

TITLE: FREQUENCY OF MICROORGANISMS ISOLATED FROM HEMOCULTURES OF THE PEDIATRIC ICU IN A TERTIARY TEACHING HOSPITAL IN SOBRAL, CEARÁ, BRAZIL

AUTHORS: FONSECA, M.X.Q.C.¹; LINHARES, I.P.B.^{1,2}; MORAIS, A.J.A.¹; RODRIGUES, M.R.P.¹; PINTO, V.P.T.^{1,2}; BARBOSA, F.C.B.¹

INSTITUTIONS: ¹FEDERAL UNIVERSITY OF CEARÁ (AV. COMANDANTE MAUROCÉLIO ROCHA PONTE, 100, SOBRAL/CE, CEP: 62042-280, BRAZIL); ²SANTA CASA DE MISERICÓRDIA DE SOBRAL (R. ANTÔNIO CRISÓSTOMO DE MELO, 919, SOBRAL/CE, CEP: 62010-550).

ABSTRACT:

The hospital environment has factors that make patients more susceptible to nosocomial infections. Microbial resistance is a serious public health problem worldwide, particularly due to the high mortality and the limited number of therapeutic options. The dissemination of multidrug-resistant microorganisms is a reality in hospitals, constituting an important health problem. The infections of major concern for health professionals are those that occur in the units that treat patients more susceptible to infection, such as the pediatric Intensive Care Unit (ICU). The epidemiological surveillance of these infections plays a fundamental role in the prevention and control of these agents, anticipating the dissemination of microorganisms from other units. The aim of this study was to analyze the frequency of microorganisms isolated from hemocultures of the pediatric ICU in a teaching hospital in Sobral – CE, Northeast of Brazil. This is an analytical, cross-sectional study with a quantitative approach. A total of 68 pediatric ICU blood isolates were identified from January to December 2016. Data were collected through reports obtained from VITEK® 2 equipment. The most frequent bacteria isolated were: *Staphylococcus epidermidis* (27.9%), *Staphylococcus hominis* ssp. *hominis* (11.8%), *Pseudomonas aeruginosa* (10.3%), and *Serratia marcescens* (8.8%). The isolation rate of *Staphylococcus aureus*, *Staphylococcus haemolyticus*, and *Stenotrophomonas maltophilia* was 4.4%, followed by 2.9% of *Acinetobacter baumannii*, *Burkholderia cepacia*, *Candida albicans*, *Klebsiella pneumoniae* ssp. *pneumoniae*, and 1.5% of *Achromobacter xylosoxidans*, *Bordetella bronchiseptica*, *Candida famata*, *Candida parapsilosis*, *Candida pelliculosa*, *Escherichia coli*, *Klebsiella pneumoniae* ssp. *ozaenae*, *Kocuria kristinae*, *Sphingomonas paucimobilis*, *Staphylococcus capitis*, *Streptococcus intermedius*. Therefore, during the period evaluated, the microorganisms with the highest prevalence in blood cultures was *Staphylococcus epidermidis*, *Staphylococcus hominis* ssp. *hominis* and *Pseudomonas aeruginosa*. In view of this situation and the consequences of microbial resistance, it is natural to elaborate and implement more effective measures for the prevention and control of infections through the periodic analysis of blood cultures seeking to trace the microbiological profile, reinforcing the concern with the control of these microorganisms and their dissemination due to uncontrolled use of antibiotics.

Keywords: Frequency; hemocultures; pediatric ICU; *Staphylococcus epidermidis*; teaching hospital.

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