

**ABSTRACT**  
**DRUG UTILIZATION STUDY**  
**OF ASPIRIN AND CLOPIDOGREL INPATIENTS**  
**WITH ISCHEMIC STROKE DUE TO CLINICAL OUTCOME**  
**IMPROVEMENT**

**(Study at Seruni B Room Neurology Departement Dr. Soetomo  
Hospital Surabaya)**

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Stroke is a cerebrovascular disease caused cerebral infarction which occurred due to reduced blood flow and oxygen to the brain. It caused by blockage, narrowing, or even rupture of blood vessels. According to the National Stroke Association, stroke is the third cause of death that has killed 137.000 people each year and also decrease quality of life and disability in adult patients. In Indonesia, stroke is the most common cause of death in all age (15.4 %), followed by tuberculosis (7.5 %), hypertension (6.8 %), and injuries (6.5 %).

Class of antiplatelet drugs indicated in all patients for the first time suffered a TIA (Transient Ischemic Acute) or stroke to reduce the risk of stroke recurrence, such as aspirin and clopidogrel. Several clinical studies said that clopidogrel works better than aspirin, but there are also studies which state that the effectiveness of the two drugs don't have significant differences. On other hand, much of the data obtained are less significant.

This study aims to examine the use of aspirin and clopidogrel inpatients with ischemic stroke, by analyzing the distribution of the use of aspirin and clopidogrel inpatients and analysis about the use of aspirin and clopidogrel due to clinical outcome improvement of patients (GCS score, motoric function, sensory function, and cranial nerve function).

This study was an observational analytic using time limited sampling method during February, 1<sup>st</sup> 2013 – February, 28<sup>th</sup> 2014 in Seruni B Neurology Department RSUD Dr. Soetomo and Medical Record Center RSUD Dr. Soetomo. This research has been reviewed

by Health Research Ethics Committee of Hospital Dr. Soetomo. Inclusion criteria include all medical record inpatient in Seruni B Neurology Department RSUD Dr. Soetomo which diagnosed ischemic stroke and received aspirin or clopidogrel as their drug therapy during February, 1<sup>st</sup> 2013 – February, 28<sup>th</sup> 2014 and have certain clinical and laboratory data and gathered 104 patients.

As the result, known that 75 % patients took aspirin and 25 % took clopidogrel as their therapy. Based on PERDOSSI guideline, aspirin became first drug choice for ischemic stroke therapy. Analyze use of aspirin and clopidogrel due to clinical outcome improvement of patients using chi square test. The result shows that there's no significant difference between antiplatelet therapy, either aspirin or clopidogrel for ischemic stroke due to motoric function, sensory function, and cranial nerve function (facialis and hipoglossus nerve). In other side, the result showed any significant difference between antiplatelet therapy, either aspirin or clopidogrel for ischemic stroke due to GCS improvement ( $p = 0.023$ ).

**Keywords: stroke ischemic, aspirin, clopidogrel, drug study, clinical outcome**