



# 14<sup>th</sup> SINGAPORE PUBLIC HEALTH & OCCUPATIONAL MEDICINE CONFERENCE

15-16 October 2019 · Equarius Hotel

## PREVENTIVE HEALTH IN A CHANGING WORLD

### AN INVERSE RELATIONSHIP BETWEEN AGE OF ONSET OF TYPE 2 DIABETES MELLITUS AND ALL-CAUSE MORTALITY-A RETROSPECTIVE COHORT

Ang Yee Gary<sup>1</sup>, Yap Chun Wei<sup>1</sup>, Teow Kiok Liang<sup>1</sup>

<sup>1</sup> National Healthcare Group Health Services and Outcomes Research, 3 Fusionopolis Link #03-08 Nexus @one-north (South Lobby) Singapore 138543

#### **Background**

Type 2 Diabetes patients are at increased risk of premature mortality but guidelines do not stratify patients' risk based on age of onset. A study done in Australia found that the negative effect of diabetes on mortality is greatest for those diagnosed at a younger age compared with those diagnosed at a later onset. This study aimed to examine how age of onset of Type 2 diabetes relates to all-cause mortality.

#### **Methods**

This is a retrospective cohort study of Type 2 Diabetes Patients from the National Healthcare Group Diabetes Registry from 1 January 2012 to 31 December 2012. They were followed up till 28 February 2018. Logistic regression was used to assess the factors associated with all-cause mortality.

#### **Results**

At the end of the study, 14,176 out of 84,182 patients (16.8%) died. Of those who died, 2,974 (21.7%) died from ischaemic heart diseases, 2,912 (21.2%) died from pneumonia and 2,897 (21.1%) died from cancer. Factors associated with higher risk of mortality were younger age of onset of T2DM, older age, Malay ethnicity, male gender, higher Charlson Comorbidity index and higher diabetes complication severity index.

#### **Conclusion**

We have found the same inverse relationship between age of onset of Type 2 Diabetes Mellitus and all-cause mortality in our local population as the Australian population. These results highlight the importance of reviewing the age cut-off of population screening for Type 2 Diabetes so that patients with early onset of Type 2 Diabetes can be treated promptly to prevent premature mortality.