

## **Nebulized Pathogens**

### Disinfection without residues

**For a long time - not only since the presence of H1N1 virus - the desire of many doctors and care services has been a lack of viruses especially in sensitive areas. The question whether the usual scrubbing and wiping disinfection method meets the modern standards of hygiene comes up again and again. This question can be remedied by using a new disinfection measure.**

The desire of low-germ purity comes more and more into the focus of clients which take advantage of professional cleaning services. Public buildings, gyms and saunas, as well as doctors' practices and health centers are places where a lot of people go in and out. In this environment specific quality standards must be met by building cleaners.

Viruses are a threat that seems to lurk everywhere. Almost daily horror stories are making press headlines. The result: The public is aware; quality demands rise for building cleaners: Great importance is attached to a low-germ environment.

Thanks to a new method, professionals are now able to satisfy its customers' needs without personnel costs to burst the budget. However, to look at things in the right sequences: Peter Kohler from Remscheid (Germany) is Managing Director of 365 °, the care center for people. "Our main focus is the person itself", emphasises Mr. Kohler. "We want our residents to feel comfortable. I assume a standard of hygiene is in no way inferior to medical practices."

Together with his partner Ralf Mantei and 200 employees he supplies about 100 patients in in-patient, day and intensive care. The service portfolio is very wide-ranging because in addition to the services described a pediatric intensive care and a patient transport service is being offered. This year the new day care concept is going to start opening up new dimensions. Flexibility is everything, says Mr. Kohler. He works according to demand and his as well as Rolf Manteis' success proves it. For the present year, other locations in the Cologne area and in Lower Saxony are already planned. In nursing care, hygiene has first priority of course. "We strictly work according to medical guidelines", emphasises Peter Kohler comparing his rooms to treatment rooms of medical practices. "Where people live together and receive medical care particular attention must be paid to hygiene. The safety of our residents is our top priority", clarifies Peter Kohler. "Especially in long-term intensive care, we rely on absolute sterility."

### **Keeping an eye on costs**

A thorough cleaning involves a lot of time and manpower and in times of tight budgets, it is a sensitive issue. The challenge was to close the hygiene chain in the best possible way at favourable conditions. Therefore rational procedures were required. Within his search he discovered the provider "Schulten Gebäudedienste" with headquarters in Remscheid (Germany). Schulten building services could then present a new disinfection procedure. The medium-sized company has approximately 2,000 employees relying on well-trained cleaning staff when fighting dirt and germs with modern technique. Training and advanced training measures are on the agenda in order to keep the staff up to date. "This ensures that we can efficiently meet the needs of our customers", explains Oliver Knedlich (CEO at Schulten Gebäudedienste) the corporate philosophy.

### **Sterile Service Plus**

The new disinfection method (provider: Diop, Rosbach, Germany) operates on the basis of an aerosol nebulization which guarantees almost absolute sterility in combination with the usual scrubbing and wiping method. "We work with the DiosolGenerator, a mobile device which can be used in different rooms and vehicles", explains Oliver Knedlich the new hygiene system. "The generator operates on a hydrogen-peroxide based mist whose effectiveness is enhanced by silver ions", explains Thomas Nass (Sales manager, Diop, Germany) the new technology. For him the advantage is obvious: "This way we achieve a high efficiency with low personnel costs, a circumstance which certainly meets the demands of contract cleaners."

Schulten exclusively offers the innovative service for North Rhine-Westphalia. Many saunas, fitness centers and doctors' offices as well as the care center for people in Remscheid (Germany) are already benefiting from this aseptic "Service Plus". Ralf Mantei and Peter Kohler of 365 ° are pleased that despite the high efficiency "an excellent value for money is given".

An advantage of this method is that even hard to reach places in rooms are being disinfected effectively. Also larger devices or joints are kept on a sustainable low-germ level. Ralf Mantei himself is thrilled by this novelty and considers the cold mist nebulization as a useful addition to the scrubbing and wiping technique. The conventional cleaning is still necessary to him and the additional costs are moderate. The staff preparing and setting up the generator can do other things during the disinfection process.

In most cases the disinfection process runs after the daily business and therefore does not obstruct the daily life in his facility. The medical facilities are available without any restrictions and he can assure the residents a germ-poor result. "In fact, the aerosol nebulization is extremely efficient," says Thomas Nass. "A time-and labor-consuming wiping is not necessary. This way the hygiene chain is being closed; for the customers it opens up a whole new standard of hygiene which may be certified on demand by a specialist."

### **Detectable hygiene**

Oliver Knedlich from Schulten building services explains: „Our certified disinfection experts assume the decontamination of all vehicles and buildings. After disinfection this can be documented with a hygiene certificate and the customer can score with this evidence, when it comes to absolute cleanliness. "Thomas Nass adds: "With the cold fogging nebulization all critical areas can be treated reliably. This new technology complements the traditional scrubbing and wiping disinfection. Another advantage of the aerosol mist is that the micro-aerosol disinfectant does not leave any residues. "This makes a post-treatment superfluous; the personnel is available for other activities, without neglecting the quality.

Extensive tests confirm the new method: The highly effective disinfectant against bacteria, fungi and viruses has been tested in numerous studies according to the so-called VAH procedures and the latest EU directives. Due to the chemical composition of the agent, biofilms are also being attacked; Therefore a comprehensive efficacy against spore-formers and molds is ensured.

Dr. Käflein, a respected doctor of Microbiology at Bionovis Institute in Giessen has dealt with the process and carried out numerous experiments. Käflein confirms the success of a Diosol treatment: "In several reports, an efficiency of the agent against a variety of medical and hygiene-related bacteria was detected. Particularly interesting is its effectiveness against spores which pose a principle problem during disinfection measures." Dr. Käflein also carried out an expert study on the effectiveness of the agent in hard to reach places such as gaps, joints and similar places. The conclusion is also convincing critics: "During the examination in gaps no bacteria were detected on indicator media."

Thus, it has scientifically been proven that the disinfection by gaseous nebulization is actually working effectively. Complex deployments of personnel are a thing of the past. Dr. Käflein: “In summary it can be stated that the system is adapted to generate a surface disinfection of all accessible places in a room via a produced aerosol. Depending on the flow conditions even rear-established objects and cavities can be reached.” When it comes to eliminating of problematic bacteria, molds and other pathogens, the used active ingredient has been well-known for a long time in the medical field. In this respect, the substance has already proven its worth to specialists. Diosol contains silver which is well-known for its antimicrobial properties. The growth of new bacteria is being prevented, and it also offers a long-term protection. By the way, nobody needs to worry about their sensitive electronic devices: The material is absolutely compatible. The manufacturer also provides easy-to-use test strips on demand documenting the disinfection success after the treatment.

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Off-print taken from the trade magazine “rationell reinigen” (03.2010)