

3M™ Announces Infection Prevention Solution to Monitor and Manage Hygiene of Hospital Surfaces

New tool addresses factors that may contribute to Healthcare-Associated Infections

As part of its effort to offer a wide range of environmental hygiene solutions for healthcare facilities, 3M Infection Prevention today announced its 3M™ Clean-Trace™ Hygiene Management System. This solution is designed to help hospitals assess the cleanliness of a surface and validate the efficacy of cleaning protocols and worker performance in less than one minute.

The Clean-Trace System detects adenosine triphosphate (ATP), a substance found in all living cells and present on any contaminated surface. Samples from high-touch surfaces in a hospital, such as bed rails, light switches or nurse call buttons, are collected using the 3M™ Clean-Trace™ ATP Surface Test. If the test picks up any organic material (ATP), it will emit light in direct proportion to the contamination level which can be read and quantified by the hand-held 3M™ Clean-Trace™ NGi Luminometer. Data collected can be uploaded to the 3M™ Clean-Trace™ Online Software which provides the users advanced data analysis with tracking and full trending capabilities including automatic report generation.

Detection beyond the naked eye: what you can't see can hurt

Until now, hospitals and healthcare facilities have relied primarily on visual inspections to determine the hygienic status of a surface. However, more and more facilities are finding that visual inspections alone cannot reliably determine the presence of surface contamination when many soils such as bacteria, biofilm and organic residues are not visible to the naked eye. The Clean-Trace System does detect the presence of any organic contamination you cannot see. This technology is transforming the practice of environmental hygiene and provides healthcare facilities with a real-time assessment tool.

John Boyce, MD, chief of Infectious Diseases Section at Hospital of Saint Raphael in New Haven, Conn., has studied the effectiveness of hospital cleaning practices. His studies were published in the July 2009 and January 2010 issues of *Infection Control and Hospital Epidemiology*.

"During the last 5 to 10 years, there has been increasing appreciation for the fact that contaminated surfaces in the hospital can contribute to the transmission of healthcare-associated pathogens," said Dr. Boyce. "While hand hygiene has long been recognized as one of the most important infection prevention practices, organizations such as the CDC recognize the need to also pay attention to surfaces."

"There is now evidence showing that by cleaning the environment more effectively, there is a reduction in the patients' risk of acquiring resistant bacteria such as vancomycin-resistant *Enterococcus* (VRE), *Clostridium difficile* (C. diff), and methicillin-resistant *Staphylococcus aureus* (MRSA), in the hospital," said Dr. Boyce.

Taking on healthcare-associated infections

According to the Agency for Healthcare Research and Quality of the U.S. Department of Health and Human Services report, healthcare-associated infections (HAIs) are the most common complication of hospital care and one of the top 10 leading causes of death in the United States. In 2002, HAIs accounted for an estimated 1.7 million infections and 99,000 associated deaths.

Government and industry organizations also have called for better monitoring techniques. In its *Management of Multidrug-Resistant Organisms in Healthcare Settings, 2006* guideline, the Healthcare Infection Control Practices Advisory Committee of the Centers for Disease Control (CDC) recommends that healthcare facilities

should "monitor cleaning performance to ensure consistent cleaning and disinfection of surfaces." Both the Society for Healthcare Epidemiology of America (SHEA) and the Infectious Diseases Society of America (IDSA) indicate that having systems for monitoring adherence to environmental cleaning and disinfection protocols is desirable. In the most recent CDC Toolkit document, "Options for Evaluating Environmental Cleaning," the CDC recognized ATP Bioluminescence as "an objective method for the evaluation of environmental hygiene."

"The Clean-Trace System is a game changer for our healthcare facility partners, who share our mission of reducing HAIs," said Debra Rectenwald, 3M Infection Prevention Division president and general manager. "This ATP Hygiene Management System is a frontline tool that will revolutionize environmental hygiene and is a key part of our mission is to put together all the elements of a superior hygiene monitoring solution. In addition, 3M offers education, protocols, service, compliance tools and a cleaning portfolio, all of which round out our full range of unique Environmental Hygiene Solutions for our customers' infection prevention arsenals."

Making positive changes for a cleaner healthcare environment

Currently, an approximate 150 hospitals and healthcare facilities across the U.S. are using Clean-Trace. One of those facilities is Tampa General Hospital, which houses the area's only level 1 trauma center and one of four burn centers in the state. John Scolaro, Certified Healthcare Environmental Service Professional and director of environmental/textile services, is responsible for overseeing environmental cleaning at the West Central Florida medical facility. Like many hospitals, Tampa General used careful visual inspection and periodic, random culture sampling and laboratory testing, but Scolaro sought a more intensive, real-time method to help monitor and confirm cleaning effectiveness. Since 2009, Tampa General has been using the 3M Clean-Trace Hygiene Management System and already has seen positive results.

According to Scolaro, the ability to confirm cleaning performance by individual touch point and cleaning staff member has led to improved results and has helped change the infection prevention dynamic in the facility.

"The significant improvement from 85 percent to 96 percent in compliance scores can be attributed to the provision of immediate performance feedback and the consequent ability to assess and refine our procedures," Scolaro said. "It is now possible to demonstrate performance differences between proper and improper cleaning, on the spot. This system is, in effect, making the invisible visible and has quickly become a very important tool for us."

In addition, the Clean-Trace System has become an effective cleaning tool and positive motivator for the cleaning staff. "Our staff can see first-hand what works and are able to change their practices to consistently meet the standard," Scolaro said.

The 3M Clean-Trace Hygiene Management System currently is available for environmental hygiene use. 3M expects to introduce Clean-Trace applications for surgical instruments and endoscopes later in 2011. For more information, please visit www.3M.com/cleantrace.

About 3M Infection Prevention Division

The 3M Infection Prevention Division is truly on a mission to provide healthcare professionals solutions to minimize the risks of healthcare-associated infections. Combining science and technology, 3M has introduced more than 40 distinct technology platforms and a comprehensive portfolio of quality products that help the healthcare industry define and address current infection prevention best practices. With its system of people, products and process, 3M Infection Prevention remains a trusted partner committed to helping customers lead the way in controlling the risk of infection. For more information, please visit www.3M.com/infectionprevention.

About 3M Health Care

3M Health Care, one of 3M's six major business segments, provides world-class innovative products and

services to help healthcare professionals improve the practice, delivery and outcome of patient care in medical, oral care, drug delivery, food safety and health information markets. Learn more at www.3M.com/healthcare.

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Note: Statements by Dr. Boyce do not constitute or imply an endorsement of any product or service by the Hospital of Saint Raphael or its employees.

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