

NEVADA HEALTHCARE ASSOCIATED INFECTION TASK FORCE AGENDA

Meeting is subject to the provisions of the Nevada Open Meeting Law – [NRS 241.020](#)

May 17, 2019

10:30 a.m.

Meeting Locations

Division of Public and Behavioral Health
3811 W. Charleston Blvd.
Suite 205
Las Vegas, NV 89012

Division of Public and Behavioral Health
4126 Technology Way
2nd Floor Conference Room
Carson City, NV 89706

Teleconference: 1-415-655-0002- Access code: 809 623 141 - If after entering the access code and hitting the # key you are prompted for a security PIN, hit the # key again to bypass.

NOTE: AGENDA ITEMS MAY BE TAKEN OUT OF ORDER, COMBINED FOR CONSIDERATION, AND/OR REMOVED FROM THE AGENDA AT THE CHAIRPERSON'S DISCRETION

1. Call to Order – Chidinma Njoku
2. Introductions/Roll Call - Confirmation of Quorum
3. First Public Comment(s) - Chidinma Njoku. Members of the public are invited for comment(s). No action may be taken on a matter raised under this item of the agenda until the matter itself has been specifically included on an agenda as an item upon which action will be taken.
4. Review and approval of meeting minutes for the February 8, 2019 meeting. - Chidinma Njoku (FOR POSSIBLE ACTION)
5. Presentation of Ebola in the Democratic Republic of the Congo – Dr. James Wilson
6. Review upcoming Healthcare Associated Infection Caucus May 29, 2019 – Chidinma Njoku
7. Discuss infection prevention target educational material progress – Chidinma Njoku

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8. Second Public Comment(s) - Chidinma Njoku. No action may be taken on a matter raised under this item of the agenda until the matter itself has been specifically included on an agenda as an item upon which action will be taken.
9. Adjournment - Chidinma Njoku

**NOTICE OF THIS MEETING WAS POSTED ON OR BEFORE 9 A.M. ON THE
THIRD WORKING DAY PRIOR TO THE MEETING AT THE FOLLOWING
LOCATIONS:**

- Nevada Division of Public and Behavioral Health
4126 Technology Way, Carson City, NV 89706
- Nevada Division of Public and Behavioral Health
3811 W. Charleston Blvd., Las Vegas, NV 89102
- Nevada Division of Public and Behavioral Health
4150 Technology Way, Carson City, NV 89706
- Health Care Quality and Compliance
4220 South Maryland Parkway, Las Vegas, NV 89119
- Nevada State Library Archives
100 N. Stewart Street, Carson City, NV 89701
- Legislative Council Bureau
401 S. Carson Street, Carson City, NV 89701
- Grant Sawyer Building
555 E. Washington Avenue, Las Vegas, NV 89101
- Washoe County Health District
1001 E. 9th St, Reno, NV 89512
- Elko County Library
720 Court St, Elko, NV 89801

Unless noted as an action item, discussion of any item raised during a report or public comment is limited to that necessary for clarification or necessary to decide whether to place the item on a future agenda.

NEVADA HEALTHCARE ASSOCIATED INFECTION TASK FORCE AGENDA

Public comment at the beginning and end of the agenda may be limited to three minutes per person at the discretion of the chairperson. Members of the public may comment on matters not appearing in this agenda or may offer comment on specific agenda items. Comments may be discussed by the Task Force but no action may be taken. The matter may be placed on a future agenda for action.

Additional comment periods may be allowed on individual agenda items at the discretion of the chairperson. These comment periods may be limited to three minutes per person at the discretion of the chairperson. These additional comment periods shall be limited to comments relevant to the agenda time under consideration by the Task Force.

All times are approximate. The Task Force reserves the right to take items in a different order or to combine two or more agenda items for consideration to accomplish business in the most efficient manner. The Task Force may remove an item from the agenda or delay discussion relating to an item on the agenda at any time.

We are pleased to make reasonable accommodations for members of the public who are disabled and wish to attend the meeting. If special arrangements for the meeting are necessary, please notify the Division of Public and Behavioral Health, 4126 Technology Way, Carson City, Nevada 89706, or call (775) 684-5911 as soon as possible, and no later than 24 hours prior to the time of the meeting.

Notice of this meeting was posted on the internet at:

[http://dpbh.nv.gov/Programs/HAI/Healthcare_Associated_Infection_Prevention_and_Control_\(HAI\)-Home/](http://dpbh.nv.gov/Programs/HAI/Healthcare_Associated_Infection_Prevention_and_Control_(HAI)-Home/); and Nevada's Public Notice website at: <https://notice.nv.gov/>, as required by [NRS 232.2175](#).

Supporting public materials provided to members for this meeting is posted on Nevada Healthcare Associated Infection web site at:

[http://dpbh.nv.gov/Programs/HAI/Healthcare_Associated_Infection_Prevention_and_Control_\(HAI\)-Home/](http://dpbh.nv.gov/Programs/HAI/Healthcare_Associated_Infection_Prevention_and_Control_(HAI)-Home/), and Nevada's Public Notice website at: <https://notice.nv.gov/>, and may be requested from the Division of Public and Behavioral Health at 4126 Technology Way, Carson City, NV 89706; or call (775) 684-4255 or fax (775) 684-5999.

Nevada Division of Public & Behavioral Health
Carbapenem-Resistant Enterobacteriaceae Quick Sheet



Definitions:

CRE- Carbapenem-Resistant Enterobacteriaceae (CRE) are bacteria of the Enterobacteriaceae family (e.g. Klebsiella, E-coli) that are resistant to the carbapenem class of antibiotics. In general, CRE test non-susceptible to at least one of the carbapenem antibiotics (Ertapenem, Meropenem, Imipenem and Doripenem) and/or produce an enzyme (carbapenemase) that can make them resistant to these antibiotics. CRE are difficult to treat because they have high levels of resistance to antibiotics.

CP-CRE- Carbapenemase-Producing CRE (CP-CRE) are currently believed to be primarily responsible for the increasing spread of CRE in the United States and have therefore been targeted for aggressive prevention.

CPO-Carbapenemase-Producing organisms (CPO) are bacteria (e.g. Pseudomonas, Acinetobacter) that have become resistant to a group of antibiotics known as carbapenems. They are not in the family Enterobacteriaceae.

Carbapenemase- A carbapenemase is a mechanism of resistance used by bacteria to defend themselves against carbapenem antibiotics (Ertapenem, Meropenem, Imipenem and Doripenem). They are Beta-lactamase enzymes that mainly occur in Gram-negative bacilli. There are five main carbapenemases currently causing clinical problems:

- **KPC** (Klebsiella pneumoniae carbapenemase)
- **IMP** (Imipenemase metallo-beta-lactamase)
- **NDM** (New Delhi metallo-beta-lactamase)
- **VIM** (Verona integron-encoded metallo-beta-lactamase)
- **OXA** (Oxacillin carbapenemases)

Intrinsic- Intrinsic carbapenemases occur inherently in the bacterium but are not transferrable between bacterial species and can only be spread by transfer of bacteria e.g. poor hand hygiene. They occur in bacteria with a low potential to cause infection and cannot be transferred into bacteria with a high potential to cause infection. Of note, some Enterobacteriaceae are intrinsically nonsusceptible to the carbapenem imipenem, such as *Morganella morganii*, *Proteus* species, and *Providencia* species.

Acquired

Acquired Carbapenemases are relatively new worldwide. Resistance occurs because the bacterium has gained the ability to become resistant (usually via the acquisition of a plasmid containing the genes encoding the carbapenemase). It is more worrying than intrinsic resistance because it can be spread by passing on the plasmid to other bacterial species which can cause severe infections e.g. *E. coli*, *K. pneumoniae*.

Epidemiologically Important CRE

Carbapenem-resistance among Enterobacteriaceae is complex. All carbapenem-resistant Enterobacteriaceae (CRE), regardless of the mechanism underlying the carbapenem resistance, are likely multidrug-resistant organisms for which interventions might be required in healthcare settings to prevent transmission. These organisms cause infections that are associated with high mortality rates and they have the potential to spread widely.

CP-CRE are of global importance and require the most aggressive infection control measures in order to prevent them from becoming endemic. As of 2018, KPC is the most widespread carbapenemase in Enterobacteriaceae in the United States. The Nevada Division of Public and Behavioral Health will do an epidemiological investigation on all CP-CRE cases.

CRE Surveillance Definition

In January 2015, The Centers for Disease Control and Prevention (CDC) modified its surveillance definition for CRE to the current definition (resistant to imipenem, meropenem, doripenem, or ertapenem OR documentation that the isolate possesses a carbapenemase). For more information go to:

<https://www.cdc.gov/hai/organisms/cre/definition.html>.

If CRE are Identified in Your Laboratory

- Submit a report to the local health department in the county of residence either electronically or faxing.
- Send isolates that meet the CRE case definition for mechanism testing at your lab (if available) or the Nevada State Public Health Lab.

Steps Facilities should take for CRE:

- Require and strictly enforce CDC guidance for CRE detection, prevention, tracking, and reporting. For the CRE guidance go to <https://www.cdc.gov/hai/pdfs/cre/CRE-guidance-508.pdf>.
- Make sure their lab can accurately identify CRE and protocol to (how/who) report results.
- Identify colonized and infected patients in the facility and ensure precautions are implemented. In lower acuity long-term facilities, use of contact precautions for colonized CRE residents may be modified (make decision with Nevada Division of Public Health) depending on the clinical and functional status of the resident and their risk as a source of transmission.
- Promote antimicrobial stewardship
- Recognize these organisms as important to patient safety
- Understand their prevalence in the facility and in the region
- Resources for testing CRE for carbapenemases and performing colonization screening are available through the Nevada State Public Health Lab (775)-688-1335. Contact ARLN@doh.wa.gov for more information on accessing AR Lab Network testing.
- When transferring a patient, require staff to notify the other facility about infections, including CRE. Click [here](#) to access the interfacility transfer form.
- Notify Nevada Division of Public and Behavioral Health of CP-CRE, any outbreaks or an unusual occurrence. DPBHAI@health.nv.gov or 702-486-3568.

Patient Information Sheet for Carbapenem resistant Enterobacteriaceae (CRE)

What is Carbapenem Resistant Enterobacteriaceae (CRE)?

Enterobacteriaceae are a family of bacteria normally found in the bowels and the feces. Carbapenem is a very strong antibiotic. CRE are enterobacteriaceae that are highly resistant to many antibiotics and may be difficult or impossible to treat.

Can CRE be harmful?

CRE may live harmlessly in the intestines. This is called colonization. However, enterobacteriaceae, including CRE, can cause urinary tract infections, wound infections, pneumonia, blood stream infections and other serious infections.

Why should I care about CRE?

CRE can spread from one patient to another in hospitals and long term care facilities (nursing homes). CRE is very difficult to treat. Patients with CRE infection can die from their infection. Hospitals and long term care facilities can prevent spread if they are very careful about hand washing between patients and other infection prevention measures.

Who is at risk for getting a CRE infection?

Infections are most often seen in patients with prolonged hospitalization and those who are critically ill. Patients on ventilators (breathing machines), or with intravenous catheters or urinary catheters or wounds are more at risk. Patients who have received antibiotics are also more at risk.

How do people get CRE?

CRE is shed in the feces, urine or draining wounds of patients who are infected or colonized with the bacteria. Patient skin, hands and bedding are likely to be contaminated with the bacteria. Doorknobs, bedrails, light switches, toilets, bedpans, bedside commodes, and bathroom fixtures are also likely to be contaminated. Healthcare workers can spread CRE if they do not use gowns and gloves when coming into contact with the patient or items in the patient's room or if they do not wash their hands between patients. Equipment like blood pressure cuffs, thermometers and other devices can also become contaminated with CRE and spread the infection from one patient to another.

How can I tell if someone has CRE?

Patients who are infected with CRE have signs and symptoms of infection, but patients who are colonized have no symptoms. The healthcare facility should have a system to alert healthcare providers if someone is infected or colonized with a resistant organism.



STATE OF NEVADA
DEPARTMENT OF HEALTH AND HUMAN SERVICES
DIVISION OF PUBLIC AND BEHAVIORAL HEALTH

Patient Information Sheet

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Why should I care about CRE?

CRE can spread from one patient to another in hospitals and long term care facilities (nursing homes). CRE is very difficult to treat. Patients with CRE can die from their infections. Hospitals and long term care facilities can prevent the spread of CRE by communicating with each other about infected and colonized patients. Strict infection prevention measures must be followed including careful hand washing between patients.

Who is at risk for getting a CRE infection?

Infections are most often seen in patients with prolonged hospitalization and those who are critically ill. Patients with devices including ventilators (breathing machines), intravenous (IV) catheters and urinary catheters and patients with wounds are more at risk. Patients who have received antibiotics are also more at risk.

How do people get CRE?

CRE is shed in the feces, urine or draining wounds of patients who are infected or colonized with the bacteria. The patient's skin, hands and bedding are likely to be contaminated with the CRE bacteria. High touch areas in a hospital or medical facility including bedrails, call lights, remotes, door knobs, light switches, bedside commodes, and bathroom fixtures are also likely to be contaminated. Healthcare personnel can spread CRE if they do not wash their hands between patients and use Personal Protective Equipment (PPE) including gowns and gloves when coming into contact with the patient or contaminated items in the patient's room. Equipment like blood pressure cuffs, thermometers and other devices can also become contaminated with CRE and spread the infection from one patient to another.

How can I tell if someone has CRE?

Patients who are infected with CRE have signs and symptoms of an illness, but patients who are colonized may have no symptoms. All medical facilities should have a system to alert healthcare providers if someone is infected or colonized with CRE.

If you have questions or concerns, speak with your doctor, nurse or other healthcare team member. You can also visit the following website for more information:

Centers for Disease Control and Prevention
www.cdc.gov/hai/organisms/cre/cre-patients.html



Patient Information Sheet for Carbapenem resistant Enterobacteriaceae (CRE)

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Enterobacteriaceae are a family of bacteria normally found in the bowels and the feces. Carbapenem is a very strong antibiotic. CRE are Enterobacteriaceae that are highly resistant to many antibiotics and may be difficult or impossible to treat. Some CRE have special genes that allow them to spread their resistance to other bacteria.

Once antibiotic resistance spreads, it is harder to control—like a wildfire.

Finding and responding to unusual resistance early, before it becomes common, can help stop its spread and protect people.

New or rare types of antibiotic resistance can be easier to contain when found rapidly—like a spark or campfire.



UNUSUAL ANTIBIOTIC-RESISTANT GERMS



Resistant to all or most antibiotics tested, making them hard to treat, and



Uncommon in a geographic area or the US, or



Have special genes that allow them to spread their resistance to other germs

Examples of unusual resistance: Vancomycin-resistant *Staphylococcus aureus* (VISA), *Candida auris*, and certain types of “nightmare bacteria” such as carbapenem-resistant Enterobacteriaceae (CRE).

Who is most likely to get an infection with CRE?

Healthy people usually don’t get CRE infections. CRE primarily affect patients in acute and long-term healthcare settings, who are being treated for another condition. CRE are more likely to affect those patients who have compromised immune systems or have invasive devices like tubes going into their body. Use of certain types of antibiotics might also make it more likely for patients to get CRE.

How are CRE spread?

To get a CRE infection, a person must be exposed to CRE germs. CRE germs are usually spread person to person through contact with infected or colonized people, particularly contact with wounds or stool. CRE can cause infections when they enter the body, often through medical devices like ventilators, intravenous catheters, urinary catheters, or wounds caused by injury or surgery.

What if I have CRE?

Follow your healthcare provider’s instructions. If your provider prescribes you antibiotics, take them exactly as instructed and finish the full course, even if you feel better. Wash your hands, especially after you have contact with the infected area and after using the bathroom. Follow any other hygiene advice your provider gives you.

Do I need to take special precautions at home?

Patients and people providing care at home should be careful about washing their hands, especially after contact with wounds or using the bathroom or after cleaning up stool. Caregivers should also make sure to wash their hands before and after handling the patient’s medical device (e.g., urinary catheters). This is particularly important if the caregiver is caring for more than one ill person at home. In addition, gloves should be used when anticipating contact with body fluids or blood.

What are some things hospitals are doing to prevent CRE infections?

To prevent the spread of CRE, healthcare personnel and facilities can follow infection-control precautions provided by CDC. These include:

- Washing hands with soap and water or an alcohol-based hand sanitizer before and after caring for a patient
- Carefully cleaning and disinfecting rooms and medical equipment
- Wearing gloves and a gown before entering the room of a CRE patient
- Keeping patients with CRE infections in a single room or sharing a room with someone else who has a CRE infection
- Whenever possible, dedicating equipment and staff to CRE patients
- Removing gloves and gown and washing hands before leaving the room of a CRE patient
- Only prescribing antibiotics when necessary
- Removing temporary medical devices as soon as possible
- Sometimes, hospitals will test patients for these bacteria to identify them early to help prevent them from being passed on to other patients

What can patients do to prevent CRE infections?

Patients should:

- Tell your doctor if you have been hospitalized in another facility or country.
- Take antibiotics only as prescribed.
- Expect all doctors, nurses, and other healthcare providers wash their hands with soap and water or an alcohol-based hand rub before and after touching your body or tubes going into your body. If they do not, ask them to do so.
- Clean your own hands often, especially:
 - Before preparing or eating food
 - Before and after changing wound dressings or bandages
 - After using the bathroom
 - After blowing your nose, coughing, or sneezing
- Ask questions. Understand what is being done to you, the risks and benefits.

For more information go to the CDC CRE webpage at:

<https://www.cdc.gov/hai/organisms/cre/index.html>

CRE Definition:

CRE are Enterobacteriaceae that are: Resistant to any carbapenem antimicrobial (i.e., minimum inhibitory concentrations of ≥ 4 mcg/ml for doripenem, meropenem, or imipenem OR ≥ 2 mcg/ml for ertapenem) OR documented to produce carbapenemase. In addition: For bacteria that have intrinsic imipenem nonsusceptibility (i.e., *Morganella morganii*, *Proteus* spp., *Providencia* spp.), resistance to carbapenems other than imipenem is required.

MRSA Definition:

Includes *S. aureus* cultured from any specimen that tests oxacillin-resistant, cefoxitin-resistant, or methicillin-resistant by standard susceptibility testing methods, or any laboratory finding of MRSA (includes but not limited to PCR or other molecular based detection methods). Is considered an infection event only if it represents a unique blood source [specifically, no prior isolation of MRSA in blood from the same patient and location in ≤ 2 weeks, even across calendar months.

Knee Prosthesis (SSI KPRO) definition:**Deep incisional SSI**

Must meet the following criteria:

The date of event occurs within 30 or 90 days after the NHSN operative procedure (where day 1 = the procedure date) according to the list in Table 2

AND

involves deep soft tissues of the incision (for example, fascial and muscle layers)

AND

patient has at least *one* of the following:

- a. purulent drainage from the deep incision.
- b. a deep incision that spontaneously dehisces, or is deliberately opened or aspirated by a surgeon, attending physician* or other designee

AND

organism(s) identified from the deep soft tissues of the incision by culture or non-culture based microbiologic testing method which is performed for purposes of clinical diagnosis or treatment (for example, not Active Surveillance Culture/Testing (ASC/AST)) or culture or non-culture based microbiologic testing method is not performed. A culture or non-culture based test from the deep soft tissues of the incision that has a negative finding does not meet this criterion.

AND

patient has at least ***one*** of the following signs or symptoms: fever ($>38^{\circ}$); localized pain or tenderness.

c. an abscess or other evidence of infection involving the deep incision that is detected on gross anatomical or histopathologic exam, or imaging test.

* The term attending physician for the purposes of application of the NHSN SSI criteria may be interpreted to mean the surgeon(s), infectious disease, other physician on the case, emergency physician, or physician's designee (nurse practitioner or physician's assistant).

Comments

There are two specific types of deep incisional SSIs:

1. Deep Incisional Primary (DIP) – a deep incisional SSI that is identified in a primary incision in a patient that has had an operation with one or more incisions (for example, C-section incision or chest incision for CBGB)
2. Deep Incisional Secondary (DIS) – a deep incisional SSI that is identified in the secondary incision in a patient that has had an operation with more than one incision (for example, donor site incision for CBGB)



THE NEVADA HEALTHCARE ASSOCIATED INFECTION PROGRAM AND THE NEVADA ANTIMICROBIAL STEWARDSHIP PROGRAM COLLABORATIVE presents

THE 2019 HAI Caucus:

Infection Prevention: Saving Lives One Best Practice at a Time

Objective: This program is designed to cover a variety of topics related to infection prevention, antimicrobial stewardship, state and federal regulations and services offered by the State of Nevada. Our goal is to present the most current information and treatment methodologies and to emphasize implementation at a facility level.

Event Date: May 29, 2019

Northern Event Location: Truckee Meadows Community College - 7000 Dandini Blvd, Reno, NV 89512, Sierra room 108

Southern Event Location: Cooperative Extension 8050 Paradise Road, Las Vegas 89123, Suite 100

8:00-8:15 Registration and Breakfast

8:15-8:20 Welcome

8:20-9:10 carbapenem-resistant Enterobacteriaceae (CRE) (Nicole Hubbard, M.D., FCAP, FASM)

9:10-10:10 Ventilators and Ventilator Associated Events(VAE) (Jennifer Sanguinet, MBA-HCM, BSIS, CIC, FAPIC & Eric Ramos MD, FAAFP)

10:10-10:20 Break

10:20-11:20 Antibiotic Stewardship and Antibigrams (Rachel Carr PharmD, BCGP)

11:20-12:30 Lunch

12:30-1:30 QAPI Phase III (Donna Thorson MS, CPHQ, CPPS and Norman Wright, RN, BSN, MS)

1:30- 2:30 Outbreak Reporting Protocol and Laboratory Testing (Jamie Frank & Chidinma Njoku)

2:30-2:40 Break

2:40-3:40 Whole Genome Sequencing (Andrew Gorzalski, PhD)

3:40-4:15 carbapenem-resistant Enterobacteriaceae (CRE) State Reporting Mandate Requirements (Kimisha Causey, MPH)

4:15-4:30 Closing / CEU Certificates

INFECTION PREVENTION: SAVING LIVES ONE BEST PRACTICE AT A TIME

2019 ANNUAL HAI CAUCUS

- **When:** May 29, 2019
- **Time** 8:00am- 4:30pm
- **Locations:**
 - Northern Nevada: Truckee Meadows Community College - 7000 Dandini Blvd, Reno, NV 89512, Sierra room 108
 - Southern Nevada: Cooperative Extension 8050 Paradise Road, Las Vegas 89123, Suite 100
- **CEUS:** Nurses and nursing home administrators 6.5 hours
- **Registration:** <https://nphf.regfox.com/2019-hai-caucus>
- **Cost:** FREE
- **Objective:** This program is designed to cover a variety of topics related to infection prevention, antimicrobial stewardship, state and federal regulations and services offered by the State of Nevada. Our goal is to present the most current information and treatment methodologies and to emphasize implementation at a facility level.
- **Questions:** Kimisha Causey kcausey@health.nv.gov
- Breakfast and lunch are provided
- **Presented by:** The Nevada Antimicrobial Stewardship Program and the Nevada Healthcare Associated Infection Program



This CDC webpage gives many resources for antibiotic stewardship in nursing homes. Check it out.

<https://www.cdc.gov/longtermcare/prevention/antibiotic-stewardship.html>

However, a good simple review of Transmission Based Precautions for LTC can be found at:

<https://www.infectiousdiseasadvisor.com/home/decision-support-in-medicine/hospital-infection-control/nursing-home-or-long-term-care-facility-patients/>

Here is a direct quote that describes challenges of keeping a patient on precautions in LTC:

“The following outlines the structure and function of an infection prevention program in a long-term care facility or nursing home.

The goal of infection control procedures is to prevent transmission of infectious agents to residents and healthcare workers. These procedures traditionally have been referred to as isolation techniques. The reader is referred to the SHEA/APIC guideline and the Tables (more detail below) for a review of the history of isolation procedures that were first developed by the Centers for Disease Control and Prevention (CDC) in the early 1970s and have evolved considerably in the subsequent 4 decades.


The term “isolation” has been dropped in favor of the term “precautions”. All of the precautions used in the long-term care setting were originally developed in the hospital setting and have been modified to take into consideration the principle that the nursing home is the residents’ home.

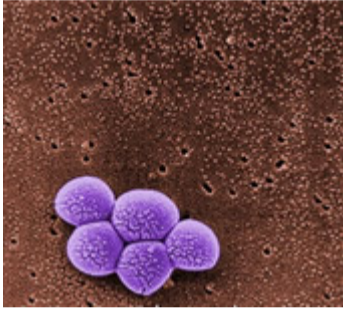
The long-term care setting poses unique problems for preventing transmission of infectious agents that need to be considered when developing prevention procedures and policies:

- Some residents are mobile and may be in contact with other residents frequently; lack of hand hygiene or incontinence is frequent and difficult to control.
- The long-term care facility is considered the resident’s home.
- Residents frequently congregate for eating or other activities.
- Hospitalization of residents may lead to acquisition or transmission of antibiotic resistant organisms (AROs).

- There are residents who are in the facility short-term for skilled care (rehabilitation) before returning to their usual living situation as well as long-term residents. These two groups may have different risks for infection as well as differences in rates of carriage of resistant organisms.”

The National Institute for Occupational Safety and Health (NIOSH)

Promoting productive workplaces
through safety and health research / 



Source: [CDC MRSA photos](#)

Overview

Staphylococcus aureus, often referred to simply as “staph,” is a type of bacteria commonly carried on the skin or in the nose of healthy people. 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 pustules and boils) and can be treated without antibiotics. However, staph bacteria also can cause serious infections (such as skin and soft tissue wound infections, bloodstream infections, and pneumonia).

Methicillin-resistant *Staphylococcus aureus* (MRSA) refers to types of staph that are resistant to a type of antibiotic methicillin. MRSA is often resistant to other antibiotics, as well. While 33% of the population is colonized with staph (meaning that bacteria are present, but not causing an infection with staph), approximately 1% is colonized with MRSA.

Workers who are in frequent contact with MRSA and staph-infected people and animals are at risk of infection. These included those in hospitals and healthcare facilities, correctional facilities, daycare facilities, livestock settings, and veterinary clinics.



FAQs for the Workplace

NOTE: This information is provided for general workplaces, not healthcare facilities. Healthcare workers should refer to information found at the following links: </mrsa/index.html> and </mrsa/healthcare/index.html>.

Can I get MRSA from my work?

MRSA is transmitted most frequently by direct skin-to-skin contact or contact with shared items or surfaces (e.g., towels, used bandages) that have come into contact with someone else's infected site. Animals with MRSA can also transfer the infection to people who frequently handle them. However, people are usually the originating source of the infection in animals.

MRSA skin infections can occur in any type of workplace. However, some workplace settings have factors that make it easier for MRSA to be transmitted. These factors, referred to as the 5 C's, are as follows: Crowding, frequent skin-to-skin Contact, Compromised skin (i.e., cuts or abrasions), Contaminated items and surfaces, and lack of Cleanliness. Locations where the 5 C's are common include schools, dormitories, military barracks, athletic gyms, households, correctional facilities, daycare centers, and areas where animal handling is common, such as veterinary clinics and livestock settings.

If I have MRSA, can I go to work?

Unless directed by a healthcare provider, workers with MRSA infections should not be routinely excluded from going to work.

Exclusion from work should be reserved for those with wound drainage ("pus") that cannot be properly covered and contained with a clean, dry bandage and for those who cannot maintain good hygiene practices.

Workers with active infections should be excluded from activities where skin-to-skin contact with the affected skin area is likely to occur until their infections are healed.

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

See your healthcare provider and follow your healthcare provider's advice about returning to work.

If I have staph, or a MRSA skin infection, what can I do to prevent the spread of MRSA at work and at home?



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



- **Cover your wound.** Keep areas of the skin affected by MRSA covered. 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.
- **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.
- **Do not share personal items.** Avoid sharing personal items such as uniforms, personal protective equipment, clothing, towels, washcloths or razors that may have had contact with the infected wound or bandage.
- **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 I suspect that my uniform, clothing, personal protective equipment or workstation has become contaminated with MRSA?

Wash uniforms, clothing, sheets and towels that become soiled with water and laundry detergent. Drying clothes in a hot dryer, rather than air-drying, also helps kill bacteria in clothes. Use a dryer to dry clothes completely. Wash clothing according to manufacturer's instructions on the label.

Cleaning contaminated equipment and surfaces with detergent-based cleaners or Environmental Protection Agency (EPA)-registered disinfectants is effective at removing MRSA from the environment. Check the disinfectant product's label on the back of the container. Most, if not all, disinfectant manufacturers will provide a list of microorganisms on their label that their product can destroy. Because cleaners and disinfectants can be irritating and exposure has been associated with health problems such as asthma, it is important to read the instruction labels on all cleaners to make sure they are used safely and appropriately. Where disinfection is concerned, more is not necessarily better. [EPA has guidance for employers for less hazardous antimicrobial products](http://www.epa.gov/pesticides/regulating/labels/design-dfe-pilot.html) [\(http://www.epa.gov/pesticides/regulating/labels/design-dfe-pilot.html\)](http://www.epa.gov/pesticides/regulating/labels/design-dfe-pilot.html).

[Additional information](http://www.cdph.ca.gov/programs/ohsep/Documents/CleanSchoolsHandbook.pdf)   (<http://www.cdph.ca.gov/programs/ohsep/Documents/CleanSchoolsHandbook.pdf>) is available on effective infection-control practices while minimizing the use of, and exposure to, toxic products in schools written by the National Cleaning for Healthier Schools and Infection Control Workgroup.

Environmental cleaners and disinfectants should not be used to treat infections. The EPA provides a list of EPA-registered products effective against MRSA: http://epa.gov/oppad001/list_h_mrsa_vre.pdf   (http://epa.gov/oppad001/list_h_mrsa_vre.pdf).

What can my boss (employers) do to prevent the spread of staph or MRSA at the workplace?

- Place importance on worker safety and health protection in the workplace
- Ensure the availability of adequate facilities and supplies that encourage workers to practice good hygiene
- Ensure that routine housekeeping in the workplace is followed
- Ensure that contaminated equipment and surfaces are cleaned with detergent-based cleaners or Environmental Protection Agency (EPA)-registered disinfectants
- Encourage workers to seek early treatment of possible infections from their healthcare provider

Other FAQs About MRSA

Signs and Symptoms

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 skin and soft tissue wound infections.



Source: [CDC MRSA photos](#)

Prevention

How can I prevent staph or MRSA skin infections?

Practice good hygiene:

- Keep your hands clean by washing thoroughly with soap and water or using an alcohol-based hand sanitizer.
- Keep cuts and scrapes clean and covered with a bandage until healed.
- Avoid contact with other people's wounds or bandages.
- Avoid sharing personal items such as uniforms and personal protective equipment.
- Avoid use of whirlpools and swimming pools if you have MRSA

Treatment

Are staph and MRSA infections treatable?

Yes. 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. Do not try to drain the infection yourself.

However, some staph and MRSA infections are treated 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.

If after visiting your healthcare provider the infection is not getting better after 48 hours, contact them again. If other people you know or live with get the same infection tell them to go to their healthcare provider. MRSA skin infections can develop into more serious infections.

Preventing the Spread of MRSA in Correctional Facilities

NIOSH has created 14 easy-to-read publications on how to stop the spread of MRSA in correctional facilities. The title of each publication indicates the target audience. Conditions at correctional facilities can be conducive to the spread of MRSA, and several outbreaks have been reported. The materials cover a number of topics, including basic facts about MRSA, what to do if you have a skin infection, hand hygiene, personal protective equipment, environmental sanitation, laundry, and not sharing personal items.

[Washing Your Hands Stops MRSA \(Inmates\)](http://www.cdc.gov/niosh/docs/2013-113/) (<http://www.cdc.gov/niosh/docs/2013-113/>).

DHHS (NIOSH) Publication No. 2013-113 (January 2013)

En Español [/spanish/niosh/docs/2013-113_sp/](http://www.cdc.gov/spanish/niosh/docs/2013-113_sp/) (http://www.cdc.gov/spanish/niosh/docs/2013-113_sp/).

[Washing Your Hands Stops MRSA \(Correctional Staff\)](http://www.cdc.gov/niosh/docs/2013-114/) (<http://www.cdc.gov/niosh/docs/2013-114/>).

DHHS (NIOSH) Publication No. 2013-114 (January 2013)

[Use Hand Sanitizer, Bottle \(Correctional Staff\)](http://www.cdc.gov/niosh/docs/2013-115/) (<http://www.cdc.gov/niosh/docs/2013-115/>).

DHHS (NIOSH) Publication No. 2013-115 (January 2013)

[Use Hand Sanitizer, Wall-Mounted Dispenser \(Correctional Staff\)](http://www.cdc.gov/niosh/docs/2013-116/) (<http://www.cdc.gov/niosh/docs/2013-116/>).

DHHS (NIOSH) Publication No. 2013-116 (January 2013)

[What is MRSA? \(Correctional Officers\)](http://www.cdc.gov/niosh/docs/2013-117/) (<http://www.cdc.gov/niosh/docs/2013-117/>).

DHHS (NIOSH) Publication No. 2013-117 (January 2013)

[What is MRSA? \(Inmates\)](http://www.cdc.gov/niosh/docs/2013-118/) (<http://www.cdc.gov/niosh/docs/2013-118/>).

DHHS (NIOSH) Publication No. 2013-118 (January 2013)

En Español [/spanish/niosh/docs/2013-118_sp/](http://www.cdc.gov/spanish/niosh/docs/2013-118_sp/) (http://www.cdc.gov/spanish/niosh/docs/2013-118_sp/).

[What is MRSA? \(Correctional Staff\)](http://www.cdc.gov/niosh/docs/2013-119/) (<http://www.cdc.gov/niosh/docs/2013-119/>).

DHHS (NIOSH) Publication No. 2013-119 (January 2013)

[Managers: Protect Correctional Staff from MRSA](http://www.cdc.gov/niosh/docs/2013-120/) (<http://www.cdc.gov/niosh/docs/2013-120/>).

DHHS (NIOSH) Publication No. 2013-120 (January 2013)

[Managers' Checklist for Protecting Correctional Staff from MRSA](http://www.cdc.gov/niosh/docs/2013-121/) (<http://www.cdc.gov/niosh/docs/2013-121/>).

DHHS (NIOSH) Publication No. 2013-121 (January 2013)

[Handle Laundry Safely \(Correctional Facilities\)](http://www.cdc.gov/niosh/docs/2013-122/) (<http://www.cdc.gov/niosh/docs/2013-122/>).

DHHS (NIOSH) Publication No. 2013-122 (January 2013)

En Español [/spanish/niosh/docs/2013-122_sp/](http://www.cdc.gov/spanish/niosh/docs/2013-122_sp/) (http://www.cdc.gov/spanish/niosh/docs/2013-122_sp/).

[Use Personal Protective Equipment \(Correctional Staff\)](http://www.cdc.gov/niosh/docs/2013-123/) (<http://www.cdc.gov/niosh/docs/2013-123/>).

DHHS (NIOSH) Publication No. 2013-123 (January 2013)

[MRSA Can Live on High-Touch Surfaces \(Correctional Facilities\)](http://www.cdc.gov/niosh/docs/2013-124/) (<http://www.cdc.gov/niosh/docs/2013-124/>).

DHHS (NIOSH) Publication No. 2013-124 (January 2013)

[Sharing Personal Items Can Spread MRSA \(Correctional Staff\) \(http://www.cdc.gov/niosh/docs/2013-125/\)](http://www.cdc.gov/niosh/docs/2013-125/)
DHHS (NIOSH) Publication No. 2013-125 (January 2013)

[If You Have a MRSA Infection \(Correctional Staff\) \(http://www.cdc.gov/niosh/docs/2013-126/\)](http://www.cdc.gov/niosh/docs/2013-126/)
DHHS (NIOSH) Publication No. 2013-126 (January 2013)

Additional Resources

[MRSA and the Workplace \(http://www.cdc.gov/niosh/docs/2013-112/\)](http://www.cdc.gov/niosh/docs/2013-112/)
DHHS (NIOSH) Publication No. 2013-112 (January 2013)
This two-page factsheet summarizes information about MRSA and the workplace.

[CDC MRSA Website](#)

[Environmental Cleaning and Disinfecting for MRSA](#)

[OSHA Hospital eTool: MRSA](https://www.osha.gov/SLTC/etools/hospital/hazards/mro/mrsa/mrsa_employee.html) [↗](#) (https://www.osha.gov/SLTC/etools/hospital/hazards/mro/mrsa/mrsa_employee.html)

[Veterinary Health Care and the Workplace](#)

[NIH Research on MRSA](http://www.niaid.nih.gov/topics/antimicrobialResistance/Examples/mrsa/Pages/research.aspx) [↗](#) (http://www.niaid.nih.gov/topics/antimicrobialResistance/Examples/mrsa/Pages/research.aspx)

[Handwashing Posters from Washington Department of Health](http://here.doh.wa.gov/materials/be-a-germ-buster) [↗](#) (http://here.doh.wa.gov/materials/be-a-germ-buster)

[PubMed search for Community-Associated MRSA Infections](http://www.ncbi.nlm.nih.gov/sites/entrez?Db=pubmed&Cmd=DetailsSearch&Term=%20((%22Staphylococcus+aureus%22%5BMesh%5D+AND+%22Methicillin+Resistance%22%5BMesh%5D)%20+OR+%22MRSA%5BAll+Fields%5D)+AND+%22Community-Acquired+Infections%22%5BMesh%5D) [↗](#) (http://www.ncbi.nlm.nih.gov/sites/entrez?Db=pubmed&Cmd=DetailsSearch&Term=%20((%22Staphylococcus+aureus%22%5BMesh%5D+AND+%22Methicillin+Resistance%22%5BMesh%5D)%20+OR+%22MRSA%5BAll+Fields%5D)+AND+%22Community-Acquired+Infections%22%5BMesh%5D)

Page last reviewed: August 17, 2015

Kimisha Causey

From: Donna Thorson <DThorson@healthinsight.org>
Sent: Tuesday, April 9, 2019 12:17 PM
To: Kimisha Causey
Subject: RE: SSI KPRO MRSA NHSN data

Hi Kimisha,

Here is the MRSA table for Acute Care Hospitals. There were no events reported from CAHs, Inpatient Rehabs or LTACs.

summaryYQ	MRSA_bldIncCount	numPred	numpatdays	SIR	SIR_pval	sir95ci
2016Q1	13	16.652	343449	0.781	0.3781	0.434, 1.301
2016Q2	15	16.841	326604	0.891	0.6797	0.518, 1.436
2016Q3	22	15.780	329715	1.394	0.1319	0.896, 2.076
2016Q4	15	15.835	323385	0.947	0.8663	0.550, 1.527
2017Q1	34	18.732	346425	1.815	0.0015	1.277, 2.508
2017Q2	13	17.335	340408	0.750	0.2987	0.417, 1.250
2017Q3	14	18.247	342080	0.767	0.3227	0.437, 1.257
2017Q4	24	19.054	354114	1.260	0.2632	0.826, 1.846
2018Q1	23	18.181	363413	1.265	0.2645	0.821, 1.868
2018Q2	13	17.214	355371	0.755	0.3117	0.420, 1.259
2018Q3	18	17.343	352175	1.038	0.8454	0.634, 1.609
2018Q4	21	17.213	359894	1.220	0.3603	0.775, 1.833
2019Q1	14	12.625	289983	1.109	0.6729	0.631, 1.817

National Healthcare Safety Network

SIR for MRSA Blood FacwideIN LabID Data in Acute Care Hospital (2015 baseline) .

As of: April 9, 2019 at 3:16 PM

Date Range: BS2_LABID_RATESMRSA summaryYr After and Including 2015

summaryYr	MRSA_bldIncCount	numPred	numpatdays	SIR	SIR_pval	sir95ci
2016	65	65.108	1323153	0.998	1.0000	0.777, 1.264
2017	85	73.368	1383027	1.159	0.1799	0.931, 1.425
2018	75	69.950	1430853	1.072	0.5384	0.849, 1.336

Here is the KPRO table for ACHs.

procCode	summaryYQ	procCount	infCountAdultAll	numPredAdultAll	SIRAll	SIRAll_pval	SIRAll95CI
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KPRO	2016Q1	1198	2	8.318	0.240	0.0130	0.040, 0.794
KPRO	2016Q2	1172	7	8.279	0.846	0.6952	0.370, 1.672
KPRO	2016Q3	1110	8	7.150	1.119	0.7143	0.520, 2.125
KPRO	2016Q4	1209	6	7.596	0.790	0.5963	0.320, 1.643
KPRO	2017Q1	1225	7	7.378	0.949	0.9376	0.415, 1.877
KPRO	2017Q2	1198	10	7.732	1.293	0.4091	0.657, 2.305
KPRO	2017Q3	1170	11	7.656	1.437	0.2402	0.756, 2.497
KPRO	2017Q4	1229	13	7.611	1.708	0.0708	0.950, 2.848
KPRO	2018Q1	1217	9	7.148	1.259	0.4751	0.614, 2.311
KPRO	2018Q2	1210	8	7.030	1.138	0.6807	0.528, 2.161
KPRO	2018Q3	1280	11	7.311	1.505	0.1907	0.791, 2.615
KPRO	2018Q4	1298	11	7.093	1.551	0.1629	0.815, 2.695
KPRO	2019Q1	840	2	4.532	0.441	0.2296	0.074, 1.458

National Healthcare Safety Network

SIR for Adult All SSI Data by Procedure (2015 Baseline) - Overall, by ProcCode

As of: April 9, 2019 at 3:14 PM

Date Range: BS2_SIR_ADULTALL\$SIPROC summaryYr After and Including 2015

procCode	summaryYr	procCount	infCountAdultAll	numPredAdultAll	SIRAll	SIRAll_pval	SIRAll95CI
CBGB	2016	1648	17	22.287	0.763	0.2606	0.459, 1.196
CBGB	2017	1695	19	23.290	0.816	0.3801	0.506, 1.250
CBGB	2018	1683	18	23.250	0.774	0.2750	0.473, 1.200
CBGC	2016	155	0	2.096	0.000	0.1229	1.429
CBGC	2017	114	2	1.488	1.344	0.6262	0.225, 4.441
CBGC	2018	113	1	1.271	0.787	0.9179	0.039, 3.881
COLO	2016	2428	113	105.34	1.073	0.4802	0.888, 1.285
COLO	2017	2472	111	104.05	1.067	0.5208	0.882, 1.280
COLO	2018	2692	129	117.12	1.101	0.2933	0.923, 1.304
HPRO	2016	4110	35	50.043	0.699	0.0266	0.495, 0.962
HPRO	2017	4076	48	44.648	1.075	0.6039	0.802, 1.413
HPRO	2018	4234	34	44.677	0.761	0.1017	0.535, 1.051
HYST	2016	1785	18	23.261	0.774	0.2741	0.473, 1.199
HYST	2017	1846	19	23.594	0.805	0.3481	0.499, 1.234
HYST	2018	1780	28	23.015	1.217	0.3015	0.824, 1.735
KPRO	2016	4689	23	31.343	0.734	0.1269	0.476, 1.084
KPRO	2017	4822	41	30.376	1.350	0.0641	0.981, 1.813
KPRO	2018	5005	39	28.582	1.365	0.0617	0.984, 1.847

Let me know if you need something different.

Donna S. Thorson, MS, CPHQ, CPPS
Senior Project Manager

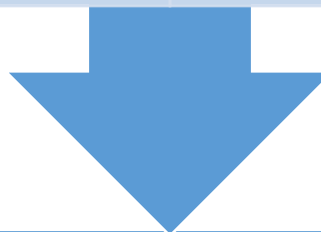


Tiers of Interventions to Prevent MRSA

TIER 1 Standardize Supplies, Procedures and Processes

(complete all interventions: review and audit compliance with Tier 1 measures prior to moving to Tier 2)

Conduct basic MRSA Risk Assessment for facility infection burden and transmission risk.	Conduct case reviews of NHSN HO MRSA bacteremia LabID events (cases) to guide source-specific interventions.	Monitor and alert staff of patients with MRSA.	Promote and monitor hand hygiene compliance.	Initiate Contact Precautions for both colonized and infected patients and monitor adherence.	Assess effectiveness of cleaning and disinfection of environment of care and reusable patient care equipment.
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Tier 2 Enhanced Practices

(if MRSA bacteremia rates remain elevated, start with MRSA Guide to Patient Safety (GPS) and then proceed with additional interventions)

Perform HO MRSA bacteremia needs assessment with Guide to Patient Safety (GPS).	Implement daily chlorhexidine bathing for populations at risk for developing MRSA bacteremia.	Consider decolonization for those patients colonized with MRSA and at high risk of infection.	Active Surveillance Testing (AST) for high-risk patient populations.	Consider gowning and gloving for all intensive care unit (ICU) patients.
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Detailed Tier 1 Interventions

Tier 1	Implement the Following Tier Interventions
<p>Conduct basic MRSA Risk Assessment for facility infection burden and transmission risk.</p>	<ul style="list-style-type: none"> • Use available, historic data to assess the burden of MRSA infection and/or transmission in the facility.^{1,2,3} • Use data your hospital is already collecting, such as: <ul style="list-style-type: none"> ○ Antibiogram—proportion of <i>S. aureus</i> isolate are methicillin-resistant, ○ Line lists of patients with MRSA, ○ MRSA infection burden –blood stream infections (BSI), central line-associated bloodstream infections (CLABSI), surgical site infections (SSI), etc., ○ Results of active surveillance testing if being performed.
<p>Conduct case reviews of NHSN health care-onset MRSA (HO MRSA) bacteremia LabID events (cases) to guide source-specific interventions.</p>	<ul style="list-style-type: none"> • Conduct case reviews of HO MRSA bacteremia LabID events to identify risk factors and populations (epidemiologic profile) involved to guide additional interventions.^{4,5,6,7} • Utilize a case review tool to analyze cause, contributing factors and possible preventive measures for individual HO MRSA bacteremia events.⁴ • Review evidence-based guidelines for primary source MRSA infections. <ul style="list-style-type: none"> ○ Ventilator-associated pneumonia (VAP), ○ SSI, ○ CLABSI, ○ Peripheral intravenous (PIV) catheter, ○ Dialysis-related infections (e.g., vascular access-associated bloodstream infection). <p>Resource(s): Figure 1 below for evidence-based guidelines based on the primary source of MRSA infections, AHRQ CUSP Learning from Defects tool</p>
<p>Monitor and alert staff of patients with MRSA.</p>	<ul style="list-style-type: none"> • Establish a prospective MRSA monitoring program.¹ • Ensure the hospital has a system in place for early detection and management of patients with MRSA, including rapid isolation. • Institute a lab alert system to notify responsible staff (e.g., infection prevention, clinicians) of newly positive MRSA results. • Design intra- and inter-facility communication processes to alert staff of MRSA status. • Implement a system to identify and flag patients with MRSA at readmission so Contact Precautions can be used.

	<ul style="list-style-type: none"> Share MRSA rates and trends with hospital leadership and staff. This should include, but not necessarily be limited to HO MRSA bacteremia.¹
Promote and monitor hand hygiene compliance.	<ul style="list-style-type: none"> Implement hand hygiene policies that promote preferential use of alcohol-based handrub over soap and water unless hands are visibly soiled or health care personnel are caring for patients with known or suspected <i>Clostridium difficile</i> infection or during norovirus outbreaks.^{8,10} Educate health care personnel, patients and families on the importance of effective hand hygiene and the role that hand hygiene plays in reducing transmission of MRSA.^{9,10} Perform routine audits of staff hand hygiene adherence with hospital policy and provide real-time feedback from audits to personnel.^{10,11,12} <p>Resource(s): CDC Hand Hygiene Training Video, WHO Hand Hygiene Observation Form, Clean Care is Safe Care –Tools for Training and Education</p>
Initiate Contact Precautions for both colonized and infected patients and monitor adherence.	<ul style="list-style-type: none"> Ensure appropriate personal protective equipment (PPE) supplies for Contact Precautions are available and located near points of use.¹³ Ensure that all health care personnel who use PPE have documented training and competency to properly select and use PPE, including proper donning and doffing, to prevent multidrug-resistant organisms (MDRO) transmission.^{1,14} Educate patients and families on MRSA and prevention of transmission.¹ Perform routine audits of adherence to proper PPE use and provide real-time feedback of audits to personnel.^{12,13} <p>Resource(s): HICPAC 2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings, CDC Sequence for Donning/Doffing PPE, Contact Isolation Skills Competency Checklist</p>
Assess effectiveness of cleaning and disinfection of environment of care and reusable patient care equipment.	<ul style="list-style-type: none"> Ensure hospital policies promote the appropriate cleaning and disinfection of high-touch environmental surfaces in patient care areas using an EPA-registered disinfectant. Cleaning and disinfecting policies should promote following manufacturers’ instructions and cleaning and disinfecting on a daily basis, when spills occur and when surfaces are visibly contaminated.¹ Ensure that after a patient vacates a room, all visibly or potentially contaminated surfaces are thoroughly cleaned and disinfected and towels and bed linens are replaced with clean ones. Ensure that all personnel responsible for cleaning and disinfection have documented training and competency to clean and disinfect according to hospital policies and procedures. Perform routine audits of adherence to environmental cleaning procedures and provide real-time feedback from audits to personnel.

	<ul style="list-style-type: none"> • Use dedicated disposable noncritical patient-care devices for patients on Contact Precautions.¹³ <ul style="list-style-type: none"> ○ If not available, ensure that shared equipment are cleaned and disinfected after use on each patient.¹³ • Define cleaning and disinfection of noncritical equipment, mobile devices and other electronics in the hospital policies clearly. • Engage staff in identifying and addressing barriers to proper cleaning and disinfection of equipment and environment. <p>Resource(s): Not Just a Maid Service, Options for Evaluating Environmental Cleaning</p>
	Review and audit compliance with Tier 1 measures before moving to Tier 2.

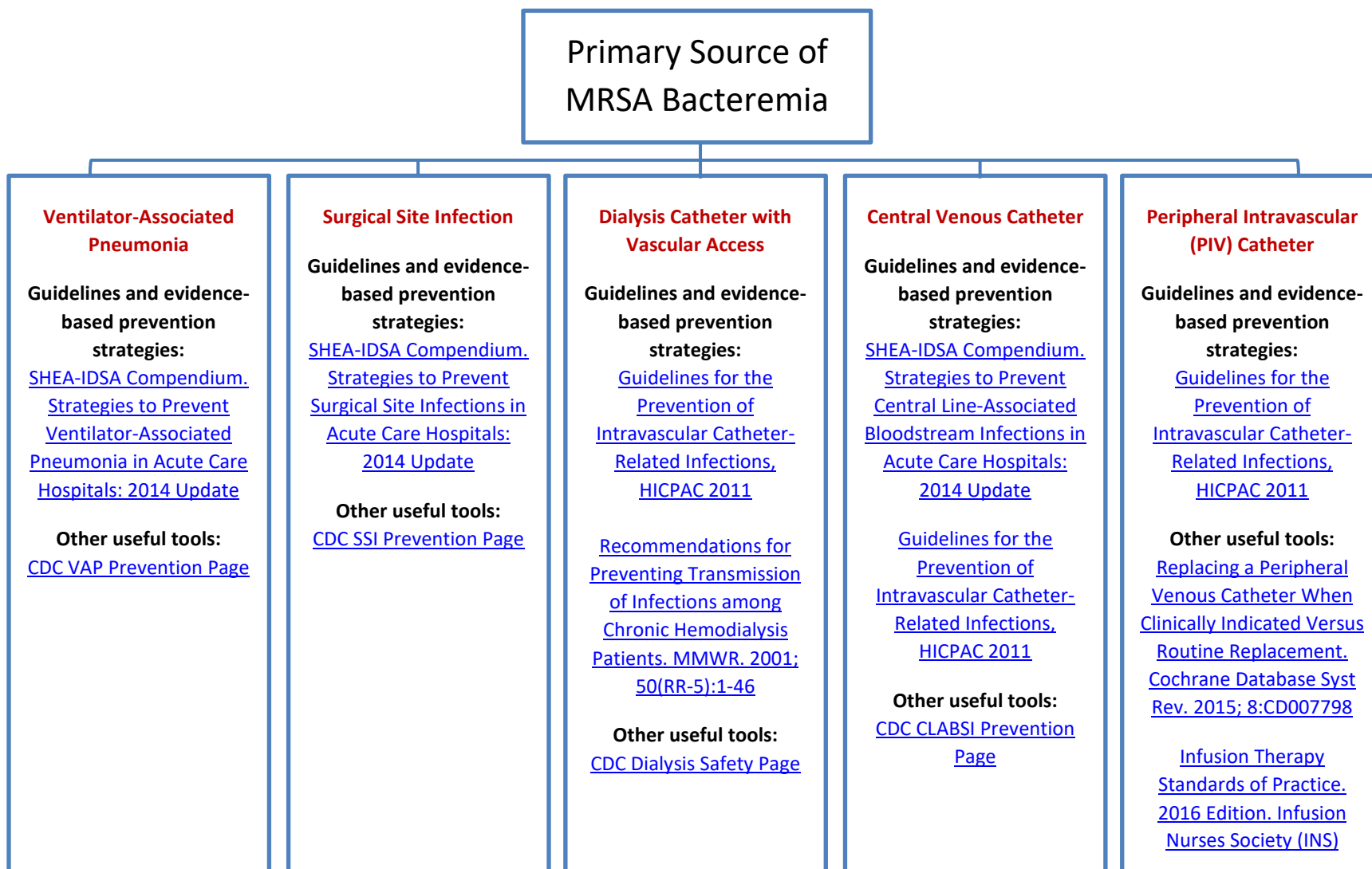
Detailed Tier 2 Interventions

Tier 2	Implement the Following Tier 2 Interventions if MRSA Bacteremia Incidence Remains Elevated
Perform HO MRSA bacteremia needs assessment with Guide to Patient Safety (GPS).	<ul style="list-style-type: none"> • Perform needs assessment using the MRSA Guide to Patient Safety. Adapted from the validated CAUTI Guide to Patient Safety (GPS), the MRSA GPS is a brief troubleshooting guide for hospitals, designed to identify the key reasons why hospitals may not be successful in preventing infections.^{15,16} • Use GPS results to engage health care personnel in the process of developing next steps to prevent MRSA. • MRSA GPS questions: <ol style="list-style-type: none"> 1. Do you currently have a well-functioning team (or work group) focusing on MRSA prevention? 2. Do you have a project manager with dedicated time to coordinate your MRSA prevention activities? 3. Do you have an effective nurse champion(s) for your MRSA prevention activities? 4. Do you have an effective physician champion(s) for your MRSA prevention activities? 5. Is senior leadership supportive of MRSA prevention activities? 6. Do you currently assess or identify the source of MRSA bloodstream infections (vascular catheter, surgical site, skin/soft tissue, etc.) to help focus MRSA prevention strategies?

	<ol style="list-style-type: none"> 7. Do you currently collect MRSA-related data (e.g., incidence, prevalence, compliance with prevention practices, etc.) in the unit(s) or populations in which you are intervening to reduce infection? 8. Do you routinely feed MRSA-related data back to frontline staff and physicians? (e.g., incidence, prevalence, compliance with prevention practices) 9. Do you have a system in place for communicating confirmed MRSA-positive cultures to frontline care staff? 10. Do you currently place patients colonized or infected with MRSA into Contact Precautions? 11. Is staff empowered to speak up if hand hygiene is not performed effectively? 12. Do frontline staff receive training about how to prevent transmission of MRSA and other multidrug-resistant organisms (MDROs)? 13. Do you have standardized processes for daily and discharge environmental cleaning/disinfection of patient rooms that includes monitoring of cleaning/disinfection quality? <p>Resource(s): Visit https://catheterout.org/?q=gps to access the online CAUTI GPS tool.</p>
<p>Implement daily chlorhexidine bathing for populations at risk of developing MRSA, as identified by facility risk assessment (e.g. all ICU patients, non-ICU patients with central venous catheters, etc.).</p>	<ul style="list-style-type: none"> • Based on results of basic MRSA risk assessment and HO MRSA bacteremia case reviews, determine at-risk patient populations that would benefit from daily chlorhexidine bathing.¹ <ul style="list-style-type: none"> ○ Data supports this intervention in ICU patients, and ongoing studies are reviewing effectiveness in non-ICU patients.¹ • Provide routine daily cleansing of adult patients with chlorhexidine, rather than regular soap. • Ensure adequate supplies for chlorhexidine bathing. • Review skin care products for compatibility with chlorhexidine. • Provide staff with competency-based training in chlorhexidine bathing in order to standardize care processes and ensure appropriate dilution of products (if required) and application techniques. • Develop standardized or protocol-based order sets to optimize adherence. • Perform routine audits of adherence to CHG bathing process and product use and provide real-time feedback from audits to personnel. • Educate patients about chlorhexidine use and its role in the prevention of MRSA. <p>Resource(s): SHEA Strategies to Prevent Methicillin-Resistant <i>Staphylococcus aureus</i> Transmission and Infection in Acute Care Hospitals: 2014 Update</p>

<p>Consider decolonization for those patients colonized with MRSA and at high-risk of infection.</p>	<ul style="list-style-type: none"> • Consider MRSA decolonization for patients colonized with MRSA undergoing certain surgical procedures, who are at high risk for infection. Decolonization is defined as the administration of topical antimicrobial or antiseptic agents, with or without systemic antimicrobial therapy, for the purpose of eradicating or suppressing the carrier state. For example, MRSA colonized patients undergoing certain surgical procedures.¹ • Decolonization can be done through application of a nasal topical antimicrobial (mupirocin) and/or application of a skin antiseptic, like a pre-operative chlorhexidine wash.
<p>Active Surveillance Testing (AST) for high-risk patient populations.</p>	<ul style="list-style-type: none"> • Target high-risk patient populations to identify asymptomatic MRSA carriers so that additional infection control measures can be put into place.¹ <p>Resource(s): APIC Guide to the Elimination of Methicillin-Resistant <i>Staphylococcus aureus</i> (MRSA) Transmission in Hospital Settings, 2nd Edition</p>
<p>Consider gowning and gloving for all ICU patients.</p>	<ul style="list-style-type: none"> • Consider implementing a process where all health care personnel don gown and gloves to care for all patients in the ICU.^{1,17}

Figure 1. Tools and Resources Based on Primary Source of MRSA Bacteremia



Resource(s)

- APIC Guide to the Elimination of Methicillin-Resistant *Staphylococcus aureus* (MRSA) Transmission in Hospital Settings, 2nd Edition. Association for Professional in Infection Prevention and Control, APIC. 2013. Available at http://www.apic.org/Resource_/EliminationGuideForm/631fcd91-8773-4067-9f85-ab2a5b157eab/File/MRSA-elimination-guide-2010.pdf
- CDC Hand Hygiene Training Video. Available at <https://www.cdc.gov/handhygiene/training/interactiveEducation/frame.htm>
- Checklist for Core Elements of Hospital Antibiotic Stewardship Programs. Centers for Disease Control and Prevention, CDC. Last Updated February 23, 2017. Available at <https://www.cdc.gov/getsmart/healthcare/implementation/checklist.html>
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OPTIONS FOR EMPIRIC OUTPATIENT ANTIMICROBIAL TREATMENT OF SSTIs WHEN MRSA IS A CONSIDERATION*

Drug name	Considerations	Precautions**
Clindamycin	<ul style="list-style-type: none"> FDA-approved to treat serious infections due to <i>S. aureus</i> D-zone test should be performed to identify inducible clindamycin resistance in erythromycin-resistant isolates 	<ul style="list-style-type: none"> <i>Clostridium difficile</i> infection, while uncommon, may occur more frequently in association with clindamycin compared to other agents
Tetracyclines <ul style="list-style-type: none"> Doxycycline Minocycline 	<ul style="list-style-type: none"> Doxycycline is FDA-approved to treat <i>S. aureus</i> skin infections 	<ul style="list-style-type: none"> Not recommended during pregnancy Not recommended for children under the age of 8 Activity against group A streptococcus, a common cause of cellulitis, unknown
Trimethoprim-Sulfamethoxazole	<ul style="list-style-type: none"> Not FDA-approved to treat any staphylococcal infection 	<ul style="list-style-type: none"> May not provide coverage for group A streptococcus, a common cause of cellulitis Not recommended for women in the third trimester of pregnancy Not recommended for infants less than 2 months
Rifampin	<ul style="list-style-type: none"> Use only in combination with other agents 	<ul style="list-style-type: none"> Drug-drug interactions are common.
Linezolid	<ul style="list-style-type: none"> Consultation with an infectious disease specialist is suggested FDA-approved to treat complicated skin infections, including those caused by MRSA 	<ul style="list-style-type: none"> Has been associated with myelosuppression, neuropathy and lactic acidosis during prolonged therapy
<ul style="list-style-type: none"> MRSA is resistant to all currently available beta-lactam agents (penicillins and cephalosporins) Fluoroquinolones (e.g., ciprofloxacin, levofloxacin) and macrolides (erythromycin, clarithromycin, azithromycin) are not optimal for treatment of MRSA SSTIs because resistance is common or may develop rapidly. 		

Role of decolonization

Regimens intended to eliminate MRSA colonization should not be used in patients with active infections. Decolonization regimens may have a role in preventing recurrent infections, but more data are needed to establish their efficacy and to identify optimal regimens for use in community settings. After treating active infections and reinforcing hygiene and appropriate wound care, consider consultation with an infectious disease specialist regarding use of decolonization when there are recurrent infections in an individual patient or members of a household.

MRSA IS TYPICALLY SPREAD BY:

- > Having direct contact with another person's infection
- > Sharing personal items, such as towels or razors, that have touched infected skin
- > Touching surfaces or items, such as used bandages, contaminated with MRSA



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INFORMATION ABOUT MRSA SKIN INFECTIONS.



© Bernard Cohen, MD Dermatlas; www.dermatlas.org



<http://phil.cdc.gov>



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CHANCES ARE, YOU'LL NEED IT.



Developed with support from the CDC Foundation through an educational grant from Pfizer Inc.

WHEN A PATIENT HAS A SKIN INFECTION, IT MAY VERY LIKELY BE MRSA.

Recent data suggest that MRSA in the community is increasing. The spectrum of disease caused by MRSA appears to be similar to that of *Staphylococcus aureus* in the community. Skin and soft tissue infections (SSTIs), specifically furuncles (abscessed hair follicles or “boils”), carbuncles (coalesced masses of furuncles), and abscesses, are the most frequently reported clinical manifestations. The role of MRSA in cellulitis without abscess or purulent drainage is less clear since cultures are rarely obtained.

The Centers for Disease Control and Prevention (CDC) encourages you to consider MRSA in the differential diagnosis of SSTIs compatible with *S. aureus* infections, especially those that are purulent (fluctuant or palpable fluid-filled cavity, yellow or white center, central point or “head,” draining pus, or possible to aspirate pus with needle or syringe). A patient’s presenting complaint of “spider bite” should raise suspicion of an *S. aureus* infection.

Incision and drainage constitutes the primary therapy for these purulent skin infections. Empiric antimicrobial coverage for MRSA may

be warranted in addition to incision and drainage based on clinical assessment (e.g., presence of systemic symptoms, severe local symptoms, immune suppression, extremes of patient age, infections in a difficult to drain area, or lack of response to incision and drainage alone). For severe infections, consider consulting with an infectious disease specialist. Obtaining specimens for culture and susceptibility testing is useful to guide therapy, particularly for those who fail to respond adequately to initial management.

MRSA skin infections can develop into more serious infections. It is important to discuss a follow-up plan with your patients in case they develop systemic symptoms or worsening local symptoms, or if symptoms do not improve within 48 hours.

What is MRSA?

Methicillin-resistant *Staphylococcus aureus* (MRSA) is an antimicrobial-resistant type of *S. aureus* that is resistant to currently available beta-lactam antibiotics including penicillins (e.g., penicillin, amoxicillin), “anti-staphylococcal” penicillins (e.g., methicillin, oxacillin), and cephalosporins (e.g., cephalexin).

Educate Patients to Prevent Spread

Patient education is a critical component of MRSA case management. Healthcare professionals should educate patients, caretakers and, when possible, household members on methods to avoid MRSA transmission to close contacts.

Additional materials for healthcare professionals and patients are available at www.cdc.gov/MRSA or by calling 1-800-CDC-INFO.

OUTPATIENT¹ MANAGEMENT OF SKIN AND SOFT TISSUE INFECTIONS

Patient presents with signs/symptoms of skin infection:

- Redness
- Swelling
- Warmth
- Pain/tenderness
- Complaint of “spider bite”

YES

Is the lesion purulent (i.e., are ANY of the following signs present)?

- Fluctuance – palpable fluid-filled cavity, movable, compressible
- Central point or “head”
- Yellow or white center
- Draining pus
- Possible to aspirate pus with needle and syringe

YES

NO

1. Drain the lesion
2. Send wound drainage for culture and susceptibility testing
3. Advise patient on wound care and hygiene
4. Discuss follow-up plan with patient

Possible cellulitis without abscess:

- Provide antimicrobial therapy with coverage for *Streptococcus* spp. and/or other suspected pathogens
- Maintain close follow-up
- Consider adding coverage for MRSA (if not provided initially), if patient does not respond

If systemic symptoms, severe local symptoms, immunosuppression, or failure to respond to I&D, consider antimicrobial therapy with coverage for MRSA in addition to I&D

(See reverse for options)

ABBREVIATIONS

I&D: incision and drainage
MRSA: methicillin-resistant *Staphylococcus aureus*
SSTI: skin and soft tissue infection

¹ For severe infections requiring inpatient management, consider consulting an infectious disease specialist.

* Data from controlled clinical trials are needed to establish the comparative efficacy of these agents in treating MRSA SSTIs. Patients with signs and symptoms of severe illness should be treated as inpatients.

**Consult product labeling for a complete list of potential adverse effects associated with each agent.

2019 NHSN Surgical Site Infection (SSI) Checklist

Surgical Site Infection (SSI) Documentation Review Checklist

Definition of an NHSN Operative Procedure

An NHSN Operative Procedure is a procedure

- that is included in the ICD-10-PCS or CPT NHSN operative procedure code mapping:

www.cdc.gov/nhsn/xls/icd10-pcs-pcm-nhsn-opc.xlsx

www.cdc.gov/nhsn/xls/cpt-pcm-nhsn.xlsx

And

- takes place during an operation where at least one incision (including laparoscopic approach and cranial Burr holes) is made through the skin or mucous membrane, or reoperation via an incision that was left open during a prior operative procedure

And

- takes place in an operating room (OR), defined as a patient care area that met the Facilities Guidelines Institute's (FGI) or American Institute of Architects' (AIA) criteria for an operating room when it was constructed or renovated. This may include an operating room, C-section room, interventional radiology room, or a cardiac catheterization lab.

Exclusions: Otherwise eligible procedures that are assigned an ASA score of 6 are not eligible for NHSN SSI surveillance.

Note: Incisional closure method is NOT a part of the NHSN operative procedure definition; all otherwise eligible procedures are included, regardless of closure type. Therefore both primarily closed procedures and those that are not closed primarily should be entered into the denominator data for procedures in the facility's monthly reporting plan. Any SSIs attributable to either primarily closed or non-primarily closed procedures should be reported.

PROCEDURE DETAILS:

Date of Procedure: _____

ICD-10-PCS/CPT Operative Procedure Code(s) Assigned:

NHSN Operative Procedure Category(ies) (COLO, HYST, etc.):

SSI EVENT DETAILS:

Criterion	Criterion Met	Date of Event	Procedure of Attribution	PATOS
SIP	<input type="checkbox"/>			
SIS	<input type="checkbox"/>			
DIP	<input type="checkbox"/>			
DIS	<input type="checkbox"/>			
O/S	<input type="checkbox"/>			

If O/S SSI, specify site-specific criteria met: _____

Please refer to [Chapter 9 Surgical Site Infection \(SSI\) Event](#) of the Patient Safety Manual for additional information.

Surgical Site Infection (SSI)	
Superficial incisional SSI (SIP, SIS)	
Element	Element Met
Must meet the following criteria:	
Date of event occurs within 30 days after any NHSN operative procedure (where day 1 = the procedure date)	<input type="checkbox"/>
AND	
Involves only skin and subcutaneous tissue of the incision	<input type="checkbox"/>
AND Patient has at least <i>one</i> of the following:	
a. Purulent drainage from the superficial incision.	<input type="checkbox"/>
b. Organisms identified from an aseptically-obtained specimen from the superficial incision or subcutaneous tissue by a culture or non-culture based microbiologic testing method, which is performed for purposes of clinical diagnosis or treatment (for example, not Active Surveillance Culture/Testing (ASC/AST)).	<input type="checkbox"/>
c. Superficial incision that is deliberately opened by a surgeon, attending physician* or other designee AND Culture or non-culture based testing of the superficial incision or subcutaneous tissue is not performed AND Patient has <i>at least one</i> of the following signs or symptoms: <ul style="list-style-type: none"> • Localized pain or tenderness • Localized swelling • Erythema • Heat 	<input type="checkbox"/>
d. Diagnosis of a superficial incisional SSI by the surgeon, attending physician* or other designee.	<input type="checkbox"/>
*The term attending physician for the purposes of application of the NHSN SSI criteria may be interpreted to mean the surgeon(s), infectious disease, other physician on the case, emergency physician, or physician's designee (nurse practitioner or physician's assistant).	
Comments: There are two specific types of superficial incisional SSIs: <ol style="list-style-type: none"> 1. Superficial Incisional Primary (SIP) – a superficial incisional SSI that is identified in the primary incision in a patient that has had an operation with one or more incisions (for example, C-section incision or chest incision for CBGB) 2. Superficial Incisional Secondary (SIS) – a superficial incisional SSI that is identified in the secondary incision in a patient that has had an operation with more than one incision (for example, donor site incision for CBGB) 	
Reporting Instructions for Superficial SSI: The following do not qualify as criteria for meeting the NHSN definition of superficial SSI: <ul style="list-style-type: none"> • Diagnosis/treatment of cellulitis (redness/warmth/swelling), by itself, does not meet criterion “d” for superficial incisional SSI. Conversely, an incision that is draining or that has organisms identified by culture or non-culture based testing is not considered a cellulitis. • A stitch abscess alone (minimal inflammation and discharge confined to the points of suture penetration). • Circumcision is not an NHSN operative procedure. An infected circumcision site in newborns is classified as CIRC and is not an SSI. • An infected burn wound is classified as BURN and is not an SSI. 	



- For an NHSN operative procedure, a laparoscopic trocar site is considered a surgical incision and not a stab wound.
- A localized stab wound or pin site infection is not considered an SSI; depending on the depth, these infections might be considered either a skin (SKIN) or soft tissue (ST) infection.

Comments/Notes:

Surgical Site Infection (SSI)	
Deep incisional SSI (DIP, DIS)	
Element	Element Met
Must meet the following criteria:	
Date of event occurs within 30 or 90 days after the NHSN operative procedure (where day 1 = the procedure date) according to the list in Table 2 (see below)	<input type="checkbox"/>
AND	
Involves deep soft tissues of the incision (for example, fascial and muscle layers)	<input type="checkbox"/>
AND Patient has at least <i>one</i> of the following:	
a. Purulent drainage from the deep incision.	<input type="checkbox"/>
b. A deep incision that spontaneously dehisces, or is deliberately opened or aspirated by a surgeon, attending physician* or other designee AND Organism(s) identified from the deep soft tissues of the incision by a culture or non-culture based microbiologic testing method which is performed for purposes of clinical diagnosis or treatment (for example, not Active Surveillance Culture/Testing (ASC/AST)) <u>or</u> culture or non-culture based microbiologic testing method is not performed. A culture or non-culture base test from the deep soft tissues of the incision that has a negative finding does not meet this criterion. AND Patient has <i>at least one</i> of the following signs or symptoms: <ul style="list-style-type: none"> • Fever (>38°C) • Localized pain or tenderness 	<input type="checkbox"/>
c. An abscess or other evidence of infection involving the deep incision that is detected on gross anatomical or histopathologic exam, or imaging test.	<input type="checkbox"/>
*The term attending physician for the purposes of application of the NHSN SSI criteria may be interpreted to mean the surgeon(s), infectious disease, other physician on the case, emergency physician, or physician's designee (nurse practitioner or physician's assistant).	
Comments: There are two specific types of deep incisional SSIs: <ol style="list-style-type: none"> 1. Deep Incisional Primary (DIP) – a deep incisional SSI that is identified in a primary incision in a patient that has had an operation with one or more incisions (for example, C-section incision or chest incision for CBGB) 2. Deep Incisional Secondary (DIS) – a deep incisional SSI that is identified in the secondary incision in a patient that has had an operation with more than one incision (for example, donor site incision for CBGB) 	
Comments/Notes:	

Surgical Site Infection (SSI)	
Organ/Space SSI (O/S)	
Element	Element Met
Must meet the following criteria:	
Date of event occurs within 30 or 90 days after the NHSN operative procedure (where day 1 = the procedure date) according to the list in Table 2 (see below)	<input type="checkbox"/>
AND	
Involves any part of the body deeper than the fascial/muscle layers that is opened or manipulated during the operative procedure	<input type="checkbox"/>
AND Patient has at least one of the following:	
a. Purulent drainage from a drain that is placed into the organ/space (for example, closed suction drainage system, open drain, T-tube drain, CT-guided drainage).	<input type="checkbox"/>
b. Organism(s) identified from fluid or tissue in the organ/space by a culture or non-culture based microbiologic testing method, which is performed for purposes of clinical diagnosis or treatment (for example, not Active Surveillance Culture/Testing (ASC/AST)).	<input type="checkbox"/>
c. An abscess or other evidence of infection involving the organ/space that is detected on gross anatomical or histopathologic exam, or imaging test evidence suggestive of infection.	<input type="checkbox"/>
AND	
Meets at least one criterion for a specific organ/space infection site listed in Table 3 (see below). These criteria are found in the Surveillance Definitions for Specific Types of Infections chapter.	<input type="checkbox"/>
Comments/Notes:	



Table 2. Surveillance Periods for SSI Following Selected NHSN Operative Procedure Categories.
Day 1 = the date of the procedure.

30-day Surveillance			
Code	Operative Procedure	Code	Operative Procedure
AAA	Abdominal aortic aneurysm repair	LAM	Laminectomy
AMP	Limb amputation	LTP	Liver transplant
APPY	Appendix surgery	NECK	Neck surgery
AVSD	Shunt for dialysis	NEPH	Kidney surgery
BILI	Bile duct, liver or pancreatic surgery	OVRY	Ovarian surgery
CEA	Carotid endarterectomy	PRST	Prostate surgery
CHOL	Gallbladder surgery	REC	Rectal surgery
COLO	Colon surgery	SB	Small bowel surgery
CSEC	Cesarean section	SPLE	Spleen surgery
GAST	Gastric surgery	THOR	Thoracic surgery
HTP	Heart transplant	THYR	Thyroid and/or parathyroid surgery
HYST	Abdominal hysterectomy	VHYS	Vaginal hysterectomy
KTP	Kidney transplant	XLAP	Exploratory Laparotomy
90-day Surveillance			
Code	Operative Procedure		
BRST	Breast surgery		
CARD	Cardiac surgery		
CBGB	Coronary artery bypass graft with both chest and donor site incisions		
CBGC	Coronary artery bypass graft with chest incision only		
CRAN	Craniotomy		
FUSN	Spinal fusion		
FX	Open reduction of fracture		
HER	Herniorrhaphy		
HPRO	Hip prosthesis		
KPRO	Knee prosthesis		
PACE	Pacemaker surgery		
PVBY	Peripheral vascular bypass surgery		
VSHN	Ventricular shunt		

Notes:

- Superficial incisional SSIs are only followed for a 30-day period for all procedure types.
- Secondary incisional SSIs are only followed for a 30-day period regardless of the surveillance period for the primary site.

Table 3. Specific Sites of an Organ/Space SSI

Code	Site	Code	Site
BONE	Osteomyelitis	MED	Mediastinitis
BRST	Breast abscess or mastitis	MEN	Meningitis or ventriculitis
CARD	Myocarditis or pericarditis	ORAL	Oral cavity infection (mouth, tongue, or gums)
DISC	Disc space infection	OREP	Deep pelvic tissue infection or other infection of the male or female reproductive tract
EAR	Ear, mastoid infection	PJI	Periprosthetic joint infection
EMET	Endometritis	SA	Spinal abscess/infection
ENDO	Endocarditis	SINU	Sinusitis
GIT	Gastrointestinal (GI) tract infection	UR	Upper respiratory tract, pharyngitis, laryngitis, epiglottitis
IAB	Intraabdominal infection, not specified elsewhere	USI	Urinary System Infection
IC	Intracranial infection	VASC	Arterial or venous infection
JNT	Joint or bursa infection	VCUF	Vaginal cuff infection
LUNG	Other infection of the lower respiratory tract		

Notes:

- Criteria for these sites can be found in the Surveillance Definitions for Specific Types of Infections Chapter 17.
- Chapter 9 Appendix contains a list of all NHSN operative procedure categories and the site specific SSIs that may be attributable to each category.



**STATE OF NEVADA
DEPARTMENT OF HEALTH AND HUMAN SERVICES
DIVISION OF PUBLIC AND BEHAVIORAL HEALTH**

Post-Acute Surgical Wound Infection Reporting Form

Patient's Name: _____ DOB: _____ MR#: _____

Date of Admission: _____ Transferred from: _____

Surgery/Site (Operative Procedure): _____ Date Performed (If known): _____

Infection Location: _____ Date of Event (Infection first observed): _____

Infection Signs & Symptoms (See definitions below*) _____

Cultures (Circle): *Yes* *No* Culture Site (Location of Specimen): _____

Culture Date: (Date Specimen Obtained) _____ Date of Results: _____

Results: (Attach Culture Report if Available) _____

Treatment Performed: (Circle): *Antibiotics* *Dressing Change* *Drainage* *Debridement*

Patient Transferred to Acute Care: (Circle) *Yes* *No* Hospital /Facility Name: _____

Date of Transfer: _____ Comments: _____

Name of Contact & Title: (Person submitting form) _____ Phone # _____

***Surgical Site Infection (SSI) Definitions:**

Superficial Incisional Primary (SIP) & Secondary (SIS):

(1) Infection occurs at incision site within 30 days after surgery **and** (2) Infection involves skin and subcutaneous tissue of the incision only **and** (3) The patient has at least **one** of the following:

- a. Purulent drainage from the superficial incision;
- b. Organisms identified from an aseptically-obtained specimen from the superficial incision or subcutaneous tissue by a culture or non-culture microbiologic testing method performed for clinical diagnosis or treatment.
- c. Superficial incision is deliberately opened by a surgeon, physician or other designee **and** a culture or non-culture testing method is not performed **and** patient has at least one of the following: localized pain/tenderness, swelling, erythema or heat.

Deep Incisional Primary (DIP) & Secondary (DIS):

(1) Infection occurs at operative site within 30 or 90 days after surgery **and** (2) Involves deep soft tissues of the incision **and** (3) The patient has at least **one** of the following (a, b, c)

- a. Purulent drainage from the deep incision.
- b. Deep incision spontaneously dehisces or is opened/aspirated by a surgeon, physician or other designee **and**
 - Organisms identified from deep soft tissues of incision by a culture or non-culture testing method performed for clinical diagnosis or treatment (A negative finding does not meet this criterion) **and** has a fever (>38° C) and/or local pain/tenderness
- c. An abscess (or evidence of infection involving deep incision) detected on gross anatomical/histopathologic exam or imaging test.

Please fax or email this form:

The hospital, surgery center or location where the surgery or operative procedure was performed

Submit a copy to:

Office of Public Health Informatics & Epidemiology, 3811 W. Charleston Blvd, Suite 205, Las Vegas, NV 89102

Post-Operative Surgical Wound Infection Reporting Form

◆ **Patient's Name:** _____ **DOB:** _____

◆ **Date of Surgery:** _____ **Surgeon:** _____

◆ **Examining Practitioner:** _____

◆ **Exam Date:** _____

◆ **Infection Location:** _____

◆ **Culture Date:** _____ **Results:** _____

◆ **Treatment (circle):** Antibiotics Dressing Change Drainage Debridement

◆ **Patient Readmitted:** Yes No If yes – date: _____

Facility: _____

◆ **Comments:** _____

◆ **M.D. Office Contact:** _____ **Phone #** _____

◆ **Type of Infection and Symptoms - please circle appropriate number(s) below:**

“Superficial” Surgical Site Infection Infection occurs at incision site within 30 days after surgery, involves only skin and subcutaneous tissue, AND the patient has at least one of the following:

1. Patient has at least one of the following signs or symptoms: pain or tenderness, localized swelling, redness, or heat
2. Purulent drainage from the superficial incision
3. Organisms isolated from an aseptically-obtained culture of fluid or tissue from the superficial incision
4. Physician or other designee deliberately opens wound and is culture positive or not cultures
5. Surgeon's or attending physician's diagnosis of superficial infection

“Deep” Incisional Surgical Infection Infection occurs at operative site within 30 or 90 days after surgery, involves deep soft tissues of the incision (e.g., fascial and muscle layers), AND the patient has at least one of the following:

1. Purulent drainage from the deep incision
2. Incision spontaneously dehisces or is deliberately opened by a physician or other designee and is culture-positive or not cultured
3. Patient has at least one of the following signs or symptoms: fever greater than 38°C and/or localized pain or tenderness
4. An abscess or other evidence of infection seen through direct examination, during invasive procedures, histopathologic examination, or imaging test
5. Physician's diagnosis of deep incisional infection

Please return this form by fax to (775) 770-6902 or by mail to: SMRMC Infection Prevention Department
235 West Sixth Street
Reno, Nevada 89503