Synergy™
Solutions for Healthcare

Proactive Protection that Works

Synergy Inhibit 90 ™

Controlling the Spread of Bacteria in Healthcare Settings

Background

Scientific and medical research has identified hospital privacy curtains as a significant source of environmental contamination. Health care workers and patients frequently touch privacy curtains before, during, and after patient care encounters. This may promote transfer of pathogenic organisms to curtains. Multiple studies have reported curtains to be frequently contaminated with infectious bacteria, including vancomycin-resistant enterococcus (VRE) and methicillin-resistant Staphylococcus aureus (MRSA). Given the difficulty of cleaning and disinfecting privacy curtains and the ability of such pathogens to survive on surfaces for weeks to months, curtains are important vehicles for transmission of pathogens between new and previous room occupants, medical staff, and visitors.

One Answer

An obvious solution to help prevent cross contamination through privacy curtains is to frequently clean or replace the curtains, but replacement costs on a regular interval are often prohibitive and result in less frequent adherence to established policies. Alternatively, some manufacturers offer privacy curtains embedded with antimicrobial chemicals to help reduce the chance of infectious organism transmission.

Our Theory and Test Results

As such we investigated the ability of privacy curtains coated with our product (post manufacturing) to perform a similar function. Brand name privacy curtains made of 100% polyester were purchased from an authorized supplier: **Curtain C** (treated on site with our antimicrobial) and **Curtain B** (pre-treated by manufacturer), the latter having been treated during its manufacturing process with the known antimicrobial compound zinc pyrithione. Our product was applied electrostatically to one of the **Curtain C** and allowed to dry. An untreated (**Curtain A**) curtain served as an untreated control.

Following a 10-day holding period, small 0.5-inch square portions of the each of the three curtains: **Curtain C** (treated with our product), **Curtain B** (treated by manufacturer) and **Curtain A** (un-treated control sample) were each challenged with 3 x 10E6 live Staphylococcus aureus (S. aureus).

The resulting data is shown on the chart below.

Hospital Curtain	Treatment Method/ Substance	Contact Time	Reduction in S. aureus Survival	
			Log_{10}	Percent
Curtain A (Un-treated Control)	None	N/A	N/A	N/A
Curtain B (Treated by Manufacturer)	Zinc Pyrithione	15 minutes	0.21	38.3%
	Zinc Pyrithione	60 minutes	0.91	87.7%
Curtain C (Treated with Antimicrobial)	Our Antimicrobial	5 minutes	4.73	>99.99%
	Our Antimicrobial	60 minutes	3.73	>99.9%