

## **Vancomycin Susceptibility Testing on isolates of *S. Aureus***

### **Contraindication of vancomycin susceptibility testing by disk diffusion method**

#### **Questions:**

***Your infectious disease clinician informs you that a dialysis patient with nosocomial bacteremia due to MRSA has been referred to your hospital, and you have been told that the isolate is susceptible to vancomycin by a disk diffusion test, but the patient is not doing well on vancomycin. What action does your laboratory take?***

***No further testing is necessary***

***Repeat the disk diffusion test for vancomycin***

***Perform a vancomycin MIC on the isolate***

***Perform an oxacillin salt agar screening test on the isolate***

***Amend the result to vancomycin resistant***

#### **Discussion:**

**The following specific information for isolates of Salmonella and Shigella is provided in the Clinical and Laboratory Standards Institute (CLSI) guidelines:**

**MIC tests should be performed to determine the susceptibility of all isolates of staphylococci to vancomycin. The disk test does not differentiate vancomycin-susceptible isolates of *S. aureus* from vancomycin-intermediate isolates, nor does the test differentiate among vancomycin-susceptible, intermediate, and resistant isolates of coagulase-negative staphylococci, all of which will give similar size zones of inhibition.<sup>1</sup>**

**Disk testing is not reliable for testing vancomycin.<sup>2</sup>**

#### **Answers:**

***Perform a vancomycin MIC on the isolate***

<sup>1</sup> CLSI M100-S19, Table 2C (16), Pg 56

<sup>2</sup> CLSI M100-S19, Table 2C (19), Pg 56