Audit on management of patients with Type 2 diabetes mellitus and albuminuria in General Practice Clinic of Yan Chai Hospital

Lee YCV (1), Ng MS (1), Yiu YK (1)

(1) Department of Family Medicine and Primary Health Care, Kowloon West Cluster

Introduction
Diabetic nephropathy is the major cause of renal failure. Optimal management of early kidney disease in diabetic patients will slow progression to renal failure, making it an important issue we should address. Chronic kidney disease is defined as persistent abnormality is kidney function or structure for more than 3 months, with implications for health. According to Hospital Authority’s laboratory, the cut off for albuminuria is defined as ACR >2.5mg/mmol for men or >3.5 mg/mmol for women, or PCR >23mg/mmol or >0.20mg/mg. Based on the 2012 KDIGO Clinical Practice Guideline for the Evaluation and Management of CKD, targets for diabetic patients with albuminuria include: HbA1C <7%, blood pressure <130/80, and the use of ACEI or ARB for renal protection.

Objectives
To review the current standard of practice in the management of albuminuria in patients with Type 2 diabetes in general practice and to identify ways to improve future practice.

Methodology
Patients who attended General Practice Clinic (GPC) between 1st March 2014 to 31st March 2014 with HbA1C ≥6.5%, and ACR >2.5mg/mmol or PCR >0.20mg/mg as tested by Hospital Authority’s laboratory within the past 180 days were identified. Records were reviewed to identify patients with confirmed albuminuria as defined by persistent elevation in urine albumin level for more than 3 months after excluding secondary causes such as urinary tract infection. The subjects’ most recent HbA1C, their 3 most recent BP readings and the use of ACEI or ARB were reviewed.

Result
118 subjects were identified and 79 subjects had accurately established diagnosis of albuminuria. 51 were male and 28 females, their age ranged from 48-94 years. 38 out of 79 subjects (48%) met target HbA1C <7%, 29 out of 79 subjects (36.7%) met target SBP <130mmHg, 57 out of 79 subjects (72.2%) met target DBP <80mmHg, 10 out of 79 patients (12.7%) were not on ACEI or ARB: 3 had ACEI induced cough, 2 had hyperkalaemia and 1 had >20% rise in creatinine after ACEI, 1 had ACEI stopped due to subsequent low BP and 3 were not on ACEI or ARB for no identifiable reason.