Review on outcomes of insulin initiation in type 2 diabetes in 3 regional primary care clinics in Hong Kong

TK Chu(1), KF Lee(1), RSY Cheng(1), J Liang(1)
Department of Family Medicine and Primary Health Care, New Territories West Cluster

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Introduction
Overseas longitudinal studies on outcomes of insulin initiation in primary care showed that improvement of HbA1c was most marked in the first 12 months and ranged from 0.5% to 1.0%. There was insufficient similar local data.

Objectives
This study aims to investigate the outcomes of Type 2 diabetic (DM) patients receiving NPH insulin initiation in primary care in terms of HbA1c level, and to review impact of glycemic control on public healthcare service utilization based on number of primary care clinic visits, Specialist Outpatient Clinic visits and Casualty attendance.

Methodology
Retrospective review on patient medical record was done for a random sample of 942 Type 2 DM patients followed up in 3 primary care clinics (General Outpatient clinics / GOPCs) in whom NPH insulin was prescribed from the period July 2007 to June 2015. Exclusion criteria were patients who were not under follow up for DM in these GOPCs at the time of insulin initiation, or had defaulted follow up for more than 6 months, or who were on insulin for gestational DM and Type 1 DM.

Result
A sample of 866 patients was included. Fifty-three percent were female. The mean age was 62.9. Twelve percent of them required public assistance for waiving consultation fee. The mean duration of DM before insulin initiation was 12.7 years.
The average HbA1c improvement was most marked in the first 12 months with a mean difference of 0.94% [95% Confidence Interval 0.81% – 1.06%, p