ABSTRACT

Background: TR-700 is a novel antibacterial oxazolidinone. It demonstrates potent activity against gram-positive bacteria, and was selected for further development after a successful phase II clinical trial. This study was undertaken to compare the accuracy and reproducibility of the Sensititre 18–24 hour broth microdilution system (Sensititre; TREK Diagnostic Systems, Cleveland, OH) with TR-700 compared to the CLSI (M07) reference broth microdilution method (BMD). TR-700 was tested over the range of 0.015–32 \( \mu \)g/ml.

MATERIALS & METHODS

- **Organisms Tested:** A total of 40 isolates were tested, including 20 control strains (20 replicates of each tested) and 20 test organisms.
  - **Control Strains:**
    - S. pyog. 1
    - S. pneumo. 0.25
    - MRSA 0.25
    - E. faec. 0.5
    - S. aureus 0.06
    - C. alb. 0.06
    - S. pyogenes 0.12
    - C. glabrata 0.06
    - S. pneumoniae 0.25
    - E. coli 0.25
  - **Test Organisms:**
    - S. pyog. 1
    - S. pneumo. 0.25
    - MRSA 0.25
    - E. faec. 0.5
    - S. aureus 0.06
    - C. alb. 0.06
    - S. pyogenes 0.12
    - C. glabrata 0.06
    - S. pneumoniae 0.25
    - E. coli 0.25

- **MATERIALS & METHODS:** The study was performed in triplicate on 3 separate days. Any results on reproducibility testing with a greater than +/- one log dilution error were repeated in triplicate on the dried plate and the reference plate. Reproducibility was calculated as the percentage of results within +/- one log dilution of the modal value. Overall agreement for each antimicrobial was calculated as the percentage of results within +/- one log dilution of the modal value. The overall essential agreement for TR-700, within a +/- one log dilution range, was 100%, after repeat testing, using the manual method.

RESULTS

- **Susceptibility Testing Methods:** Each isolate was tested using a custom dried plate (Sensititre 18–24 hour susceptibility system) containing TR-700 and was set up according to the manufacturer’s instructions.

- **Interlaboratory reproducibility was 100% for TR-700 and all comparator drugs.**

CONCLUSION

The Sensititre 18–24 hour dried susceptibility system demonstrated an equivalent level of performance to the CLSI M07 reference broth microdilution method for susceptibility testing of TR-700.

REFERENCES
