Quality of Care of Patients with Chronic Kidney Disease in National Healthcare Group Polyclinics from 2007 to 2011

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Abstract

Introduction: Chronic kidney disease (CKD) is a major public health problem where majority of patients are managed in the primary care. The major risk factors are advanced age, hypertension and diabetes mellitus, and risk factors control is paramount to prevent progression to CKD. The objective of the study is to describe the epidemiology and quality of care of patients with CKD stages 3 to 5 at National Healthcare Group Polyclinics (NHGP). Materials and Methods: The study was carried out using data from National Healthcare Group (NHG) Renal Registry. Patients were included if they were identified to have CKD based on ICD-9-CM codes and laboratory results. Results: Overall, the number of CKD patients increased more than 2 fold from 4734 in 2007 to 10,245 in 2011. In 2011, the majority belonged to stages 3A (39.6%) and 3B (37.6%), had hypertension (98.2%), dyslipidemia (97.2%) and diabetes mellitus (68.7%). From 2007 to 2011, among those with hypertension, the use of angiotensin converting enzyme (ACE) inhibitors and/or angiotensin receptor blockers increased from 78.4% to 84.1%, and the percentage with good systolic blood pressure control (<130 mmHg) improved from 18.7% to 36.3%. Among those with dyslipidemia, the use of statins increased from 81% to 87.1%, and the percentage of patients with low density lipoproteins (LDL) <2.6 mmol/L increased from 40% to 54.7%. However, among those with diabetes mellitus, mean glycated haemoglobin (HBA1c) increased from 7.4% to 7.6%, and the percentage of patients with HBA1c ≤7.0% decreased from 44.5% to 39.4%. Conclusion: The number of CKD patients in NHGP has increased significantly from 2007 to 2011 at an average annual rate of 21.3%. Majority of patients the study conducted in 2011 were in stage 3A and stage 3B. Blood pressure and LDL control are encouraging but glycaemic control can be further improved.

Key words: Epidemiology, Nephrology, Primary care