Implementing Diabetes Nurse assisted and Family Physician led Insulin Titration and Intensification in Primary Care – the benefits and outcomes

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Introduction
Insulin therapy was introduced under Risk Assessment and Management Programme - Diabetes Mellitus (RAMP-DM) in KEC general outpatient clinics since 2010. Evidence showed that intensive insulin titration was beneficial in some patients for achieving target glycaemic control earlier. With the assistance of diabetes nurses, family physicians can titrate the insulin dosage more frequently between the usual consultations to achieve faster glycaemic control and tackle hypoglycaemic episodes more promptly.

Objectives
To review on the preliminary outcomes of a diabetes nurse assisted and family medicine specialists led insulin titration and intensification programme in a KEC RAMP-DM Clinic.

Methodology
Since April 2015, all diabetes patients being put on insulin and followed up in the RAMP-DM Clinic would be advised to perform self-monitoring of blood glucose (SMBG) and report the results by personal attendance, fax or telephone calls to our diabetes nurses between normal clinic consultations. The diabetes nurses would screen the reports and inform doctors for frequent and / or serious hyperglycaemic or hypoglycaemic readings. The doctors would then advise for the needs of insulin titration or earlier follow-up. The required clinical data and medical records of all patients being put on insulin from 1st April 2015 to 30th June 2015 in the clinic were reviewed and analysed.

Result
101 out of 213 patients attended the clinic during the study period were put on insulin therapy. 62 patients who were regularly followed up in the clinic and had their glycated haemoglobin (HbA1c) results obtained 6 months after the latest change of insulin regimen were recruited. The mean age was 60.4 years with 48.4% male patients. 66.1% was using basal insulin or basal insulin analogues, 32.2% was using pre-mixed
or biphasic insulin analogues and only 1.6% was using basal-bolus regimen. 51.6% of patients had reported SMBG. At 6 months after implementation of the programme, the proportion of patients with HbA1c controlled to less than 7.0% and 7.5% improved from 3.2% to 14.3% and 14.3% to 30.2% respectively. Discussion: Diabetes nurse assisted and family physician led insulin titration and intensification could be successfully implemented to better manage patients on insulin in primary care.