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.¹

Disk testing is not reliable for testing vancomycin. ²

Answers:

*Perform a vancomycin MIC on the isolate*

¹ CLSI M100-S19, Table 2C (16), Pg 56
² CLSI M100-S19, Table 2C (19), Pg 56