

COMPARISON OF BACTEC PLUS BLOOD CULTURE MEDIA TO BACT/ALERT FAN PLUS BLOOD CULTURE MEDIA FOR IDENTIFICATION OF BACTERIAL PATHOGENS IN CLINICAL SAMPLES CONTAINING ANTIBIOTICS

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Aim: In this study, we aimed to compare aerobic and anaerobic BacTec Plus blood culture bottles containing Resin and BacT/Alert Plus blood culture media containing polymeric beads in terms of microorganism detection rates and time to detection in septic patients receiving antibiotic therapy.

Material and Methods: Blood culture samples were taken from the patients who are under antibiotic therapy in the intensive care unit (ICU). The samples were equally inoculated on Bactec Plus aerobic (BA), Bactec Plus anaerobic (BN), BacT/Alert Plus aerobic (FA Plus) and BacT/Alert Plus anaerobic (FN Plus) culture media. Bactec Plus and BacT/Alert Plus media were compared in terms of culture positivity rates and isolation durations.

Results: Bacterial or fungal isolates of 176 (3.92%), 144 (3.21%), 154 (3.43%) and 126 (2.81%) were detected in the total of 4480 BA, BN, FA Plus and FN Plus blood culture bottles analyzed respectively. Microorganism growth rate was higher in Bactec (BA and BN) culture bottles compared to those in the BacT/Alert (FA Plus and FN Plus) culture bottles. In Bactec Plus culture media, time to detection was found lower than that of BacT/Alert Plus culture media.

Conclusion: The results of this study showed that resin-containing media is a reliable and time-saving tool for patients who are receiving antibiotic treatment due to sepsis in the ICU.

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