Guidelines for Vancomycin-Intermediate Staphylococcus aureus and Vancomycin-Resistant Staphylococcus aureus

Policy Owner: Epidemiology

POLICY STATEMENT
The current Center for Disease Control defines vancomycin sensitivity in S. aureus (VSSA) as an MIC <= 2. An MIC >4 but < 8 is considered as having intermediate sensitivity (VISA), while a vancomycin MIC > 16 is considered resistant (VRSA).

Appropriate use of vancomycin may delay or prevent the development of further strains of VISA and the development of VRSA, and needs to be stressed at the AU Health. Nevertheless, prudence dictates the development of clear guidelines for the handling of a patient with such an isolate should it be found. Because of the flow of personnel, particularly physicians and students between AU Health and the Augusta VAMC, these guidelines have been developed jointly so that consistent procedures can be implemented at both institutions. These guidelines are based on recommendations from the CDC (MMWR 1997; 46(27):626-628,635).

AFFECTED STAKEHOLDERS
Indicate all entities and persons within the Enterprise that are affected by this policy:

☐ Administrative Services  ☒ Hired Staff  ☒ Housestaff/Residents & Clinical Fellows  ☒ Leased staff  ☒ Medical Staff (includes Physicians, PAs, APNs)  ☒ Patient Care Services (Nursing, PCT’s, Unit Clerks)  ☒ Professional Services (Laboratory, Radiology, Respiratory, Pharmacy; etc.)  ☐ Vendors/Contractors  ☐ Other:

DEFINITIONS
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PROCESS & PROCEDURES
Laboratory Guidelines

1. All isolates of *S. aureus* should be tested for susceptibility to vancomycin. In addition, repeat isolates from patients who are failing vancomycin therapy should be retested to determine if resistance has emerged on therapy.

2. Any isolate with an MIC $\geq$ 4 should be retested for reduced susceptibility. The laboratory should first ensure that the isolate is in pure culture, and should reconfirm the genus and species of the organism.

3. Hospital Epidemiology should be notified immediately of any suspected VISA/VRSA isolate so that appropriate precautions may be taken (as outlined in the next section) while the confirmatory steps in item 2 are being performed.

4. If repeat testing confirms that the isolate is a VISA/VRSA strain, Hospital Epidemiology shall be notified. They will contact the Georgia Department of Public Health (GDPH), Epidemiology Branch (404-657-2588) and the Centers for Disease Control (CDC), Hospital Infection Program (404-639-6400) to report the “presumptive” isolation of VISA/VRSA.

5. The microbiology lab should preserve the isolate locally for further study, in addition to making arrangements to send the isolate to the CDC for confirmation.

Patient Precautions

1. Patients from whom a presumed VISA/VRSA isolate is obtained should be placed immediately in a **private room**. Should multiple patients be infected or colonized with VISA or VRSA, they can be cohorted in the same room.

2. The patient should be immediately placed on Enhanced Contact Precautions.

3. If the patient has the organism in his/her sputum, caregivers should wear a surgical mask when in the room.

4. Hands must be washed with antimicrobial soap upon leaving the room.

5. The number of healthcare workers entering the room should be severely limited. A nurse who cares for the patient(s) should not care for other patients during that shift. The nurse and primary physician should perform all phlebotomy, vital signs, and to carry meal trays into and out of the room, etc.

6. Patient care equipment (IV poles, pumps, sphygmomanometer, etc.) must stay in the room. A dedicated stethoscope should be provided. The equipment should be thoroughly cleaned with an appropriate disinfectant in the room after the patient is discharged before sending it for normal cleaning. Supplies not cleanable are to be discarded upon discharge.
7. All horizontal surfaces in the patient’s room should be cleaned with an appropriate disinfectant several times a day.

8. The patient shall remain in isolation for the remainder of his or her hospital stay unless cleared by Hospital Epidemiology. Decolonization efforts should be discussed with the Hospital Epidemiologist. The number and types of cultures required to discontinue precautions will be determined on a case-by-case basis by the Hospital Epidemiologist in consultation with the CDC and GDPH.

9. Hospital Epidemiology should be consulted before the patient is discharged. All effort should be made to avoid transferring the patient to another facility. Hospital Epidemiology will confer with the GDPH and the CDC prior to patient discharge.

10. After the patient’s discharge, the room shall be thoroughly cleaned by Environmental Services after discussion with Hospital Epidemiology. The room should not be used for another patient for at least a full 24 hours after cleaning.

11. If the patient was discharged while still on precautions, upon readmission the patient will again be placed in special precautions. Hospital Epidemiology must be notified as soon as possible that the patient has been readmitted. If the patient is thought to be non-infected with VISA/VRSA, attempts may be made to clear the patient, as outlined above.

**Epidemiologic Investigation**

1. After being notified of the identification of a potential VISA/VRSA isolate, Hospital Epidemiology shall ensure that the patient is placed in appropriate isolation.

2. Hospital Epidemiology will educate the nursing and ancillary staff of the unit where the patient is located about the special precautions. The Hospital Epidemiologist will discuss the details of isolation with the patient’s physician.

3. Hospital Epidemiology will contact the Nurse Manager of all the units where the patient has been housed, as well as the managers of the appropriate ancillary services to get a list of personnel who may have cared for the patient. Hospital Epidemiology will also review the chart to determine who may have seen the patient.

4. Nares cultures will be done on the following to determine if there is colonization:
   a. Any roommates of the patient.
   b. All ICU patients if the patient was in an ICU.
   c. All personnel who have had contact with the patient.

5. Healthcare workers caring for the patient will have surveillance cultures of the
nares done every two weeks.

6. Healthcare workers found to be colonized with VISA/VRSA will be sent home and not allowed to work in the hospital (in any capacity) until decolonized. Hospital Epidemiology will work with Employee Health to treat the employee with mupiricin or other agents in an effort to eradicate the organism.

7. The number and types of cultures required to allow the employee back to work will be determined by the Hospital Epidemiologist in consultation with the CDC and GDPH.

REFERENCES, SUPPORTING DOCUMENTS, AND TOOLS
The CDC guidelines (MMWR 1997; 46(27):626-628,635) for vancomycin-intermediate Staphylococcus aureus (VISA).

RELATED POLICIES
Hand Hygiene Policy
Transmission Based Precautions

APPROVED BY
Chief Executive Officer, AU Medical Center

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