STANDARDIZATION OF THE BLOOD CULTURE COLLECTION PROTOCOL FOR ADULT PATIENTS UNDERGOING ANTIBIOTIC THERAPY IN INTENSIVE CARE UNITS.

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INTRODUCTION

Blood Culture is a laboratory test performed to identify the presence of circulating microorganisms, and thereby support the physician in choosing a better therapeutic course. The positivity index can vary according to the type and complexity of the institution, with an average of 10 to 15%. The quality of the sample collected is what translates the test outcome. Microbiology laboratories still have a huge deficiency to isolate these microorganisms, particularly due to lack of standardization and application of the techniques for collecting this material.

OBJECTIVE

The purpose of this protocol is to standardize the collection of blood cultures in adult patients who are already using antibiotics in intensive care units, considering the half-life of the drug and the timing of the collection of the test, where the antibiotic effect may be lower and consequently increase the positivity of blood cultures.

METHOD

A prospective exploratory study, with national coverage through a pilot project in Brazilian hospitals in adult intensive care units, both private and public, that have clinical pharmacy active in intensive care units. Only adult (medical and surgical) patients with suspected infection hospitalized in these units, already using antibiotics and hospitals using activated charcoal culture, a substance that reduces the interference of the use of antibiotics, will be part of the study. Each hospital should select pharmacists who will be responsible for the analysis of the medical prescription, the half-life of the antibiotic in use and the timing of the collection. Hospitals will be monitored for a period of 6 months. The markers used will be: Percentage of positive blood culture; Percentage of infections per total specific microorganism, Percentage of infections detected via laboratory tests;

RESULTS

The standardization aims to adapt the medical indication, number of samples, volume and collection intervals, leading to an increase in the blood culture positivity index, a reduction in the use of broad spectrum antibiotics and a reduction in hospital admission rates, as well as patient exposure to puncture risk.

CONCLUSION

There is a high number of infections treated empirically, due to lack of positivity. On the other hand, the price of a blood culture collection is expensive for the laboratory. The standardization of the collection protocol integrates strategies that will contribute to the best clinical outcome of the patient since the assertive and directed treatment promotes early dehospitalization. Additional studies are necessary in order to demonstrate the impact of rational drug use in reducing hospitalization costs and the incidence of multidrug resistant bacteria.

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