

ABSTRACT

COMPARISON ANALYSIS OF THE ANTIBIOTIC SENSITIVITY TEST AND EXTENDED SPECTRUM BETA LACTAMASE (ESBL) IN *Escherichia coli* FROM THE FECES OF MEDICAL PERSONNEL IN ADULT INPATIENT UNIT AND CHILDREN INPATIENT UNIT RSUD.DR.ABDUL MOELOEK LAMPUNG

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Background: Nosocomial infection is an infectious disease which has a high mortality and morbidity rates in the world. Most of Gram-negative bacteria have characteristics as bacteria Extended Spectrum Beta lactamase (ESBL) is an enzyme that can hydrolyze and inactivate various beta-lactam ring at the beta-lactam class of antibiotics. The aim of this study was to compare antibiotic sensitivity test and the presence of *Extended Spectrum Beta lactamase (ESBL)* produced by *Escherichia coli* bacteria from samples of medical staff in adult room and children room RSUD.DR. Abdul Moeloek Lampung.

Methods: This research method is comparative analytic with cross sectional approach. Population in this study was all medical staff in adult room and children room RSUD.DR. Abdul Moeloek. There was 64 samples taken from population and using a sampling technique that is disproportionate stratified sampling. Feces are taken as much as 1 gram, then dissolved into *Brain Heart Infusion (BHI)*.

Result: The result showed that as many as 22 *Escherichia coli* bacteria found in feces medical staff. There is no significant difference between the *E. coli* found in adult and children room with sensitivity antibiotic amoxicillin, ampicillin, cefadroxil, cefuroxime and sulfametoxazol with p value > 0.05.

Conclusion: The results obtained from the examination of the confirmation test of 22 samples of *E. coli* taken from feces nurses are negative ESBL. So it can not be computed using statistical test.

Keywords : beta lactam antibiotics, esbl, *e. coli* , nosocomial infection.