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pp53. WHO Priority Pathogenic Bacteria Isolated from Clinical Microbiology Laboratory in Sanglah General Hospital Denpasar, Bali from December 2018 - May 2019

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Abstract

Background: In the era of global antimicrobial resistance, the World Health Organization (WHO) issues a list of Global Priority Pathogens (PPL) grouped in 3 (three) priority levels: Critical-priority, High-priority and Medium-priority group. Pathogens that included in Critical-priority group are Carbapenem-resistant A.baumanii, P.aeruginosa and Enterobacteriaceae which are resistant to Carbapenem and third generation Cephalosporin. Pathogens in High-priority group are Vancomycin-resistant E.faecium, Methicillin and Vancomycin-resistant S.aureus, Fluoroquinolone-resistant Salmonella spp. Moreover, the Moderate-priority group pathogens are Penicillin-resistant S. pneumonia and Fluoroquinolone-resistant Shigella spp.

Objective: This study was conducted to determine antimicrobial - resistant pathogen at Sanglah General Hospital from December 2018 to May 2019.

Methods: This study is a retrospective descriptive based on WHO PPL at Clinical Microbiology Laboratory.

Results: It was observed 1,229 clinical isolates. The isolate that included in Critical-priority group were 1,187 isolates. The most identified pathogen in Critical-priority group is Enterobacteriaceae that was resistant to third generation Cephalosporins (E. coli 61% and K. pneumoniae 56%). The other Critical-priority pathogen is Carbapenem-resistant A.baumanii(56%) and Carbapenem-resistant P.aeruginosa(14%). About 166 isolates belong to High-priority group and Methicillin-resistant S.aureus was the most identified pathogen in High-priority group (35%). Only 4 isolates (100%) were included in the Medium-priority group, that were Fluoroquinolone-resistant.

Conclusion: It can be concluded that the rate of resistance of a group of pathogen to the best antimicrobial group for the pathogen group is very high, and has become a threat in clinical practice. Therefore, rational antimicrobial administration is very important to prevent the increasing number of antimicrobial resistance.

Keywords: WHO pathogen priority, antimicrobial resistance, RSUP Sanglah

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