

## Effect of Clinical Practice Guideline on Therapeutic Outcomes and Treatment Expenditures of COPD Patients

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### ABSTRACT

*Chronic obstructive pulmonary disease (COPD), characterized by respiratory limitation and progressive lung failure, is a major cause of morbidity and mortality and a costly disease worldwide including Thailand. Thus it is necessary to properly manage this disease. Intervention of clinical practice guideline (CPG) is a recommendation for COPD patients. This study aimed to determine the effect of CPG, developed by patient care team of a community hospital in Prae province, Thailand, on therapeutic outcomes and treatment expenditures of COPD in-patients. A retrospective study was undertaken on a sample selected from COPD in-patients in pre-CPG and CPG period. Data of patients | collected from patient records were their characteristics, therapeutic outcomes and treatment expenditures. Therapeutic outcomes included these occurrences: 1) exacerbation during hospital admission, 2) return to emergency room within 72 hours after discharge and 3) readmission within 28 days after discharge. Treatment expenditures contained the hospital charges for these items: room, medicine and medical supply, medical service and laboratory test. Based on pre-CPG and CPG group of sample, results showed significant decreases in exacerbation, return and readmission from 10.9% to 2.3%, 7.8% to 0% and 27.9% to 10.2% respectively. Treatment expenditures of the two groups were not statistically different. In conclusion, CPG could directly give better therapeutic outcomes and indirectly provide favorable treatment expenditures. Thus, this CPG should be pursued for COPD patients.*

**Key words:** Chronic obstructive pulmonary disease (COPD), Clinical practice guideline (CPG), Therapeutic outcomes, Treatment expenditures

### INTRODUCTION

Among the major causes of death, chronic obstructive pulmonary disease (COPD) ranks fourth and its prevalence is expected to increase in the next decades (Rutschmann et al., 2004). It was estimated that around 14 million people in the world had COPD and about 500,000 of them were hospitalized (Dewan et al., 2000). COPD plays the primary role on lung and the secondary one on muscle and circulation, resulting in complicated health problems. Moreover, its tertiary effect associates with the interaction of patients and their