Test results on the effect of Medklinn Air Sterilizer driven by Cerafusion™ Technology on microbiological growth

Date: October 2009

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Test Method 1:

Evaluating the antimicrobial ability of the Medklinn air sterilizer

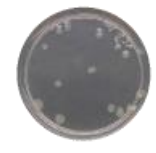
Bacillus cereus, Methicillin-resistant Staphylococcus aureus, Escherichia coli and Pseudomonas aeruginosa and Candida albicans were obtained from the Monash Culture collection. All bacterial cultures were grown on plate count agar (Oxoid) while Candida albicans was grown on Sabourand dextrose agar (Merck). All cultures were propagated at 37℃ for 16 hours prior to experimental use. A colony of each microbe was suspended in saline and a serial dilution (10-fold dilutions) was prepared up to 5 logs. The diluted microbial suspensions were plated onto the appropriate agar media in triplicate. The plates were incubated (without petri dish lids) for 24 hours at 37℃ in a Memmert INE600 incubator (256 litre capacity) in the presence of the Medklinn air sterilizer for the test and without the air sterilizer for the control (with petri dish lids).

Test Method 2:

Evaluating the antimould ability of the Medklinn air sterilizer

An inoculum was prepared by allowing bread mould (Rhizopus species) to develop on a slice of white bread. The spores were harvested and fresh slices of bread were inoculated with approximately 1 x 108 mould spores. The inoculated slices of bread were incubated for 10 days at room temperature in a Memmert INE600 incubator (256 litre capacity) in the presence of the Medklinn air sterilizer for the test and without the air sterilizer for the control. The slices of bread were humidified daily by spraying with sterile water to prevent the slices from drying out and preventing mould growth. The images of the bread slices were captured using Nikon D200 digital camera.

Test Results:

Bacteria/Mould Type	Without Cerafusion™ Technology	With Cerafusion™ Technology	Test Results
Bacillus species • Causes anthrax and food poisoning			**100% killed**
Candida albicans • Common yeast that causes skin and systemic infection			**100% killed**
Pseudomonas Aeruginosa • Causes eye, ear, and joint infections, hospital-acquired infections, and wound infections			**99.99% killed**
Escherichia coli • Causes food poisoning, urinary infections, meningitis, and septicaemia			**99.99% killed**
Methicillin-resistant Staphylococcus aureus • Causes pimples, boils, pneumonia, food poisoning, septicaemia, and hospital acquired infections			**100% killed**
Rhizopus species • Causes allergic reactions			**No mould growth**