## **ABSTRACT**

## **DRUG UTILIZATION STUDY**

## IN PATIENT WITH DILATED CARDIOMYOPATHY

(The study was conducted at Inpatient Ward of Cardiology and Vascular Medicine Dr. Soetomo Surabaya)

**Background**: Dilated cardiomyopathy is a heart muscle disorder that causes dilatation of the heart especially the left ventricle chamber, causing impaired systolic function and heart failure. More than 10000 patients suffering from this disease each year with mortality rate 30.5%. 1:2500 estimated to suffer from this disease and is the third leading cause of heart failure.

Aims: The purpose of this study was to examine the types of drugs, drug combinations, drug dosage and route of administration, and examine the relationship between drug use laboratory data and clinical data and to identify the problems associated with the drug such as the suitability of drug dosage and interaction among the drugs.

**Method:** This research is an observational study and retrospectively. Materials used in this study are the Medical Health Document with the primary diagnosis of dilated cardiomyopathy from 1<sup>st</sup> January 2013 until 31<sup>st</sup> December 2013.

Results: The results showed that the prevalence of dilated cardiomyopathy mostly dominated by men (67,6%) with average age 45-64 years old (52,9%). The various drugs use frequently were furosemide (100%), ACE-I (94,1%), spironolactone (88.3%), isosorbide dinitrate (67.7%), and digoxin (58.8%). The most frequently used combination drug was furosemide-spironolactone-captopril-digoxin-isosorbide dinitrate (26,5%) and the dosage regimentation in this study appropriate with the literature. Drug interactions occur between spironolactone and ACEI, 5 patients experienced hyperkalemia. Potential interactions between furosemide and digoxin, 5 patients experienced tachycardia.

Conclusion: Based on these results the pattern of drug use in patients with dilated cardiomyopathy is appropriate according to the New York Heart Association (NYHA).

Keyword: Dilated cardiomyopathy, cardiomyopathy, heart failure, drug utilization study