OCCURRENCE OF ANTIBIOTIC RESISTANCE IN GRAM NEGATIVE BACTERIA ISOLATED FROM PATIENTS AT THE PRIMARY HEALTHCARE CENTER IN SURABAYA

DIAN NATASYA RAHARJO*[1], MARIANA WAHYUDI[2], ARUM MUBARAQAH HAJI ABDULLAH[1], HESTYANTI IRAWAN[1], ANASTASIA KRESENSIA TAA[1], AMALLIA PUTRI ARIANTI[1]

[1] Faculty of Pharmacy, University of Surabaya, Indonesia, [2] Faculty of Technobiology, University of Surabaya, Indonesia

natasya@staff.ubaya.ac.id

ABSTRACT

The objective of this study was to evaluate the occurrence of antibiotic resistance in gram negative bacteria in the Primary Healthcare Center in Surabaya. This study was a preliminary study, conducted in four Primary Healthcare Center in Surabaya during April until June 2017. Thirteen pathogens of gram negative bacteria were isolated from 49 specimens during the research period. Those isolates were 6 *Klebsiella pneumoniae,* 2 *Klebsiella ozaenae,* 2 *Pseudomonas* sp*.,* 1 *Salmonella paratyphi A,* 1 *Acinetobacter* sp. and 1 *Escherichia coli.* The susceptibility test showed that all isolates were resistant to ampicillin, meanwhile all of *Klebsiella pneumonia* and *Klebsiella ozaenae* isolates still sensitive towards amoxicillin-clavulanat, trimethoprim-sulfamethoxazol, ciprofloxacin, and tetracycline. Furthermore, The *Pseudomonas* sp. and *Acinetobacter* sp. isolates not only resistant towards ampicillin, they also resistant to amoxicillin-clavulanat and trimethoprim-sulfamethoxazol, the *Escherichia coli* isolate also resistant to trimethoprim-sulfamethoxazol and tetracycline, and the *Salmonella paratyphi A* isolate also resistant towards ampicillin and ciprofloxacin. Based on this study, it can be concluded that all of gram negative bacteria isolated during the research period were resistant to ampicillin and there were some incidence of amoxicillin-clavulanat, trimetophrim-sulfomethoxazol, tetracycline, and ciprofloxacin resistance in gram negative bacteria isolated from patients at the four primary healthcare center in Surabaya.

Keywords : antibiotic, resistance, gram negative, healthcare center