

Transcript Details

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The National MRSA Education Initiative

EXPERT HIGHLIGHTS IN THE NATIONAL MRSA EDUCATION INITIATIVE

Our presidential election is only days away, 48 million people in America are uninsured and healthcare costs are rising 2 to 3 times faster than our nation's GDP. Where will America's Healthcare System be in 5 years? Welcome to ReachMD's monthly series focused on public health policy. This month we explore the many questions facing healthcare today.

Methicillin-resistant *Staphylococcus aureus* has made news, closed stores, and sometimes confuse the public. How serious of a problem is MRSA in the community? How can we provide reliable and accurate information about MRSA to a patient? The national MRSA education initiative is a resource that can arm physicians with answers. You are listening to ReachMD XM157, the channel for medical professionals. Welcome to a special segment focused on healthcare policy. I am your host, Dr. Jennifer Shu, practicing general pediatrician and author. Our guest is Jeffery Hageman, an epidemiologist and MRSA expert in the division of healthcare quality promotion at the Centers for Disease Control and Prevention in Atlanta.

DR. JENNIFER SHU:

Welcome Mr. Hageman.

MR. JEFFERY HAGEMAN:

Thank you.

DR. JENNIFER SHU:

Let us talk a little bit about MRSA in general. How common is Staph aureus and particularly MRSA?

MR. JEFFERY HAGEMAN:

Staph aureus is very common. It is on us, approximately 1 out of every 3 people carry Staph aureus most commonly in your nose. MRSA is more rare. We only see about 1 out of a 100 people carrying MRSA on their skin. Now those people carrying MRSA are typically people who have contact with healthcare. When we look at infections caused by Staph and MRSA, people typically visit their

doctors approximately 12 million times each year for these Staph infections and over the past several years, the majority of them are now MRSA.

DR. JENNIFER SHU:

Now, what are the signs and symptoms of MRSA skin infection? Can you tell that it is MRSA just by looking at it?

MR. JEFFERY HAGEMAN:

No. That is a good point. So, whether or not it is regular Staph or the drug-resistant form MRSA, each have the same signs and symptoms and so the signs and symptoms are either a bump or an infected area on the skin that is red, swollen, painful, and warm to the touch. Typically Staph does have pus associated with it. So, you will see a white or yellow center and they may have other signs and symptoms, systemic signs, fevers, chills depending on how severe the infection is and if not until you actually take a culture and have it tested in the laboratory, can you make the differentiation between Staph and MRSA.

DR. JENNIFER SHU:

And how common is a serious type of MRSA infection such as invasive disease or death from MRSA?

MR. JEFFERY HAGEMAN:

So we know that approximately 94,000 severe MRSA infections occur in the US. Now most of those, the majority of them, around 80% to 90% are infections occurring in healthcare, in hospitals, and people who are sick who have underlying illnesses. A few of those are the ones that occur in otherwise healthy people out in the general community.

DR. JENNIFER SHU:

So, clearly healthcare associated or healthcare-acquired MRSA is much more common than community acquired, but are you finding that the rates of community-acquired MRSA are rising or are they pretty much stable?

MR. JEFFERY HAGEMAN:

So when we talk about the community, majority of those are the skin infections and we know that skin infections caused by Staph, which include MRSA have been increasing since the emergence of MRSA in the early 2000s. So back in the late 1990s, we only saw approximately 8 to 9 million outpatient doctor office visits, emergency department visits for the Staph skin infections and in the midst of the big emergence of MRSA, it is almost doubled. So we have 12 to 14 million visits now. So definitely MRSA is adding to the overall total of Staph skin infections.

DR. JENNIFER SHU:

How is CDC found that with the rise of rates of MRSA infection that the public is also more aware?

MR. JEFFERY HAGEMAN:

That is entirely true. There has been, I think it is a point of lot of confusion to, especially last fall, there was a lot in the news highlighting really the severe infections, which are more of the hospital infections, but we do see the sporadic reports, very tragic reports of children dying and it is starting to touch more people. So before we really saw it emerging in a community, really limited to elderly, limited to people having surgery, but now because skin infections are so common and anybody is at risk of getting one of these skin infections that more and more people are exposed to the whole concept of MRSA. The confusing part is determining what applies to the community infections and what are the characteristics of these hospital infections and so there is a great concern, there is a great fear among the general public that, "oh! I have a skin infection." What they do not realize is that this is treatable. They often are referred to as a superbug, so they have it in their mind that you cannot treat these infections and they are at high risk of dying, which is not the case with these skin infections.

DR. JENNIFER SHU:

Now, are there any risk factors such as age or gender or race that put somebody at higher risk of MRSA infection?

MR. JEFFERY HAGEMAN:

So for MRSA, the skin infections, anybody can get an infection. People that do have skin issues like eczema, psoriasis can be at higher risk for the skin infections. We also note the skin infections are transmitted among groups of people because they are on our skin and people who are in close quarter. So children who are in daycare settings, children who are in school, military recruits, in prisons, in athletic settings, those places where we tend to share a lot of skin surfaces with each other that is where we see a lot of Staph and MRSA transmission occur. Another common feature of these settings while they all of different groups of people, many of the settings people get breaks in their skin. Staph likes to invade at these breaks in the skins whether they are cuts or whether they are turf abrasion in the athletes whether they are scratched mosquito bites in a child. Those act as entry points for the infection that is typically where we see them arise.

DR. JENNIFER SHU:

Let us talk a little bit about the National MRSA Education initiative and what was the driving force behind this program.

MR. JEFFERY HAGEMAN:

The driving force was the need to get out accurate information so people could have an informed response. So if there was a case of MRSA in a school, they knew the appropriate steps to contain that, but also so that it did not create panic. So what we are trying to do in the first phase is really have people understand what MRSA is and what it is not. We know from research that we have done and others have done, people really do not have an understanding of what an MRSA skin infection is. In recent surveys that we have done as little as 1 out of every 4 people had an understanding of what an MRSA or a Staph skin infection meant.

DR. JENNIFER SHU:

Now who is the target audience of this initiative?

MR. JEFFERY HAGEMAN:

Two targets. We have 1; the general public and then the other target are physicians, doctors, clinicians, nurses, athletic trainers. It is important to reach both of those audiences, 1 so that people seek care when it is appropriately, but also that physicians and clinicians understand these patients when they come in that they have MRSA in the front of their mind as a potential cause of the skin infections. What we found in patients is that they tend to delay in seeking care. They confused them for bug bites or spider bites and then that delay in seeking care potentially puts them at higher risk for a more severe complication. So we really want people to recognize these infections. So 1 that they do not get a severe infection themselves, but also that they are less likely if they get treatment to spread it to others in their family, in their schools, in their workplaces, and by first on the physician clinician's side, we want to make sure that they think about MRSA for the skin and soft tissue infections and know the appropriate treatment. I think an important point to make is, you know, a piece of good news is that most of the skin infections, particularly the Staph skin infection, the first-line treatment is incision and drainage. So the fact that it is drug resistant, does not really play a role in the majority of these infections.

DR. JENNIFER SHU:

So, you mentioned incision and drainage? I believe that is a part of the treatment algorithm that is listed on this education initiative website. What about culturing any material that is drained from the wound?

MR. JEFFERY HAGEMAN:

Three organizations, CDC, the American Medical Association, and Infectious Disease Society of America developed a treatment algorithm for skin and soft tissue infections particularly focused on MRSA and an important part of that is draining and so if you are going to drain it, it is good to get a culture so that it can guide either your therapy down the line in case somebody has a recurrence or if it becomes severe. I think previous to MRSA emerging in the community there really was a lack of culturing going on predominantly because there was a lack of draining going on. People were relying too much just on antibiotic therapy.

DR. JENNIFER SHU:

Now, why you are waiting for the culture to come back? Is there are any value in starting some type of empiric therapy?

MR. JEFFERY HAGEMAN:

It is up to each doctor, each clinician based on their judgment. There are certain situations where if it is in an area where it is not able to be drained completely, that might be a time where you prescribe antibiotics. Also, people at extremes of age so they are very young or they are very old, people with underlying health conditions, the severity of the infection, or the severe local signs, or they have some of those systemic signs. So it is really left up to the individual clinician and doctor to make that determination of whether or not to add antibiotics in addition to the incision and drainage and there are certain situations where it is not possible to drain at that point, so again leaving that up to clinical judgment.

DR. JENNIFER SHU:

Now, what about decolonization? Is there a place for decolonization in this treatment algorithm and if so what would that entail?

MR. JEFFERY HAGEMAN:

So, right now there really is no data to support routine decolonization for these cases of MRSA in the community. There are certain situations where it might be attempted in cases, in patients who have recurrent disease and outbreaks of disease and for the most part even in outbreak situations; decolonization has not been a critical component of stopping outbreaks or treatment. I think we have a lot to learn about decolonization. What are the optimal regimens before a recommendation.

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