever it shines.

Approved by eminent microbiologist Dr Carl Edwards and extensively tested in laboratories as well as real-world trials, CleanLight has been proven to eliminate the problem of bacteria, viruses, pollutants, and odours in the air across a number of different environments.

Our Clean Air Audit is a precise, scientifically verified process that accurately measures airborne pathogens and shows where the potential for onwards transmission of disease is greatest.

Lightico were invited to address the issue of air quality at St Gemma's Hospice in Leeds, United Kingdom. Unlike many workplaces healthcare settings are still subject to stringent working practices to address the potential spread of COVID-19. CleanLight has managed to achieve support these critical workers, delivering end of life care to some of society's most vulnerable.

The problem

The hospice had already recognised the need to monitor air quality in key workspaces where caregivers needed to discuss sensitive and confidential care plans for patients. Through the installation of CO2 monitors, levels of carbon dioxide are constantly monitored and staff have been trained to take mitigation measures should levels exceed so laid out by the UK Health & Safety Executive.

The challenge was that options to mitigate poor air quality were limited. With only one office per ward, they are constantly in use day and night. Without any mechanical air extract the only solution for reducing CO2 levels is to open the door (allowing potential pathogens to disperse into the ward area) or open the windows resulting in increased heating costs and potential breaches in confidentiality as conversations could be overheard.

The solution

First, we carried out our Air Quality Audit, placing 3 air sampling plates within the ward office for an exposure period of up to 60 minutes. This gave us a quantitative estimate of the concentration of micro-organisms in the air. From this detailed analysis of the airborne threats, and verified tabulated results, we were able to show where CleanLight panels should be installed for optimum effect. We replaced 4 existing light fittings with CleanLight LED panels, disruption was minimal with the entire installation taking less than a day to complete. The dimensions of the ward office provide a 32.79m³ volume of air that needs to be cleaned. In total, these four CleanLight panels provided the equivalent of 9.99ACH (air changes per hour) well above the standard set by CIBSE (Chartered Institute of Building Services). All without any additional energy usage throughout the lifespan of the product; 50,000 hours.



"CO2 monitoring was just the first step in developing a clean air strategy for our most valuable asset, the staff. It was only when we looked at CleanLight could we see a viable solution that was practical and cost effective. We were confident in its capability to clean the air but the results were far better than we expected."

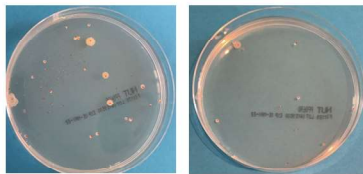
Richard Wilson - Estates Manager, St Gemma's Hospice

The results

Once the CleanLight LEDs were installed, we carried out a further Air Quality Audit to measure its effectiveness. From this we could show that CleanLight had significantly reduced the levels of bacteria and risk that staff faced by working for long periods of time without being able to socially distance.

Plate location	Bacterial colony count (per plate) - TVC		% Diff
	Before CleanLight	After CleanLight	
Location 1	30	11	-63%
Location 2	32	22	-31%
Location 3	33	15	-55%
Total	95	48	-49%

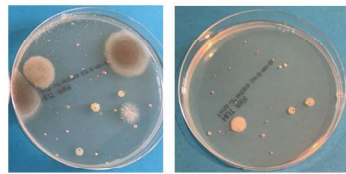
Location 1



Before

After

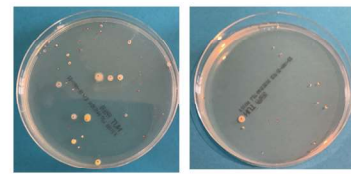
Location 2



Before

After

Location 3



Before

After

CleanLight improved air quality by 49%

The bigger picture

CleanLight from Lightico provides a solution wherever your staffs' work would be compromised, by adding protocol and extra processes to better protect them.

The starting point is always an accurate assessment – using our own Air Quality Audit. Once the danger areas have been identified, our CleanLight LEDs can be fitted quickly, and take immediate effect. By killing airborne bacteria, viruses, pollutants, and odours with nothing but light, CleanLight provides non-intrusive, instant and highly effective protection.

Switch CleanLight on, and switch on a new level of protection, with almost no disruption.