NEVADA HEALTHCARE ASSOCIATED INFECTION TASK FORCE AGENDA

Meeting is subject to the provisions of the Nevada Open Meeting Law – NRS 241.020

January 10, 2020
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
4150 Technology Way
Room 301
Carson City, NV 89706

Teleconference: **+1 (669) 900-6833**- Access code: **775 684 5906**.

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 - Kimisha Causey
2. Introductions/Roll Call - Confirmation of Quorum
3. First Public Comment(s) - Kimisha Causey. 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 May 17, 2019 meeting. – Chidinma Njoku (FOR POSSIBLE ACTION)
5. Approving changes to HAITF By Laws- Kimisha Causey (FOR POSSIBLE ACTION)
6. Recruitment for HAITF voting members- Kimisha Causey (FOR POSSIBLE ACTION)
7. Approval of HAI target educational materials- Kimisha Causey (FOR POSSIBLE ACTION)

NEVADA HEALTHCARE ASSOCIATED INFECTION TASK FORCE AGENDA

8. Introduction of Nevada Alliance Working for Antibiotic Resistance Education (NVAWARE) – Akil Williams

9. Set future meeting date - Kimisha Causey (FOR POSSIBLE ACTION)

10. Second Public Comment(s) - Kimisha Causey. 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.

11. Adjournment - Kimisha Causey

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.
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/ ; 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/, 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.

STATEMENT OF AUTHORITY OF THE NEVADA HEALTHCARE ASSOCIATED INFECTION TASK FORCE

Section I – Name

The name of this organization shall be the Nevada Healthcare Associated Infection (HAI) Task Force, hereinafter referred to as the "NV HAI Task Force."

Section II – Authority

The NV HAI Task Force is a subcommittee under the auspices of the Division of Public and Behavioral Health (DPBH), Office of Public Health Informatics and Epidemiology (OPHIE). Its recommendations are advisory only and reported to DPBH-OPHIE, and the Centers for Disease Control and Prevention (CDC).

Section III – Mission

The mission of the NV HAI Task Force shall be:

A) To advise DPBH-OPHIE on recommended policies, programs and other needs related to HAI prevention.

B) To serve in an advisory capacity to other public and private agencies within the state on issues related to HAI education and prevention.

C) To collaborate and share HAI prevention information between other public and private agencies within the state.

Section IV – Members

Subsection A. Voting Membership. Members of the NV HAI Task Force shall be invited by OPHIE and should include, but are not restricted to:

1. One representative each from:
    a. Washoe County Health District

b. Carson City Health and Human Services

c. Southern Nevada Health District

2. One representative from Nevada Rural Hospital Partners
3. Two representatives from DPBH-OPHIE
4. Three representatives from Nevada hospitals:

    a. One from Northern Nevada

    b. Two from Southern Nevada

5. One representative from Nevada Hospital Association
6. One representative from the Quality Improvement Organization/Quality Innovative Network

Subsection B. Member Proxy. Each voting member must designate, in writing, two proxies (as applicable) available to attend meetings in his/her place should he/she be unable to attend. Each member shall, to the extent practicable, inform NV HAI Task Force Chairperson or Vice-Chairperson at least 24 hours in advance of their anticipated absence and direct one of their designated proxies to attend in their place. The designated proxy shall have all the rights and privileges of the member while acting on his/her behalf. If neither of the designated proxies are able to attend, there shall be no representation for that member at said meeting.

Subsection C. Terms of Appointment. Members shall serve a term of two years or until their successors are appointed. Members may serve more than two consecutive terms when there is no successor or if the members of the NV HAI Task Force vote to extend the members term.

Subsection D. Staffing. Staff for the NV HAI Task Force will be provided by the DPBH for purposes of secretarial, legal, and research needs within the availability of the Division's resources.

Subsection E. Voting. Only voting members of the NV HAI Task Force identified in Section IV, Subsection A, shall be entitled to one vote on all business requiring action by the NV HAI Task Force. Only active members can vote and this is defined by their attendance. After three (3) consecutive meetings with an absence of representation from any given active member or their designated proxy, they will no longer be considered active and therefore will be unable to vote. To be reinstated to active status, said member must have representation for three consecutive meetings.

Subsection F. Quorum. A simple majority (50% +1) of the members present at any properly announced meeting shall constitute a quorum.

Subsection G. Resignation and Termination. Members who are absent from three (3) consecutive meetings, and who do not notify the Chairperson or Vice-Chairperson in advance of their expected absence or send a designated proxy, shall be terminated from the NV HAI Task Force membership. A member may also have their membership terminated by a majority vote of the membership.

Subsection H. Ex-Officio Members. Ex-officio members should include, but are not limited to, administrative and medical professionals, and OPHIE staff who are involved with patient care and the prevention and control of HAI's

throughout the state of Nevada. Ex-officio membership shall be determined by voting members.

Section V – Officers

Subsection A. Composition. There shall be the following officers on the NV HAI Task Force: Chairperson and Vice-Chairperson. All officers may serve two terms or until successors are appointed/elected.

Subsection B. Duties of Officers

1. Chairperson. The Chairperson shall be elected by the voting membership of the NV HAI Task Force. The Chairperson shall, in this office, represent OPHIE in conducting the business of the NV HAI Task Force. The Chairperson shall regularly report the activities and recommendations of the NV HAI Task Force to OPHIE. The Chairperson shall have such powers and duties as may be assigned by the NV HAI Task Force and/or OPHIE.
2. Vice-Chairperson. The Vice-Chairperson shall be elected by the voting membership of the NV HAI Task Force. The Vice-Chairperson shall act for and on behalf of the Chairperson in all cases of his/her absence and shall perform such other duties as may be assigned by the NV HAI Task Force and/or OPHIE.
3. The Chairperson and Vice-Chairperson must be voting members of the NV HAI Task Force, but shall only have one vote on all matters.

Section VI – Meetings

Subsection A. Regular. The NV HAI Task Force shall meet regularly, at least once every six months, but not more than quarterly unless deadlines set by the CDC

cause meetings to be held more frequently. The meetings shall be held at a time, date, and place as ordered by the Chairperson or upon a request of the majority of the NV HAI Task Force. Meetings may be conducted by videoconference, face-to-face, or if needed, by telephone conference.

Subsection B. Special. Special meetings may be held upon the call of the Chairperson or a majority of the NV HAI Task Force, within the budgetary limitations of the NV HAI Task Force and OPHIE/DPBH.

Subsection C. Annual. The final meeting in each calendar year shall be known as the annual meeting and shall include among its business the designation of new members appointed to the NV HAI Task Force, when appropriate.

Subsection D. Open Meeting Requirements. Meetings shall be conducted in accordance with NRS 241, known as "Nevada's Open Meeting Law."

Section VII – Committees

Committee members shall be chosen by the Chairperson or members as the membership of the NV HAI Task Force deems necessary to carry on its work.

Section VIII – Amendments

These bylaws may be amended as necessary by a majority vote as defined by Section IV, Subsection F. Proposed amendments to these bylaws shall be submitted in writing to any member of the NV HAI Task Force at least 30 working days prior to any regular meeting. These bylaws shall be reviewed every two (2) years.

Carbapenem-Resistant *Enterobacteriaceae* Fact Sheet

DEFINITIONS

Carbapenem-Resistant *Enterobacteriaceae* (CRE) are bacteria of the *Enterobacteriaceae* family (e.g., *Klebsiella*, *E. coli*) which 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.

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.

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 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 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 non-susceptible to the carbapenem imipenem, such as *Morganella morganii*, *Proteus* species, and *Providencia* species.

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). Acquired 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 may 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 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 epidemiolocal 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 for how and who to 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 (facilities should make this decision in concert with Nevada Division of Public and Behavioral Health HAI Program) 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.

• When transferring a patient, require staff to notify the receiving facility about infections, including CRE. Click here to access the interfacility transfer form.

• Notify The Nevada Division of Public and Behavioral Health of CP-CRE, any suspected outbreaks, or an unusual occurrence. DPBHHAI@health.nv.gov or 702-486-3568.

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.

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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:

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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.

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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. DPBHHAI@health.nv.gov or 702-486-3568.

Patient Fact Sheet: Carbapenem-Resistant *Enterobacteriaceae*

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 bacteria 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, CRE can cause serious infections including urinary tract infections, wound infections, pneumonia and blood stream 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 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?

Healthy people usually don't get CRE infections. CRE primarily affects patients in acute and long-term healthcare settings, who are being treated for another condition. Infections are most often seen in patients with prolonged hospitalization and those who are critically ill. CRE are more likely to affect those patients who have compromised immune systems or have invasive devices like tubes going into their body. 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 certain types of antibiotics are also more at risk.

How do people get CRE?

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.

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. Frequently touched 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 touching 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.

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.

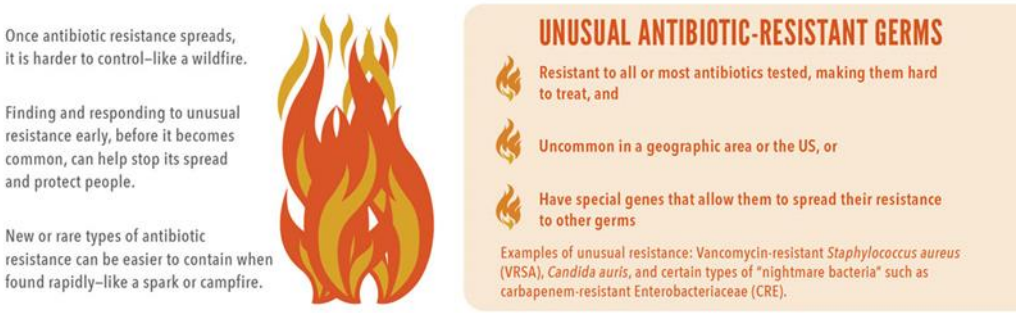
If you have questions or concerns, speak with your doctor, nurse or other healthcare team member. You can also visit the following website for more information:

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

Patient Information Sheet for Carbapenem resistant Enterobacteriaceae (CRE)

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. Some CRE have special genes that allow them to spread their resistance to other bacteria.



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

Definitions of Target Infections:

CRE, MRSA, & SSI KPRO

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 which have intrinsic imipenem nonsusceptibility (e.g., *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 blood stream infection or MRSA bacteremia (including but not limited to PCR or other molecular-based detection methods). It is considered an infection event only if it represents a unique blood source (i.e., 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

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

AND

The 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 a 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

a. fever (>38°);
b. 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

***Definitions are subject to change, please utilize the most current definition provided by the Centers for Disease Control and Prevention (CDC)**

Healthcare-Associated Infections Prevention Information for Long Term Care

This CDC webpage gives many resources for antibiotic stewardship in nursing homes:

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

Reviews of Transmission Based Precautions for LTC can be found at:

http://professionals.site.apic.org/what-are-transmission-precautions/

https://www.cdc.gov/infectioncontrol/basics/transmission-based-precautions.html

Core Infection Prevention and Control Practices for Safe Healthcare Delivery in All Settings – Recommendations of the Healthcare Infection Control Practices Advisory Committee

https://www.cdc.gov/hicpac/pdf/core-practices.pdf

Implementation of Personal Protective Equipment in Nursing Homes to Prevent Spread of Novel or Targeted Multidrug-resistant Organisms (MDROs)

https://www.cdc.gov/hai/pdfs/containment/PPE-Nursing-Homes-H.pdf

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Helping people. It's who we are and what we do.

Lisa Sherych
Administrator

Ihsan Azzam, Ph.D., M.D.
Chief Medical Officer

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

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

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.

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.

Detailed Tier 1 Interventions

Tier 1	Implement the Following Tier Interventions

Conduct basic MRSA Risk Assessment for facility infection burden and transmission risk.	• 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:
	  ○ Antibiogram–proportion of *S. aureus* 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.

Conduct case reviews of NHSN health care-onset MRSA (HO MRSA) bacteremia LabID events (cases) to guide source-specific interventions.	• 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.
	  ○ Ventilator-associated pneumonia (VAP),
	  ○ SSI,
	  ○ CLABSI,
	  ○ Peripheral intravenous (PIV) catheter,
	  ○ Dialysis-related infections (e.g., vascular access-associated bloodstream infection).
	
	Resource(s): Figure 1 below for evidence-based guidelines based on the primary source of MRSA infections, AHRQ CUSP Learning from Defects tool

Monitor and alert staff of patients with MRSA.	• 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.

	• 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.	• 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 *Clostridium difficile* 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] Resource(s): CDC Hand Hygiene Training Video, WHO Hand Hygiene Observation Form, Clean Care is Safe Care –Tools for Training and Education
Initiate Contact Precautions for both colonized and infected patients and monitor adherence.	• 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] 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
Assess effectiveness of cleaning and disinfection of environment of care and reusable patient care equipment.	• 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.

	• Use dedicated disposable noncritical patient-care devices for patients on Contact Precautions.[13] ○ 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. Resource(s): Not Just a Maid Service, Options for Evaluating Environmental Cleaning
	Review and audit compliance with Tier 1 measures before moving to Tier 2.

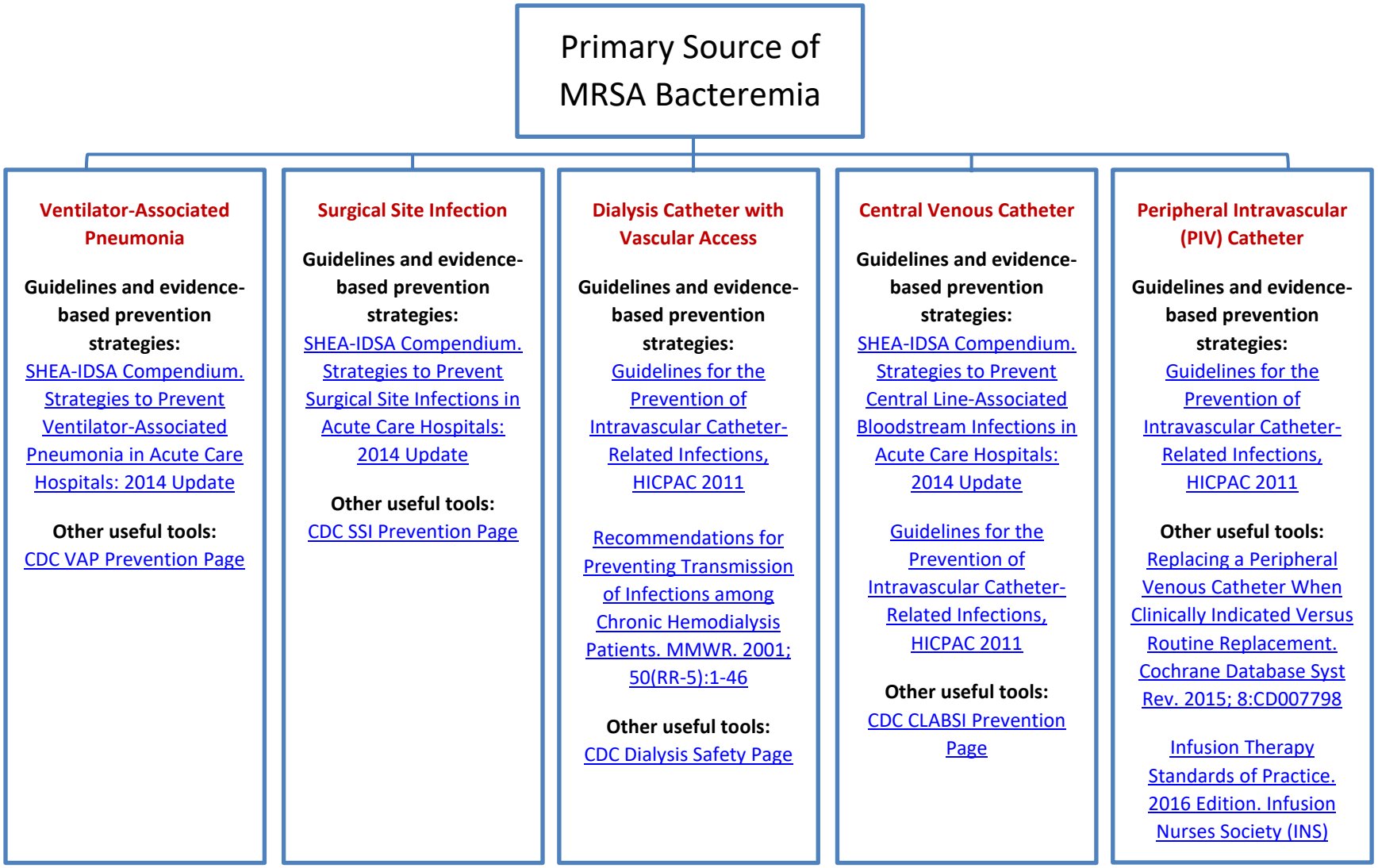
Detailed Tier 2 Interventions

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).	• 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: 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?

	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? Resource(s): Visit https://catheterout.org/?q=gps to access the online CAUTI GPS tool.
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.).	• 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] ○ 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. Resource(s): SHEA Strategies to Prevent Methicillin-Resistant *Staphylococcus aureus* Transmission and Infection in Acute Care Hospitals: 2014 Update

Consider decolonization for those patients colonized with MRSA and at high-risk of infection.	• 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.
Active Surveillance Testing (AST) for high-risk patient populations.	• Target high-risk patient populations to identify asymptomatic MRSA carriers so that additional infection control measures can be put into place.[1] Resource(s): APIC Guide to the Elimination of Methicillin-Resistant *Staphylococcus aureus* (MRSA) Transmission in Hospital Settings, 2nd Edition
Consider gowning and gloving for all ICU patients.	• 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
- Clean Care is Safe Care –Tools for Training and Education. World Health Organization, WHO. Available at http://www.who.int/gpsc/5may/tools/training_education/en/
- Multi-drug Resistant Organism Infection Change Package: 2017 Update. Health Research & Educational Trust. Chicago, IL. 2017. Available at http://www.hret-hiin.org/Resources/mdro/17/mdro_change_package.pdf
- Contact Isolation Skills Competency Checklist. Available at http://www.aanac.org/docs/2015-ltc-leader/n-coley_capstonefinal.pdf?sfvrsn=2
- Get Smart for Healthcare in Hospitals and Long-Term Care. Implementation Resources. Centers for Disease Control and Prevention, CDC. Last Updated May 15, 2017. Available at https://www.cdc.gov/getsmart/healthcare/implementation.html
- Guide to Patient Safety (GPS) Tool. catheterout.org. Available at https://catheterout.org/?q=gps.
- Learn from Defects Tool. Content last reviewed December 2012. Agency for Healthcare Quality and Research, Rockville MD. Available at http://www.ahrq.gov/professionals/education/curriculum-tools/cusptoolkit/toolkit/learndefects.html
- Not Just a Maid Service. Available at https://www.youtube.com/watch?v=nfZftqBELsA
- Options for Evaluating Environmental Cleaning. Centers for Disease Control and Prevention, CDC. Last Updated August 8, 2014. Available at https://www.cdc.gov/hai/toolkits/evaluating-environmental-cleaning.html
- SHEA Strategies to Prevent Methicillin-Resistant *Staphylococcus aureus* Transmission and Infection in Acute Care Hospitals: 2014 Update. Society of Healthcare Epidemiology of America. Available at http://www.jstor.org/stable/pdf/10.1086/676534.pdf?refreqid=excelsior:e02b76925f4586cc50889b3b46d1ac67
- WHO Hand Hygiene Observation Form. Available at http://www.who.int/entity/gpsc/5may/Observation_Form.doc?ua=1

References

1. Calfee DP, Salgado CD, Milstone AM, et al. Strategies to Prevent Methicillin-Resistant *Staphylococcus aureus* Transmission and Infection in Acute Care Hospitals: 2014 Update. *Infect Control Hosp Epidemiol.* 2014; 35(7):772-96.
2. Cohen AL, Calfee DP, Fridkin SK, et al. Recommendations for Metrics for Multidrug-Resistant Organisms in Healthcare Settings: SHEA/HICPAC Position Paper. *Infect Control Hosp Epidemiol*. 2008; 29(10):901-13.
3. Rhee Y, Aroutcheva A, Hota B, Weinstein RA, Popovich KJ. Evolving Epidemiology of Staphylococcus aureus Bacteremia. *Infect Control Hosp Epidemiol*. 2015; 36(12):1417-22.
4. Borg, MA, Hulscher M, Scicluna EA, et al. Prevention of Methicillin-Resistant *Staphylococcus aureus* Bloodstream Infections in European Hospitals: Moving Beyond Policies. *J Hosp Infect*. 2014; 87(4):203-11.
5. Wiener LM, Webb AK, Limbago B, et al. Antimicrobial-Resistant Pathogens Associated With Healthcare-Associated Infections: Summary of Data Reported to the National Healthcare Safety Network at the Centers for Disease Control and Prevention, 2011-2014. *Infect Control Hosp Epidemio*l. 2016; 37(11):1288-1301.
6. Austin ED, Sullivan SB, Whittier S, et al. Peripheral Intravenous Catheter Placement is an Underrecognized Source of *Staphylococcus aureus* Bloodstream Infection. *Open Forum Infect Dis*. 2016; 3(2):ofw072.
7. Simor AE, Pelude L, Golding G, et al. Determinants of Outcome in Hospitalized Patients with Methicillin-Resistant *Staphylococcus aureus* Bloodstream Infection: Results from National Surveillance in Canada, 2008-2012. *Infect Control Hosp Epidemiol*. 2016; 37(4):390-7.
8. Boyce JM, Pittet D, Healthcare Infection Control Practices Advisory Committee: HICPAC/SHEA/APIC/IDSA Hand Hygieine Task Force. Guideline for Hand Hygiene in Healthcare Settings: Recommendations of the Healthcare Infection Control Practices Advisory Committee and the HICPAC/SHEA/APIC/IDSA Hand Hygiene Task Force. *Am J Infection Control*. 2002; 30(8):S1-S46.
9. Pittet D, Hugonnet S, Harbarth S, et al. Effectiveness of a Hospital-Wide Programme to Improve Compliance with Hand Hygiene. Infection Control Programme. *Lancet*; 2000; 356(9238):1307-12.
10. Ellingson K, Haas J, Aiello A, et al. Strategies to Prevent Healthcare-Associated Infections through Hand Hygiene. *Infect Control Hosp Epidemiol*. 2014; 35(8): 937-60.
11. Armellino D, Hussain E, Schilling ME, et al. Using High-Technology to Enforce Low-Technology Safety Measures: The Use of Third-Party Remote Video Auditing and Real-Time Feedback in Healthcare. *Clin Infect Dis*. 2012; 54(1):1-7.
12. Ivers N, Jamtvedt G, Flottorp S, et al. Audit and Feedback: Effects on Professional Practice and Healthcare Outcomes. *Cochrane Database Syst Rev*. 2012; 6:CD000259.
13. Siegel JD, Rhinehart E, Jackson M, Chiarello L, Health Care Infection Control Practices Advisory Committee. 2007. Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Health Care Settings. *Am J Infect Control*. 2007; 35(10 Suppl 2):S65-164.
14. Morgan DJ, Murthy R, Munoz-Price LS, et al. Reconsidering Contact Precautions for Endemic Methicillin-Resistant *Staphylococcus aureus* and Vancomycin-Resistant Enterococcus. *Infect Control Hosp Epicdemiol*. 2015; 36(10):1163-72.

15. Saint S, Gaies E, Fowler KE, Harrod M, Krein S. Introducing a Catheter-Associated Urinary Tract Infection (CAUTI) Prevention Guide to Patient Safety (GPS). *Am J Infect Control*. 2014; 42(5):548-50.
16. Fletcher KE, Tyszka JT, Harrod M, et al. Qualitative Validation of the CAUTI Guide to Patient Safety Assessment Tool. *Am J Infect Control*. 2016; 44(10): 1102-9.
17. Harris AD, Pineles L, Belton B, et al. Effect of Chlorhexidine Bathing and Other Infection Control Practices on the Benefits of Universal Glove and Gown (BUGG) Trial: A Subgroup Analysis. *Infect Control Hosp Epidemiol*. 2015; 36(6):734-7.

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Nevada Alliance Working for Antibiotic Resistance Education (NVAWARE)

Division of Public and Behavioral Health

Akil Williams

01/10/2020

Helping people. It's who we are and what we do.

1

Objective

- At the conclusion of this presentation, each participant will be able to understand:
  - Nevada Alliance Working for Antibiotic Resistance Education (NVAWARE) program and its goals;
  - NVAWARE commitment and mission to increase awareness of antibiotic use;
  - Core elements of antibiotic stewardship;
  - How to accomplish NVAWARE goals through patient education;
  - Training and education tools for staff; and
  - Healthcare facilities role to further reduce the spread of Carbapenem-resistant Enterobacteriaceae (CRE) organisms

2

2

What is Nevada Alliance Working for Antibiotic Resistance Education

- A program developed by the state through guidance from the World Health Organization (WHO) to promote antibiotics stewardship, proper antibiotic practices and education.
  - Goals
    - Reduce microbial resistance to antibiotics by
      - Increasing awareness of the affects of unnecessary practices at medical facilities
      - Discouraging against patients who seek antibiotics when not medically needed

3

3

NVAWARE Mission

- To pledge a commitment to our patients to reduce the spread of antibiotic resistant organisms by reducing the unnecessary use of overprescribing antibiotics and the prevalence of antibiotic-resistant bacteria in Nevada.
  - Mission Goals
    - Raise public awareness and understanding regarding appropriate use of antibiotics
    - Decrease inappropriate use of antibiotics
    - Increase patient awareness of unnecessary use of antibiotics in the medical community

4

4

How can NVAWARE goals be accomplished?

- By taking accountability for over prescribing antibiotics
- By implementing Centers for Disease Control and Prevention (CDC) core elements of antibiotic stewardship for your facility type e.g. hospital, assisted living.

Hospitals	Critical Access Hospitals	Outpatient	Nursing Homes /Long Term Care
Accountability	Accountability	Accountability	Accountability
Pharmacy Expertise	Pharmacy Expertise	Pharmacy Expertise	Pharmacy Expertise
Action	Action	Action	Action
Tracking	Tracking	Tracking	Tracking
Reporting	Reporting	Reporting	Reporting
Education	Education	Education	Education

5

5

How can NVAWARE goals be accomplished?

- By displaying educational information throughout your facility especially in locations where patients are often prescribed antibiotics such as E.Rs, pediatrics, pharmacy, waiting rooms, etc. The information can be found on the CDC AWARE tool kit website.
  - **CDC AWARE tool kits**
    - https://www.cdc.gov/antibiotic-use/week/toolkit.html#anchor_1538595518

6

6

How can NVAWARE goals be accomplished?

- E.g. Viruses or Bacteria: What's Got You Sick?
  - https://www.cdc.gov/antibiotic-use/community/pdfs/aaw/AU_viruses-or-bacteria-Chart_508.pdf

7

How can NVAWARE goals be accomplished?

- E.g. Antibiotics Aren't Always the Answer
  - https://www.cdc.gov/antibiotic-use/community/pdfs/aaw/AU_Arent_Always_The_Answer_fs_508.pdf

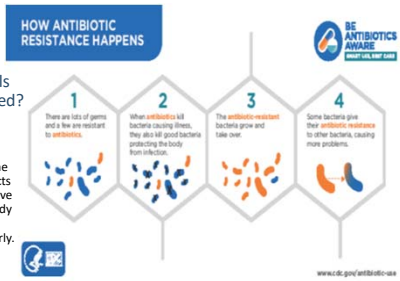
8

How can NVAWARE goals be accomplished?

9

How can NVAWARE goals be accomplished?

- Displaying educational information on the dangers and effects antibiotics can have on the human body when not prescribed properly.



10

How can NVAWARE goals be accomplished?

- Making a commitment to use the core steps of Antibiotic stewardship to improve antibiotic stewardship

11

How can NVAWARE goals be accomplished?

- Making a commitment to educating our patient and prescribe antibiotics only when needed and when it would do greater good than harm.

12

Education and Training

Apply annual antibiotic training to staff members to train their knowledge about antibiotic usage which can be found on the CDC website.

- Antibiotic's Quiz
  - https://www.cdc.gov/antibiotic-use/community/about/quiz.html

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Education and Training

Antibiotic Stewardship Training

- A web-based activity designed to help physicians optimize antibiotic use, combat antibiotic resistance and improve healthcare quality and patient safety, which also offers free Continued Education (CE) certification credits.
  - https://www.train.org/cdctrain/training_plan/3697

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14

Every Health Facilities Role

- Communicate when transferring patients between facilities to reduce the spread of Carbapenem-resistant Enterobacteriaceae (CRE) organisms.
- Communicate with the health department if there is a possible outbreak.
  - DPBHHAI@health.nv.gov or outbreak@health.nv.gov

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Every Health Facilities Role

- Reach 100% use on all core elements of antibiotic stewardship for entire Nevada Healthcare system based on your facility type.
  - Hospitals
    - https://www.cdc.gov/antibiotic-use/core-elements/hospital.html
  - Critical care facilities
    - https://www.cdc.gov/antibiotic-use/core-elements/small-critical.html`
  - Outpatient only facilities
    - https://www.cdc.gov/antibiotic-use/core-elements/outpatient.html
  - Nursing homes and Assisted Living (Long-term care facilities [LTCs])
    - https://www.cdc.gov/longtermcare/prevention/antibiotic-stewardship.html

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NV AWARE Tool Kits

- **CDC AWARE tool kits**

https://www.cdc.gov/antibiotic-use/week/toolkit.html#anchor_1538595518

- Antibiotics Aren't Always the Answer
  - https://www.cdc.gov/antibiotic-use/community/pdfs/aaw/AU_trifold_8_5x11_508.pdf
- Improving Antibiotic Use
  - https://www.cdc.gov/antibiotic-use/community/pdfs/aaw/AU_improving-antibiotics-Infographic_8_5x11_508.pdf
- Viruses or Bacteria: What's Got You Sick?
  - https://www.cdc.gov/antibiotic-use/community/pdfs/aaw/AU_viruses-or-bacteria-Chart_508.pdf
- Do You Need Antibiotics?
  - https://www.cdc.gov/antibiotic-use/community/pdfs/aaw/cdc-au-wait-room-poster-11x17-p.pdf
- How Antibiotic Resistance Happens
  - https://www.cdc.gov/antibioticuse/week/pdfs/How_Antibiotic_Resistance_Happens_508.pdf
- Improve Antibiotic Use to Combat Antibiotic Resistance
  - https://www.cdc.gov/antibiotic-use/week/pdfs/Improve-Antibiotic-Use-Combat-AR-508.pdf

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Questions?

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19

19

Acronyms

- NVAWARE- Nevada Alliance Working for Antibiotic Resistance Education
- CRE- Carbapenem-resistant Enterobacteriaceae
- CDC- Centers for Disease and Prevention
- LTCs- Long-term care facilities
- CE- Continued education

20

20