

## ABSTRACT

### **Quantitative Evaluation Of Antibiotic Use In General Surgical Patients (Study at Airlangga University Hospital)**

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This research was a retrospective and descriptive study that aimed to provide an overview of the patterns and quantitative evaluation of antibiotics use in general surgical patients at Airlangga University Hospital. A quantitative evaluation of antibiotics used ATC/DDD method. The samples were adult patients who had general surgical procedures, hospitalized, and received prophylaxis or therapeutic antibiotics, with antibiotics that have ATC code and DDD WHO standard value, from October 01<sup>st</sup> to December 31<sup>st</sup> 2019.

Total samples obtained were 80 patients, which of 63 patients received antibiotics as prophylaxis and 34 patients received as therapeutic. Based on the result, cefazolin is the most antibiotics that used as prophylaxis, totally 56 prescriptions. Meanwhile, combination of ceftriaxone and metronidazole are the most antibiotics that used as therapeutic, totally 21 prescriptions. Analysis of quantitative evaluation of prophylaxis antibiotics was calculated by two type of DDD calculations. The result showed that cefazolin has the highest DDD value. The value was DDD 16.92/100patient-days and DDD 69.84/100operation. As therapeutic antibiotics, ceftriaxone and metronidazole have the highest DDD value. The value were 55.49/100patient-days and 32.95/100patient-days respectively. This study showed that utilization of antibiotics in general surgical patients at Airlangga University Hospital based on recommendation from literature and hospital guidelines.

On the other side, to make sure that there are no overuse and misuse antibiotics in general surgical patients, a qualitative evaluation using the Gyssen method is needed. In addition, the same research can occur at other hospitals in order to be able comparing the use of antibiotics quantitatively.

**Keywords:** Antibiotics, General Surgery, Defined Daily Dose