



Service Priorities and Programmes Electronic Presentations

Convention ID: 473

Submitting author: Dr Fung Yi MAN

Post title: Resident Specialist, Queen Elizabeth Hospital, KCC

Therapeutic Inertia in the Management of Hyperlipidemia in Type 2 Diabetes Patients: a Cross Sectional Study in the Primary Care

MAN FY(1) , CHEN XR(1), CHAN KH(1)

(1)Department of FM & GOPC, Kowloon Central Cluster

Keywords:

Therapeutic Inertia
Hyperlipidaemia
Diabetes
Primary Care

Introduction

Type 2 diabetes mellitus (T2DM) is one of the most common chronic conditions encountered in the primary care. Optimal control of cardiovascular risk factors can decrease the risk of related complications. Hyperlipidaemia is one of the most important modifiable risk factors for cardiovascular disease (CVD) prevention. However, lipid control among diabetic patients has been inadequate. Reasons for poor lipid control are multifactorial. Suboptimal medication augmentation has been identified as an important physician factor. This is known as therapeutic inertia (TI). It is defined as whenever the health-care provider does not initiate or intensify therapy appropriately when therapeutic goals are not reached. Locally, there was no study exploring the prevalence of TI in chronic disease management. Our study specifically looked at the prevalence of TI in hyperlipidemia management among diabetes patients as lipid control has been relatively poor in our cluster when compared with blood pressure and glycemic control. We tried to explore the prevalence of TI in the management of hyperlipidemia among T2DM patients and to explore possible associating factors. By overcoming the barriers to adequate and appropriate treatment, it was expected that the cardiovascular outcome of T2DM patients could be improved.

Objectives

To study the prevalence of therapeutic inertia (TI) in lipid management among type 2 DM patients (T2DM) in the primary care setting and to explore possible associating factors.

Methodology

It is a cross sectional study. All T2DM patients who had been regularly followed up in all GOPCs of KCC from 1/10/2011 to 30/9/2013, and had blood lipid checked at least once during this period were recruited. Lipid control is defined as suboptimal if latest LDL level is $\geq 2.6\text{mmol/L}$ in diabetic patients without CVD and $\geq 1.8\text{mmol/L}$ in diabetic patients with established CVD. Patients with suboptimal lipid control were included. 400 cases were sampled to ensure adequate statistical power and allow

room for case exclusion. Consultation notes of the follow up immediately after the latest lipid profile test being available were reviewed through the computer management system. TI is considered to be present when attending doctors failed to initiate or intensify treatment if target LDL level was not achieved, without documentation of any justification reason. Characteristics of patients and attending physicians were recorded. Student's t test and analysis of variance were used for analyzing continuous variables and the Chi square test for categorical data. Multivariate logistic regression was used to determine the association between TI and different variables including patients' and doctors' characteristics.

Result

Among the sampled 369 T2DM patients with suboptimal lipid control, TI was found in 244 cases (66.1%). When the attending doctor's profile was compared, the average duration of clinical practice was significantly longer in the TI group compared with non-TI group ($p=0.001$), with doctors working for over 20 years having a particularly higher rate of TI. Doctors without Family Medicine (FM) training before were also found to have a higher rate of TI ($p=0.006$). Patients in the TI groups were found to have longer disease duration ($p=0.024$), higher comorbidity rate of cardiovascular disease ($p=0.003$) and a closer to normal LDL level ($p<0.001$). Logistic regression analysis revealed that the lack of FM training was positively associated with TI (OR=2.17, $p=0.008$), whereas patient's LDL level was inversely associated (OR=0.32, $p=0.001$).