DESCRIPTION OF BACTERIAL AGENTS CAUSING INFECTION ISOLATED FROM PATIENT SAMPLES AT CAN THO UNIVERSITY OF MEDICINE AND PHARMACY HOSPITAL FROM JULY 2021 TO DECEMBER 2021

Nguyen An Khuong*, Nguyen Thi Hai Yen, Nguyen Thi Be Hai, Huynh Phuc Thinh, Nguyen Trong Nhan, Hua Thi Ngan Tam, Pham Nhu Thao Ngoc

Can Tho University of Medicine and Pharmacy

**Corresponding author: khuongnguyen.yct@ctump.edu.vn*

ABSTRACT

Background: *Understanding the characteristics and prevalence of each bacterial agent in the survey of specimens can guide the development of research and treatment priorities for clinicians.* ***Objectives****: 1). To determine the positive culture rate from patient samples at Can Tho University of Medicine and Pharmacy Hospital from July 2021 to December 2021; 2). To determine the percentage of bacteria isolated from patient samples at Can Tho University of Medicine and Pharmacy Hospital from July 2021 to December 2021.* ***Materials and methods:*** *A cross-sectional descriptive study was conducted on patient samples. Bacterial agents causing infections were isolated and identified from patient samples.* ***Results:*** *After culturing all the samples for 6 months and defining the positive ones, we got the general positive rate was 38.35%, and the positive culture rate of pus samples was the highest (68.49%), while the positive culture rate of blood and pleural fluid samples was the lowest (with 5.24% and 3.22%, respectively). Among the isolates, S. aureus accounted for the highest rate (28.3%), S. pneumoniae (16.6%), Staphylococcus spp. (13.2%), Klebsiella spp. (12.1%), E. coli (9.4%), Pseudomonas aeruginosa (7.2%), Acinetobacter spp. (6%), Citrobacter spp. (3.8%), Stenotrophomonas maltophilia (0.8%), Enterobacter spp. (0.8%), and Burkholderia (0.4%); The gram-positive bacteria group predominated with the rate of 59%, 1.45 times higher than that of the gram-negative bacteria group (accounting for 41%); Gram-positive bacteria predominated in pus, sputum and other fluid specimens, while gram-negative bacteria predominate in urine specimens.* ***Conclusion:*** *The positive culture rate was 38.35%. Of all the bacteria isolated, Staphylococcus aureus accounted for the highest proportion (28.3%), in contrast, Burkholderia accounted for the lowest percentage (0.4%).*

Keywords*: Positive culture rate, patient samples, isolation.*