



# Microbiological Testing

Water microbiological testing is very important for hospitals in order to provide validated assurance that water-borne pathogens are kept to a minimum as well as fulfilling the requirements of mandatory HAI surveillance. Water-borne pathogens such as *legionella pneumophila* and *pseudomonas aeruginosa* contribute to higher rates of nosocomial infections, posing a risk on the lives of the elderly, immunocompromised as well as staff and visitors. Every use of water in patient care settings must be scrutinized and evaluated for its risk to harbour and transmit healthcare-associated pathogens. Even hospital sink drains and toilets can pose a risk for harbouring antibiotic resistant pathogens that can spread to patients and cause harm. Therefore, it is vital to continuously perform water sampling and testing to ensure there are no harmful pathogens in the hospital water system.

## The Risk of Infection

Water-borne pathogens can cause many health complications such as pneumonia, meningitis, urinary tract infection, bacteremia (sepsis), as well as Legionnaires' disease. everyone within a health-care setting is at risk, especially when contaminated water droplets makes their way out of the water outlets into the atmosphere. Also, coming in direct contact with contaminated water through touch or direct consumption can be fatal and cause severe complications, as well as increasing the probability of an outbreak.

## The Most Susceptible

Immunocompromised, elderly and children are amongst the most vulnerable individuals to diseases associated with water-borne pathogens. Also, staff and visitors are susceptible, and they may act as carriers, hence increasing the risk of cross-contamination across different departments within the healthcare setting.

## Our Service

In addition to testing and sampling your water for potential pathogens, we also decontaminate and disinfect the surrounding areas of your water outlets and systems, to ensure full elimination of harmful and unwanted microorganisms. In addition to that, we can provide you with decontamination services in Bathrooms, sluices, boiler rooms and water sampling and testing for your water outlets and water system flushing. Our services are available to all hospitals in the UK.



### Did you know...

**20%**

PSEUDOMONAS  
AERUGINOSA CAUSES  
BETWEEN 10% AND 20%  
OF INFECTIONS  
IN MOST HOSPITALS<sup>1</sup>

- The Centers for Medicare & Medicaid Services (CMS) and CDC consider it essential that hospitals and nursing homes have a water management program that is effective in limiting Legionella and other opportunistic pathogens<sup>2</sup>
- The most serious infections include malignant external otitis, endophthalmitis, endocarditis, meningitis, pneumonia, and septicemia<sup>3</sup>

Sources: See overleaf.



### Pre-Risk Assessment

Our experienced technicians will perform all the required steps prior to taking samples for analysis. This includes fully inspecting the systems to ensure there are no potential issues or to make notes when issues do exist within the water systems to provide fully accurate results and perform any required maintenance. Also, they will liaise with the clients to discuss the testing requirements and obtain all the needed information of the water outlets and systems. Our technicians will also adhere to the health and safety guidelines and are always equipped with personal protective equipment to minimize the risk carrying unwanted pathogens.

### Water Testing

Our sampling technicians will follow different sampling procedures for legionella and P.aeruginosa as they both

require different methods of sampling. They will take every step to ensure safe sampling and transportation of samples to the closest laboratory facility and to minimize dispersing of unwanted infectious particles over the environment. Should results be positive, works would be recommended as required to remove the infection, and further sampling would take place before and after any flushing or other remedial works, to ensure the works have been effective.

### Validation

On completion of the sampling process, samples will immediately be sent to accredited laboratories. On completion of the laboratory analysis, a report will be issued, detailing the findings and observations, along with any recommendations for improvement or remedial actions, based on the results obtained.

## Our Approach

Our knowledge and experience in the field of infection prevention and control means we are best placed to support you in ensuring water borne infections do not threaten your environment, staff or patients. We use tried and tested technologies in disinfecting cooling towers, closed systems and building services water supplies as well as point of use tap and specialist use supplies..

## 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 on-call services and maintenance programmes across a range of industries.



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> <https://pubmed.ncbi.nlm.nih.gov/6405475/#:~:text=Pseudomonas%20aeruginosa%20has%20emerged%20as%20an%20important%20pathogen,fibrosis%2C%20acute%20leukemia%2C%20organ%20transplants%2C%20and%20intravenous-drug%20addiction.> <sup>2</sup> <https://www.cdc.gov/hai/prevent/environment/water.html>. <sup>3</sup> <https://pubmed.ncbi.nlm.nih.gov/6405475/#:~:text=Pseudomonas%20aeruginosa%20has%20emerged%20as%20an%20important%20pathogen,fibrosis%2C%20acute%20leukemia%2C%20organ%20transplants%2C%20and%20intravenous-drug%20addiction.>