

**ABSTRACT****DRUG UTILIZATION STUDY  
IN PRIMARY OPEN ANGLE GLAUCOMA PATIENT****(Study at Ophthalmology Division of Ambulatory Care Dr. Soetomo  
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Primary open angle glaucoma (POAG) is a progressive, chronic optic neuropathy in adults in which intraocular pressure (IOP) and other currently unknown factors contribute to damage and resulting to irreversible visual field constriction. Prevalence of glaucoma in East Java, Indonesia is 5.5 which higher than national prevalence. This disease require life-long treatment and patient compliance.

The aims of this study was to describe the profile of drugs used in POAG, including type of drug, dosage, frequency and route of administration. Also to identify Drug Related Problems (DRPs) that might happened. This observational study was conducted retrospectively using medical record of POAG patients in Ophthalmology Division of Ambulatory Care Unit Dr. Soetomo Teaching Hospital Surabaya on period August 1<sup>st</sup> 2011 - January 31<sup>st</sup> 2012 (N=35). This study was reviewed by Ethical Board Review of Health Research Dr. Soetomo Teaching Hospital Surabaya.

The result showed that main drugs used in POAG were  $\beta$  adrenergic blocking agents, carbonic anhidrase inhibitors, prostaglandin analogs and combinations. The most drug used as therapy of POAG was  $\beta$  adrenergic antagonist topical timolol 0,5% one drop twice daily (83.3%). Other drugs used to support the therapy were artificial tears, vitamins, KSR, antibiotics and corticosteroids. Actual DRPs that occurred were dry eye syndrome caused by benzalkonium chloride as preservative agent in eye drops (25%) and conjunctival hyperemi caused by prostaglandin analog (11.4%). Potential DRPs were paresthesia caused by carbonic anhidrase inhibitors (20%), increase of intraocular pressure caused by corticosteroid (8.6%), and hipoglycemia in diabetes patient caused by timolol (2.8%).

**Keywords :** *primary open angle glaucoma, drug utilization study, timolol, brinzolamid, latanoprost*