



## Communicable Disease Case Reporting and Investigation Protocol **VANCOMYCIN-INTERMEDIATE AND VANCOMYCIN-RESISTANT STAPHYLOCOCCUS AUREUS INFECTIONS**

### **I. IDENTIFICATION AND DEFINITION OF CASES**

#### **A. Clinical Description:**

*Staphylococcus aureus* causes a variety of syndromes, including skin and soft tissue infections, empyema, bloodstream infections, sepsis, pneumonia, osteomyelitis, septic arthritis, endocarditis, and meningitis. Some individuals may carry *S. aureus* with no symptoms of illness. While most isolates of *S. aureus* are susceptible to the antibiotic vancomycin, rare infections may be caused by isolates that are not fully susceptible or resistant. These are known as vancomycin-intermediate *Staphylococcus aureus* (VISA) and vancomycin-resistant *Staphylococcus aureus* (VRSA), respectively.

#### **B. Laboratory Criteria:**

Isolation of *S. aureus* from any body site, **and** the isolate has a minimum inhibitory concentration (MIC) of 4–8 ug/ml (VISA) or MIC  $\geq$  16 (VRSA), detected and defined according to the Clinical and Laboratory Standards Institute (CLSI)-approved standards and recommendations.

#### **C. Wisconsin Surveillance Case Definition:**

Confirmed: An isolate of *S. aureus* confirmed to meet laboratory criteria by testing at the Wisconsin State Laboratory of Hygiene (WSLH).

### **II. REPORTING**

- A. Wisconsin Disease Surveillance Category II – Methods for Reporting:** VISA and VRSA infections shall be reported to the patient's local health officer or to the local health officer's designee within 72 hours of recognition of a case or suspected case, per Wis. Admin. Code § DHS 145.04 (3) (b). Report electronically through the Wisconsin Electronic Disease Surveillance System (WEDSS), or mail or fax a completed Acute and Communicable Disease Case Report ([F-44151](#)) to the address on the form.

Laboratories must submit isolates of *S. aureus* with vancomycin susceptibility test results of MIC  $\geq$  16 ug/ml to the WSLH for confirmatory testing.

- B. Responsibility for Reporting:** According to Wis. Admin. Code § [DHS 145.04\(1\)](#), persons licensed under Wis. Stat. ch. [441](#) or [448](#), laboratories, health care facilities, teachers, principals, or nurses serving a school or day care center, and any person who knows or suspects that a person has a communicable disease identified in [Appendix A](#).
- C. Clinical Criteria for Reporting:** None.
- D. Laboratory Criteria for Reporting:** Isolation of *S. aureus* from any body site, **and** the isolate tests intermediate or resistant to vancomycin, (MIC 4–8 ug/ml for VISA and MIC  $\geq$  16 for VRSA), detected and defined according to the CLSI-approved standards and recommendations.

### **III. CASE INVESTIGATION**

- A. Responsibility for case investigation:** It is the responsibility of the local or Tribal health department (LTHD) to investigate or arrange for investigation of suspected or confirmed cases as soon as is reasonably possible. A case investigation may include information collected by phone, in person, in writing, or through review of medical records or communicable disease report forms, as necessary and appropriate. The Wisconsin Healthcare-Associated Infections (HAI) Prevention Program within the Division of Public Health (DPH) is available to assist or lead these investigations and support LTHDs and facilities through not only the case identification, but ongoing response.
- B. Required Documentation:**

1. Complete the WEDSS disease incident investigation report, including appropriate, disease-specific tabs.

#### IV. PUBLIC HEALTH INTERVENTIONS AND PREVENTION MEASURES

- A. In accordance with Wis. Admin. Code § [DHS 145.05](#), local public health agencies should follow the methods of control recommended in the current editions of *Control of Communicable Diseases Manual*, edited by David L. Heymann, published by the American Public Health Association, and the American Academy of Pediatrics' *Red Book: Report of the Committee on Infectious Diseases*, unless otherwise specified by the state epidemiologist.
- B. Patients should be managed according to recommendations described in the DPH "[Guidelines for Prevention and Control of Multidrug-Resistant Organisms in Health Care Settings](#)," and the Centers for Disease Control and Prevention (CDC) "[Management of Multidrug Resistant Organisms in Healthcare Settings, 2006](#)." Special attention should be given to restriction of vancomycin use.

#### V. CONTACTS FOR CONSULTATION

- A. Local health departments or Tribal health agencies: <https://www.dhs.wisconsin.gov/lh-depts/index.htm>
- B. HAI Prevention Program: [dhswhaipreventionprogram@dhs.wisconsin.gov](mailto:dhswhaipreventionprogram@dhs.wisconsin.gov), 608-267-7711
- C. DPH, Bureau of Communicable Diseases, Communicable Diseases Epidemiology Section: 608-267-9003
- D. Wisconsin State Laboratory of Hygiene: 1-800-862-1013

#### VI. RELATED REFERENCES

- A. Heymann DL, ed. Staphylococcal Diseases. In: *Control of Communicable Diseases Manual*. 21th ed. Washington, DC: American Public Health Association, 2022: 591-603.
- B. Pickering LK, ed. Staphylococcal Infections. In: *Red Book: 2015 Report of the Committee on Infectious Diseases*. 30th ed. Elk Grove Village, IL: American Academy of Pediatrics, 2015: 715-732.
- C. Clinical and Laboratory Standards Institute. Performance standards for antimicrobial susceptibility testing. 25<sup>th</sup> informational supplement. M100-S25. Wayne, PA: CLSI, 2015.
- D. CDC website: <https://www.cdc.gov/staphylococcus-aureus/about/vancomycin-resistant-staph.html>
- E. Wisconsin Department of Health Services website: <https://www.dhs.wisconsin.gov/disease/visa-vrsa.htm>