Vancomycin-Resistant Enterococci of vanB Genotype May Pose Problems for Screening with Highly Selective Media

In a recently published article, Peltroche-Llacsahuanga and colleagues (2) compared the performance of two chromogenic media, i.e., chromID VRE (bioMérieux, Marcy l’Etoile, France) and CHROMagar VRE (Chromagar, Paris, France). Screening 259 stool samples for vancomycin-resistant enterococci (VRE), they detected a total of 55 vancomycin-resistant Enterococcus faecium isolates, 54 of them harboring a vanA resistance gene and only 1 harboring vanB. Comparing these two highly selective media, they concluded that the sensitivity of the test was 98.2%. We agree that the chromID VRE is highly specific for VRE. However, our own evaluation indicates a lower sensitivity of this medium.

While evaluating different methods for VRE screening, we inoculated a set of 51 well-characterized enterococcal isolates (26 E. faecium and 25 E. faecalis) onto the chromID VRE and Enterococcosel agar containing 8 mg/liter vancomycin (Becton Dickinson Diagnostic Systems, Sparks, MD). Twenty-four isolates were vancomycin susceptible, and 27 were vancomycin resistant (12 vanA, 14 vanB, 1 both vanA and vanB). Vancomycin MICs for isolates harboring vanA were >256 mg/liter, and MICs for isolates with vanB were 4 to >256 mg/liter. The chromID VRE agar inhibited the growth of all enterococci that did not harbor vanA or vanB. Growth was detected in 23 of 27 isolates harboring vanA or vanB. While all isolates that grew on chromID VRE had vancomycin MICs of >8 mg/liter, the 4 isolates that failed to grow had vancomycin MICs between 4 and 8 mg/liter and harbored vanB. The sensitivity of the medium was thus 85.2%. In contrast, on Enterococcosel agar all isolates harboring vanA and 13 of 14 isolates harboring vanB were detected. We conclude that VRE of the vanB genotype which may have vancomycin MICs as low as 4 mg/liter (1) may go undetected with the chromID VRE. Comparing the chromID VRE with another highly selective medium, as done by Peltroche-Llacsahuanga et al., may miss this fact and overestimate the sensitivity of the medium.

REFERENCES


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Published ahead of print on 21 April 2010.