

AD Air Disinfection in Ambulances

Why Use the Inov8 Solution?

- Protects staff and patients against airborne infection inside the vehicle.
- Attacks airborne viruses, bacteria and fungi in a continuous manner.
- Eliminates bad odours.
- Low energy consumption, can be powered from vehicle 12VDC supply.
- Discreet, silent and easy to use.



The Inov8 Solution

Within the NHS, Healthcare and Bio-Medical sectors, the need for the highest levels of hygiene and disinfection remain one of the most important priorities.

In fact, the NHS hospital and private clinic environments are continuously seek out new technologies and innovations in support of existing cleaning and hygiene protocols to prevent and fight against the risk of cross infection.

Support agencies such as the ambulance service have become increasingly aware of the expectations of the general public and the responsibilities placed on them for the maintenance of standards related to surface hygiene. In addition, the environment within vehicles must remain free of potentially infectious pathogens that can affect patients and paramedic medical staff.

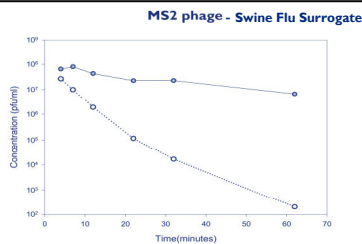
The ambulance services are a clear example of ongoing perseverance in maintaining standards of hygiene and disinfection inside their vehicles. When in service, ambulances are continually on the move, transporting many patients in any one day. They are clearly susceptible and potentially exposed to a high concentration of airborne and surface based pathogens from various sources, including the external environment itself and the transference of infectious patients. This demands a consistent and effective hygiene protocol that provides the highest levels of disinfection of the ambulance interior, specifically all areas of instrumentation, on an ongoing daily basis.

Recognising that interiors of ambulances often have limited space and a high density of medical instrumentation, the “clean as you go” and “heavy duty clean” protocols associated with effective cleaning and disinfection utilising existing processes, are time consuming, labour intensive and laborious. Ultimately this means that there is less time for ambulances to be in service. Undoubtedly, this will have an economic and operational impact on service and efficient rotation



Satisfactory Results for the Inov8 AD

Dr. Ian Widger, Inov8 Chief Technology Officer, comments: *"The results are particularly satisfying. The technology offered by the Inov8 AD system has become a new benchmark in air disinfection, particularly in the healthcare/medical sector. Inov8 Science is one of the winners of the "UK NHS Smart Solutions for Healthcare Associated Infections Program 2009"*."



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.*



of the ambulance fleet, thereby reducing efficiency whilst in service.

There is now an opportunity to use an air disinfection system within ambulances that ensures the complete disinfection of the air-borne pathogen load constantly from within the vehicles. Alternative systems for air disinfection inside ambulances are available. However these require total evacuation of the vehicle, thus inefficiently and uneconomically increasing the down time for that ambulance.

The (AD) Air Disinfection System supplied by Inov8 Science Limited reduces the airborne and surface microbial load to undetectable levels within just a few minutes from start up. The unit can be operational continuously without paramedics or patients having to evacuate the vehicle. The AD unit measures 40 x 20 cm. It constantly emits a controlled flow of hydroxyl radicals which act on all bacteria, viruses and fungi in suspension, neutralizing and de-activating them and thus preventing cross infection.

After visiting www.inov8.com, a number of ambulance services operating across Europe have contacted us to enquire about the impressive benefits of the Inov8 Air Disinfection System (AD) and its application to the ambulance service.

In-depth trials within ambulances have already proven successful. Prior to installation of the AD system, a series of air samples from within ambulances were taken to support the study. The AD air disinfection unit was installed in the area of care or patient area within the back of the ambulance. The ambulance AD was activated for a test period of four hours during which the ambulance was visited intermittently by several members of an evaluation committee of the ambulance service, simulating the usual inputs and outputs of health workers and patients. After testing the AD Air Disinfection device for four hours of continuous operation, a second set of air samples were obtained within the area of care in the ambulance. **The results showed that after the introduction of the Inov8 AD, the suspended microbial load inside the ambulance had been significantly reduced by 91%.**

For all sales enquiries, please contact Inov8 Science Ltd.

Effective Protection Solutions for Healthcare

**+44 (0)1908 315 500
 sales@inov8.com
 www.inov8.com**

**Inov8 Science Ltd.,
 Mill Court,
 Featherstone Road,
 Wolverton Mill,
 Milton Keynes,
 MK12 5EU.
 United Kingdom.**

