

Statement James E. Burns, MD, MBA

Chief Deputy Health Commissioner, Virginia Department of Health

Before the House Committee on Government Reform

November 07, 2007 at 10:00 A.M. in Room 2154 of the Rayburn House Office Building

Mr. Chairman and distinguished members of the House Oversight and Government Reform Committee, my name is Dr. James E. Burns. I am the Chief Deputy State Health Commissioner for the Virginia Department of Health, and I am honored to be testifying before you today. I would like to thank the Chair and the committee members for convening this hearing on a very timely public health topic – drug-resistant infections and for providing Virginia with the opportunity to discuss the public health impact of community acquired methicillin-resistant *Staphylococcus aureus* (MRSA).

I am here today testifying on behalf of Dr. Robert Stroube, Virginia's State Health Commissioner, who has appeared before this Committee on numerous occasions. Dr. Stroube asked me to express his regrets that family illness prevented him from being here today.

As Chief Deputy State Health Commissioner, I serve Commissioner Stroube who is the principal advisor to Virginia Governor Tim Kaine, Virginia Secretary of Health and Human Resources Marilyn Tavenner, and the Virginia General Assembly on a wide range of public health issues. During my 27 year career in the Virginia Department of Health, I have served in a variety of leadership roles including 15 years as a local health director in two health districts. I am board certified in pediatrics with advanced training in infectious diseases and earned a Master in Business Administration.

Introduction

The Virginia Department of Health celebrates its centennial in 2008. Virginia's local public health system was created 60 years ago and is one of the strongest in the nation. The Virginia Department of Health supervises our local health departments, except in Arlington and Fairfax where they are locally administered. Our 119 local health departments are combined into 35 health districts for management efficiencies. Our health districts are led by full-time physician

directors nearly all of whom have advanced training in public health. Our local health departments are jointly funded by our state general fund and local governments using a matching formula based on ability to pay. State and local funding, combined with earned revenue from issuing permits and vital records fees, now exceeds \$180 million annually with a workforce of more than 2,800 FTEs. Federal grant funds play an important role in supporting these local agencies accounting for an additional \$34 million. I mention how our system is organized and funded and the high quality of our workforce as a backdrop to my testimony today that will focus on discussing our recent experience with Methicillin-Resistant Staphylococcal Aureus (MRSA).

Bedford County Virginia

Bedford County is a largely rural county in the southwestern region of Virginia with a population of 65,000 residents. A teenager from Bedford County in Southwest Virginia was seen in the emergency department of a community hospital in Bedford on Sunday October 7. Based on staff's assessment, the patient was transferred to a tertiary care center approximately 30 miles away. Blood cultures were positive for MRSA and treatment was initiated. Despite aggressive treatment, the patient did not improve and died on October 15. Word of the teenager's death created fear and concern among parents and students at the public high school he attended. Students held protests outside the school and refused to enter the building. Local school officials received a high volume of calls from concerned parents and local and national media were providing extensive coverage of the death. On Tuesday, October 16, the local school superintendent, responding to intense pressure from parents, students, and staff, decided to close all of the schools in the county on Wednesday October 17 and to hire a contractor to perform disinfection. Unfortunately, he made this decision without consulting the local health director who learned about the school closing from media sources. After she learned about the closure, the local health director attempted to contact the local superintendent to offer assistance but he did not return her phone calls. We have subsequently addressed such interaction in cooperation with the Department of Education.

The timing of the child's death coincided with publication of the JAMA article which estimated that there were as many as 90,000 MRSA infections annually and put a face on this research. At roughly the same time, CDC released information about the importance of addressing the growing problem of antibiotic-resistant infections, including MRSA, citing the potential that this trend, unabated, could be as devastating as AIDS. The timing of these three events created widespread concern in communities throughout Virginia. This concern bordered on panic in some areas of the state where the mention of a possible MRSA case created pressure for local officials to close schools or cancel sporting events. As

a result, a number of schools and colleges were closed and events were postponed unnecessarily.

There was intense media interest in MRSA, the likes of we have not seen in Virginia since we had three cases of inhalational anthrax in 2001. We were contacted by numerous national news organizations and our central office staff and local health directors gave countless interviews. Conservatively, we spent more than 2,000 staff hours in a period of two weeks.

Community concerns were not limited to parents and students. A local office of Virginia's Department of Motor Vehicles closed when an employee was reported to have a MRSA infection on her arm – despite the advice of her physician and the health department.

Virginia's Response

After the local health department's investigation of the case, VDH staff rapidly reviewed the literature, CDC's website, and our Offices of Epidemiology and Public Information worked collaboratively to post educational materials and resources for the public and providers on our website. We also developed an intranet resource page for our local health directors. These materials were posted within 2 days and we continue to refine them as new information and links become available.

We knew that one of the keys for successfully addressing the concerns of communities and decision-makers was closer collaboration between local school divisions and local health departments. VDH staff worked with staff from the Department of Education and the State Superintendent of Public Instruction issued a "Superintendent's Memo" instructing local school divisions to work closely with local health directors in making decisions about how to respond to MRSA reports among students.

Among the most frequently-asked questions by the public and media was how many MRSA infections occurred in Virginia each year. MRSA was not a reportable disease and we were unable to provide this information. There was intense interest at all levels of government to introduce legislation to address the public's concern. Dr. Stroube made a recommendation concerning reporting to Governor Kaine. Dr. Stroube, the Superintendent of Public Instruction, met with Governor Kaine, members of his cabinet, and the Governor's staff on October 23 to discuss how best to respond to this question. Consensus was reached that the appropriate strategy was for the Commissioner to use his existing statutory authority to add MRSA to the list of diseases required to be reported by laboratories. An Emergency Regulation was issued on October 24 to accomplish this goal.

Subsequent to Dr. Stroube issuing the Emergency Regulation, VDH held a briefing for the press to explain the emergency regulation and to provide information on our recommendations about steps individuals could take to protect themselves and to reduce the transmission of the infection to others as well as appropriate actions schools or businesses could take to reduce the risk of transmission.

Throughout the last few weeks, our local health directors and their staffs and the staff in the Offices of Epidemiology and Public Information have done an outstanding job of working with local school officials, private health care providers, businesses, and members of their communities to address their concerns and to provide consistent and accurate formation and I appreciate the chance to recognize them here today.

One of the strengths of state health agencies is the network among state health officials working with the Association of State and Territorial Health Officials (ASTHO) to share best practices. Dr. Stroube received calls from other commissioners asking if they could have copies of the emergency regulation and permission to adapt materials VDH developed related to MRSA.

Virginia's Collaborative Efforts to Prevent Antibiotic Resistance

In closing Mr. Chairman, I'd like to mention that antibiotic resistance has been on our radar screen in Virginia for many years. Beginning in 2000, the Virginia Department of Health began working with the Centers for Disease Control and managed care providers on an antibiotic drug resistance prevention program designed in two parts – a public education campaign and a health provider campaign. The public education campaign focused on convincing patients not to ask for antibiotics whenever they went to the doctor with a respiratory infection and emphasizing the importance of finishing the entire course of antibiotics when they were prescribed. We evaluated physicians' prescriptions written for pharyngitis which doesn't normally require antibiotics. The campaign received national recognition at the National Press Club in April 2001. We receive grant funding from CDC to support this effort and our campaign continues today through a partnership with the Anthem Foundation and the Medical Society of Virginia Foundation. We believe that such a campaign in every state is needed to attempt to reverse a troubling trend toward more and more infectious agents that are drug resistant.

Thank you again for the opportunity to speak with you today. I would be pleased to answer any questions you may have.

Appendices:

Emergency Regulation issued by the Virginia State Health Commissioner on October 24, 2007 requiring laboratories to report MRSA infections.

Superintendent's Memo to local School Divisions encouraging collaboration with local health departments around public education and school closure decisions.

Department of Human Resource Management guidelines for state agencies regarding closure of offices based on the presence of a staff member or customer who may have a MRSA infection.

Virginia's Antibiotic Drug-Resistance Prevention Program Description.

VA.R Doc. No. R08-1024 - Emergency/NOIRA**DEPARTMENT OF HEALTH
Emergency Regulations Requiring MRSA Reporting****12VAC5-90-80. Reportable disease list.**

A. The board declares suspected or confirmed cases of the following named diseases, toxic effects, and conditions to be reportable by the persons enumerated in 12VAC5-90-90. Conditions identified by an asterisk (*) require rapid communication to the local health department within 24 hours of suspicion or confirmation, as defined in subsection C of this section. Other conditions should be reported within three days of suspected or confirmed diagnosis.

- Acquired immunodeficiency syndrome (AIDS)
- Amebiasis
- *Anthrax
- Arboviral infections (e.g., EEE, LAC, SLE, WNV)
- *Botulism
- *Brucellosis
- Campylobacteriosis
- Chancroid
- Chickenpox (Varicella)
- Chlamydia trachomatis infection
- *Cholera
- Creutzfeldt-Jakob disease if <55 years of age
- Cryptosporidiosis
- Cyclosporiasis
- *Diphtheria
- *Disease caused by an agent that may have been used as a weapon
- Ehrlichiosis
- Escherichia coli infection, Shiga toxin-producing
- Giardiasis
- Gonorrhea
- Granuloma inguinale
- *Haemophilus influenzae infection, invasive
- Hantavirus pulmonary syndrome
- Hemolytic uremic syndrome (HUS)
- *Hepatitis A
- Hepatitis B: (acute and chronic)
- Hepatitis C (acute and chronic)
- Hepatitis, other acute viral
- Human immunodeficiency virus (HIV) infection
- Influenza
- *Influenza-associated deaths in children <18 years of age
- Kawasaki syndrome
- Lead-elevated blood levels

Legionellosis
Leprosy (Hansen's disease)
Listeriosis
Lyme disease
Lymphogranuloma venereum
Malaria
*Measles (Rubeola)
*Meningococcal disease
*Monkeypox
Mumps
Ophthalmia neonatorum
*Outbreaks, all (including but not limited to foodborne, nosocomial, occupational, toxic substance-related, and waterborne)
*Pertussis
*Plague
*Poliomyelitis
*Psittacosis
*Q fever
*Rabies, human and animal
Rabies treatment, post-exposure
Rocky Mountain spotted fever
*Rubella, including congenital rubella syndrome
Salmonellosis
*Severe acute respiratory syndrome (SARS)
Shigellosis
*Smallpox (Variola)
Streptococcal disease, Group A, invasive
Streptococcus pneumoniae infection, invasive, in children <5 years of age
Syphilis (report *primary and *secondary syphilis by rapid means)
Tetanus
Toxic shock syndrome
Toxic substance-related illness
Trichinosis (Trichinellosis)
*Tuberculosis, active disease
Tuberculosis infection in children <4 years of age
*Tularemia
*Typhoid fever
*Unusual occurrence of disease of public health concern
*Vaccinia, disease or adverse event
Vancomycin-intermediate or vancomycin-resistant Staphylococcus aureus infection
*Vibrio infection
*Viral hemorrhagic fever

*Yellow fever

Yersiniosis

B. Conditions reportable by directors of laboratories.

Conditions identified by an asterisk (*) require rapid communication to the local health department within 24 hours of suspicion or confirmation, as defined in subsection C of this section. Other conditions should be reported within three days of suspected or confirmed diagnosis.

Amebiasis—by microscopic examination, culture, antigen detection, nucleic acid detection, or serologic results consistent with recent infection

*Anthrax—by culture, antigen detection or nucleic acid detection

Arboviral infection—by culture, antigen detection, nucleic acid detection, or serologic results consistent with recent infection

*Botulism—by culture or identification of toxin in a clinical specimen

*Brucellosis—by culture, antigen detection, nucleic acid detection, or serologic results consistent with recent infection

Campylobacteriosis—by culture

Chancroid—by culture, antigen detection, or nucleic acid detection

Chickenpox (varicella)—by culture, antigen detection, nucleic acid detection, or serologic results consistent with recent infection

Chlamydia trachomatis infection—by culture, antigen detection, nucleic acid detection or, for lymphogranuloma venereum, serologic results consistent with recent infection

*Cholera—by culture or serologic results consistent with recent infection

Creutzfeldt-Jakob disease if <55 years of age—presumptive diagnosis—by histopathology in patients under the age of 55 years

Cryptosporidiosis—by microscopic examination, antigen detection, or nucleic acid detection

Cyclosporiasis—by microscopic examination or nucleic acid detection

*Diphtheria—by culture

Ehrlichiosis—by culture, nucleic acid detection, or serologic results consistent with recent infection

Escherichia coli infection, Shiga toxin-producing—by culture of E. coli O157 or other Shiga toxin-producing E. coli, Shiga toxin detection (e.g., by EIA), or nucleic acid detection

Giardiasis—by microscopic examination or antigen detection

Gonorrhea—by microscopic examination of a urethral smear specimen (males only), culture, antigen detection, or nucleic acid detection

*Haemophilus influenzae infection, invasive—by culture, antigen detection, or nucleic acid detection from a normally sterile site

Hantavirus pulmonary syndrome—by antigen detection (immunohistochemistry), nucleic acid detection, or serologic results consistent with recent infection

*Hepatitis A—by detection of IgM antibodies

Hepatitis B (acute and chronic)—by detection of HBsAg or IgM antibodies

Hepatitis C (acute and chronic)—by hepatitis C virus antibody (anti-HCV) screening test positive with a signal-to-cutoff ratio predictive of a true positive as determined for the particular assay as defined by CDC, HCV antibody positive by immunoblot (RIBA), or HCV RNA positive by nucleic acid test. For all hepatitis C patients, also report available results of serum alanine aminotransferase (ALT), anti-HAV IgM, anti-HBc IgM, and HBsAg

Human immunodeficiency virus infection—by culture, antigen detection, nucleic acid detection, or detection of antibody confirmed with a supplemental test. For HIV-infected patients, report all results of CD4 and HIV viral load tests

- Influenza—by culture, antigen detection by direct fluorescent antibody (DFA) or nucleic acid detection
- Lead-elevated blood levels—by blood lead level greater than or equal to 10 µg/dL in children ages 0-15 years, or greater than or equal to 25 µg/dL in persons older than 15 years of age
- Legionellosis—by culture, antigen detection including urinary antigen), nucleic acid detection, or serologic results consistent with recent infection
- Listeriosis—by culture
- Malaria—by microscopic examination, antigen detection, or nucleic acid detection
- *Measles (rubeola)—by culture, antigen detection, nucleic acid detection, or serologic results consistent with recent infection
- *Meningococcal disease—by culture or antigen detection from a normally sterile site
- *Monkeypox—by culture nucleic acid detection
- Mumps—by culture, nucleic acid detection, or serologic results consistent with recent infection
- *Mycobacterial diseases—(See 12VAC5-90-225 B) Report any of the following:
1. Acid fast bacilli by microscopic examination;
 2. Mycobacterial identification—preliminary and final identification by culture or nucleic acid detection;
 3. Drug susceptibility test results for *M. tuberculosis*.
- *Pertussis—by culture, antigen detection, or nucleic acid detection
- *Plague—by culture, antigen detection, nucleic acid detection, or serologic results consistent with recent infection
- *Poliomyelitis—by culture
- *Psittacosis—by culture, antigen detection, nucleic acid detection, or serologic results consistent with recent infection
- *Q fever—by culture, antigen detection, nucleic acid detection, or serologic results consistent with recent infection
- *Rabies, human and animal—by culture, antigen detection by direct fluorescent antibody test, nucleic acid detection, or, for humans only, serologic results consistent with recent infection
- Rocky Mountain spotted fever—by culture, antigen detection (including immunohistochemical staining), nucleic acid detection, or serologic results consistent with recent infection
- *Rubella—by culture, nucleic acid detection, or serologic results consistent with recent infection
- Salmonellosis—by culture
- *Severe acute respiratory syndrome—by culture, nucleic acid detection, or serologic results consistent with recent infection
- Shigellosis—by culture
- *Smallpox (variola)—by culture or nucleic acid detection
- Staphylococcus aureus infection, resistant, as defined below:
1. Methicillin-resistant - by antimicrobial susceptibility testing of a Staphylococcus aureus isolate, with a susceptibility result indicating methicillin resistance, cultured from a normally sterile site;
 2. Vancomycin-intermediate or vancomycin-resistant Staphylococcus aureus infection - by antimicrobial susceptibility testing of a Staphylococcus aureus isolate, with a vancomycin susceptibility result of intermediate or resistant, cultured from a clinical specimen.
- Streptococcal disease, Group A, invasive—by culture from a normally sterile site
- Streptococcus pneumoniae infection, invasive, in children <5 years of age—by culture from a normally sterile site in a child under the age of five years
- *Syphilis—by microscopic examination (including dark field), antigen detection (including direct

fluorescent antibody), or serology by either treponemal or nontreponemal methods

Toxic substance-related illness—by blood or urine laboratory findings above the normal range, including but not limited to heavy metals, pesticides, and industrial-type solvents and gases

Trichinosis (trichinellosis)—by microscopic examination of a muscle biopsy or serologic results consistent with recent infection

*Tularemia—by culture, antigen detection, nucleic acid detection, or serologic results consistent with recent infection

*Typhoid fever—by culture

*Vaccinia, disease or adverse event—by culture or nucleic acid detection

~~Vancomycin intermediate or vancomycin resistant Staphylococcus aureus infection by antimicrobial susceptibility testing of a Staphylococcus aureus isolate, with a vancomycin susceptibility result of intermediate or resistant, cultured from a clinical specimen~~

*Vibrio infection—by culture

*Viral hemorrhagic fever—by culture, antigen detection (including immunohistochemical staining), nucleic acid detection, or serologic results consistent with recent infection

*Yellow fever—by culture, antigen detection, nucleic acid detection, or serologic results consistent with recent infection

Yersiniosis—by culture, nucleic acid detection, or serologic results consistent with recent infection

C. Reportable diseases requiring rapid communication. Certain of the diseases in the list of reportable diseases, because of their extremely contagious nature or their potential for greater harm, or both, require immediate identification and control. Reporting of persons confirmed or suspected of having these diseases, listed below, shall be made within 24 hours by the most rapid means available, preferably that of telecommunication (e.g., telephone, telephone transmitted facsimile, pagers, etc.) to the local health director or other professional employee of the department. (These same diseases are also identified by an asterisk (*) in subsection A and subsection B, where applicable, of this section.)

Anthrax

Botulism

Brucellosis

Cholera

Diphtheria

Disease caused by an agent that may have been used as a weapon

Haemophilus influenzae infection, invasive

Hepatitis A

Influenza deaths in children <18 years of age

Measles (Rubeola)

Meningococcal disease

Monkeypox

Outbreaks, all

Pertussis

Plague

Poliomyelitis

Psittacosis

Q fever

Rabies, human and animal

Rubella

Severe acute respiratory syndrome (SARS)
Smallpox (Variola)
Syphilis, primary and secondary
Tuberculosis, active disease
Tularemia
Typhoid fever
Unusual occurrence of disease of public health concern
Vaccinia, disease or adverse event
Vibrio infection
Viral hemorrhagic fever
Yellow Fever

D. Toxic substance-related illnesses. All toxic substance-related illnesses, including pesticide and heavy metal poisoning or illness resulting from exposure to an occupational dust or fiber or radioactive substance, shall be reported.

If such illness is verified or suspected and presents an emergency or a serious threat to public health or safety, the report of such illness shall be by rapid communication as in subsection C of this section.

E. Outbreaks. The occurrence of outbreaks or clusters of any illness which may represent a group expression of an illness which may be of public health concern shall be reported to the local health department by the most rapid means available.

F. Unusual or ill-defined diseases or emerging or reemerging pathogens. Unusual or emerging conditions of public health concern shall be reported to the local health department by the most rapid means available. In addition, the commissioner or his designee may establish surveillance systems for diseases or conditions that are not on the list of reportable diseases. Such surveillance may be established to identify cases (delineate the magnitude of the situation), to identify the mode of transmission and risk factors for the disease, and to identify and implement appropriate action to protect public health. Any person reporting information at the request of the department for special surveillance or other epidemiological studies shall be immune from liability as provided by §32.1-38 of the Code of Virginia.

Subject:MRSA

Date:Thu, 25 Oct 2007 17:40:14 -0400

From:Wilson, Sara R. <sara.wilson@DHRM.VIRGINIA.GOV>

Reply-To:Wilson, Sara R. <sara.wilson@DHRM.VIRGINIA.GOV>

To:ALL_HRDIRECTORS@LISTSERVER.DHRM.VIRGINIA.GOV

We have had several inquiries from state agencies concerning the appropriate response to cases of **MRSA** in the workplace. MRSA stands for methicillin-resistant *Staphylococcus aureus*, a form of staph infection that does not respond to routine treatment with some commonly used antibiotics, although other antibiotics are effective.

Attached are documents that provide information on MRSA, with special thanks to the Virginia Department of Health for their guidance and assistance.

1. **Overview** of MRSA and basic steps for its prevention ,
2. **MRSA Fact Sheet**,
3. **Questions and Answers** about MRSA ,
4. **Workers' Compensation** MRSA claims procedures,
5. **Cleaning products** effective against MRSA.

Please note that it is not necessary to close or disinfect businesses or offices because of a MRSA infection in an employee or customer. Because the bacteria live on the skin, they may be reintroduced back into any environment at any time. Therefore, hand washing and wound care are the primary means of preventing staph infections.

Please contact your assigned human resource consultant if you have any questions that are not covered in these materials.

Sara

Superintendent's E-mail Regarding Mandatory Reporting of MRSA Infections

Governor Timothy Kaine has signed emergency regulations prepared by the Virginia Department of Health requiring mandatory reporting of MRSA infections, as a systematic means of capturing data about incidents. The emergency regulatory action requires **laboratories** to report MRSA infections confirmed from normally sterile sites of the body. The Virginia Department of Health will use the data to compile reports on the occurrences of these infections in different localities and populations across Virginia.

This data will enhance the local health department's ability to advise schools regarding the prevalence of MRSA infections in their divisions. School division superintendents are being asked to continue to work with their health departments regarding MRSA outbreaks in schools. Superintendents are encouraged to consult with their local health directors if considering closing schools due to MRSA outbreaks.

The Virginia Administrative Code at 12VAC5-90-80(B) will be amended to include MRSA and may be accessed at:

<http://leg1.state.va.us/cgi-bin/legp504.exe?000+reg+12VAC5-90-80>

If you have any further questions regarding MRSA, please contact Tia Campbell, school health specialist, at the Virginia Department of Education at (804)786-8671, or e-mail at Tia.Campbell@doe.virginia.gov.

MRSA: Information for State Agencies

MRSA stands for methicillin-resistant *Staphylococcus aureus*, a form of staph infection that does not respond to routine treatment with some commonly used antibiotics, although other antibiotics are effective. MRSA is becoming increasingly prevalent in community settings. Public attention surrounding MRSA underscores the need for raising awareness and preventing infection, especially in community settings such as businesses and offices. Should employee concerns over MRSA occur the following guidance may be helpful (note: healthcare settings, such as physicians' offices, may have additional requirements). Employees may also contact their local health district for further guidance.

Background

Staph infections have been around for a long time, causing mild to severe illness. MRSA may be more difficult to treat but is otherwise generally the same as a "staph infection." Mild infections may look like a pimple or boil and can be red, swollen, painful, or have pus or other drainage. More serious infections may cause pneumonia, bloodstream infections, or surgical wound infections.

MRSA outbreaks in community settings do occur. However, outbreaks typically occur among those having poor hygiene, sharing contaminated personal items or athletic equipment (e.g., sports teams), with skin-to-skin contact (e.g., family members, sexual partners), or with cuts or breaks in the skin occur.

Colonization

While 25-30% of the population is colonized with staph, approximately 1% is colonized with MRSA. Colonization means the organism is carried on the body, either in the nose or on the skin, but is not causing any symptoms or infection. As a result, an employee or customer/client could be a carrier, but not be aware of it. These individuals may spread the organism to others who could go on to develop infections.

Conditions for the Spread of Bacteria

Staph, including MRSA, are spread by direct skin-to-skin contact or contact with a shared, contaminated item. In some settings, where individuals share towels, personal hygiene items, or athletic equipment, or where individuals are engaged in close-contact (e.g., sports teams) staph could be transmitted. Risk factors for transmission of MRSA include crowding, frequent skin-to-skin contact, cuts or breaks in the skin, contaminated surfaces and shared items, poor hygiene, immune system problems, and recent surgery or other invasive procedure.

Basic Steps for Prevention

- Practice good hand hygiene and encourage staff to routinely wash hands with soap and water.
 - Alcohol-based hand sanitizer (alcohol content $\geq 60\%$) is also effective at killing staph.

- Keep wounds or cuts covered with a clean, dry bandage until healed.
- Discourage sharing of personal items (e.g., razors, nail files, towels).
- Routine cleaning with detergent- or bleach-based cleaners is recommended for disinfection. It is important to read the instruction labels on all cleaners to make sure they are used safely and appropriately. It is NOT necessary to close or 'disinfect' facilities or offices because of a MRSA infection in an employee or customer/client. Because the bacteria live on the skin, they may be reintroduced back into any environment at any time. Therefore, hand washing and wound care remain the primary means of preventing staph infections.
- Individuals infected with MRSA should NOT report this to their supervisors, unless the condition interferes with job duties or wound drainage cannot be contained by a bandage. Policies should be developed to ensure the appropriate management of this information to adequately protect the privacy of employees.
- It is not necessary to inform other personnel regarding an employee with a MRSA infection.
- Follow your sick leave policy. Unless directed by a physician, individuals with MRSA infections do not need to be excluded from work, as long as wound drainage can be contained by a bandage. Exclusion may be considered for those with wound drainage that cannot be covered and contained with a clean, dry bandage and for those who cannot maintain good personal hygiene.

Public Health Reporting

Suspected outbreaks of staph infections should be reported to the local health department (see <http://www.vdh.virginia.gov/lhd/>). Health department staff may be able to provide additional guidance in identifying causes of transmission, and recommendations for reducing the risk to staff.

Resources

Further information about MRSA can be found on the website links listed below:

- Virginia Department of Health (<http://www.vdh.virginia.gov>)
- [MSRA fact sheet](#)
- Centers for Disease Control and Prevention (<http://www.cdc.gov>)

What is MRSA?

Staphylococcus aureus (“staph”) is a common type of bacteria (germ) that is often found on the skin and in the nose of healthy people. It can also grow in wounds or other sites in the body, sometimes causing an infection. For example, staph is one of the most common causes of skin infections. Penicillin is a drug that was once commonly used to treat staph infections. However, over time many staph bacteria have become difficult to treat with penicillin and antibiotics related to penicillin. These new or resistant forms of *Staphylococcus aureus* are called methicillin-resistant *Staphylococcus aureus*, or MRSA. The illnesses they cause are the same as those caused by other staph; the difference is in how they are treated.

Who is at risk for getting these organisms?

Just like normal staph bacteria, MRSA normally does not cause disease unless it enters an opening in the skin. However, some people are at higher risk for carrying MRSA or becoming infected with this type of staph. MRSA more often occurs in people in hospitals and healthcare facilities. It can also occur outside the hospital in people who receive multiple antibiotics, as well as in people who have close contact with a person carrying the germ or by touching objects contaminated with MRSA (e.g., clothes, towels, bedding, athletic equipment, benches in saunas or hot tubs, bandages).

How are MRSA and other staph spread?

Staph bacteria (including MRSA) are most often spread by close contact with infected people or the things they touch. It is not spread through the air.

What are the symptoms of infection?

Many people carry staph bacteria on their skin without any symptoms. Symptoms of a MRSA or other staph infection depend on where the infection is located. Infections of the skin are the most common, and cause symptoms such as redness, warmth, pus and a wound that does not heal. Your doctor may refer to these infections as boils, furuncles, impetigo, or abscesses. Infections can also develop in the blood, bone, bladder, lungs, and other sites. Symptoms there will depend on the site of infection, but include fever and pain at the site.

What should I do if I think I have a MRSA or other staph infection?

See your healthcare provider.

Are MRSA and other staph infections treatable?

Yes. Some staph skin infections can be treated simply by draining the sore and keeping the wound clean. For more serious infections, antibiotics can be used to treat these infections. If antibiotics are prescribed by your healthcare provider, it is very important to finish taking all the pills and to call your doctor if the infection does not get better.

What can I do to prevent MRSA and other staph infections?

- Wash your hands often, especially when you're exposed to someone with an infection or when you touch objects that may be contaminated.
- Keep cuts and scrapes clean and covered.
- Avoid sharing personal items such as towels, sports equipment, razors, etc.
- If a sore or cut becomes red, oozes, causes pain or isn't healing, see a doctor.
- Don't insist on antibiotics for colds or other viruses.
- If prescribed antibiotics, take all the pills, even if you feel better before they are all gone.



INFORMATION FOR EMPLOYERS AND EMPLOYEES

Community Associated MRSA Information for the Public

Questions and Answers

Released: February 3, 2005

Source: Centers for Disease Control, retrieved 10/24/07 from http://www.cdc.gov/ncidod/dhqp/ar_mrsa_ca_public.html#3

What is *Staphylococcus aureus* (staph)?

Staphylococcus aureus, often referred to simply as "staph," are bacteria commonly carried on the skin or in the nose of healthy people. Approximately 25% to 30% of the population is colonized (when bacteria are present, but not causing an infection) in the nose with staph bacteria. Sometimes, staph can cause an infection. Staph bacteria are one of the most common causes of skin infections in the United States. Most of these skin infections are minor (such as pimples and boils) and can be treated without antibiotics (also known as antimicrobials or antibacterials). However, staph bacteria also can cause serious infections (such as surgical wound infections, bloodstream infections, and pneumonia).

What is MRSA (methicillin-resistant *Staphylococcus aureus*)?

Some staph bacteria are resistant to antibiotics. MRSA is a type of staph that is resistant to antibiotics called beta-lactams. Beta-lactam antibiotics include methicillin and other more common antibiotics such as oxacillin, penicillin and amoxicillin. While 25% to 30% of the population is colonized with staph, approximately 1% is colonized with MRSA.

Who gets staph or MRSA infections?

Staph infections, including MRSA, occur most frequently among persons in hospitals and healthcare facilities (such as nursing homes and dialysis centers) who have weakened immune systems. These healthcare-associated staph infections include surgical wound infections, urinary tract infections, bloodstream infections, and pneumonia.

What is community-associated MRSA (CA-MRSA)?

Staph and MRSA can also cause illness in persons outside of hospitals and healthcare facilities. MRSA infections that are acquired by persons who **have not** been recently (within the past year) hospitalized or had a medical procedure (such as dialysis, surgery, catheters) are known as CA-MRSA infections. Staph or MRSA infections in the community are usually manifested as skin infections, such as pimples and boils, and occur in otherwise healthy people.

How common are staph and MRSA infections?

Staph bacteria are one of the most common causes of skin infection in the United States and are a common cause of pneumonia, surgical wound infections, and bloodstream infections. The majority of MRSA infections occur among patients in hospitals or other healthcare settings; however, it is becoming more common in the community setting. Data from a prospective study in 2003, suggests that 12% of confirmed MRSA infections are community-associated, but this varies by geographic region and population.

What does a staph or MRSA infection look like?

Staph bacteria, including MRSA, can cause skin infections that may look like a pimple or boil and can be red, swollen, painful, or have pus or other drainage. More serious infections may cause pneumonia, bloodstream infections, or surgical wound infections.

Are certain people at increased risk for community-associated staph or MRSA infections?

CDC has investigated clusters of CA-MRSA skin infections among athletes, military recruits, children, Pacific Islanders, Alaskan Natives, Native Americans, men who have sex with men, and prisoners.

Factors that have been associated with the spread of MRSA skin infections include: close skin-to-skin contact, openings in the skin such as cuts or abrasions, contaminated items and surfaces, crowded living conditions, and poor hygiene.

How can I prevent staph or MRSA skin infections?

Practice good hygiene:

1. Keep your hands clean by washing thoroughly with soap and water or using an alcohol-based hand sanitizer.
2. Keep cuts and scrapes clean and covered with a bandage until healed.
3. Avoid contact with other people's wounds or bandages.
4. Avoid sharing personal items such as towels or razors.

Are people who are positive for the human immune deficiency virus (HIV) at increased risk for MRSA? Should they be taking special precautions?

People with weakened immune systems, which include some patients with HIV infection, may be at risk for more severe illness if they get infected with MRSA. People with HIV should follow the same prevention measures as those without HIV to prevent staph infections, including practice good hygiene, cover wounds (e.g., cuts or abrasions) with clean dry bandages, avoid sharing personal items such as towels and razors, and contact their doctor if they think they have an infection.

Can I get a staph or MRSA infection at my health club?

In the outbreaks of MRSA, the environment has not played a significant role in the transmission of MRSA. MRSA is transmitted most frequently by direct skin-to-skin contact. You can protect yourself from infections by practicing good hygiene (e.g., keeping your hands clean by washing with soap and water or using an alcohol-based hand rub and showering after working out); covering any open skin area such as abrasions or cuts with a clean dry bandage; avoiding sharing personal items such as towels or razors; using a barrier (e.g., clothing or a towel) between your skin and shared equipment; and wiping surfaces of equipment before and after use.

What should I do if I think I have a staph or MRSA infection?

See your healthcare provider.

Are staph and MRSA infections treatable?

Yes. Most staph and MRSA infections are treatable with antibiotics. If you are given an antibiotic, take all of the doses, even if the infection is getting better, unless your doctor tells you to stop taking it. Do not share antibiotics with other people or save unfinished antibiotics to use at another time.

However, many staph skin infections may be treated by draining the abscess or boil and may not require antibiotics. Drainage of skin boils or abscesses should only be done by a healthcare provider.

If after visiting your healthcare provider the infection is not getting better after a few days, contact them again. If other people you know or live with get the same infection tell them to go to their healthcare provider.

Is it possible that my staph or MRSA skin infection will come back after it is cured?

Yes. It is possible to have a staph or MRSA skin infection come back (recur) after it is cured. To prevent this from happening, follow your healthcare provider's directions while you have the infection, and follow the prevention steps after the infection is gone.

If I have a staph, or MRSA skin infection, what can I do to prevent others from getting infected?

You can prevent spreading staph or MRSA skin infections to others by following these prevention steps:

1. **Cover your wound.** Keep wounds that are draining or have pus covered with clean, dry bandages. Follow your healthcare provider's instructions on proper care of the wound. Pus from infected wounds can contain staph and MRSA, so

keeping the infection covered will help prevent the spread to others. Bandages or tape can be discarded with the regular trash.

2. **Clean your hands.** You, your family, and others in close contact should wash their hands frequently with soap and warm water or use an alcohol-based hand sanitizer, especially after changing the bandage or touching the infected wound.
3. **Do not share personal items.** Avoid sharing personal items such as towels, washcloths, razors, clothing, or uniforms that may have had contact with the infected wound or bandage. Wash sheets, towels, and clothes that become soiled with water and laundry detergent. Drying clothes in a hot dryer, rather than air-drying, also helps kill bacteria in clothes.
4. **Talk to your doctor.** Tell any healthcare providers who treat you that you have or had a staph or MRSA skin infection.

What should I do if someone I know has a staph or MRSA infection?

If you know someone that has a staph or MRSA infection you should follow the prevention steps.

EMPLOYER INFORMATION
MRSA (Methicillin-Resistant *Staphylococcus aureus*)
AND THE WORKERS' COMPENSATION PROCESS

MRSA is a type of staph that is resistant to certain antibiotics. For workers' compensation purposes, a MRSA infection may be considered an ordinary disease of life. Ordinary diseases of life are those to which the general public is exposed outside of the employment. Under some circumstances, ordinary diseases of life may be covered by workers' compensation. If you have an employee who develops a MRSA infection and reports it to you as work-related, you should file the claim with the Office of Workers' Compensation for investigation.

Tips for filing claims

- Use the date the employee was diagnosed with MRSA and told by their physician that the infection was work-related as the date of injury.
- Include any information that you may have about the source of the employee's exposure; for example, was it a co-worker, customer, patient, inmate, etc.
- If known, include any documentation to show that the source of the exposure was positive for the disease.
- If known, include information on possible route of transmission of the disease; for example, breaks in the skin.
- If known, document the dates the employee was exposed to the known source.
- Medical records for the employee will be obtained and reviewed and a statement may be obtained from the employee.
- In cases of suspected MRSA, you may wish to consider including the employee's personal physician or the physician who diagnosed the MRSA infection to the panel you offer affected employees due to the unique nature of this condition.

Investigation Process

The Benefit Coordinator will need to document certain information to make a recommendation on the claim's compensability:

- Has there been a plausible **route of transmission** for the disease that may have occurred during the course and scope of employment?
- Was the **source positive** for MRSA?
- If the employee tests positive for disease, does the evidence support that the disease was contracted in the course of the employment, arose out of the employment, did not result from causes outside of the employment, is characteristic of the employment and was caused by conditions peculiar to the employment?

- If a claim is accepted as compensable coverage would be provided for authorized time out of work based upon approval of disability from the panel physician, testing and medical care for MRSA.
- If the claim is denied, a letter explaining why the claim has not been voluntarily accepted will be sent to the agency, the employee and the Virginia Workers' Compensation Commission. The employee's letter will instruct them to utilize their health insurance and VSDP benefits for medical care and disability.



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*antibiotic resistance
 awareness campaign*

Acting as a Catalyst...
 By Addressing Specific
 Health Issues in Virginia.



In 2003, the MSV Foundation and the Virginia Department of Health kicked off the *Get Smart Virginia: Know When Antibiotics Work* antibiotic resistance awareness campaign. The focus of this initiative is to promote the message that antibiotics need to be used appropriately and judiciously. The campaign has a broad base of support: both the Virginia Academy of Family Physicians and the Virginia Chapter of the American Academy of Pediatrics have endorsed the project. In addition, Governor Mark Warner and Governor Tim Kaine each designated a week in October as appropriate antibiotic use awareness week.

Based on the Centers for Disease Control guidelines, the MSV Foundation and the Virginia Department of Health have jointly developed a variety of educational resources and tools. These are being used in physician offices, clinics, schools, pharmacies, daycare centers, and other venues to educate the public about appropriate antibiotic usage. Tens of thousands of these materials have been distributed across the Commonwealth. These educational tools and resources are available free of charge to health care professionals and community organizations in Virginia.



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Antibiotic Resistance:

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ANTIBIOTIC RESISTANCE AWARENESS CAMPAIGN

RESOURCES & TOOLS

Physicians, other health professionals, and community organizations can place orders for printed materials and other resources designed to educate the public about the differences between bacterial and viral infections and how to appropriately use antibiotics. The materials are provided at no charge. They can either be downloaded from the web or requested by faxing or emailing your [order form](#) to 804.377.1056 or knagy@msv.org.

Downloadable Materials:

- ["What You Need to Know About Antibiotics" Brochure](#)
- [Condensed Antibiotic Resistance Information Sheet](#)
- [Viral Prescription Pad \(English\)](#)
- [Viral Prescription Pad \(Spanish\)](#)
- [Viral Prescription Pad – Pediatric](#)
- [Germ-buster cut-out and color work sheet](#)
- [Germ-buster maze](#)
- [Germ-buster song](#)
- [Germ-buster word jumbles](#)
- [Self-Care Guide](#)
- ["Wash Your Hands" Poster](#)

Additional Web Resources:

- [The Virginia Department of Health's Get Smart Virginia Campaign](#)
- [The Centers for Disease Control Get Smart Campaign](#)
- [Johns Hopkins Antibiotic Guide for your handheld \(downloadable\)](#)
- [The Council for Affordable Healthcare's Save Antibiotic Strength Campaign](#)
- [Do Bugs Need Drugs?: A Community Project for Wise Use of Antibiotics](#)

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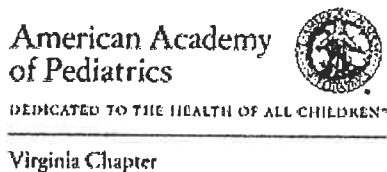
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ANTIBIOTIC RESISTANCE AWARENESS CAMPAIGN

PARTNERS & SPONSORS

The following organizations have partnered with the MSV Foundation to support the appropriate use of antibiotics.

Partners:



Sponsors:

