Factors Predicting High Estimated 10-Year Stroke Risk: Thai Epidemiologic Stroke Study

Suchat Hanchaiphiboolkul, MD,* Pimchanok Puthkhao, MSc,* Somchai Towanabut, MD,* Tasanee Tantirittisak, MD,* Khwanrat Wangphonphatthanasiri, MD,* Thanes Termlinchan, MD,* Samart Nidhinandana, MD,† Nijasri Charnnarong Suwanwela, MD,‡ and Niphon Poungvarin, MD, FRCP
x

Background: The purpose of the study was to determine the factors predicting high estimated 10-year stroke risk based on a risk score, and among the risk factors comprising the risk score, which factors had a greater impact on the estimated risk. Methods: Thai Epidemiologic Stroke study was a community-based cohort study, which recruited participants from the general population from 5 regions of Thailand. Cross-sectional baseline data of 16,611 participants aged 45-69 years who had no history of stroke were included in this analysis. Multiple logistic regression analysis was used to identify the predictors of high estimated 10-year stroke risk based on the risk score of the Japan Public Health Center Study, which estimated the projected 10-year risk of incident stroke. Results: Educational level, low personal income, occupation, geographic area, alcohol consumption, and hypercholesterolemia were significantly associated with high estimated 10-year stroke risk. Among these factors, unemployed/house work class had the highest odds ratio (OR, 3.75; 95% confidence interval [CI], 2.47-5.69) followed by illiterate class (OR, 2.30; 95% CI, 1.44-3.66). Among risk factors comprising the risk score, the greatest impact as a stroke risk factor corresponded to age, followed by male sex, diabetes mellitus, systolic blood pressure, and current smoking. Conclusions: Socioeconomic status, in particular, unemployed/house work and illiterate class, might be good proxy to identify the individuals at higher risk of stroke. The most powerful risk factors were older age, male sex, diabetes mellitus, systolic blood pressure, and current smoking. Key Words: Thailand—epidemiology—stroke—risk factors—10-year stroke risk.

© 2014 by National Stroke Association