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Drug Utilization Evaluation on Hyperphosphatemia and Vitamin D usage in Secondary Hyperparathyroidism in patients with Peritoneal Dialysis

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Introduction

Hyperphosphatemia is a common complication in patients on continuous ambulatory peritoneal dialysis (CAPD). Elevated serum phosphate level increases the risk of vascular calcification and death. The mainstays of therapy are stringent diet control and use of phosphate binders. Local data regarding management of hyperphosphatemia or drug usage pattern is limited. In addition, parathyroid hormone plays an important role in the regulation of phosphate homeostasis.

Objectives

In this Drug Utilization Evaluation (DUE), we aim at exploring the control of hyperphosphatemia and usage pattern of phosphate binders in the local hospital. We also review the use of vitamin D in management of SHPT.

Methodology

We retrospectively reviewed 46 cases using phosphate binders for management of hypercalcemia who attended the outpatient Medical Renal Clinic in Yan Chai Hospital (YCH) between January 1, 2016 and December 31, 2016. We analyzed the control of serum phosphate, drug usage pattern and physician interventions.

Result

We observed a high prevalence (37.0%) of patients receiving aluminum hydroxide therapy with a mean prescribing duration of 42.3±27.7 weeks. The initiation was appropriate in 88.2% of patients, but up to 58.8% of them may have a potential need for reviewing and discontinuing aluminum hydroxide. Three patients would need temporal withhold of the calcitriol therapy to optimize serum phosphate control.