Abstract

Study of Antibiotic Use and Quantitative Evaluation in Clean-Contaminated Surgical Inpatients
(Study at the Surgical Unit Bhayangkara H.S Samsoeri Mertojoso Hospital Surabaya)

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Resistance is the biggest problem in antibiotic therapy and mortality rate due to resistance is high. In a study conducted in USA in 2015, 30% of prescribed antibiotics were not properly indicated. Data in 6 hospitals in Indonesia in 2016 showed that antibiotic use of around 60-80% were still unwise. Quantitative evaluation of antibiotic use is an effort to encourage the use of antibiotics wisely. The method recommended by the Ministry of Health and WHO is ATC / DDD which is used to calculate the assumed average dose per day of antibiotic use for a particular indication in adult patients and can be used to compare drug use between health facilities, regions, countries and also identify overuse, underuse, and misuse of antibiotics.

This was retrospective and observational study. The purpose of the study was to identify the pattern of antibiotic use and to calculate the value of DDD antibiotics in clean-contaminated surgical patients at Bhayangkara H.S Samsoeri Mertojoso Hospital Surabaya during the sample period of January 1st, 2018 to December 31th, 2018.

The sample obtained were 50 patients. The result indicated that there were 20 patients received prophylactic antibiotics and 33 patients received therapeutic antibiotics. The most widely used of prophylactic antibiotic was ceftriaxone 1 gram IV. Meanwhile, the most used therapeutic antibiotic was ceftriaxone (2 dd 1 g) IV and gentamicin (2 dd 80 mg) IV. The highest DDD value of prophylactic antibiotic and therapeutic antibiotic was ceftriaxone with the value of 56,56/100 patient-days and 62,20/100 patient-days respectively.

Keywords: Antibiotics, Clean Contaminated Surgery, Defined Daily Doses