Combating MRSA Infections in Fire, Hotel, Healthcare and Athletic Facilities

By Haley Jorgensen

Moist environments, such as piles of soiled towels, sheets, gloves, protective gear and uniforms, are prime breeding grounds for various types of resistant and dangerous bacteria. One such bacteria, Methicillin-resistant Staphylococcus aureus (MRSA), first appeared in the athletic setting about 10 years ago, but has had a longstanding notoriety in hospitals for even longer. MRSA terrorizes locker rooms, gyms, hospitals and even fire departments across the nation.

Proper storage and cleaning practices of all laundry is key to avoiding MRSA infections. Anywhere there are people and laundry there should be appropriate laundry equipment that is not only programmable to adjust water temperature, water levels, cycle duration, mechanical action, and chemical dilution, but productive enough to handle laundry demands so damp, soiled items do not accumulate for extended periods of time.

No matter the soil or stain, laundry equipment must be adjustable to attack the specific laundry issue, which in this case is bacteria. Continental equipment has features to ensure maximum adaptability to any problem. Facilities battling dangerous bacteria like MRSA can adjust their Continental washer-extractor to program optimal time, temperature, mechanical action and chemistry to provide the most thorough disinfection possible.

"An ounce of prevention is worth a pound of cure," the saying goes. In the case of MRSA this is especially true. MRSA infections are caused by staph bacteria immune to many antibiotics. People often overlook this dangerous infection, as the initial phase is frequently mistaken as a pimple, ingrown hair or spider bite. However, MRSA can lead to organ damage, pneumonia, blood stream infections, or, in extreme cases, necrotizing fasciitis (commonly known as flesheating bacteria).

So what can combat such a hazardous string of bacteria? Since MRSA infections occur when the bacteria comes in contact with cuts, scrapes or other open wounds, people should carefully follow basic hygiene procedures. This includes frequently washing their hands, not sharing soap and avoiding possibly contaminated laundry and hard surfaces.

It's estimated that 30 percent of the population carriers the bacteria, even though they don't get infected from it. Nonetheless, carriers can easily pass the bacteria to others. In the case of an athletic team, epidemics can easily occur if precautions are not taken. At hospitals, visitors who carry the bacteria may infect patients by touching hard surfaces, linens or the patients themselves.

MRSA can survive for seven days on surfaces like faucets, door handles, countertops and laundry. That is why recommendations for preventing MRSA include good hygiene, regular cleaning of hard surfaces and procedures for gathering and properly cleaning laundry.

MRSA is of such concern of athletic programs that Duke University School of Medicine offers the Duke Infection Control Outreach Network Educational Program to Prevent MRSA Infections in Athletes. The program offers guidelines and recommendations based on scientific principles that are practical, understandable and specific to each team or institution. Visit http://dicon.mc.duke.edu/modules/dicon_mrsa/index.php?id=2 to find out more.

Similarly, the Minnesota Department of Health offers advice for hospital patients who wish to prevent MRSA infections. That Web site is www.health.state.mn.us/divs/idepc/diseases/mrsa/book.html.

Preventing MRSA

- Wash hands for at least 20 seconds before eating, drinking or applying personal care products and after using the toilet.
- Hold dirty laundry away from your body and clothes to prevent bacteria from getting on your clothes.
- Wear disposable gloves to touch laundry that is soiled with body fluids, like drainage from a sore, urine or feces.
- Immediately put laundry into the washer or into a plastic bag until it can be washed.
- Properly and regularly clean laundry clothing, towels, and sheets – in 140°F water. Use bleach if possible.
- Dry laundry in a warm or hot dryer and make sure it is completely dry prior to folding and storage.
- Clean hands after touching dirty sheets or clothing and before coming in contact with clean laundry.
- Throw gloves away after taking them off and clean your hands.
- Clean facility surfaces with "disinfectant" cleaner (or solution of two teaspoons bleach and one quart water) daily.
- Pay attention to cleaning items that are frequently touched – switches, weights, doorknobs, phones, sinks, tubs, showers, kitchen counters, shower floors, and railings.
- Cutlery and dishes should be washed in hot soapy water after every use.
- Any cuts or open wounds should be promptly and regularly disinfected to avoid infection.



Choosing the Right Laundry Equipment to Prevent MRSA Outbreaks

- Choose a highly programmable washer-extractor. You should be able to program water levels, temperature, mechanical action / duration, number of bath exchanges, extract speed. Select a washer that also offers automatic chemical injection. That way you ensure laundry is properly cleaned – using the right combination of chemicals (bleach, softeners), water temperature and levels – every time. Who is doing your wash? This is important as well. The goal is to make the wash process "dummy proof," especially if many people handle the laundry. You need to choose a washer that allows you to just enter the corresponding cycle number for the given load type and press start. The washer can be programmed to wash towels differently than sheets and jerseys, for example, but it will achieve the specific variables needed for eliminating, soils, stains and bacteria from the load.
- Ensure the washer and dryer you select can handle your facility's influx of laundry so contaminated uniforms, linens and towels aren't lying around! Freestanding, high-speed washers are more productive (they clean more laundry in a shorter time span) and use less energy, gas and water than washers that must be bolted to concrete foundations (hard-mount washers). This is because they generally reach much higher extract speeds. Freestanding washer-extractors remove more water and will cut resulting dry time by 30 percent. They are also easy to install and can be relocated easily.
- Be sure your washer-extractor fits into the space you have reserved for it. Again, freestanding washerextractors are much less costly to install, fit into unconventional spaces, can be relocated and are generally much more energy efficient.
- Work with a reputable laundry equipment distributor who will help you
 plan your laundry, provide recommendations, install equipment and
 deliver quality and timely service!

