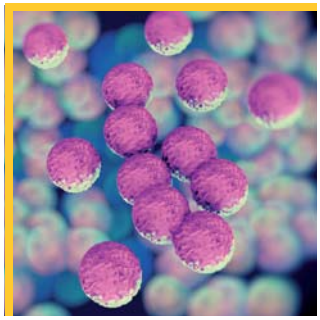
Enhancing Disinfection to True Prevention

High-Level No-Touch Disinfection Systems

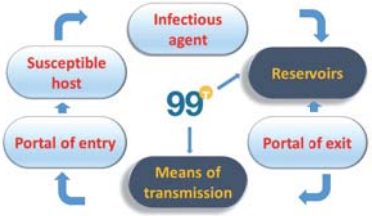
99

www.99technologies.ch



Prevention is paramount

Healthcare Acquired Infections (HAI) represent a silent epidemic that afflicts millions of patients in hospitals and healthcare facilities worldwide[1].
Constant rise in antimicrobial resistance reduces therapeutic options available to physicians.
Containing the spread of dangerous pathogens to prevent the insurgence of HAI is like fitting the pieces of a complex puzzle together. One of the most important is represented by the disinfection fomites and other inanimate surfaces.



Breaking the chain of infection, exploiting pathogens vulnerabilities

The correct disinfection of hard surfaces is an essential component of the fight against HAI. When executed correctly, disinfection allows to cut off surfaces as a transmission route for pathoges by hitting them when it is easier to lessen their negative impact in contrast to when they are already inside the human body.

[1] WHO, HAI Fact sheet

Introducing HyperDRYMist® an innovative environmental disinfection technology

HyperDRYMist®

99 Tecnologies introduces a new paradigm in the use of no-touch high-level disinfection systems that opens new modalities in the fight against HAI.

99T brings considerable improvements on the extensively documented biocidal properties of aerosolized hydrogen peroxide disinfection. Effectively combining efficacy, speed, and affordability, HDM® allows to rethink the use of automated disinfection technologies by making available to infection preventionists truly preventive disinfection schemes that drastically limit the insurgence of HAI.

How does it work

99T systems aerosolize one of the company's proprietary disinfectant solutions transforming it into an extremely fine mist which behaves similarly to a gas made up of submicron droplets. The droplets are distributed evenly and thoroughly over each square millimeter of the environment depositing a coating of high biocidal efficacy.

Innovation engineered to generate efficacy and efficiency

Significant enhancements on the make-up of the proprietary disinfectant formula boost the biocidal activity of hydrogen peroxide, and are engineered to work synergically with the patented Modular Micro-Nebulizer 99M. The combination increases the capability of our hyper-dry and ultra-fine mist to engulf and attack microorganisms' essential biomolecules causing their destruction. This process happens even applying our preventive schemes which optimize consumption of disinfectant solution.

Rigorous testing in the lab and in the clinic

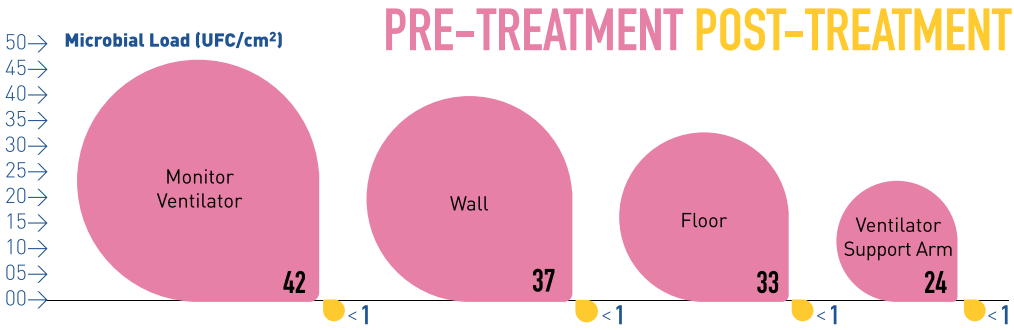
99T has followed a demanding path to validate the efficacy of its proprietary disinfectant formulas via extensive testing carried out in certified labs.

Wide-ranging testing in clinical setting has successively proved the drastic reductions in microbial load achieved via the use of 99T systems.

Clinical effectiveness

Extensive In Vitro and In Vivo evaluations have demonstrated the efficacy of the HyperDRYMist® technology. A growing body of clinical evidence support the use of the 99T system as a valuable tool for the effective disinfection af hard surfsces and in the fight against Healhcare Acquired Infections[1].

Proven microbial load reduction capabilities



[1] Ferrari M. et al, Efficacy of HyperDRYMist® Micro-Nebulized Hydrogen Peroxide in Reducion Hospital Acquired Infections.

Users benefits: targeting actual infection preventionists' needs

Higher execution speed
Optimized amounts of disinfectant, a mist composed of sub-micron size droplets and an accelerated-evaporation process allow a faster reuse of the treated spaces even in complex and densely equipped healthcare environments.

Full scalability of treatment's intensity, from prevention to decontamination.
Mist leaves no humidity residues, safe on electronic equipment and compatible with most surfaces found in hospitals. **Mitigated drop-off effect** increases reach and efficacy of antimicrobial action.

Wider pervasiveness
Thanks to its novel aerosolization technology, the mist generated by the 99T system travel in suspension further and reaches better even the most hidden surfaces.

Major cost effectiveness
Lower need of disinfectant formula and shorter cycles times cut down on operation and down time costs. Ease of use trims training costs.

Greater ease of use

→ The system does not require elaborated preparations of the spaces before executing treatment.

→ The modulator's programming and process activation are simple and done in seconds.

→ Healthcare facilities' patients and personnel can reoccupy treated spaces in very compressed times.

Microorganisms tested[1]
→ acinetobacter baumannii
→ adenovirus 5
→ aspergillus niger
→ bacillus subtilis
→ candida albicans
→ candida glabrata
→ clostridium difficile
→ enterococcus hirae
→ escherichia coli
→ carbapenem-resistant klebsiella pneumoniae (CR-KP)
→ listeria monocytogenes
→ legionella pneumophila
→ murine norovirus (MNV)
mycobacterium avium
→ mycobacterium terrae
→ poliovirus 1 lsc-2ab
→ pseudomonas aeruginosa
→ salmonella typhimurium
→ staphylococcus aureus
→ staphylococs aureus MRSA

[1] Clinically relevant selection of actual number tested.

Surpassing hydrogen peroxide's capabilities

Our proprietary formulas are chemically engineered so that other components are added to hydrogen peroxide. These elements work in synergy with one another and considerably enhance the biocidal properties of hydrogen peroxide. These improvements are particularly important for the application of our preventive treatments which lab's testing has certified to be effective against contamination and pathogens commonly found in healthcare settings.

Our range of disinfectant solutions: moving beyond sheer hydrogen peroxide

In formulating its disinfectant solutions 99T has strived to strike a key equilibrium point between efficacy, safety, stability, negligible amounts of residues, absence of adverse effects on surfaces.

Certifications & Standards

Thanks to its novel aerosolization technology, the mist generated by the 99T system travel in suspension further and reaches better even the most hidden surfaces.

The effectiveness of the 99S solution was tested in vitro according to the following European standard norms: EN 1040 EN 13697 EN 1650 EN 14476 EN 13623 EN 1276 EN 1275 EN 13704 EN 14348.

The French Standard AFNOR NF T72-281

The United States Pharmacopeial Convention standards.

In all cases the test results exceeded the norm's requirements.

The 99S solution is certified as: Medical Device Class IIa (EU Directive 93/42/EEC)

The 99S Solution is manufactured according to the standards: ISO 13485 ISO 9001

99 Technologies has achieved the ISO 13485 standard for Manufacture and After-Sale service of disinfectants for non-invasive medical devices and the ISO 9001 standard as Manufacture and Trading of disinfectants for non-invasive medical devices and biocidal products.

- → Engineered to work in synergy with disinfectant formula
- → Droplet size < 1µm
- → Maximum treatable volume 1000 m³
- → Mean application time ~ 3.9 s/m³
- → Stainless steel structure
- → Adjustable handle
- → Anti-static rear wheels
- → Programmable disinfection operation's start
- → Reports' software interface
- → USB 2.0 - 3.0 compatible
- → Air intakes separation
- → HEPA filtering of engine's exhaust
- → Weight 10.6 Kg
- → Dimensions (cm) 25(W) x 42 (D) x 50(H)

Our range of Modulators Micro-Nebulizers

The 99MC Modulator Micro-Nebulizer has all the features of the 99MB, and it also equipped with:

- → Autonomous recognition of solution's type
- → Nebulized volumes' high precision gauging
- → Bottle unique identifier
- → Bottle tamper resistance system
- → Total retraceability of disinfection operations
- → Executed cycle's type automatic identification
- → Treatments' parameters automated data feed and upload control process
- → Programmable disinfection operations' start
- → Seamless bottle's recharge operations
- → Traice technological ecosystem for process control and compliance observance
- → Treated space code up to 1000 different environments
- → Dimensions (cm) 25(W) x 45(D) x 60(H)
- → Weight 14 Kg

Certifications & Standards

The Modulator Micro-Nebulizer 99M series complies with the following relevant directives:
Low Voltage Directive 2014/35/UE
Electromagnetic Compatibility Directive 2014/30/UE - RoHS Directive 2011/65/EU
The Modulator Micro-Nebulizer 99M series is manufactured according to the standard: ISO 9001

Traice
Controlling Process Execution and Protocol Compliance

TRAICE (Treatment Reporting And Interactive Compliance Execution) is the technological ecosystem designed to support infection preventionists in the correct use of 99T's disinfection systems by further automating the disinfection process and by allowing the 99MC Modulator to autonomously identify the environment the environment where it finds itself in, initiate the disinfection cycle with a single input operation, verify treatment execution via smartphone.

If it gets measured, it gets done

There are two dimensions to compliance: one is for devices the other for users.
The TRAICE technological ecosystems ensures that disinfection cycles are correctly executed as a process and that they are indeed implemented by hygiene practitioners.

With the use of TRAICE healthcare facilities can provide evidence of their due diligence in seeking elevated hygiene standards while ensuring that those goals are met via actual implementation of high level disinfection processes.

The 99D-X PRE-HDM Detergent

The HDM technology requires proper cleaning of surfaces in order to achieve optimal microbial load reduction. The presence of unwanted residues coming from inadequate or forcibly accelerated cleaning procedures may hamper the otherwise proven efficacy of 99T's systems. Enter 99D-X, the detergent specifically conceived to Prepare, Reinforce, and Enhance (PRE) the disinfection action of HDM.
The 99D-X has been chemically engineered so that 99D-X treated surfaces are ideally prepared to receive HDM thanks to a cleaning formula which has components that are highly biodegradable and highly compatible with surfaces.

Vertical Disinfection Solutions

With 99D-X we supply to healthcare facilities a vertical and integrated solution in the realm of high level microbial load control.

The 99MB Waves-Shielder

Environments hosting Magnetic Resonance Imaging MRI devices are by definition off limits to metallic objects whose presence represent a hazard or a potential source of interference with the proper working of the imaging devices.

Surface morphology of MRI devices complicates disinfection process, thus the use of the highly pervasive disinfectant action of HDM is highly warrented.
The technology of the 99MB Waves-Shilder allows to position our device outside the 250Gauss line clearly identifiable inside rooms where MRI devices are located as it shields our modulator from the effects of the magnetic field generated by the MRI.

Stop pathogens, not your operations

At 99T we know that prevention must be applied widely and persistently in order to be effective. So we have made a deliberate effort make the use of our disinfection technology as widely adoptable as possible.

Visit our website for updates on our technology and science.
www.99technologies.ch

99Technologies is based in Switzerland, incorporated under Swiss law, and member of the Swiss Chamber of Commerce

No-touch disinfection technologies that make life easier for infection preventionists and life better for patients and healthcare workers.

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