



The Air Disinfection Company

CASE STUDY

CS Inov8EDI/09

September 2009

Eliminating airborne infection in a closed environment

The Inov8 Science Story

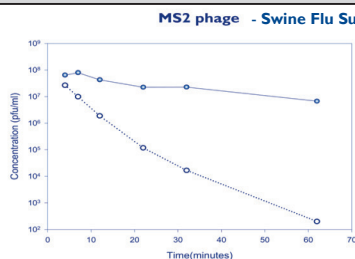
The Inov8 Science solution is a unique air disinfection device that is safe to operate in the presence of children, patients and vulnerable people.

The AD Air Disinfection centres around the effect of hydroxyl radical. Often called "nature's disinfection", hydroxyl radicals are an essential part of the cleansing and disinfection of the air. In our bodies, hydroxyl radicals are naturally produced by cells to kill invading pathogens as an essential part of the body's natural defence. In the open air, hydroxyl radicals are produced by the reaction of ozone and olefins, the natural scents of flowers and plants.

The hydroxyl radical is a transient piece of energy; however when it reacts with molecules in a bacterium or a virus, that reaction in turn produces more hydroxyl radicals. That means that when the Inov8 Science AD Air Disinfection unit is placed in a room, or an office, or an enclosed space that is filled with bacteria and viruses, the hydroxyl radical output of the AD is effective in disinfecting that room. And, once cleaned, the low level of output of the device remains entirely safe ... just like the open air.

Inov8 Science continues its work with universities, HPA and hospitals. Its AD solution is represented internationally through its distributor network.

Inov8 Science is a wholly owned subsidiary of Mid States plc, an AIM listed UK Company.



Legend: -- 0 -- time (minutes) vs Challenge concentration; ... 0 ... time (minutes) vs Device concentration

A clear demonstration of the fast effects of Hydroxyl Radicals in clearing viruses in a contained area. HPA Tests 2007. *While MS2 and influenza virus particles are different, MS2 is likely to be the harder virus to inactivate. So if something inactivates MS2, it is reasonable to assume that flu would not only be inactivated, but might perish faster which is why it has been used in these studies.

Case Study

Hereford Hospitals NHS Trust is the main provider of acute services across Herefordshire and part of Wales. The Hereford County Hospital wanted to control the spread of contagious infections, especially within its oldest wards in the hospital, known as The Nightingale Wards.

These wards are large — each has approximately 25 beds—and have an open plan design, making it very difficult to safeguard against airborne infection. During December-February 2007/8, there were six closures of these wards, resulting in a loss of 45 days.

Inov8 Science approached Hereford County Hospital, introducing them to the hydroxyl radical concept and the AD Air Disinfection solutions. During the summer of 2008, the hospital agreed to install 30 AD Air Disinfection units in three of its Nightingale Wards on a trial basis.

During the 12 month trial period, the hospital admitted three patients with Norovirus who were assigned to one of these wards.

Norovirus outbreaks typically result in ward closures of least seven to ten days and often result in cross infection of adjoining wards due to the ward layout. Within the trial period, the ward reopened in three days - the Norovirus was contained and there was no secondary spread.

In January 2009, Inov8 Science installed a further 80 units in the medical and surgical wards in the main hospital building. Again an outbreak in an orthopaedic ward was aborted with no secondary spread beyond three days.

Dr Budd, Medical Director and Director of Infection Prevention and Control said, " We are pleased with the results and think they reflect the impact of a number of initiatives across the hospital, including the installation of Inov8 Science AD Air Disinfection units on nine wards."

To date, there have been no further Norovirus outbreaks since the AD units were installed.

Call us today for an informal chat.

Aaron Gartshore Effective Protection Solutions for Education 07985 705083 or 01908 682520 agartshore@inov8.com www.inov8.com

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