

Internal Medicine News

digital network

News and Views that Matter to Physicians

Beware of Curtain! Pathogens Plentiful on Hospital Partitions

By: [DOUG BRUNK](#), Internal Medicine News Digital Network

09/23/11

SHARE    | [PRINTER FRIENDLY](#)

CHICAGO – If you think the privacy curtains at your health care facility are free of potentially harmful bacteria, think again.

Within one week of being laundered, 92% of hospital curtains were contaminated with pathogens that included methicillin-resistant *Staphylococcus aureus* (MRSA) and vancomycin-resistant *Enterococcus* (VRE) species, results from a [single-center study](#) showed.



Dr. Marin L. Schweizer

"Usually when health care workers walk into a patient room, they'll wash their hands, grab the curtain, pull it aside, and then touch the patient, without realizing that they touched the curtain," Marin L. Schweizer, Ph.D., said in an interview during a poster session at the annual Interscience Conference on Antimicrobial Agents and Chemotherapy. "The message here is that health care workers should wash their hands after touching privacy curtains and before touching the patient."

Over a period of 3 weeks, Dr. Schweizer and her associates obtained 180 swab cultures from 43 privacy curtains in 30 rooms at the University of Iowa Hospitals and Clinics (8 medical intensive care units, 7 surgical ICUs, and 15 medical wards). They obtained the cultures twice weekly from an 800-cm² area on the leading edge of each curtain, and marked each curtain to determine when it was changed.

Standard microbiologic methods, including broth enrichment, were used to determine contamination. To distinguish persistence of pathogens on curtains from recontamination, all MRSA and VRE were typed using pulsed-field gel electrophoresis.

Of the 13 curtains placed during the study, 12 (92%) demonstrated contamination within 1 week, while 41 of the 45 curtains (95%) demonstrated contamination on at least one occasion. "We thought the prevalence would be high, but we didn't think it would be that high," commented Dr. Schweizer of the department of general internal medicine at the University of Iowa, Iowa City.

She went on to report that VRE and MRSA were isolated from 42% and 21% of the curtains, respectively. Eight curtains were contaminated with VRE at more than one time point: three with persistence of a single genetic type and five with genetic types over time. "This shows that there are lots of pathogens on the curtains," Dr. Schweizer said. "They stick around for a long time and they're constantly being recontaminated."

Two-thirds of all swab cultures (66%) were positive for either *S. aureus*, *Enterococcus* spp. (44%), or gram-negative rods (22%).

The study was funded by PurThread, a manufacturer of antimicrobial fabrics for use in health care settings. One of the study investigators, Dr. Eli Perencevich, is a paid consultant for PurThread.

According to Dr. Schweizer, none of the curtains studied were made by PurThread.

Copyright © 2011 International Medical News Group, LLC. All rights reserved.
This page was printed from www.InternalMedicineNews.com. For reprint inquires, call 877-652-5295, ext. 102.

Should it be curtains for curtains at SAH?

U.S. researchers find privacy curtains separating patients are breeding grounds for germs

By Frank Dobrovnik, THE SAULT STAR

Posted 2 years ago

Are bed curtains playing a role in the outbreak of methicillin-resistant *Staphylococcus aureus* and spread of other hospital-borne superbugs at Sault Area Hospital?

"That's difficult to say. You never know exactly where these things come from," said Johanne Messier-Mann, director of infection control and chief nursing officer.

But Messier-Mann adds SAH follows "to a T," and even surpasses, guidelines for infection control as set by the Provincial Inspection and Disease Advisory Committee (PIDAC) and Health Canada..

"We really follow all the standards and are very cautious about anything new coming coming out. . . . We're always on yellow alert. We're always looking at new things," she said, in response to a report earlier this week privacy curtains can become contaminated with drug-resistant bacteria.

Researchers at Cleveland Veterans Affairs Medical Center in Cleveland, Ohio, showed that *C. difficile*, MRSA and vancomycin-resistant enterococci (VRE) can be found on the curtains that hang between patient beds in hospitals.

More importantly, they found the bugs transfer onto the hands of people who handle the contaminated curtains — suggesting health-care workers who pull curtains closed and then touch patients may be spreading bacteria.

"I think that the demonstration that you can acquire them on hands . . . relatively easily would suggest that curtains would have the potential to contribute to transmission," said Dr. Curtis Donskey, director of infection control with the hospital and the senior author on the study.

They found 42 per cent of privacy curtains were contaminated with VRE, which can cause wound, urinary tract and other infections and 22 per cent with MRSA, which can cause bloodstream infections, pneumonia and surgical site infections. Four per cent of the curtains tested were positive for *Clostridium difficile* spores.

When testing was done to see if handling the curtains transferred germs to the hands, the results showed small numbers of all three pathogens were found on hands after handling the drapes.

"We were a little bit surprised but not too surprised. Because we know that these things are not being cleaned (often) and we know that these organisms can survive" in the environment, Donskey said.

The highest rates of positive results were found in rooms where patients known to be carrying one of these bugs were in isolation.

At SAH, curtains used in semi-private two-bed rooms and four-bed wards are changed after an isolated patient, one who has contracted *C. difficile* or VRE, is discharged. PIDAC also advises hospitals to "give consideration" to changing curtains after discharging a patient with MRSA, which SAH is now doing since an outbreak was declared in the 200Y wing earlier this week.

MRSA cases this month increased to seven from five in September, five of those in 200Y. As a precaution, all rooms on 200Y, which houses 40 beds, are also being "core-cleaned" — what Messier-Mann called "gutting the room and cleaning absolutely everything." The cloth curtains are placed in a water-soluble bag, then bagged again and washed separately from other linen.

Rooms of regular patients are cleaned "but we don't change the curtains unless they're visibly soiled."

The issue arose earlier this year when community members, including SAH's retired co-ordinator of infection control, called on SAH to make all rooms at the new hospital private, eliminating the need for privacy curtains altogether. SAH officials maintained hospital construction is well underway and that the increase in private rooms at the new site to 45 per cent from just 20 per cent will go a long way to controlling the spread of germs.

Messier-Mann also noted vigilant hand-washing is still the most effective way to do that. "We can't stress the importance of hand-washing enough, and our staff is aware of that."

British hospitals last year banned seemingly innocuous items of clothing such as ties and the traditional white lab coat as breeding grounds for pathogens. Will it be curtains for curtains one day, too? The best hospitals can do is "keep vigilant about the science as it develops," Messier-Mann said.

"We didn't talk about these things even a couple of years ago."

<http://www.kingstonthisweek.com/ArticleDisplay.aspx?archive=true&e=1273224>
