

## ABSTRACT

### Quantitative Evaluation Of Antibiotic In Internal Medicine

#### Literature Review

'Iffah Khosyyatillah

Antimicrobial resistance has become a global threat for the treatment of infection. Internal medicine is one of hospital sector with high use of antibiotic. This high usage of antibiotic can increase the risk of antibiotic resistance. In attempt to monitor and evaluate antibiotic usage, some studies have already measured antibiotic consumption in DDD/100 *bed-days*. ATC/DDD is a standard method recommended by WHO to measure drug usage quantitatively. This method allows benchmarking of antibiotic consumption between health services, hospitals, regions, and country. This study is a literature review to describe antibiotic consumption profile in Internal Medicine. Seventeen publication was collected from three databases: PubMed Central, ResearchGate, and Google Scholar. Publications with DDD/100 *bed-days* in Internal Medicine from 2006 until 2020 are included in this study. This study shows that the most commonly used groups of antibiotics in internal medicine are penicillin, cephalosporin (mostly 3<sup>rd</sup> generation), and fluoroquinolone. The quantities of antibiotic consumption in internal medicine between hospitals are diverse from 13,86 to 164,48 DDD/100 *bed-days*. Some publications with intervention, such as Antimicrobial Stewardship Program (ASP), multifaced interventions, and guidelines adoption showed positive results such as antibiotic consumption reduction and the increase of appropriate antibiotic treatment. Hopefully, this study can be useful for developing antibiotic guidelines in internal medicine in order to minimize the risk of antibiotic resistance.

**Keywords:** Antibiotic, Consumption, ATC/DDD, Defined Daily Dose (DDD), Internal Medicine.