**Mock Abstract**

**Hypertension and Dyslipidaemia on determining HbA1c level among Type 2 Diabetes patients**

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**Abstract**

**Background:** Type 2 diabetes is a common and serious condition associated with reduced life expectancy and considerable morbidity. Hypertension and dyslipidaemia are common codmorbidities in patients with type 2 diabetes.

**Objective:** To determine effect of hypertension and dyslipidaemia on getting control of Type 2 Diabetes patients by HbA1c level.

**Methods:** The study used the data collected from the medical records of type 2 diabetes patients visiting Hospitals in care of Ministry of Public Health and Bangkok Metropolitan Administration in Thailand. Patients were diagnosed as controlled by HbA1c level less than 7% and also categorized into 4 groups according to presence of comorbidity; diabetes alone, diabetes with hypertension, diabetes with dyslipidaemia and diabetes with both co-morbidities..

**Results:** In this study, 88.3% (95% CI: 88.2 -88.5) of DM patients were found to have Hba1c <7% (controlled). Among them, 35.82% (95% CI: 34.39 -37.29) of patients were from DM alone group, 36.69% (95% CI: 35.49 -37.91) of patients were from DM with hypertension group, 11.08% (95% CI: 10.74 -11.26) of patients were from DM with dyslipidaemia group and 9.53% (95% CI: 9.35 -9.70) of patients were from DM with both co-morbidities group respectively. Bivariate logistic regression revealed that patients with diabetes alone had 4.5 times the odds of getting control of Hba1c level compared to DM with hypertension and dyslipidaemia comorbidities ( OR=4.3, 95% CI:4.26-4.85). In multiple logistic regression, DM patients without dyslipidaemia had 5.5 times the odds of getting HbA1c control compared to DM with dyslipidaemia (OR=5.5, 95% CI:5.2-5.8).

**Conclusion:** According to the results, the co-morbidity of hypertension and dyslipidaemia influenced the HbA1c level in controlling type 2 Diabetes Mellitus**.** Dyslipidaemia played a major role in controlling HbA1c level in type 2 diabetes patients

**Key words:** Type 2 diabetes mellitus, hypertension, dyslipidaemia**.**

Level of achievement of Hba1 c control in type 2 DM patients with or without hypertension or dylipidaemia