Abstract

The identification (ID) and antimicrobial susceptibility testing (AST) of clinically significant bacteria provide essential information for the effective management of patients with infectious diseases. In the present study 212 isolates from hospitalized patients were tested by VITEK and traditional overnight methods in order to determine the accuracy of automated VITEK for ID and AST. The type and number of isolates tested were: 94 Enterobacteriaceae isolates, 67 non-glucose-fermenting gram-negative-rods, 29 coagulase-negative-staphylococci, 22 Enterococcus spp. and 21 S. aureus (for AST only). The 98.1% of the isolates was correctly identified at genera and species level and the concordance in AST was 99.5%. The turnaround time (TAT) for the reporting AST results was 7.8 h using VITEK and 24 h for Kirby Bauer. Change in the antimicrobial therapy using VITEK susceptibility results could have been made 16 hs sooner than using conventional methods, in 46% of the patients evaluated. The conclusion is that the inclusion of rapid methods for bacterial identification and susceptibility tests might improve the management of infected patients.

Keywords

VITEK, identification, antimicrobial susceptibility.