Abstract
Tigecycline is a broad spectrum antibiotic having activity against multiresistant isolates. In vitro susceptibility testing is difficult to perform with the use of traditional microbiological techniques. The aim of this study was to evaluate the disk diffusion test with three different Mueller-Hinton agar brands, and the Vitek 2 automated system in comparison with the standard broth microdilution method against 200 gram-negative isolates (Escherichia coli, Klebsiella pneumoniae, Enterobacter cloacae, Serratia marcescens and Acinetobacter baumannii). Among Enterobacteriaceae, the Becton Dickinson agar had the lowest rate of minor (32.5%) and major errors (3.8%). No very major errors were found. For A. baumanni, the rate of minor and major errors was lower. A high rate of agreement (94%) was found between the broth microdilution method and the Vitek 2 system. Our results show that there are important differences between agars used for the disk diffusion test, and that Vitek 2 is a valid tool for susceptibility testing in clinical laboratories.

Keywords
Tigecycline, antimicrobial susceptibility tests, disk diffusion method, Vitek 2 system, gram-negative bacteria.