

Transcript Details

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Controlling MRSA Spread in Public Settings

CONTROLLING MRSA SPREAD IN PUBLIC SETTINGS

Our presidential election is only days away. Forty eight million people in America are uninsured and healthcare costs are rising two to three times faster than our nation's GDP. Where will America's healthcare system be in 5 years. Welcome to ReachMD's monthly series Focus On Public Health Policy. This month we explored many questions facing healthcare today.

Once thought to be a problem mainly in healthcare settings, methicillin-resistant *Staphylococcus aureus* is becoming increasingly common in the community. How can MRSA spread through the environment? How can the spread be prevented and what are some special considerations for managing MRSA in public settings such as schools and athletic facilities?

You are listening to ReachMD XM 157, The Channel for Medical Professionals. Welcome to a special segment Focus on Health Care Policy. I am your host, Dr. Jeniffer Shu, practicing general pediatrician and author. Our guest is Jeffrey Hageman, an epidemiologist and MRSA expert in the Division of Healthcare Quality Promotion at the Centers for Disease Control and Prevention in Atlanta.

DR. JENIFFER SHU:

Welcome, Mr. Hageman.

JEFFREY HAGEMAN:

Thank you.

DR. JENIFFER SHU:

First, let's start off by talking about how common MRSA is in the community?

JEFFREY HAGEMAN:

Well, MRSA first started to emerge in the community in the late 1990s, in 1999. The regular Staph has always been a cause of infections in the community predominantly skin infection, skin and soft tissue infection, the abscesses. MRSA emerged in the community in the early 2000s and really has taken off.

DR. JENIFFER SHU:

What is a main way of spreading MRSA through the community? Is there an environmental spread or is it mostly person to person?

JEFFREY HAGEMAN:

MRSA and Staph just like Staph is spread primarily through close contact, direct contact from people or indirect contact if somebody has an infection, it gets on an item like a towel, it can be passed between people. In hospitals, staph and MRSA is typically spread on unwashed hands of healthcare workers.

DR. JENIFFER SHU:

Now, are there some common risk factors that an area might have that might put people at more risk of getting MRSA?

JEFFREY HAGEMAN:

So people getting infections that are at highest risk are people who have breaks in their skin. So in hospitals, people have catheters and people who are undergoing surgical procedures or in the general community is the people who are getting scrapes and cuts typically athletes, military recruits, children; Staph loves to invade at those sites healthy skin is a great barrier against these infections.

DR. JENIFFER SHU:

What about sharing items that might be contaminated?

JEFFREY HAGEMAN:

So we see that those may play a role, the role of those is a little bit more unclear in athletic settings for instance there are so many opportunities of skin to skin contact that is very difficult to rule out that skin contact as the source, but it is a possibility and that's why when we look at prevention strategies, we need to take all of these components into effect. One thing that we do think though is that in general overall the general environment like a playing field, football field, a wait bench, those play very little roles in transmission of these infections.

DR. JENIFFER SHU:

Is there a certain amount of time that Staph or MRSA could survive on the surface that somebody might come in contact with?

JEFFREY HAGEMAN:

Staph can survive in the environment that's a fact, how long it can survive depends on the conditions. In controlled laboratory studies, people have been able to get Staph and MRSA to survive on surfaces for up to months. Keeping into consideration that the environment isn't a natural reservoir of Staph or MRSA, so if it gets in the environment, it's because it comes from a person and typically we see that in these settings is that somebody who doesn't realize to have an infection, it's uncovered, it's draining pus, and it gets onto the surface or the item that could be a way the Staph transmits; however, when you actually analyze that as a processes of getting infections going from a person having a high enough bacteria deposited on a spot on the surface, somebody coming along that is susceptible, they have a break in their skin, they have to contact that exact same surface, have to pick up a certain number of bacteria, then they don't wash it off and then their body doesn't fight off that initial invasion, there are so many steps, it's another reason why environmental role doesn't seem to play that much of a role in transmission of MRSA and it's more of this skin-to-skin contact. The other possibility of MRSA or Staph while not clearly understood is the role of colonization, so we know that one out of three people carry Staph on their body, typically in their nose; however, if you carry Staph in your nose, it's usually always on your hands as well, it's on other parts of your body, usually those warm, moist areas that Staph likes groin, axilla. MRSA, only about 1 out of a 100 people carry MRSA, and typically those people who carry MRSA have some contact with healthcare, so the general healthy population isn't carrying MRSA. So people could also that are carries given self-infections so they have a break in their skin, they touch their nose, they pick it up on their hands and then they touch their infection. Again, all of these pieces help in form our prevention strategies to prevent these infections from occurring in the first place, like if you have a break in the skin ensuring that you are covering those areas.

DR. JENIFFER SHU:

So even if so many people are colonized, the environment doesn't play that great of a role because then the recipient of the infection would need to have broken skin. So is it not important then to try to clean surfaces, to get rid of any Staph or MRSA that might be there in things like household, kitchen countertops, bathrooms, shopping cart handles, school desks, things like that. How important is to keep those surfaces clean?

JEFFREY HAGEMAN:

It's still important to keep those surfaces clean, not only for Staph and MRSA, but other types of infections, other types of viruses. The effort to control MRSA should not be focussed first on the environmental, but we know from our experience in outbreaks is that there is poor recognition of what these infections look like, so many people have them. They are uncovered, they are allowing that to transmit between people and there is often suboptimal hygiene practice. People aren't showering after they have a skin-to-skin contact; wrestlers coming off of competition aren't showering, the bacteria remains on their skin, they have the breaks in their skin and then they can get infections in those sites. So while the environment is the first, one thing we don't want people to do is, it's often easy to target the environment. It's difficult to have people change their behaviors, to shower more frequently, but that's another reason why we need to have more efforts to educate the general public of the prevention measures and what MRSA is.

DR. JENIFFER SHU:

If you have just joined us, you are listening to a special segment, Focus on Healthcare Policy on Reach MD XM 157. I am your host Dr. Jeniffer Shu. Our guest is Jeffery Hageman, an epidemiologist and MRSA expert at the Centers for Disease Control and Prevention. We are discussing MRSA in the community.

Now one practice might be more frequent showers, better handwashing. What about people who do go into environment where there might be Staph and MRSA, such as working out at a gym and using their towels, working in a healthcare setting, what kind of laundry practices might be recommended for those people?

JEFFREY HAGEMAN:

General laundry is sufficient to remove Staph and MRSA from clothing. The key feature that we find in most of these situations is that people aren't doing it after each use. So the football team making sure that they launder their workout gear after they use it. Often we find that they aren't in many of these situations. It is important in gym settings, you can't control what others are doing. We want to encourage people to cover any open wounds that they have if they are in these settings where they potentially could have that skin direct contact or that indirect contact like sharing a weight bench or sharing an elliptical trainer or something like that. People can also take the precaution of using a physical barrier such as a towel, laying that down on the weight bench so you are not coming in direct contact with those shared surfaces. It is also important that Staph and MRSA, if you come in contact with the bacteria, won't cause an immediate infection, so there is time to wash it off their skin so that good handwashing, that good showering after these activities will go a long way in preventing these infections.

DR. JENIFFER SHU:

Now, if there is a known athlete, say in a high school gym or locker room that has an MRSA skin infection, does that person need to be excluded from participation and interaction and what needs to be done to that athletic facility?

JEFFREY HAGEMAN:

For that athlete, they may or not, it really depends on the situations. The general, there is some sports that have sports specific rules on when to exclude an athlete like wrestling. The general concept is if they can keep that area covered and contain so that pus can't come out and contact other individuals, that they are maintaining good hygiene that they are washing their hands, that they are showering, those are situations that are judged, case by case, but if they can keep it covered and maintain that good hygiene, there is no reason why they can't participate. Now, there are certain situations where the physician, the athletic trainer may deem it to pose a risk to the health of the athlete, for instance, if you have a football player where it's over a joint, there is some people that hole a player out because of concern that they may take a direct hit or contact that area during competition and potentially cause the infection to become worse. So while there is not a standard rule for every situation, the general rule is if you can keep it covered to contain and you follow good hygiene practice then they should be fine to play. There is one caveat is that no matter whether or not you can keep it contained for activities, people who have open wounds, even if they are not infected, they should really try to avoid going in the common water sources, so avoid using the whirlpool or the therapy pool or the swimming pool until your infection or that wound is healed.

DR. JENIFFER SHU:

Now what about any sports equipment that might be involved? Is there any value to disinfecting, say the showers or the Astroturf or exercise equipment?

JEFFREY HAGEMAN:

Typically sports equipment, the equipment that they may wear, again a general cleaning, the manufacturers should provide recommendations, one thing that people have to consider

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