The increased utilization of linezolid (LZD) for treating serious Gram-positive infections has prompted this multicenter study to determine if errors do exist. ATCC 25923 has been used as the QC comparator control. All replicates utilized a 0.5 McFarland standard inocula and plates were incubated for 16-18 hr in 5% CO2 as recommended by NCCLS guidelines. A total of 420 LZD (20 µg/mL) zone diameter values were measured.

**RESULTS**

All 420 determinations were complete for all participants. The mean and median zone diameters of S. aureus ATCC 25923 were 28 mm (121) and 27 mm (121) with 95.7% of participant results within this modified QC range (27 - 31 mm). All VANC zone diameters were with NCCLS QC ranges (control). Using NCCLS statistical procedures for QC ranges, a range modification that was successful for VANC was functional. These results were compared to the QC zone diameters reported by the participants in the KB-ZAPS trial for linezolid published in 2001.

**CONCLUSIONS**

These results support revision of the NCCLS QC guidelines for testing S. aureus ATCC 25923. The mode was 28 mm with 306 of 311 (98.4%) linezolid 30-µg disk zones within the currently recommended NCCLS QC range (27 - 31 mm). The interpretations of bacteristatic agents (linezolid) using measured zone diameter can be difficult and these technical issues can produce greater variation between technologists performing these tests (similar zone diameters).

- Utilizing the current NCCLS defined linezolid QC range for S. aureus ATCC 25923 creates unacceptable proportions of “out of range” zone diameter results.
- Clinical laboratories can not confidently report linezolid results with the current QC range recommendations.
- The interpretations of bacteristatic agents (linezolid) to measure zone diameter can be difficult and these technical issues can produce greater variation between technologists performing these tests (similar zone diameters).
- The data generated in this study (confirmed in a 106 laboratorystudy) is consistent with previous findings reported in the 2001 ICAC, and suggests that the more conservative, modified range (25 - 31 mm) should be considered to provide better linezolid QC range for S. aureus ATCC 25923.

- Note: Since the submission of this abstract, the NCCLS has modified this QC range for publication in 2003.

**SELECTED REFERENCES**


