Strategies to improve the cardiovascular risk factor control among patients with chronic diseases in the primary care setting: experience from Kowloon Central Cluster in the past decade

Dr. CHEN Catherine CHEN, Dr. Hui LC, Dr. Law TC, Dr. Li YC, Dr. Chan KHK

Dept. of Family Medicine and GOPC, Kowloon Central Cluster (KCC)

Introduction
Cardiovascular disease (CVD) is a major cause of disability and premature death throughout the world, and contributes substantially to the escalating costs of health care. A significant proportion of its morbidity and mortality could be prevented through population based strategies as primary prevention.

Objectives
To review the control of the four major modifiable CVD risk factors (diabetes, hypertension, hyperlipidaemia and smoking) among patients with chronic diseases (CD) managed in the primary care

Methodology
Design: retrospective clinical service audit
Subject: Patient with CD and had been FU regularly at GOPCs of KCC from 01/07/2008 to 30/06/2017. CD is defined as the presence of diabetes or hypertension or both.
Mail outcome measures: blood pressure (BP) control rate among hypertensive patients, Hba1c capture rate and control rate among diabetes patients, lipid control rate among diabetes patients and the smoking cessation rate among smoker patients with CDs. Student’s t test and analysis of variance were used to evaluate continuous variables and Chi squared test for categorical data.

Result
Results:
Totally there were 30,694 hypertensive patients and 13,076 diabetes patients who have been regularly FU at KCC in the year of 2008-09. Among them, BP control rate was only 52.3% among HT cases, HbA1c capture rate was 69% and HbA1c control rate was 33% for diabetes patients. Lipid control rate among DM cases was 48.2% in 2013. All these Key performance index (KPI) parameters were the lowest among HA seven clusters. A series of improvement strategies were established to improve the
chronic disease control in KCC from year 2008. The introduction of Risk Assessment and Management Program for diabetes and hypertension in 2009 and smoking cessation program in 2012 have standardized the management workflow and risk stratification for patients with CD. Staff education and Quarterly clinical audit on CD control both at departmental level and clinic level has been performed to all frontline medical staff. Continuous quality improvement (CQI) projects with studies exploring the therapeutic inertia among CD control has been performed, with gaps identified and filled in. Special clinics addressing the service need of patients with very poor control has been set up both at daytime and night time. Latest KPI reports up to 1Q2017 revealed that BP control rate reached up to 91.8%, HbA1c capture rate 96.2%, HbA1c control rate 66.9% and the lipid control rate 77.4%, all were significantly improved (P<0.001) and ranked first among HA clusters. The smoking cessation rate among smokers with CDs has been above HA cluster average throughout the past 5 years (56-63%).

Conclusion: Family physicians have played an important role in primary prevention of CVD among patients with CDs. Through standardized programs, team approach with staff engagement, regular staff education, promulgation and clinical audit and a series of CQI projects, the quality of care for patients with CDs had been significantly improved over the past decade. It is believed that this will have a tremendous impact on CVD disease prevention and help reduce the CVD mortality and morbidity in the long run.