



# THREADS

Innovation for healthcare textiles

## A GREENER VALLEY HOSPITAL

How a New Jersey health system is saving money – and the environment

The Valley Hospital System hives yield 100 pounds of honey each year

2017: ISSUE 2

Going green with environmentally friendly textiles

Treating behavioral health patients

Keeping textiles clean through delivery





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Item No.	Description	Size	Pkg.
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Patented back-access slit for clinical use

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# welcome



Andy Mills

## Sustainability starts with one step

Today's healthcare landscape is complex and organizations are faced with mounting challenges. Deliver high quality care. Reduce readmissions. Improve patient outcomes. Cut costs. It's no wonder when the topic of environmental sustainability comes up that it can often feel like a "nice to have" in a world of mandatory "must haves."

We owe it to those we serve to think differently. As leaders in the healthcare industry, we also have a responsibility to help preserve the planet and improve it for generations to come.

At Medline, we approach sustainability as a journey. As a family-owned company, we make decisions based on the long-term benefits to our employees and the communities where we live, work and serve.

For example, two of our facilities utilize geothermal technology, and 40 percent of our distribution centers are LEED certified or pending certification. We are constantly innovating to reduce packaging to further reduce landfill waste. In addition, we've reduced our carbon dioxide emissions by 14.6 percent per employee since 2013. The reduction is equal to the emissions from driving a typical passenger car more than 26 million miles.

It's a myth that green initiatives are difficult and costly. If you do them right, they can even end up saving you money. Most important, you can make an impact.

This issue is devoted to spotlighting unique and exciting ways organizations across the country are weaving sustainability into their culture and care. As you read on, I hope it sparks ideas about how you can start taking the first step on your organization's sustainability journey.

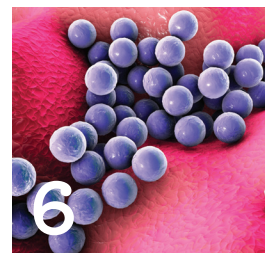
Don't think you always have to start with the hard stuff or make sweeping changes. Small steps can make a difference — the important thing is to just begin.

Sincerely,

A handwritten signature in dark ink, appearing to read "Andy", written in a cursive style.

Andy Mills  
President, Medline





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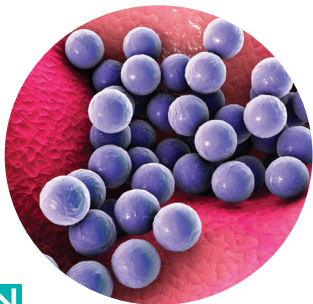
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# briefs



## AORN guidance on antimicrobial scrubs

AORN recently published its key takeaways from the updated AORN Guideline for Surgical Attire. These points do not cover the entire guideline; instead, they help users focus on important or new information that should be implemented into perioperative practice.

One of AORN's key takeaways addresses the potential benefits of wearing scrub attire made of antimicrobial-treated fabric, an exciting new technology among scrubs. Today, no antimicrobial scrubs on the market can make kill claims on microorganisms such as *Staphylococcus* and *Pseudomonas*. However, there are several companies working with the Environmental Protection Agency to obtain approval to make these claims.

AORN recognizes that while there may be advantages to wearing the antimicrobial-treated scrubs, research is needed to determine whether staff wearing antimicrobial scrubs can help reduce a patient's risk for developing a surgical site infection. This is an important clarification to cite because making such claims to reduce surgical site infections requires both Food and Drug Administration involvement and 510(k) submissions, which untreated scrubs do not require.



## Environmental benefits of polyester

Polyester textiles offer many benefits, including high performance, amazing color retention and little shrinkage, resulting in long life of the products and providing numerous financial advantages.

As a sustainable fabric, polyester also offers greater efficiency and energy savings. For example, polyester retains less moisture than blended or 100 percent cotton, which means it takes less time to dry (up to 40 percent less) compared to blended products. In some cases, products can be pulled right out of a tunnel washer and immediately placed into an ironer. This allows users to bypass the dryer, saving both time and energy in processing. Additionally, polyester products are washed in lower temperatures, generating additional energy savings.



## U.S. mental healthcare overview

Currently, 55 percent of U.S. counties have no practicing psychiatrists, psychologists or social workers. There is also a shortage of facilities formally providing behavioral healthcare. Only 27 percent of community hospitals have an organized inpatient psychiatric unit, and state and county psychiatric hospitals are closing due to state budget and other funding constraints. Twenty-eight states and Washington, D.C., reduced their mental health funding by \$1.6 billion between fiscal years 2009 and 2012.<sup>1</sup> In addition, individuals with behavioral health disorders often have co-occurring physical health conditions that make treating these patients more complicated. In 2012, 17 percent of American adults — 34 million people — had comorbid mental health and medical conditions.

Not only are mental health and medical conditions risk factors for each other, but the presence of one can complicate treatment of the other.<sup>1</sup>

1) American Hospital Association. Trend Watch, January 2012. <http://www.aha.org/research/reports/tw/12jan-tw-behavhealth.pdf>





# Why fit in, when you can stand out?

Fifteen-year-old Lindsey Bellowe has been in and out of the hospital since she was 9 years old. Over the past few years, she grew tired of her hospital-issued patient gowns. The awkward fit and the embarrassing prints were too much to bear. The endless sea of childlike offerings featuring Dora the Explorer, Winnie-the-Pooh and other cartoon characters were beyond embarrassing to wear.

Needless to say, being dressed in little kids' clothes did not appeal to Lindsey.

"Teenagers don't want to feel even more self-conscious than they already do when they are admitted to the hospital, having an MRI or during an outpatient visit," she

says. "It is already a difficult time for us. I am petite, and they always give me a childlike gown to wear when I have an appointment."

Lindsey started her journey by approaching the administration at Rady Children's Hospital-San Diego, where she had received treatment. She expressed her dilemma and shared her ideas. She also created a presentation outlining the reasons for a more age-appropriate gown for kids her age, including some design ideas.

The administration at Rady loved the idea. Its supply chain manager helped connect Lindsey with Medline Chief Operating Officer Jim Abrams to start the process and put her in touch with its Patient Apparel team. Together, Medline worked with Lindsey to create designs and patterns that will resonate with teenagers and make them feel more comfortable in a hospital setting.

To the right are the submissions. Which one is your favorite? Email your choice to [threadsmagazine@medline.com](mailto:threadsmagazine@medline.com) and look for the next issue of *Threads* to find out which design was chosen.



A.



B.



C.

"Teenagers don't want to feel even more self-conscious than they already do when they are admitted to the hospital, having an MRI or during an outpatient visit."

— Lindsey Bellowe



**Teri Burke** is a Senior Product Manager for Patient Apparel in the Textiles Organization at Medline Industries Inc. She is the lead strategist for patient apparel and the key driver to innovation in this market space. Please contact her at [Tburke@medline.com](mailto:Tburke@medline.com) for additional information regarding Medline's teen gowns.

# TRSA: C. DIFF STUDY

## OF HOSPITAL LAUNDRY EXAGGERATES CONTAMINATION RISK TO LAUNDRY EMPLOYEES

TRSA responded to a study in *FEMS Microbiology Letters* (*Clostridium difficile* environmental contamination within a clinical laundry facility in the USA, Oct. 14, 2016) by saying that the study's conclusions and several articles that covered it fueled misleading impressions of hospital laundry cleanliness.

"The report suggests that 'soiled clinical linens may be a source of *C. difficile* surface contamination' at a laundry," says TRSA President and CEO Joseph Ricci. "Soiled healthcare linens present some risk to laundry workers, which is why TRSA and other commercial laundry organizations work closely with infection control and prevention experts regarding the cleanliness of laundry facilities and worker safety, and the transportation and handling of both soiled and clean linens. More important, laundries

focus on the cleanliness of the linens returned to the healthcare facility. Laundry and healthcare workers, as well as consumers, need to be aware of these efforts and not studies that misleadingly create false alarms and potential unnecessary regulation."

Several key areas of the study include:

- No significant contamination was found on the clean side of the subject laundry.
- It was expected that the soiled linen area would be more vulnerable to contamination than clean areas.
- No conclusion was reached regarding soiled linen contamination as a risk to laundry workers.

In processing hundreds of millions of soiled healthcare linens each year for decades, the number of documented cases of contamination or transfer of *C. diff* or any other transferrable disease or bacteria to an employee, patient or healthcare provider has no statistical bearing.

"Laundering hospital textiles provides the linchpin to prevent transmission of contamination from soiled linen," according to



Joseph Ricci is President and CEO of TRSA. Since joining TRSA in 2010, he has logged more than 200,000 miles visiting laundries worldwide. His 25-plus years of association and program management guided the launch of TRSA certification programs that quantify the industry's commitment to professionalism, cleanliness and sustainability, including Certified Professional Laundry Manager (CPLM), Hygienically Clean and Clean Green.



David F. Goldsmith, MSPH, Ph.D., a Georgetown University (Washington, D.C.) epidemiologist. "Laundries demonstrate that they can accomplish this by becoming certified to a standard such as TRSA's Hygienically Clean Healthcare that requires their facilities to be inspected and undergo frequent laboratory testing to verify they meet independently established cleanliness requirements enforced around the world."

The research fails to mention the effectiveness of the laundry process in eliminating bacteria, he says. TRSA's Hygienically Clean program has tested nearly 3,000 laundered items since 2013, approximately 25 percent specifically for clostridium, and none has revealed any of this bacterium.

Commercial and other laundries processing healthcare linens do the following.

- Follow industry best practices
- Pursue certification based on international standards and guidelines, including CDC *Guidelines for Environmental Infection Control in Health-Care Facilities* ([www.cdc.gov/hicpac/pdf/guidelines/eic\\_in\\_HCF\\_03.pdf](http://www.cdc.gov/hicpac/pdf/guidelines/eic_in_HCF_03.pdf)) as they pertain to laundry, bedding, personal protection, equipment, hand hygiene and cleaning
- Partner with their healthcare customers


In so doing, they undertake significant protocols to ensure regular sanitizing and cleaning of both the dirty and clean sides of the laundry facility, recognizing that workers may have contact with dirty linens and requiring them to take necessary safety precautions, including donning

personal protective equipment (PPE).

The study located traces of *C. difficile* spore-forming bacteria in the soiled-linen area of the subject laundry and virtually zero in the "COG washing area" of the subject laundry facility, identifying the latter as "dirty" because linens were being processed there. This practice does not conform to industry best practices as indicated by laundry certification standards. Certification inspections ensure that any facilities processing healthcare linens have functional separation between dirty and clean linen processing areas to minimize risks associated with contamination.

Commercial laundries undertake strict precautions to minimize risk of any contamination. The majority of certified healthcare laundries worldwide undergo periodic inspection to ensure best practices and processing protocols are followed and clean linens are randomly tested. Laundries processing healthcare linens understand the importance of following strict guidelines for time, temperature, chemical and agitation levels in the cleaning process.

Last year, TRSA worked with healthcare professionals and others



Commercial laundries undertake strict precautions to minimize risk of any contamination.

to develop *The Six Cs: Handling Soiled Linen in a Healthcare Environment* ([www.trsa.org/healthcareresources](http://www.trsa.org/healthcareresources)), a video distributed to hundreds of healthcare facilities to help train their personnel regarding the proper handling of soiled linens to avoid risks to employees and patients.

Recent research indicates that healthcare facilities have significant concerns, including *C. diff* surface testing results consistently higher than that found in laundries. Medical garments such as scrubs worn by nurses are at risk for contamination with potentially harmful bacteria through direct patient care and contact with the patient's environment, according to a molecular analysis of pathogen transmission. Frequently, nurses and other healthcare workers wear these and other garments in public and take them home for laundering in washers that cannot reach the water temperatures necessary to properly decontaminate them. ■

TRSA is an international organization representing companies that supply laundered garments, uniforms, linens, floor mats, towels and other products necessary for businesses to operate safe, clean facilities, serve their customers and provide a clean, attractive environment and image.

# Going green in textiles



Green initiatives are trending in every industry as people realize that we as individuals can make an impact on the environment.

What does “going green” actually mean? Well, you might find a multitude of answers to that question. For some companies, it is building environmentally friendly buildings that are more efficient and utilizing fewer resources such as water, energy and other natural resources. For others, it can simply be recycling efforts. One thing is for sure — we can all make an impact.

When it comes to textiles, many green initiatives are overlooked. This is surprising, considering that the textile industry is the fifth largest contributor to CO<sub>2</sub> emissions in the United States. In other countries, where cotton is a primary contributor of GDP, CO<sub>2</sub> emissions are even greater.

Textiles are composed of either natural fibers — mainly cotton — or synthetic fibers, such as polyester. Because it takes significant energy and resources to produce cotton and synthetic fibers, the textile industry as a whole is one of the biggest contributors to greenhouse gases on Earth. It is estimated that the annual global textile production requires approximately 1,074 billion KWh

of electricity and six to nine trillion liters of water.<sup>1</sup> These numbers are continuing to grow exponentially. All of this adds up to a massive industry with a massive problem.

It wasn't until around 2009 that efforts began around the use of recycled polyester. In just a short time, recycled polyester has made its way into many of our textiles, such as pillow filling, towels, sheets, garments and more. Using recycled polyester saves our environment from toxins that pollute the air, soil and water, in addition to the chemicals and energy used to create these fibers.<sup>2</sup> The next step is to put forth the same efforts with cotton.

Cotton is the world's most commonly used natural fiber. We all come in contact with it every day, whether through what we wear, sleep on or the towels we dry off with. Yet cotton is detrimental to our environment. To grow cotton, there is an intensive use of pesticides, chemical fertilizers, water and farmland capacity. The manufacturing process to actually make the product we use also requires copious amounts of chemicals, water and energy — all of which are impacting our environment.

Every year, spinning mills, weavers and fabric manufacturers dispose of tons of cotton fiber during the processes of separating the cotton fiber from the plant, carding it for lint and refining it to its final raw material form. Using current processes of producing finished apparel and related



Amy Malevany is a Senior Product Manager in the Textiles Organization at Medline Industries Inc. She is responsible for launching new, innovative products in our Bed and Bath portfolio to meet the needs of our customers. For additional information on Bed and Bath textile products, please contact Amy at [AMalevany@medline.com](mailto:AMalevany@medline.com).



goods from raw virgin cotton, 20 to 49 percent of the original fiber is typically separated as waste.<sup>3</sup> Not only does this add to local landfills but, for every 100 tons of wasted cotton, another 475 acres of cotton needs to be planted, irrigated, fertilized and cultivated.<sup>4</sup> Organic cotton, though it is grown without the use of chemicals and pesticides, requires even more farmland capacity and more water — with a much lower yield.

According to the Global Sector Report for Textiles, the industry value is \$467 billion, with an expected growth rate of 5 percent over the next few years, mainly due to our growing population.<sup>5</sup> This problem is not going to go away, so Medline is here to make a difference. Medline's PerforMAX towel

is extremely absorbent but uses only half of the raw materials typically used in an 8-pound towel. Our PerforMAX product lines are also much more efficient to process in an industrial laundry. Furthermore, we are working on a new line of sheets and towels that are made out of 100 percent pre-consumer regenerated cotton, using the

aforementioned waste produced from the manufacturing process. This is a brand-new, patented process that will save an exponential amount of water, chemicals, energy and farmland use, ultimately protecting our environment from further damage. In doing this, Medline is helping save the planet, one sheet, towel or bath blanket at a time. ■

1. O Eco Textiles, titled "Carbon Footprint of the Textile Industry," May 2009.

2. Textile Value Chain, titled "Role of Carbon Footprint in Textile and Apparel Industry," November 2015, by Rena Mehta; Chavi Goyal.

3. Article in Indian Textile Journal, titled "Environment Protection by Textile Recycling," August 2011 issue. Full text: In the cotton textile industry, using the current processes of producing finished apparel and related goods from raw virgin cotton, 20 - 49% of the original fibre in the raw material is typically separated as waste in the various processes. Once produced the finished goods have a limited life. When they have ended their useful life they are possibly used as rags for a brief period and then typically discarded to end-up in a landfill or waste incineration facility; where the waste is burned or dissolved with chemicals and pollute the environmental.

4. See USDA Foreign Agricultural Service Report. Pg. 2, "Assuming a normal monsoon, the nationwide yield for MY 2016/17 is forecast at 526 kg per hectare." (1 hectare yields 526 kg cotton; 2.5 acres = 1160 lbs; 1 acre yields 464 lbs cotton). Tons is MT. Short tons would = 431.

5. <http://www.eulerhermes.com/mediacenter/Lists/mediacenter-documents/Textile-Global-Report.pdf>, titled "Global Sector Report for Textiles," February 2016, by Euler Hermes Economic Research.



Medline's PerforMAX towel is extremely absorbent but uses only half of the raw materials typically used in an 8-pound towel.

# SAFER environments for behavioral health patients

Cross-training and innovative textiles are keys to better patient and staff safety



Care for behavioral health patients is spilling over into emergency departments and general hospital rooms potentially ill-equipped to handle this complex patient population. The reasons: Years of funding cuts to public mental health organizations and the resulting loss of thousands of inpatient beds at state and county facilities, coupled with increased demand for services.

"Traditionally, we've treated behavioral health patients separately from patients with acute-care needs," says Martie Moore, RN, MAOM, CPHQ and chief nursing officer at Medline. "But with reduced capacity and rising comorbidities among this patient population, it's imperative for clinicians and the entire hospital staff to be trained on how to care for these patients, including ensuring a safe environment."

## Treating young adults

According to Moore, one of the major challenges in mental health today is identifying and treating the signs of behavioral issues in young adults ages 18 to 26. Along with substance abuse, mental health disorders are the greatest source of disability among young adults in the United States.<sup>1</sup>

Young adulthood provides an important opportunity for prevention, Moore explains. Serious illnesses and disorders can be avoided or managed better if young adults are engaged in wellness practices and screened for early signs of untreated illness. The risk-taking that is common during these years can impact lifelong functioning.<sup>2</sup>

Other challenges arise because of adult healthcare providers' lack of familiarity with disease processes and developmental issues among young adults.





**4,000**

mental health professional shortage areas exist in the United States.

**19%**

of American adults had some sort of mental health condition, and 4 percent had a serious mental health problem in 2012.



**29%**

of people with a medical disorder also have a mental health condition.

**1/2**

of Americans will develop a mental illness and 27 percent will have a substance abuse disorder sometime during their lifetimes.

### Mental health in emergency departments

Another significant mental health issue facing the U.S. health system is the rise of treating mental health patients in emergency departments. Mental illness and substance abuse now account for 4 percent of emergency department visits, or nearly 5.5 million visits each year.<sup>3</sup>

And, these patients often have other medical problems, including diabetes, liver disease and various infections.

The rising number of mental health patients in the ED poses issues such as (1) lack of standardization of care relative to this patient population; (2) concerns related to maintaining a safe environment; (3) lack of space tailored to the needs of this population; and (4) staff frustration and concerns about their safety.<sup>4</sup>

Few EDs have plans in place for how they will care for patients who also have mental health issues.

"Quickly assessing patients and providing them with appropriate treatment can better address the needs of the patient and improve patient safety," Moore says.

Learning to use tools such as suicide risk assessment, providing safe patient apparel and other textiles, as well as keeping potentially dangerous items out of the patient's reach will all go a long way toward creating a safe environment for the patient and staff.

### Creating a safer environment

No matter where mental health patients are treated, creating a safe environment is paramount. It's vitally important that rooms do not contain anything that patients could use to harm themselves or others because these individuals are more prone to violence and suicide, Moore says.

It is recommended practice to remove anything that hangs or could be used as a rope or a weapon, such as cords, belts and shower curtains, as well as any anchor points. Medical supply companies such as Medline offer innovative items, including specially designed cordless window shades, easily detached shower and cubicle curtains, linens, patient apparel and other textiles to prevent patients from harming themselves or staff, Moore says.

Specifically, Medline offers:

- Pajamas with an adjustable waist band that has no ties or strings;
  - Shorts with snaps and tops without pockets
  - Custom linens, including fitted sheets uniquely constructed so that the elastic cannot be ripped from the sheet
- Medline is also developing patient apparel in distinct colors

that immediately identifies patients as mental health patients to the hospital staff.

More cross-training and education is occurring among staff so they can care for behavioral health patients with medical needs. Laundry services also play a key role.

"Everyone on the floors, EVS and laundry services needs to understand the issue and that, by working together and increasing communication, the problem can be managed by providing safer environments and quality care," says Moore. ■

1. Bonnie, Richard, Sepulveda, Martin. Investing in the Health and Well-Being of Young Adults. Health Affairs Blog. Dec. 15, 2014. Available at: <http://healthaffairs.org/blog/2014/12/15/investing-in-the-health-and-well-being-of-young-adults/>. Accessed Nov. 28, 2016.

2. Bonnie, Richard, Sepulveda, Martin. Investing in the Health and Well-Being of Young Adults. Health Affairs Blog. Dec. 15, 2014. Available at: <http://healthaffairs.org/blog/2014/12/15/investing-in-the-health-and-well-being-of-young-adults/>. Accessed Nov. 28, 2016.

3. Hospitals and Health Networks magazine. May 11, 2015. Four Ways Hospitals Are Improving Behavioral Health Care. <http://www.hhnmag.com/articles/3476-four-ways-hospitals-are-improving-behavioral-health-care?page=3>

4. Isaac Abraham, MSN, RN, and Cary Gutbezah. Treating, not boarding, mental health patients in emergency departments. Becker's Hospital Review. Isaac Abraham, MSN, RN, and Cary Gutbezah, Sept. 22, 2014. Available at <http://www.beckershospitalreview.com/patient-flow/treating-not-boarding-mental-health-patients-in-emergency-departments.html>. Accessed Nov. 20, 2016

5. Watts, B.V., Young-Xu, Y., Mills P.D., DeRosier, J.M., Kemp, J., Shiner, B. & Duncan, W.E. (2012). An Examination of the Effectiveness of a Mental Health Environment of Care Checklist in Reducing Suicide on Inpatient Mental Health Units. Archives of General Psychiatry, 69(6), 588-592.



**Martie Moore is Chief Nursing Officer of Medline Industries Inc. She provides nursing leadership for solution-driven clinical programs, delivers product development to enhance bedside practice and launches quality initiatives across the continuum of care.**

# Isolating the problem

Facilities are implementing more rules to ensure proper use of isolation gowns



Recent reports of improper use of isolation gowns reinforce the need to remind healthcare workers of the important role that gowns, when used correctly, play in controlling infections.

Yellow and gray isolation gowns have a specific purpose, one that's essential throughout healthcare settings — they act as an extra barrier to blood and other bodily fluids, especially when workers have close physical contact with patients placed on contact precautions. OSHA requires the use of proper personal protective equipment (PPE) for all personnel handling soiled linens during moving, containing, loading, unloading and sorting. This PPE includes a fluid-resistant gown that covers all areas of potential exposure.

Although healthcare facilities develop detailed policies and procedures for use of isolation gowns and other PPE, it is up to staff to follow important infection control policies.

You can write policies and procedures that adhere to standards, but those policies are only as good as what people take from them.

Reported problems with isolation gowns include wearing them with improper fit, removing

them before removing gloves, removing them too quickly or in a way that spreads pathogens to clothes, and keeping gowns on when exiting the patient's room.

"It's not uncommon for people to pick up unhealthy habits from others, or do so to save time," says Harrison Hidalgo, Medline's Senior Sales Specialist — Surgical Textiles.

Improper use of isolation gowns can lead to severe sanctions for a healthcare facility. That is why it is important to follow established guidelines and help employees improve compliance.

## Protecting against viruses

MRSA and infectious viruses such as Ebola spread through person-to-person contact. Therefore, proper use of isolation gowns is more important than ever to protect patients, healthcare workers and visitors. Isolation gowns add an extra, essential layer against disease transmission and are meant to isolate bacteria or viruses in a confined area.

Any healthcare worker who comes in contact with a patient who might have an infection must wear an isolation gown, Hidalgo says. "That includes nurses, physicians, nurses' aides, transporters and housekeeping personnel."

## When compliance breaks down

In 2015, The Joint Commission made infection prevention one of its National Patient Safety Goals. It expects healthcare workers to be wearing isolation gowns as soon as they enter the room of a patient on contact precautions if there is a risk of physical contact or contamination of the environment. It's up to facilities to help guide workers on how to anticipate direct contact.

The Joint Commission reviews your policies and procedures to see if they are real. In other words, surveyors talk to and observe staff to make sure workers understand and are following those policies.

The Joint Commission also emphasizes following manufacturers' instructions for use, Hidalgo says.

When surveyors identify problems, they report back to managers. In some cases, the surveyors cite the department, which can jeopardize Joint Commission accreditation for an entire facility. In addition, failing to comply with isolation gown standards can lead to OSHA fines, loss of state licensure or Centers for Medicare and Medicaid Services sanctions — and CMS has the authority to ban a noncompliant institution from receiving Medicare payment, resulting in a huge financial hit.

Lapses in the use of isolation gowns also could lead to costly lawsuits.

## How to help workers comply

Hidalgo says that failure to comply with standards and institutional policies is typically at the root of preventable incidents. Periodic education serves

as a reminder, but although training is essential to teach staff what to do, best practices in infection control come from repetition.

Staff can compare it to seatbelt use in cars. It's such a repetitive action that now you don't even question it.

If the goal is for hospital isolation processes to reach a point where proper gown use is second nature, laundry and environmental services are key to reaching this goal.

They can help educate all workers on how to properly wear, hang, store and dispose of isolation gowns. They are gatekeepers to ensuring that transmittable disease does not carry through textiles.

Laundry and environmental services staff must look at their distribution and collection systems, and the workflow of those who use textiles and isolation gowns. Analyzing how people move about when caring for patients can help determine the best places for storage of clean gowns and collection areas for soiled gowns. It's important to be open to new locations or systems that make it easier for staff to wear and remove the gowns properly and to ensure that all healthcare workers have a ready supply of gowns in proper sizes.

In many ways, our laundry services are the unsung heroes when it

Although healthcare facilities develop detailed policies and procedures for use of isolation gowns and other PPE, it is up to staff to follow important infection control policies.

comes to helping nurses and other staff follow standards for infection control. Healthcare workers may need to change their mindset about use of yellow gowns. Workers can become desensitized on the proper use of isolation gowns, using them for cover-ups to keep warm, tossing them over the back of a chair or walking the halls with them on. Supplying alternatives for covering up can help remind staff to use isolation gowns only for their intended purpose. ■



**Harry Hidalgo** is an experienced multi-specialty operating room clinician and Senior Sales Specialist – Surgical Textiles at Medline Industries Inc. As a registered nurse with years of experience working in the operating room, he has in-depth knowledge of OR protocols and regulations.



# The consumer effect

How retail experience is redefining the patient experience

As more procedures migrate to outpatient facilities, the ambulatory surgery market faces an increasingly competitive environment. Patients are no longer just patients; they are well-informed consumers who seek a more positive patient experience that includes personalized service, excellent quality and great value.

This rise of consumerism in the health-care market has created operational and financial challenges, not only for surgery centers and outpatient facilities, but for their suppliers, as well.

"The demand for higher-quality processed goods continues to increase," says Scott Donaldson, customer relations manager at Medico Professional Linen Service, a Southern California

company that serves surgery centers, outpatient facilities and physicians' offices. "There is a higher demand for spa-style patient wear and staff apparel."

While suppliers once provided one-size-fits-all standard linens and garments, they must now offer a unique and broader line of customized linen products and services to remain competitive.

"Larger centers are also looking for staff apparel that can identify them by department or position, such as specific color garments and more contoured and comfortable garments for staff to differentiate their facilities," Donaldson says. "Balancing this experience with cost savings is something we address with each center individually."

Quality outcomes remain the first and foremost consideration. Provider compensation based on safety and patient satisfaction makes all aspects of the surgical process critical, Donaldson says.

"Medico understands how patient safety and satisfaction can demand more attention, and that is the environment where we excel," he says.

For linen suppliers, excellent customer service means building a long-term relationship with each customer through ongoing communication and collaboration with every person on your team. Every person in the organization needs to be involved in the process, from the route driver who is face to face with the customer on a daily basis to the customer relations



Scott Donaldson has been with Medico Professional Linen Service for over 10 years and serves as Customer Relations Manager. His experience at Medico and within the Textile industry gives him a unique advantage to offer excellent customer support with a personal touch.

Antonia Finlayson is Vice President of Marketing for Specialty Sales at Medline Industries Inc. She graduated from the University of Illinois and completed her master's at DePaul University. She is responsible for creating marketing strategies and working with customers to find solutions for ambulatory surgery centers, physician offices and transplant organization. She is a member of PWH, LPA, ASCA and AALAS.

“There is a higher demand for spa-style patient wear and staff apparel.”



## SUPPORTING YOUR SUCCESS

Partnering with Medline can support your efforts to address a changing market and meet the diverse needs of your customers across all markets.

“The current market changes facing our customers make us a very helpful resource,” says Antonia Finlayson, Vice President of Marketing at Medline Industries.

Medline has a dedicated sales force in both the surgery center and physician office space, allowing its staff to work with suppliers on the specific needs of each market segment.

“Medline is fortunate to serve the continuum of care,” says Finlayson. “We are well positioned to address market changes, and we leverage our role to change the way we can help our customers expand their business as new opportunities arise.”

manager who manages the accounts.

Here are some steps linen suppliers can take to better understand customer needs and priorities and become more aware of the challenges posed by this changing environment.

- Keep up on current product and industry trends, and understand each facility’s specific day-to-day and long-term needs.
- Employ a consultative approach. Spend time educating and informing each customer on industry standards and market trends, and discuss how they may affect business.
- Define areas to improve customers’ return on investment. Conduct a linen awareness review of how customer linens are used, how often they are used and the nature of use. Suggest more efficient and cost-effective linen usage methods with both patient comfort and cost in mind.
- Answer questions as they arise and create real-time communication with your distribution fleet to allow immediate response to a center’s last-minute needs.
- Share specific solutions to current issues to help your customers manage their products, procedures and costs, and to make the best decisions for their business.
- Finally, stay ahead of the competition by adopting new and innovative service solutions. “Invest the time and resources

needed to best service your customers,” says Donaldson. “Offering better products, a diversity of services and improved business models will make you an invaluable resource to current and potential customers. It all begins with, ‘How can I help you?’” ■



# A GREENER VALLEY HOSPITAL



A New Jersey health system is improving the environment — and its bottom line

When the The Valley Hospital in Ridgewood, New Jersey, began its quest to become an environmentally responsible healthcare organization, it first looked to its waste streams.

"We had many waste streams, such as municipal solid waste, regulated medical waste, sharps and many others," says Howard Halverson, director of environmental services at the not-for-profit facility. "In 2003, we began exploring sustainability initiatives with our vendors to counter these streams."

Thirteen years later, The Valley Hospital has recycling programs with 18 vendors and recycles batteries, light bulbs, paper, blue wrap, toner cartridges, carpeting, tiles, medical instruments, cooking grease, cardboard and textiles.





In addition to the environmental benefits, its green efforts have generated significant cost savings for the hospital, which is part of Valley Health System. For example:

- Educating staff about what is and isn't regulated medical waste helped reduce medical waste from 266 tons in 2009 to 111 tons in 2015, resulting in a reduction of \$77,500 in disposal costs.
- Reprocessing of single-use items such as scalpels and tourniquet cuffs reduced waste by six tons, generating a savings of \$41,000.
- Switching to a more efficient washing and disinfecting system for carts and surgical tables reduced related water use from 367,200 gallons to 79,200 gallons.

The Valley Hospital has also developed green standards across new construction/renovation and replacement projects that call for LED lighting, occupancy sensors for rooms, PVC-free doors made of engineered copolyester and low-VOC paints. There also are recycling collection cans in patient rooms, with custom stickers indicating which kinds of items to include in single-stream recycling. Nearly 90 percent of the hospital's construction and demolition debris is recycled.

## Give us your tired linens ... and more

Textiles play a large role in The Valley Hospital's sustainability efforts. In 2015, it donated three tons of textiles and, for its effort, received funds that it used for patient services. The program is simple, yet reflective of the hospital's forward-thinking, green mentality.

The textiles recycling effort started six years ago when Halverson made a

contact while attending a Northeast Recycling Council meeting. Through the council, he learned about the importance of textile recycling and met a representative of Green Tree, a charity that repurposes unwanted clothing and textiles for reuse by the poor and disadvantaged.

Seeing a win-win opportunity, Halverson requested an on-site Green Tree bin with regular pickup. Hospital staff fill the bin — situated in an employee garage — with retired hospital linens, as well as employee clothing, shoes, belts and even stuffed animals.

In addition to the bin program, The Valley Hospital switched from disposable hospital isolation gowns to reusable hospital isolation gowns in 2009, taking 63 tons of waste out of the waste stream and saving \$175,000 in the process.

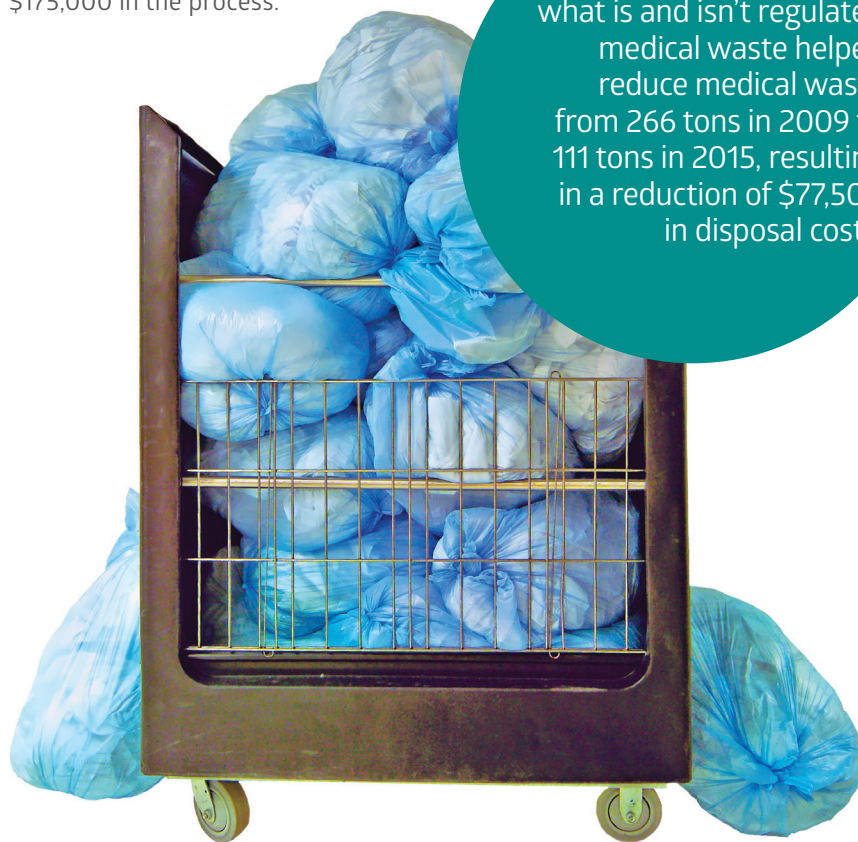
## Greening the OR

The operating room (OR) presents a prime opportunity for healthcare facilities to reduce their environmental impact.

"Operating rooms are the largest users of supplies and, as a result, the largest generators of waste," says Hermine Levey Weston, RN, member engagement manager at Practice Greenhealth, a nonprofit membership organization that promotes and supports best environmental practices by healthcare organizations.

"For example, oftentimes hospitals will throw everything into the most conveniently placed containers for regulated medical waste, which has much

Educating staff about what is and isn't regulated medical waste helped reduce medical waste from 266 tons in 2009 to 111 tons in 2015, resulting in a reduction of \$77,500 in disposal costs.







higher disposal costs than municipal waste,” Levey Weston says. “But when facilities such as The Valley Hospital properly sort waste like you would at home, the cost savings are significant.”

Single-use items used in the operating room — including compression boots, scalpels and lancers — are being reprocessed by hospitals including The Valley Hospital.

“Such items are often thrown away after a single use, but they can be cleaned and sterilized, quality checked, repackaged and resold for the same use at half the original cost,” she says.

Another OR-specific green practice involves creating less-waste operating kits.

“With prepackaged operating kits, some of the instruments and sponges aren’t used, and those items often get tossed in the trash,” Levey Weston says.

But facilities such as The Valley Hospital streamline prepackaged surgical kits that are routinely used during certain procedures.

“Hospitals doing this are saving money by not buying extra items that go unused, as well as achieving cost savings downstream through the waste disposal process,” she says.

The Valley Hospital recently received Practice Green Health’s Partner for Change Award for its overall environmental stewardship work and was specifically recognized for its OR efforts. The hospital also earned a New Jersey Department of Environmental Protection Recycling Award this year.

### Creating a buzz

Another important ingredient in The Valley Hospital’s sustainability success is promoting healthy foods

Annually, the hives yield more than 100 pounds of honey which is sold in the hospital’s cafeteria and used in menu items for patients, visitors and staff. Beeswax from the hives is used in the hospital’s house-made lip and foot balms, body butters, hand lotions and vapor rubs.







Electric car charging stations and clothing collection bins are part of the hospital's green efforts.



and healthy eating. One such effort has literally created a buzz at the hospital and The Robert and Audrey Luckow Pavilion, a satellite facility in nearby Paramus.

In 2013, Valley Health System worked with Bee Bold Apiaries to become New Jersey's first health-care organization to install bee-hives — four at the main campus in Ridgewood and four in Paramus. Annually, the hives yield more than 100 pounds of honey, which is sold in the hospital's cafeteria and used in

menu items for patients, visitors and staff. Beeswax from the hives is used in the hospital's house-made lip and foot balms, body butters, hand lotions and vapor rubs.

The beekeeping endeavor is in line with the health system's support of locally produced foods, which include produce and cage-free eggs, Halverson says. The hives also help with a widespread bee shortage by providing pollination for gardens, foliage and trees within a two-mile radius of the hospital and The Luckow Pavilion.

"As a healthcare organization, we are a leader in the community to promote healthy choices and sustainability efforts," Halverson says. "That's why we're always looking for ways to be ahead when it comes to

healthy eating, recycling practices, waste reduction, energy management and overall responsible ways of thinking about our environment."

## Growing greener

The Valley Hospital Green Team is engaged in an ongoing effort to seek opportunities to learn more about sustainability and educate hospital staff.

"We'll continue to promote the benefits of recycling and a healthier community, and we'll continue to take advantage of such opportunities as National Recycling Day, Earth Day and the hospital's safety fairs to create greater awareness," Halverson says.

Suppliers will also play an even greater role in the hospital's sustainability efforts moving forward. Using language that supports the use of both recycled packaging and recycled materials will become the norm.

"When you think of the tens of thousands of products that we must purchase to run a hospital, this is an enormous task," he says. "It's critical that we continue to have strong and sustaining procurement positions with our vendors." ■



**Howard H. Halverson is Director of Environmental Services at The Valley Hospital. Halverson is a member of the Occupational Health and Safety team, Agency Administration, the Hospitality Team and the Curriculum Team for Valley Health System Leadership Institute. He also leads The Valley Hospital Green Team and is coordinator for Practice Green Health Sustainable Reporting.**

# SPREADING THE WORD

Reston, Virginia-based Practice Greenhealth (PGH), a networking organization of more than 1,000 member hospitals — about 20 percent of the nation's total — is dedicated to promoting sustainable, eco-friendly practices in hospitals.

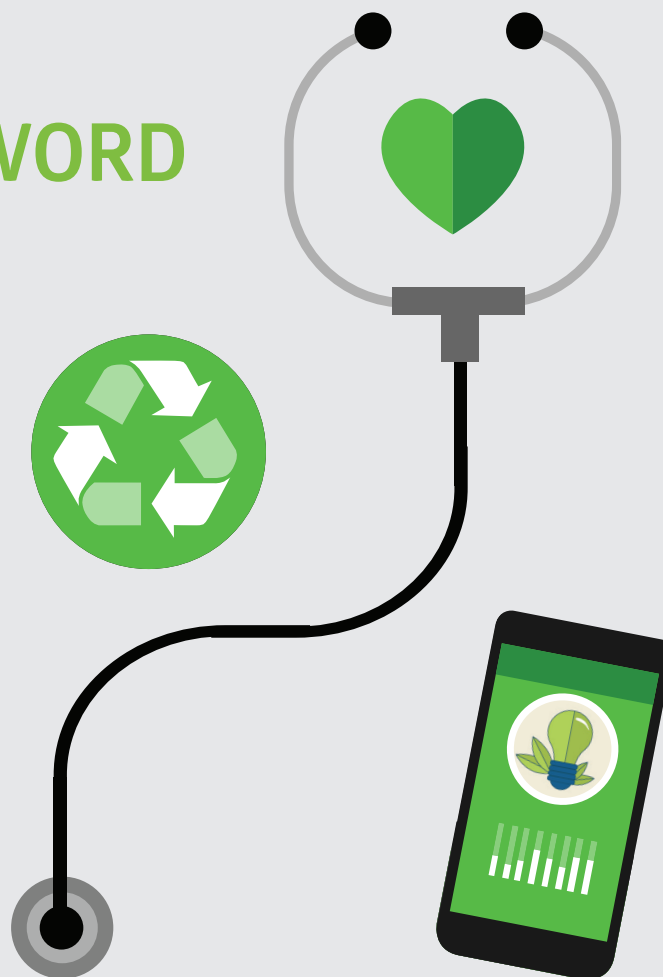
Recognizing that sustainable healthcare requires action plans, PGH provides members with access to experts in environmental preferential purchasing, healthy foods, safer chemicals and greening the operating room. Each member is also assigned an engagement manager to discuss environmental efforts, needed resources and ideas for green efforts.

Member engagement managers also provide Environmental Excellence Award applications for these PGH honors.

- Partner Recognition
- Partner for Change
- PVC- and DEHP-Free
- Greening the OR Recognition
- Making Medicine Mercury-Free

"Hospitals should be recognized for going above and beyond treating sick patients," says Member Engagement Manager Hermine Levey Weston, RN.

These demonstrate the seriousness of the work and the applicants' level of commitment. The application has 14 categories (waste, energy, water, chemicals, food, etc.), with about 60 questions per category. It can take hospital teams three months to complete.



"It's important for hospitals to practice sustainability and healthy practices, to use what they've learned to benefit their communities and to be recognized for their efforts," Levey Weston says. "We'd like to see more hospitals doing this important work, and we'd like to see them doing it as PGH members. If they do, they'll be more successful because they'll have access to valuable resources and benchmarking data, and they won't have to reinvent the wheel. That's my hope for the future."



# WHAT'S HIDING behind privacy curtains?

Potential contamination can be overlooked  
in routine cleaning



Room environment plays a large role in the transmission of healthcare-associated infections (HAIs), and that role is getting some significant attention.

The Centers for Disease Control and Prevention (CDC) identified the most frequently touched or high-touch surfaces in a patient's room. These areas — such as the bedside table, bedrails and remote control — are touched numerous times throughout the day by healthcare workers.

High-touch surfaces are cleaned and disinfected daily as part of the routine cleaning of a patient's room. Yet, there is one high-touch surface that did not make the CDC's list and is not part of patient room routine daily cleaning.

That surface is the privacy curtain.

## Contamination risks

The privacy curtain is touched frequently before, during and after patient contact. Oftentimes, the curtain is touched after hand hygiene and before contact with the patient, potentially putting the patient at risk for cross contamination.<sup>1</sup>

What's more, curtains may be made of a material that is not easily cleaned. Fabric content is an important consideration: Microorganisms have been found to bind with certain fabrics more than others.



One study indicates that *S. aureus* and *Pseudomonas aeruginosa* can bind to acrylic, polyester and wool at very high ratios.<sup>2</sup> Other studies have shown that staphylococci, enterococci and fungus can survive on fabric for days or weeks, and have a tendency to survive longer on polyester than on cotton.<sup>3,4</sup> This is an alarming fact, especially considering that most cubicle curtain fabrics today are made from polyester due to its longevity, shape retention and resistance to fading with repeated washings.

A number of studies have found that privacy curtains are often contaminated with Vancomycin-resistant enterococcus (VRE) and methicillin-resistant *Staphylococcus aureus* (MRSA).<sup>5, 6</sup> Despite this information, the CDC and other regulatory and professional organizations are not very specific regarding when and how often the curtains should be cleaned.

### Cleaning recommendations

According to The American Society for Healthcare Environmental Services of the American Hospital Association, privacy curtains should be cleaned any time there is visible dust or soil and as a part of the terminal cleaning process whenever an area has been occupied by a patient who has been on contact or droplet precautions.<sup>7,8</sup> To prevent cross-contamination, the privacy curtains should be taken down immediately after an area has been occupied by a patient who has been on isolation precautions, and clean curtains should be hung before the next patient occupies the area. Because there are no clear-cut recommendations for how frequently the curtains should be cleaned, protocols may vary greatly from institution to institution.

So what is the solution? There are a number of things to consider.

- Recommended best practice is to record and complete laundering schedules on a quarterly basis, except in cases of isolation patients where a terminal clean is needed. Proper protocol includes using an industrial laundry or in-house laundry versus dry cleaning to ensure curtains are terminally cleaned.
- Choose easy-to-clean cubicle curtain systems, such as snap panels, that are less labor intensive and allow cleaning staff to easily remove and hang curtains.
- Consider adding a plastic pull wand or clean edge that can direct a person where to grab the curtain. These can easily be wiped during daily cleaning.
- Disposable privacy curtains may also be a viable option for your facility.

Cubicle curtains are soft-surface touch points that can often be overlooked in facility cleaning protocols. These curtains also present a traditionally burdensome process for correct and consistent cleaning.

Be sure to implement protocols for proper management to ensure these products are appropriately maintained on a regular basis. System improvements can include:

- Implementing curtain solutions to make the laundering process less labor intensive
- Developing a cleaning schedule for consistent maintenance

- Including programs such as Medline's Cube Track, an RFID tracking program to monitor cubicle curtains throughout your facility
  - Partnering with local industrial laundries to ensure terminal clean
  - Implementing disposable cubicle curtains for high-traffic areas
- Removing and laundering large, bulky curtains may be a lot of work, but it is the right work for your facility, for you and for your patients' safety. ■

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7 FAQ section: how often should privacy curtains be cleaned?. American Society for Healthcare Environmental Services of the American Hospital Association. [http://www.ashes.org/ashes\\_app/learn/in\\_focus/faqs/privacy\\_curtains\\_1.jsp](http://www.ashes.org/ashes_app/learn/in_focus/faqs/privacy_curtains_1.jsp). Accessed May 23, 2016.

8 Sehulster L, Chinn RY, Arduino MJ, et al. Guidelines for Environmental Infection Control in Health-Care Facilities: Recommendations of CDC and the Healthcare Infection Control Practices Advisory Committee (HICPAC). Chicago IL: American Society for Healthcare Engineering/American Hospital Association; 2004; [http://cdc.gov/nicodod/dhqp/pdf/guidelines/Enviro\\_guide\\_03.pdf](http://cdc.gov/nicodod/dhqp/pdf/guidelines/Enviro_guide_03.pdf). Accessed May 23, 2016.



**Barbara Connell is the Vice President of Clinical Services at Medline Industries, in Mundelein, Illinois. She has more than 20 years' experience as a Medical Technologist and 15 years' experience in the IVD Laboratory Diagnostics business. As VP of Clinical Services, she is responsible for the development and execution of Medline's infection prevention programs.**

# Fact vs. fiction

Make sure your antimicrobial claims are within current regulations



Antimicrobial. It's a buzzword we hear more and more frequently, but what does this term mean?

In short, an antimicrobial is an agent that interferes with the growth and reproduction of bacteria, yeast and mold. Antimicrobial coatings or treatments — typically in the form of chemical agents — may be applied to a wide range of product materials, including textiles, found throughout the healthcare industry.

Even though these treatments

seem to be popping up everywhere, the application of these coatings isn't quite as simple as, say, applying a dye to fabric. There are very specific requirements that come into play.

## A tangle of regulations

The regulatory landscape associated with antimicrobial products can be confusing. Depending on the formulation of the product, uses and label claims, the product may be:

- Exempt from federal regulation

- Regulated by either the Environmental Protection Agency (EPA) or the Food and Drug Administration (FDA)
  - Regulated by both agencies
- The EPA regulates products that control microorganisms on inanimate objects and surfaces. On the other hand, the FDA regulates substances used in or on humans and animals, and has jurisdiction over antimicrobial products that are intended for use as medical devices and products with public health claims.

The EPA regulates the use of antimicrobial pesticides under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA). This act includes the Treated Article Exemption, which covers many of the antimicrobial products sold by Medline. This allows an exemption from all FIFRA requirements, meaning manufacturers do not have to obtain EPA approval prior to selling the final finished product for qualifying articles treated with or containing an antimicrobial.

Qualifying articles must meet all of the following conditions.

- The incorporated antimicrobial agent itself is registered with the EPA
- The sole intent of the treatment is to protect the product itself, and
- The associated product claims are limited to describing the

protection of the product, not protection of the user or others. Antimicrobial claims that are acceptable under the Treated Article Exemption should describe the treatment as being used to help prevent product degradation, staining, discoloration and odors on the product itself. The purpose of the antimicrobial is to preserve the product for prolonged use.

Antimicrobial claims that do not fall under the exemption, and would therefore require final product registration with the EPA, include claims such as the following.

- Kills 99.99 percent of microorganisms or bacteria
- Offers protection from harmful pathogens
- Provides a germ-resistant surface
- Reduces hospital-associated infections

These claims would not meet the exemption because there is a direct or indirect implication that the treated product offers protection to the user of the product or others. These claims are referred to as public health claims, which fall under the jurisdiction of the FDA, as opposed to the EPA.

### Antimicrobials and HAIs

Hospital associated infections (HAIs) are a big concern in the healthcare community. However, there currently aren't any antimicrobial-treated products on the market that have been approved to make claims related to reducing or preventing HAIs. This includes antimicrobial textiles and scrubs. The EPA has not registered any product or antimicrobial to make these claims, and FDA has not

cleared any antimicrobial device with these claims. Still, there are several technologies in development that aim to change this.

One reason behind the lack of regulatory acceptance of these claims is that it is incredibly difficult to prove a reduction in HAIs.

Picture a patient's room at a hospital. There may be several pieces of equipment, multiple products being used on a patient at any given time and contact with hospital staff or visitors. There are many potential points of contamination or routes of exposure leading to an infection.

Add to those the variability found among facilities when it comes to infection prevention, hand hygiene and facility cleaning protocols. How can anyone definitively conclude that a single product is responsible for causing — much less inhibiting — an infection?

### Putting antimicrobials to the test

Performance testing in a controlled laboratory environment is not enough to account for this variability or prove this theory. Therefore, the industry has turned to clinical testing.

Clinical testing is research

conducted using human subjects to evaluate biomedical or health-related outcomes, while laboratory or performance testing is limited to studying materials to determine their effectiveness. Laboratory testing can show an antimicrobial inhibits the growth of bacteria, but it cannot conclude the prevalence of an infection is inhibited as a result. A petri dish in a controlled environment cannot replace a human subject living in a variable world.

As the industry continues to explore the impact of antimicrobial-treated articles, we are still responsible for ensuring the appropriateness of our antimicrobial claims within the current regulatory climate. The Association of periOperative Registered Nurses (AORN) recently updated its Guideline for Surgical Attire to state that more research is needed to study the link between antimicrobial textiles and patient health. ■

Citations:  
Pesticide Registration  
Notice for the Applicability of the Treated Articles Exemption to Antimicrobial Pesticides: <http://www.epa.gov/sites/production/files/2014-04/documents/pr2000-1.pdf>



**Claire Pigman** is a Senior Regulatory Affairs Specialist primarily focusing on assessing Medline's promotional materials and product claims. She has dealt with a wide range of product categories and regulations including various projects related to antimicrobials. She is a graduate of Purdue University and has been working in different areas of Regulatory Affairs for nearly five years.



# BEYOND THE DRYER DOOR

Best practices to keep your textiles clean through delivery

The process for properly cleaning textiles has been well documented. Most facilities engaged in healthcare services are achieving an acceptable level of sanitation to create a safe, clean product. So end of the infection control story, right?

Not so fast. That only gets us to the end of the dryer cycle — before the dryer door opens, before hands, carts, conveyors and trucks come in contact with our clean linen. How we manage those variables ultimately determines the full completion of our quality of service.

The Centers for Disease Control and Prevention compiled a list of 13 separate incidents of healthcare textiles (HCTs) causing HAIs in 368


patients since 1970. Most of those incidences, affecting more than 200 patients, had a root cause stemming from an environmental contamination that occurred post processing. The contributing factors and contaminants were identified as dust, construction contaminants, temperatures, humidity and inadequate storage management.

In a 2016 survey of hospitals, Medline found that only 28 percent of respondents said their laundry service has a “good understanding” of their hospital’s priorities and objectives, notably the impact of Healthcare Acquired Infections (HAIs) on hospital metrics and the implications of the Affordable Care Act on hospitals.

While cost and quality still head the list of priorities, HAIs and infection prevention are increasingly important in the decision making about vendor partnerships. When hospitals were asked what motivates them to change vendors more than half of the respondents cited quality improvement, patient experience solutions and infection prevention solutions.



**Chuck Rossmiller** is the Director of Laundry Programs for Medline Industries Inc. and is based in Sun Prairie, Wisconsin. He has 25 years of experience in healthcare laundry, including five as the CEO of HLS in Chicago. He previously served on the board of directors and the advisory board of the Healthcare Laundry Accreditation Council (HLAC) and is an active member of the Textile Rental Service Association (TRSA) and The American Reusable Textile Association (ARTA).



In a 2016 survey of hospitals, Medline found that only 28 percent of respondents said their laundry service has a “good understanding” of their hospital’s priorities and objectives.

How do you make sure you’re maintaining your product in a hygienically clean condition without creating a financial burden or increasing costs to your customers? Follow these best practices to help ensure that your product retains the highest integrity throughout your span of control.

### **Rail bags**

Every surface that clean textiles touch should be on a routine cleaning and disinfecting schedule. Overhead rail bags should be washed at regular intervals. Bags are regularly exposed to damp textiles, high temperatures, humidity, dust, lint and employee contamination. Bags can be inspected, repaired and laundered on a schedule that will maintain a clean condition without disrupting availability.

### **Tabletops, conveyors, folders and feeders**

These are all highly susceptible to contamination. While most of these areas are routinely blown down or dusted, they haven’t typically been on the decontamination schedule. Due to repeated exposure to employee hands, damp textiles, maintenance activity and environmental contaminants, these areas can and do become contaminated with bacteria. Since these areas are used exclusively for clean linen, they are often overlooked as areas of potential contamination.

### **Carts and cart washing**

Most facilities use a combination of automated and manual cart washing systems, combined with a visual inspection. EPA-registered bactericidals have required dwell times that range from three to 10 minutes

to achieve full decontamination. When dwell times aren’t met, the effectiveness of the process is diminished. Finding a product that has a short dwell time, pre-treating the carts before entering the cart wash and ensuring carts are not wiped dry until the full dwell time is met will all result in better outcomes. Additionally, using a clean towel for final drying will prevent spreading contamination from cart to cart.

### **Cart wrapping and linen packaging**

Most laundries cover their carts with a plastic cover or liner. When used as a liner, the plastic can provide full containment if it is sealed at the top with shrink wrap. When used as a cover, the plastic is often left open at the bottom of the cart, so you need a barrier material between the linen and the drain holes on the bottom shelf.

When hospitals were asked what motivates them to change vendors more than half of the respondents cited quality improvement, patient experience solutions and infection prevention solutions.



## Transport

In addition to routine truck cleaning, there are a few keys that will help when moving linen from plant to hospital. Ensure there is no unbagged soiled linen. Minimize the interchangeable handling of soiled and clean linen and carts as much as possible. Utilize appropriate personal protective equipment and discard properly. Avoid using trucks for clean storage before shipping, particularly when temperatures will exceed 80 degrees Fahrenheit for an extended period of time.

## Hand-washing

Finally, but most important, is regular and proper hand-washing for all

employees engaged in handling clean linen and carts. Contamination from our hands is a real and prolific way to spread bacteria. Employees should sanitize each time they handle a cart, move from area to area or return from a break. A culture of hand hygiene, which starts with management and continues through supervision, operations, maintenance and distribution, will create a healthier environment for your staff and a safer product for your consumers.

How do you know if you've maintained the hygienically clean

state of your product? Bacteriologic testing of samples from each location on its path to the customer will help identify areas of potential concern. You can also implement ATP testing in your plant to mimic the testing being completed by hospitals every day. Hard surface testing of your linen touch points will immediately identify areas that require attention for decontamination.

The expectations of us as providers to the healthcare industry are rising. Our ability to improve performance, manage these outcomes and document their completion will ultimately determine our value to the customer. ■





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