

## OA-D-05

### THE INCIDENCE OF IN-HOSPITAL HYPOGLYCEMIA AND ITS ASSOCIATED RISK FACTORS AMONG ADULT FILIPINO PATIENTS WITH DIABETES MELLITUS IN CHONG HUA HOSPITAL

<https://doi.org/10.15605/jafes.034.02.S23>

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*\*Full paper published in Philippine Journal of Internal Medicine, Volume 55, Number 4, Oct-Dec. 2017.*

#### INTRODUCTION

This study will look into the occurrence of hypoglycemia in the Philippines as its increasing prevalence has been noted.

#### METHODOLOGY

All nonpregnant, adult, Filipino patients, admitted and discharged from January 2015 to June 2015 were identified. The primary outcome was to determine the incidence of hypoglycemia, severity of hypoglycemia, the patients' dietary status, medication, and the common hospital area of the hypoglycemic event. Their clinical profile was also analyzed. The secondary outcome was to determine the occurrence of congestive heart failure (CHF), fatal/nonfatal myocardial infarction (MI), fatal/nonfatal cerebrovascular disease (CVD), and all-cause mortality during the admission of patients with hypoglycemia.

#### RESULTS

Among the 1676 patients with diabetes, 8.9% had the non-severe type (BG 51-69 mg/dL) hypoglycemia. Age >65 (52.7% vs 36.2%,  $p<0.001$ ), diabetes duration for more than 8.56 years $\pm$ 10.34 years, the presence of cardiovascular disease (62.7% vs 48.6%,  $p<0.001$ ), CHF (8.7% vs 4.4%,  $p=0.009$ ) and stage III, IV, V kidney diseases (32.7% vs 25.1%,  $p=0.043$ , 12% vs 5.5%,  $p=0.002$ , 12% vs 4.1%,  $p<0.001$ , respectively), being on tube feeding (8% vs 2.6%,  $p<0.01$ ) or on nothing per oreum (8% vs 2%,  $p<0.001$ ), and the use of insulin whether combined with oral therapy (25.3% vs 16.5%,  $p<0.006$ ) or used alone (34.7% vs 12.1%,  $p<0.001$ ) were the associated risk factors. Non-ICU ward had more hypoglycemia events (82.7%). Only 1 patient had MI, 1 had CVD, and 1 had CHF. The all-cause mortality rate was 4.7%.

#### CONCLUSION

The hypoglycemia incidence of 8.9% should be addressed by being cautious among patients with risk factors.

#### KEY WORDS

hypoglycemia, blood glucose, diabetes

## OA-D-06

### CORRELATION OF FASTING AND POSTPRANDIAL GLUCOSE TO GLYCOSYLATED HEMOGLOBIN IN PATIENTS WITH TYPE 2 DIABETES MELLITUS

<https://doi.org/10.15605/jafes.034.02.S24>

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#### INTRODUCTION

Glycosylated hemoglobin (HbA1C) remains the gold standard for assessment of glycemic control, but in minimal resource setting, HbA1C become unavailable, hence it's necessary to determine whether fasting (FPG) or postprandial (PPG) plasma glucose act as a better predictor for assessing glycemic control. This study was conducted to define relationship between plasma glucose and HbA1C.

#### METHODOLOGY

This retrospective observational study was conducted in private diabetes clinics in Banda Aceh, Indonesia. All subjects were patients with T2DM, and previous FPG, PPG and HbA1C measurements were collected. We used Pearson's correlation analysis to find the statistical significance.

#### RESULTS

From 904 FG, PPG and HbA1C measurements, only 50 measurements that were performed at the same time can be included in the analysis. There were 30 (60%) males and 20 (40%) females, age 52,3 $\pm$ 10,52 years. Mean FPG, PPG and HbA1C were 165 $\pm$ 78 mg/dl, 239 $\pm$ 122 mg/dl and 8,5 $\pm$ 2,9% respectively. We divided subjects into 3 groups based on HbA1c, <7%, 7-9%, >9%. Mean FPG based on group was 97 $\pm$ 15 mg/dl, 145 $\pm$ 32,80 mg/dl, and 237 $\pm$ 59,80 respectively. Mean PPG was 131 $\pm$ 47,08 mg/dl, 210 $\pm$ 65,63 mg/dl and 351 $\pm$ 79,8 mg/dl respectively. Both FPG and PPG have positive correlation with HbA1C but higher correlation was found between PPG and HbA1C.

#### CONCLUSION

PPG has a closer association with HbA1c. Hence, PPG value contributed more to HbA1c level than FPG. Therefore, PPG should be a preferred method for glucose monitoring in the absence of HbA1c.

#### KEY WORDS

fasting plasma glucose, postprandial plasma glucose, HbA1C