ABSTRACT

THE USE OF PHOSPHATE BINDER ON THE PHOSPHATE LEVELS IN PATIENTS WITH CHRONIC KIDNEY DISEASE
(Study was performed at Nephrology Outpatients Departement of Dr. Soetomo General Hospital Surabaya)

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**Background**: Chronic kidney disease (CKD) is defined as the presence of kidney damage or decreased glomerular filtration rate (GFR) 60 ml/min/1.73 m² for 3 months or more. In chronic kidney disease, several abnormalities of renal function resulting in clinical manifestations including mineral and bone disorder. Mineral and bone disorder caused by hormonal disorder in CKD, performed by hyperphosphatemia, hypocalcemia, and secondary hyperparathyroidism. Other disorders may include cardiovascular disorders (dysrhythmias, hypotension) and the hardening of the blood vessels (vascular calcification).

**Objective**: This study documented phosphate binder therapy in CKD patients at Nephrology Outpatient Department of Dr. Soetomo Hospital Surabaya in order to assess drug utility study.

**Subjective and methods**: It was a descriptive observational study with cross-sectional method, conducted from April to June 2014 at Nephrology Outpatient Department of Dr. Soetomo Hospital. Total samples obtained were 60 patients.
**Result**: Prevalance in women 55% and in men 45%, the highest age range at the age above 61 years. The highest comorbid and complication are hypertension 46,7% and DMND 26,3%. Phosphate binder type used for hyperphosphate therapy was calcium carbonat with dosing frequency 1-3 times in daily. In this study, 58,3% patients are appropriate with therapeutic target. The type DRP identified were adverse drug reaction 18,3% and potential drug interactions 106,7%.

Keyword: Cronic kidney disease (CKD), phosphate binder, phosphate level