The spread of multi-resistant Gram-negative bacilli worldwide is a growing public health problem. Tigecycline and colistin are antimicrobials used in the treatment of infections caused by these microorganisms. For the evaluation of susceptibility to these antimicrobials the gold standard is the non-automated broth microdilution method, but automated systems have been widely used throughout Brazil.

In this work results obtained with the automated VITEK2 Compact system (Biomerieux) for tigecycline and colistin were compared to those obtained with microdilution in non-automated in house broth microdilution panels prepared with Mueller-Hinton cation broth and 96-well untreated polystyrene plates. Only strains resistant to at least one of the carbapenems (imipenem or meropenem) were included in this study. Recent consecutive isolates of Klebsiella pneumoniae and Acinetobacter baumannii complex, one per patient, were tested in a tertiary hospital in the city of São Paulo. A total of 80 isolates were tested for tigecycline and 50 for colistin and polymyxin B. Errors were classified according to CLSI document M52.

For colistin there was 90% categorical agreement. Among the discordant results, 6% were classified as major error (ME), and 4% were classified as very major error (VME) because they presented sensitivity in the automated method and resistance in the gold standard.

For tigecycline, there was low agreement (33.7%). Among discordants, 15% were classified as minor error and 51.2% were classified as ME.

For the two antimicrobials analyzed, error rates above the maximum allowed (1.5% VME and 3% ME) were observed, and for tigecycline the categorical agreement was below the acceptable minimum of 90% and there was a unacceptable ME rate.

In conclusion, tigecycline and colistin sensitivity results obtained with the Vitek 2 system for *K. pneumoniae* and *Acinetobacter baumanii* should not be reported in laboratory results.