



A CUP OF HEALTH WITH CDC

Dealing With Drug Resistant Bugs

Severe Methicillin-Resistant *Staphylococcus aureus* Community-Acquired Pneumonia Associated with Influenza

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[Announcer] This podcast is presented by the Centers for Disease Control and Prevention. CDC – safer, healthier people.

[Matthew Reynolds] Welcome to *A Cup of Health with CDC*, a weekly broadcast of the MMWR, the Morbidity and Mortality Weekly Report. I'm your host, Matthew Reynolds.

Antibiotic resistant bacteria is difficult to treat and can be deadly. The bacteria *Staphylococcus aureus* can develop resistance to a common class of antibiotics that includes penicillin. These strains are called methicillin-resistant *Staphylococcus aureus*, or MRSA for short. MRSA usually affects hospitalized patients, but infections are becoming more common in the community.

Here to discuss MRSA, the types of illnesses it can cause in the community, and how best to deal with it, is Dr. Joan Brunkard, a CDC Epidemic Intelligence Service officer assigned to New Orleans, Louisiana. Dr. Brunkard and her co-workers recently published a report on MRSA pneumonia in the community.

Welcome to the show, Dr. Brunkard.

[Dr. Brunkard] Thanks, Matthew. It's good to be here.

[Matthew Reynolds] Dr. Brunkard, I've heard a lot about antibiotic resistant bacteria in the news lately. How do resistant bacteria develop and what exactly is MRSA?

[Dr. Brunkard] MRSA is a type of staph bacteria that is resistant to the common antibiotics, making it difficult to treat. It can lead to life-threatening infections, including bloodstream infections and pneumonia. MRSA is spread from person to person, so you don't have to have taken antibiotics to get MRSA.

Antibiotic resistance is a global problem. It develops as bacteria find ways to adapt to antibiotics, making them less effective or not effective at all over time.

Ways we as patients contribute to the problem of antibiotic resistance include skipping doses of antibiotics or not taking all of our pills. Ways doctors contribute to resistance include prescribing antibiotics when they're not needed, for example, for viral infections like flu or the common cold where antibiotics won't work.

[Matthew Reynolds] Does this mean that MRSA has no cure?

[Dr. Brunkard] No. Almost all MRSA infections are treatable with a select few antibiotics. We want to make sure that we prescribe and use antibiotics correctly so that MRSA doesn't become resistant to that class of antibiotics. Many MRSA skin infections for example don't need antibiotics at all--they can be drained by a doctor. Of course your doctor is the best person to consult about how to treat an MRSA infection.

[Matthew Reynolds] Dr. Brunkard, I thought that only people who are hospitalized are at risk of MRSA, but apparently this isn't true. Where do people usually become infected with MRSA?

[Dr. Brunkard] In the past, most people got MRSA infections in the hospital setting. But recently reports of MRSA infections in the community have increased. Most of these are skin infections.

Ways people can become infected with MRSA in the community include close skin-to-skin contact with someone who has MRSA, and perhaps having open cuts or abrasions and coming in contact with contaminated items or surfaces. And there's some evidence that living in crowded conditions and poor hygiene may also contribute.

CDC has conducted a number of investigations looking at clusters of MRSA in the community among diverse groups such as school children, athletes, military recruits, men who have sex with men, and prisoners.

More recently, MRSA has emerged as a cause of pneumonia. While rare, MRSA community-acquired pneumonia appears to occur more frequently during the flu season.

[Matthew Reynolds] You've recently published a report on pneumonia caused by MRSA. Tell us what you found.

[Dr. Brunkard] We found 10 cases of severe MRSA pneumonia in previously healthy children and adults in Louisiana and Georgia. Four of the six in our study died within several days of becoming sick.

Eight of the ten people were under 30 and had no underlying medical conditions. We think this provides further evidence that MRSA pneumonia can be rapidly fatal and often affects young, otherwise healthy people.

[Matthew Reynolds] You mentioned that several of the patients in your study with MRSA pneumonia had prior skin infections. Should people who have had MRSA infections in the past take any precautions?

[Dr. Brunkard] If you have a history of MRSA skin infections and you become sick with severe flu or pneumonia, make sure to tell your doctor about your past MRSA skin infections because you may be at a higher risk for MRSA pneumonia, especially during flu season.

Simple things you can do to avoid MRSA skin infections in the first place include covering any open wounds or scrapes, keeping your hands clean, and not sharing personal items such as towels or razors.

[Matthew Reynolds] Is there anything else you'd like to tell us about your study?

[Dr. Brunkard] While rare, MRSA has emerged as a potentially fatal cause of pneumonia, especially during the flu season. Based on this study and a similar study in 2004, we want physicians to think about MRSA as a cause of community-acquired pneumonia when patients present with severe respiratory symptoms during flu season. And if you have severe flu-like illness, tell your doctor if you have a history of MRSA skin infections because you may be at higher risk for MRSA community-acquired pneumonia.

[Matthew Reynolds] Thank you for taking the time to talk with us today, Dr. Brunkard.

[Dr. Brunkard] You're welcome, Matthew. Thanks for having me.

[Matthew Reynolds] That's it for this week's show. Don't forget to join us next week. Until then, be well. This is Matthew Reynolds for *A Cup of Health with CDC*.

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