

中文題目：利用動態式糖尿病併發症嚴重指數預測亞洲第二型糖尿病患者心血管中風死亡之風險分析

英文題目：Use of the progression of adapted Diabetes Complications Severity Index to predict acute coronary syndrome, ischemic stroke, and mortality in Asian patients with type 2 diabetes mellitus: A nationwide cohort investigation.

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Background: We report a retrospective population study aiming at identifying and validating the progression of adapted diabetes complications severity index (DCSI) for acute coronary syndrome (ACS), ischemic stroke and mortality in Asian people with type 2 diabetes mellitus (DM).

Methods: Utilizing the Taiwanese national dataset, we included 84450 type 2 diabetic individuals between 2000 and 2011. The area under the curve in the presentation of receiver operating characteristic (C-statistics of logistic model) and the C-statistics of Cox model were used to evaluate whether the progression of diabetic complication status could be a predictor of ACS, ischemic stroke and death. The optimum threshold for adverse outcomes risk stratification were obtained using Youden's J statistic as the cutoff that gives the highest.

Results: Among the study patients, the C-statistics of logistic model of the above score predictive of ACS, ischemic stroke and death were 0.72 (95% confidence interval **【CI】** = 0.71-0.73), 0.84 (95% CI = 0.84-0.85) and 0.66 (95% CI=0.65-0.67), respectively. The progression of adapted DCSI had moderate discrimination for ACS, ischemic stroke and death (C- statistics = 0.71, 0.72, 0.75, respectively) based on Cox-regression analysis (Harrell C). The optimum score threshold of the progression of score for ACS, ischemic stroke and death in type 2 DM patients were 0.30, 0.36 and 0.39, respectively.

Conclusions: The acceptable discriminative power of the progression of adapted DCSI for Asian people affected by type 2 DM was demonstrated in a large cohort in Taiwan.

Key words: Acute Coronary Syndrome, Death, Diabetes Complications Severity Index, Ischemic Stroke, Prediction

Running title: adapted DCSI and adverse outcomes