



# Vehicle Decontamination

Surfaces provide a reservoir for many bacteria and viruses where they can survive for potentially prolonged periods of time. Furthermore, when contaminated, surfaces enable the transmission of these pathogens simply through touch, presenting a risk of infection.

Decontamination using our validated and proven effective hydrogen peroxide vapour (HPV) and ultraviolet-C light disinfection robot technology is an essential part of ensuring the elimination of all air- and surface-borne microbes within vehicles.

## The Risk of Infection

There is a high risk of cross-contamination between each patient that is transported in emergency vehicles. The driver and crew are also at risk of acquiring infectious pathogens that can even be transmitted to paramedics and hospital staff during transfer between the vehicle and hospital.

MRSA is of particular concern. In fact, in studies by Brown *et al.* and Roline *et al.*, around half of samples collected from emergency ambulances tested positive for MRSA contamination. The samples were taken immediately after the transportation of a patient infected or colonised with the disease.

## The Inefficiency of Manual Cleaning

Manual cleaning is an essential component in an effective infection prevention and control strategy, however disinfectant-based cleaning products may be ineffective in controlling microbial and viral pathogens such as MRSA and norovirus.

Manual cleaning alone cannot provide the assurance that the reduction of pathogens reaches safe levels. This is often a result of unavoidable human error but also as a result of the fact that the effectiveness of this method of cleaning is difficult to measure. As a result of the inefficiency of manual cleaning, new approaches have been proposed.



### Did you know...



DURING A TEST OF  
13 AMBULANCES, 49.9%  
OF SWAB SAMPLES WERE  
POSITIVE FOR BACTERIA<sup>1</sup>

- During a test of 13 ambulances, where up to half of swab samples were positive for bacteria, 0.9% showed MRSA, MRCoNS or carbapenemase-producing *Klebsiella pneumoniae*<sup>1</sup>
- MRSA was found in around half of samples collected from emergency ambulances in studies by both Brown *et al.*<sup>1</sup> and Roline *et al.*<sup>2</sup>



Sources: See overleaf.

## How Inivos Can Help

Inivos offers a highly effective decontamination service thanks to the use of its innovative UV-C light ray and hydrogen peroxide vapour disinfection robots. This technology ensures an efficacious and effective decontamination of patient equipment, with a proven, measured system of validation for each and every cleaning cycle.

With technology independently verified to achieve a log 6 reduction of bacteria, we offer emergency vehicle decontamination as an on-call service, for a particular project or as a managed contract.

## Our Service

Our service is particularly suited to decontaminating emergency vehicles and can be provided in conjunction with our whole room decontamination service.

We manage our service from end-to-end to ensure all stakeholders are aligned through clear communication of a complete project plan. Our teams of qualified technicians are able to operate 24 hours a day, 365 days a year to ensure rapid turnaround and minimum disturbance or disruption to the clinical schedule. This involves:



### Pre-Cleaning Assessment

Our technician carries out pre-process safety and preparation checks; ensuring the interior of the vehicle has been manually cleaned and removing any absorbent materials.

Finally, they liaise with the relevant staff to ensure they are fully informed about the decontamination process.

### Active Cleaning

The next step is to carry out the decontamination process using the correct and most appropriate disinfection robot. This will either be through the use of our UV-C light ray system, Ultra-V, or with our low concentrate hydrogen peroxide vapour system, ProXcide.

### Validated Assurance

After cleaning and disinfecting, our technician will check the vehicle is safe to readmit patients and remove the disinfection robot and equipment to allow the vehicle to be put into use again.

## Our Approach

Our approach follows a set of steps which we apply to every part of what we do. This involves analysing your needs and environment, designing solutions fit for purpose and delivering effective results.

Our knowledge and expertise allow us to provide the very best in decontamination, with a particular emphasis on the efficacy and safety of our models.

## Why Inivos?

Not only are we an established and trusted name in healthcare, with facilities and hospitals around the world relying on our advanced hydrogen peroxide vapour and UV-C light disinfection robots, but we also offer **a level of expertise second to none**, and **services not provided by other companies**, including managed service contracts and decontamination.



Multiple areas included



Evidence based processes



Validated assurance



Dedicated project management

Helping you provide patient-ready spaces with on-call decontamination and managed services



Our Inivos services are easy to arrange and tailored to your requirements:

Call **0845 270 6690** or email **customerservices@inivos.com**

Sources: <sup>1</sup> Brown R, Minnon J, Schneider S, Vaughn J. Prevalence of methicillin-resistant *Staphylococcus aureus* in ambulances in southern Maine. *Prehosp Emerg Care*. 2010;14(2):176-181. <sup>2</sup> Roline CE, Crumpecker C, Dunn TM. Can methicillin-resistant *Staphylococcus aureus* be found in an ambulance fleet? *Prehosp Emerg Care*. 2007;11(2):241-244. <sup>3</sup> Taylor-Robinson, Andrew. (2019). Contamination of Emergency Medical Vehicles and Risk of Infection to Paramedic First Responders and Patients by Antibiotic-Resistant Bacteria: Risk Evaluation and Recommendations from Ambulance Case Studies. 10.5772/intechopen.87219.

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