

Is MRSA Lurking in Your Station?

By Karen Jones, Rice Fergus Miller Architecture & Planning

A piercing alarm slices through the still air changing the mood from casual to all business... its time to go to work. From training and experience, a firefighter's natural instinct is to think of the victim first. "I want to fill my calling and to give the best in me, to guard my neighbor and protect his property..." However, in practice there is more to think about than saving the life of the victim. It is crucial to insure the safety of all parties involved, including the victim, firefighter, rescue team and bystanders. Often there are hidden dangers that cannot be immediately seen when responding to a call. One such peril is Community Acquired Infections (CAI).

A common form of CAI is MRSA, which stands for Methicillin Resistant Staphylococcus Aureus. It is caused by Staphylococcus Aureus which is a bacterium often known as staph. The difference between Staph and MRSA is its resilient nature. Staph can be cured with antibiotics. MRSA cannot. Because of its inability to be cured by the spectrum of antibiotics, MRSA is very dangerous and sometimes fatal. Staph bacterium, like MRSA, is normally found on the skin or in the nose, and can be transmitted through touch or bodily fluids. Another disturbing aspect of MRSA is that at the point when the bacteria is colonized, the person carrying the infection may not have any symptoms, thus passing the bacteria unknowingly to the next person.

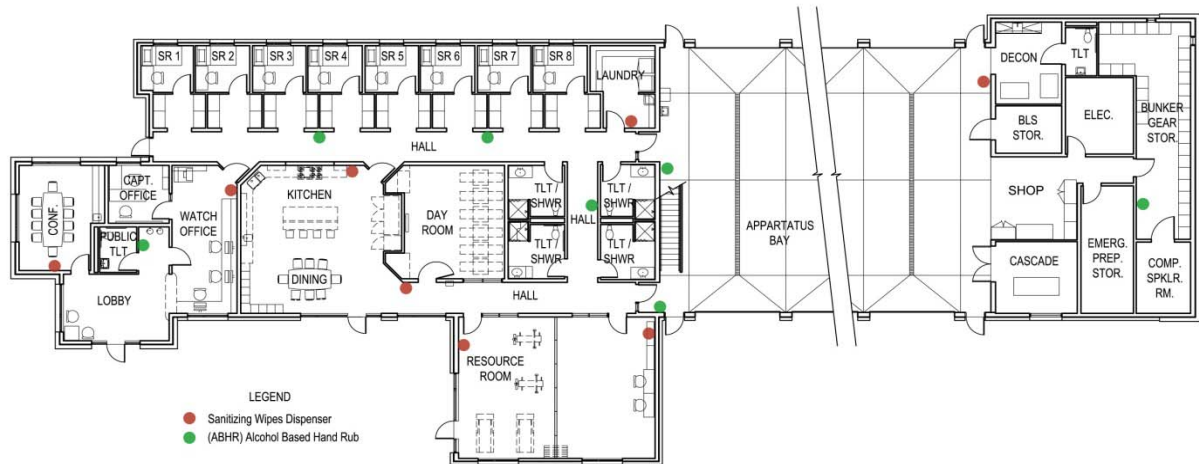
In the past, elderly people, children and individuals with weakened immune systems, such as those in healthcare settings, were considered to be the most at risk for MRSA. However, recently a new strand of MRSA has been occurring among otherwise healthy people. This strain is called Community Acquired MRSA or CA-MRSA. As its name suggests, this strain is commonly found in communal environments such as athletic clubs, schools, healthcare settings and fire stations. CA-MRSA can be spread through skin to skin contact, a minor cut, scrape or by sharing equipment or personal items such as razors, towels, uniforms, or linens. Since CA-MRSA can be spread so easily it is important that individuals who often encounter blood and other bodily fluids, such as firefighters, take extra precautions to insure MRSA is not carried inadvertently from the emergency scene back to the firehouse through clothing, equipment or on the skin of emergency responders.

Some common practices to insure MRSA is not transmitted include careful hand washing and cleaning of equipment that could have potentially come in contact with CA-MRSA. Responders should use alcohol based hand rubs (ABHR) with at least 60% alcohol. When washing one's hands be sure to apply soap, water, and rubbing friction for at least 15 seconds. The "Happy Birthday to you..." song said through one chorus is the right amount of time to wash your hands. Additional precautions include placing ABHR dispensers and containers of pop up disposable sanitizing towelettes by communal areas such as computer workstations, dayrooms, fitness rooms, showering areas, equipment bays, and decontamination areas. All chair and recliner coverings should be wipeable surfaces that can tolerate being cleaned with alcohol based cleaners/wipes. Ripped fabrics on chairs and athletic equipment should be patched or repaired so that they can be wiped clean with sanitizers. Hard surfaces should be cleaned frequently with disposable sanitizing towelettes.

Band aid dispensers should be placed throughout the firehouse, in the emergency vehicle and near all equipment bays so that if a firefighter notices a scratch or abrasion he or she can cover it up to prevent future contamination from contact areas within the firehouse or at the emergency scene. When leaving the station after the shift firefighters should wear a clean change of clothes that have not been exposed to potentially contaminated areas. After every shift, all fabrics that have been in the firehouse such as bed linens, towels, uniforms etc. should be washed immediately. MRSA can live for weeks on infected linens, keyboard trays and in carpets. The sooner the possibly contaminated linens are washed the less time the bacteria will have to spread to other areas of the station.

Firefighters spend much of their time helping others. In doing so they often expose themselves to potentially harmful conditions both seen and unseen. With bacterium such as MRSA and CA-MRSA it is important for Firefighters to take an active role in helping to decrease the spread of contaminants from emergency scenes to firehouses to their personal vehicles and into their homes.

Diagram of alcohol based hand rubs and sanitizing hand wipe locations within a fire station



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