

Healthcare Environments Demand Protection

The health care industry is challenged with providing the best possible care for its patients and a safe environment for health care workers. Microorganisms are the more prevalent and potent pollutants in the indoor environment.

The QS72-5 Antimicrobial CoverShield technology has proven its benefit in its textiles and interior surfaces for more than 30 years. It controls microorganisms that cause odors and stains and slows the degradation of these textiles and other surfaces.

Easy to Implement- The Antimicrobial CoverShield is designed for easy integration into existing manufacturing processes. From Product development throughout launch CoverShield support includes state of the art microbiological testing, regulatory expertise, marketing assistance and an unsurpassed quality control program.

Proven Durability & Safety- The keystone of CoverShield is a micropolymer silane technology that molecularly bonds- directly and durably- to the substrate.

- A non-leaching antimicrobial that does not migrate from the surface
- Easily applied in a wet process and can be co-applied with other finishes
- Proven history with more than 30 years on consumer products and successful use in indoor environments
- Mode of action does not create an environment for adaptive organisms
- Physically controls microorganisms on contact and remains permanently affixed to the surface, providing durability to multiple washings
- Unlike conventional antimicrobials, it won't transfer onto your skin or leach into the environment
- Registered for use with EPA and other regulatory agencies worldwide.
- Quick and easy verification



Hospital Blanket Protection

An industry study compared blankets treated with the QS72-5 Antimicrobial CoverShield technology to blankets that were untreated. The studied bacteria represented a wide spectrum of Gram (+) and Gram (-) organisms capable of producing staining, deterioration and odors.

Simulation Study:

CoverShield treated and untreated blankets were used to towel off sweat from healthy males after one hour of intense exercise. This was conducted to simulate febrile diaphoretic patients. After the incubation period, it was shown that the untreated samples had three times the bacteria as the treated.

In-Use Study:

CoverShield treated and untreated blankets were studied at a North Carolina 24-hour care facility. The treated blankets showed a 95% reduction in organisms compared to untreated controls. The reduction in organisms on the stressed blanket samples indicates the effectiveness of the CoverShield in protecting hospital blankets during actual handling and use.

Additional data has been generated by university, medical and industrial laboratories representing some of the most extensive micro-biological work performed on antimicrobial treated substrates for use in the medical community.

Workers Health & Safety Centre

Lung disease in nurses linked to disinfectant use at work

December 04, 2019 Statistics and Trends, Work hazards, Vulnerable Workers

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Exposure reduction strategies needed now as regular use of disinfectants by female nurses linked to the development of chronic obstructive pulmonary disease (COPD), study finds.

Researchers from Harvard University and the French National Institute of Health and Medical Research (Inserm) analyzed data from more than 73,000 nurses employed in US hospitals between 2009 and 2015 and were part of the [Nurses' Health Study II](#). No participants had COPD—a group of lung diseases including chronic bronchitis and emphysema—at the outset of this study. By the end, 582 nurses were diagnosed with COPD.

Though this study was not designed to uncover an explicit causal link, the authors suggest the findings "Provide further evidence of an adverse association between disinfectants and cleaning products and respiratory health."

Exposure common

This [most recent study](#) found almost 23 per cent of nurses used disinfectants at least once a week to clean work surfaces and 19 per cent to clean medical instruments. Overall, this use was found to **increase risk of developing COPD by 35 per cent** compared to those not exposed. Those using disinfectants more often—four to seven days per week—had an even greater risk.

The researchers also looked at **specific disinfectants** finding glutaraldehyde, hydrogen peroxide, hypochlorite bleach, alcohol and quaternary ammonium compounds were associated with excess risk for developing COPD ranging from 25 to 36 per cent. Further still, **exposure to multiple products**, such as hypochlorite bleach or hydrogen peroxide and aldehydes was found to **significantly increase risk**.

Evidence cries out for prevention

As noted by the researchers, these findings "confirmed older and smaller analyses of population-based studies reporting increased risk of COPD or chronic bronchitis among cleaners or health care-related professions."

They also explained, "A large body of evidence already supports an association between these exposures and asthma; our additional findings of an association with COPD incidence **urges the need for the development of exposure-reduction strategies** that remain compatible with infection control in health care settings."

To this end, the researchers cite potential safer alternatives including green cleaning and nonchemical technologies such as steam and UV light.

Of course, employers (and supervisors) have the most significant obligations to protect workers from these and other workplace hazards including seeking out and implementing safer alternatives. In fact, beginning in January, 2020, Ontario regulations governing control of exposure to biological or chemical agents will be amended placing substitution at the top of the hierarchy of controls employers must consider to protect workers from exposure ([s. 3, O. Reg. 633](#)).

WHMIS and other training obligations

Employers also have **significant training obligations**. Perhaps most relevant for nurses (and others) exposed to disinfectants and cleaning products is **mandatory WHMIS training**. Workplace Hazardous Materials Information System, commonly known as WHMIS, is designed to provide workers, supervisors and employers with health and safety information relating to **hazardous products** used, stored, handled or disposed of in the workplace.

WHSC can help

Workers Health and Safety Centre (WHSC) [Globally-Harmonized WHMIS training](#) is highly interactive and applies adult learning principles to **ensure learning is engaging, relevant and achieved**. Such is the difference between our program and other free WHMIS initiatives, which are not training at all, but merely online information. Employers in health care and other sectors must consider this when selecting a training partner and delivery model. After all, Ontario law requires that WHMIS training results in workers being able to **use the information to protect their health and safety** ([s. 7\(3\), WHMIS Reg.](#)).

WHSC offers additional [training programs](#) and [resources](#) to help workplace parties including [supervisors](#), [joint health and safety committees](#) and [representatives](#) understand their legal duties and responsibilities related to workplace hazards including harmful chemicals. Many of these same programs offer essential insight into the information and tools needed to reduce or eliminate exposure.

With some [900,000 Ontarians suffering with COPD](#) and the fact it is the [5th leading cause of death in Ontario](#), the time to pursue prevention is now.

Unsure about your WHMIS or other training obligations or want to know more about the hazardous potential of disinfectants or cleaning products?

Visit: [WHSC WHMIS resources](#)
Call: 1-888-869-7950 and ask to speak to a training services representative
Email: contactus@whsc.on.ca