PDDB1 ASSOCIATION OF YOUNGER AGE WITH POOR GLYCAEMIC AND CHOLESTEROL CONTROL IN ASIANS WITH TYPE-2 DIABETES IN SINGAPORE

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OBJECTIVES: The National Healthcare Group Polyclinics (NHGP) is a group of 9 public sector primary care clinics in Singapore. This study examines the factors associated with poor glycaemic control in Asian patients with type 2 diabetes mellitus (T2DM) in Singapore. METHODS: This is a cross-sectional study of patients with T2DM who attended the same clinic in 2009 for the treatment of diabetes. Demographic characteristics, medical diagnosis, clinical parameters and laboratory results were extracted from the group’s Diabetes Registry (CDMS). Glycaemic (HbA1c), blood pressure, and LDL-c control were compared with age and logistic regression analysis was applied to study the factors associated with poor glycaemic control using Hba1c cut-off at 8%. RESULTS: Among the 58,075 T2DM patients were more females (54%), disproportionately more Indians (13%) and fewer Chinese (71%) than the general population. Both Hba1c and LDL-c improved with age. The mean Hba1c decreased gradually from 8.16±1.74% (±40 years) to 6.94±0.99% (≥80 years) while mean LDL-c dropped from 2.84±1.00 to 2.56±0.70. The Indian and Malay groups had significantly poorer glycaemic control compared to the Chinese. ADJOR 1.66 (95%CI:1.56-1.77) and 1.53 (95%CI:1.43-1.63) respectively. Other significant predictors of poor glycaemic control included the male gender (AdjOR 1.9, 95%CI 1.91:1.4-1.25), presence of maculopathy or retinopathy, peripheral vascular disease, coronary heart disease, heart failure, and being on insulin therapy (AdjOR 8.0, 95%CI:5.49-8.88). Patients with poor LDL-c (<4.0 - mmol/l) were 4.2 times the odds of having poor glycaemic control (95%CI:3.74-4.66) while those with Grade 2 hypertension were 1.5 times (95%CI:1.31:1.76). CONCLUSIONS: Younger T2DM patients had poorer glycaemic and cholesterol control than older patients. Those with poor care control also had corresponding poorer cholesterol and blood pressure control. These patients had a higher lifetime risk of developing micro- and macro-vascular complications and should be treated much more aggressively to achieve optimal glycaemic and cholesterol control.

PDDB2 BUDGET IMPACT ANALYSIS OF THE INTRODUCTION OF SAXAGLIPTIN IN THE TREATMENT OF TYPE-2 DIABETES IN CHILE

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OBJECTIVES: To estimate the budget impact of Saxagliptin introduction as a treatment option for patients with type 2 diabetes mellitus (DM2) compared to the present situation. METHODS: An MS Excel-based budget impact model assuming coverage for one million people. The time horizon was three years and the analysis parameter was that of the public health care system from the payer perspective. The model estimated the annual budget impact for Saxagliptin introduction in Chile is minimal in patients with DM2. The rise in pharmaceutical expenses derived from introducing Saxagliptin into the formulary is balanced by savings in terms of reduction of adverse events related to thiazolidinediones and sulfonylurases, as well of lowering of insulin requirements in an extended time horizon.

PDDB3 A COST COMPARISON OF A BASAL BOLUS REGIMEN (INSULIN GLARGINE AND INSULIN GITSULOG) WITH A CONVENTIONAL PRE-MIXED INSULIN REGIMEN IN TYPE-2 DIABETES PATIENTS – THE GINGER STUDY

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OBJECTIVES: This cost analysis, based on the results of the GINGER study, aimed to investigate whether an intensified insulin regimen is better value than a 2 injection per day conventional regimen. METHODS: GINGER was a 52 week multi-national study of T2DM patients on insulin for an average of 5 years with poor glycaemic control. It compared mealtime rapid-acting insulin glulisine (IG) and insulin glargine (IG) once daily with 2 injections per day of pre-mixed insulin. Use of IGL/IG resulted in a change of HbA1c from baseline to endpoint of −1.31% and −0.80% for pre-mixed insulin. Costs were calculated from a UK NHS perspective using MIMS November 2010 prices. Insulin costs were based on the use of IGL/IG (Apidra SoloStar and Lantus SoloStar) and biphasic insulin aspart (BIA, NovoMix 30 FlexPen) prefilled disposable injection devices. It was assumed that a new needle, lancet and blood glucose test strip was replaced for each injection with a 2U priming dose of insulin before each injection. RESULTS: The annual drug cost per patient on IGL/IG was higher than BIA at £692 and £612 respectively with the cost of metformin similar for both groups. The cost of needles, lancets and test strips was much lower for IGL/IG compared with BIA. The annual budget impact was £1423 compared with £957 for BIA. Over the 52 weeks the relative cost of a 1% reduction in HbA1c was £949 for IGL/IG and £1197 for BIA, a 1mmol/l reduction in FPG was £158 with IGL/IG and £653 with BIA. Sensitivity analyses replacing the use of insulin aspart with IGL/IG have very similar results. CONCLUSIONS: A similar reduction in HbA1c and FPG can be achieved at a relatively lower cost with IGL/IG in comparison with BIA.

PDDB4 INSULIN GLARGINE PLUS OHAS VERSUS BIPHASIC INSULIN IN TYPE-2 DIABETES – A COST COMPARISON

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OBJECTIVES: This was to determine the economic impact of a pharmacy program to convert insulin utilization from multi-dose vials to pen delivery in a large chain of pharmacy. METHODS: Purchasers were obtained at the patient level for basal and short acting insulins from a chain of 75 skilled nursing facilities for the 12 month period ending June 2010. Data included date dispensed, amount dispensed (mls), delivery system (pen or vial) and amount paid to the dispensing pharmacy. The insulin cost per patient-day for each month was calculated as total acquisition cost for the month divided by the number of patient-days. The insulin cost per patient-day for each stay was calculated as the total insulin acquisition cost divided by the length of stay in days. The mean cost per patient-day for each patient stay subset based on payer type, length of stay and delivery system used (pen or vial) was calculated. RESULTS: There were 2,405 inpatient stays over the 12 month period, 70% covered by Medicare and 29% by Managed Care. Two-thirds of Medicare stays and over three-fourths of managed care stays were 30 days or less. Pen device purchases increased from under 1% in almost 35% of total purchases over the study period during which the insulin cost per day declined from over $10 per patient-day to $4. The cost per day for vial-only stays ($7.84) and combination vial and pen stays ($7.79) were 72% higher than pen-only stays ($4.54), despite a 39% price premium per day for pen devices. Differences in insulin expenditure under 30 days. CONCLUSIONS: The increase in pen device use was associated with a marked decrease in insulin costs on a patient-day basis, particularly for lengths of stay over 30 days.