



## PP-D-35

### THE CORRELATION BETWEEN HYPERTENSION IN COMBINATION WITH PROTEINURIA AND HEART FAILURE EVENTS IN T2DM PATIENTS (BUITENZORG STUDY PRELIMINARY REPORT)

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#### OBJECTIVES

The contribution of proteinuria in combination with hypertension to heart failure events has been shown in previous study, but little information is available in developing countries, particularly in a low-resource setting. This pilot study aimed to evaluate the risk of a history of hypertension and proteinuria as a potential early recognition of heart failure in adults with type 2 diabetes mellitus.

#### METHODOLOGY

This study was a multicentre and observational study with cross-sectional design approach. A total of 153 T2DM were enrolled from three internal medicine clinics in Bogor, West Java, between January 2018 and March 2018. They had been controlled and treated with their routine glucose lowering drugs. Echocardiography was used to evaluate their heart function in a real-world setting. More data were collected from the integrated retrospective data reserve in electronic or written medical records of each clinic.

#### RESULTS

Correlative analysis between hypertension and heart failure events was analysed using Spearman test. The stratum analysis between hypertension, proteinuria and heart failure events was also conducted using Chi-Square. All the statistical analysis used the significance p value of <0.05.

#### CONCLUSION

There was significant correlation between hypertension in combination with proteinuria with heart failure events in type 2 diabetic patients.

## PP-D-36

### EVALUATION OF IN-PATIENT HYPERGLYCEMIA MANAGEMENT AMONG NON-CRITICALLY ILL PATIENTS AT THE UNIVERSITY OF SANTO TOMAS HOSPITAL (USTH): A PROSPECTIVE STUDY

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#### OBJECTIVES

Approximately 64% of in-patients with hyperglycemia had pre-existing diabetes. This study aimed to assess adherence to in-patient hyperglycemia management guidelines and outcomes in non-critically ill patients at the University of Santo Tomas Hospital

#### METHODOLOGY

A prospective analytical study of in-patients with hyperglycemia or diabetes mellitus type 2 from September-December 2021 was done. A checklist based on recent in-patient hyperglycemia recommendations was used to assess management and conformity to guidelines.

#### RESULTS

A total of 127 patients were included. HbA1c was measured in 57% of these patients. The incidence of in-patient hyperglycemia was 36% with highest proportion among admissions for infection. The most common (28%) regimen on admission was resumption of home medications with modified dose. Standard hospital glucose monitoring [USTH Point-of-Care (POC) testing] was applied, however, occasional delays in testing caused lack of coordination between insulin injections and meals. Eighty-eight percent of elective surgery patients received pre-admission treatment for hyperglycemia. Referral to endocrinologists was done in 76 patients. A shift to insulin therapy for persistent hyperglycemia (>180 mg/dL) was done in 15% of patients who were insulin naive. Overall, target capillary blood glucose (CBG) range of 140 to 180 mg/dL was achieved in 97% of patients. The median CBG of 145 mg/dl on admission was lowered to 132 mg/dL on discharge (p<0.00001). Compliance to discharge and follow-up instructions were poorer among non-endocrinologists (p<0.0001).



## CONCLUSION

This study demonstrated prompt management upon admission according to guidelines but also showed delays in insulin initiation and endocrine referrals in response to persistent hyperglycemia, inconsistent timing of monitoring in relation to meals, and poor discharge practices among non-endocrinologists—areas which need improvement.

## PP-D-37

### PREDICTING AMPUTATION RISK AMONG PATIENTS WITH TYPE 2 DIABETES MELLITUS WITH DIABETIC FOOT ULCER USING PEDIS SCORES IN A TERTIARY HOSPITAL: A PROSPECTIVE STUDY

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## OBJECTIVES

The study aims to determine the demographic profile (age and gender) of patients who have diabetic foot ulcer (DFU), the presence of comorbidities such as obesity, hypertension, cardiovascular disease, liver disease and renal failure, and the correlation of PEDIS scoring in predicting amputation.

## METHODOLOGY

This was a prospective cohort study which included 50 patients who were admitted or seen at the outpatient department of CRMC from January to October 2021. The demographic data (age, gender and location) and comorbidities were obtained. Each patient had individual PEDIS scoring sheets. To assess for perfusion (P), an ankle brachial index (ABI) was done to determine if there was peripheral arterial disease (PAD) with or without critical limb ischemia. To describe the extent (E) of the wound, we graded them from 0 to +3 for skin intact, <1 cm<sup>2</sup>, 1–3 cm<sup>2</sup>, and >3 cm<sup>2</sup>, respectively. Depth (D) was evaluated by physical examination and foot x-rays. Infection (I) was assessed based on the presence of inflammation and secretions. Lastly, sensation (S) was evaluated using a 128-Hz tuning fork on the affected limb. Outcomes were documented, namely amputation, debridement and wound care.

## RESULTS

There were no significance differences among subjects in terms of gender. However, age differences among patients were significant with a p value of 0.003 and was predictive of amputation among 41–60 age group with p value of 0.003. Hypertension was found to be a significant co-morbidity, with p value at 0.043. PEDIS scores among the participants were also significant with p value of <0.001 with 54% amputation rate for patients with PEDIS score >7.

## CONCLUSION

Our findings indicate that patients with DFU aged 41 to 60 years, diagnosed with hypertension and PEDIS score >7 are likely to require amputation.

## PP-D-38

### REAL-WORLD SURVEY ON INSULIN INJECTION TECHNIQUES AMONG PEOPLE WITH DIABETES IN SEMI-URBAN AND VILLAGE POPULATION IN KERALA

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## OBJECTIVE

The success of insulin therapy in diabetes depends on proper storage and correct injection technique. The objective of this study is to assess the current insulin injection technique among patients with diabetes mellitus in semi-urban and village population in Kerala.

## METHODOLOGY

This observational study was conducted from June to December 2021 in Tirur and Pathanamthitta, Kerala. A total of 140 participants aged 25 to 60 years, using insulin pen or vial for at least 3 months were recruited. A survey questionnaire on key insulin injection practices was administered.

## RESULTS

The abdomen was the most common (57.14%) site of insulin injection. Injection site rotation was followed by 92.85%. The practice of handwashing and cleaning of the injection site was practiced by 110 (78.57%) & 105 (75%), respectively. A total of 135 (96.42%) subjects were using the needle more than once. Majority (85.71%) were storing insulins at proper temperature. Pain and swelling at the injection site were reported by 52.14 % and 7.14%, respectively. The majority of patients (96.42%) threw the needle and syringes directly into the garbage and public drainage system.

## CONCLUSION

Our study identified a significant gap between insulin administration guidelines and current insulin injection practice. Hence, diabetes education and counselling about proper insulin injection techniques should be provided to people with diabetes and their caregivers.