



We assessed ELITE MGB® assays in blood culture workflow to detect main carbapenemase and ESBL genes, Staphylococcus aureus and mec genes in less than 3h” Bianco et al (2019).

Abstract:

Molecular assays may constitute a valid method to timely predict antimicrobial resistance and optimize empirical antibiotic therapies. We assessed ELITE MGB® assays in blood culture workflow to detect main carbapenemase and ESBL genes, Staphylococcus aureus and mec genes in less than 3h. Excellent agreement results between genotypic and conventional phenotypic approaches were obtained.

Retrospective analysis of medical records revealed that approximately 50% of bloodstream infections caused by ESBL-producing Enterobacteriaceae, carbapenemase-producing Enterobacteriaceae, or MRSA were initially treated with inactive drugs. Overall, 36.3% of patients could have been treated with appropriate therapy almost 24h early if molecular data had been used.

You may also be interested in...

- Procedure for drawing blood cultures through IV catheters
- Impact of blood culture reduction on antibiotic use in pediatrics
- Reducing blood culture contamination in an intensive care unit

Reference:

Bianco, G., Boattini, M., Iannaccone, M., Sidoti, F., Cavallo, R. and Costa, C. (2019) Detection of antibiotic resistance genes from blood cultures: performance assessment and potential impact on antibiotic therapy management. *The Journal of Hospital Infection*. March 21st. . DOI: <https://doi.org/10.1016/j.jhin.2019.03.007>.

