

Atrial fibrillation and all-cause mortality among community dwelling older adults

Introduction.

Electrocardiogram (ECGs) is a common medical test done in clinical setting, used for evaluation of irregular heart rhythm and other cardiovascular diseases. There is increasing evidence that 12 ECG recording can be a good prognostic tool in mortality prediction. A 12 lead ECG is challenging to capture in community setting, especially among asymptomatic community dwellers. Moreover, evaluation of ECG requires a trained health professional, which might not be a feasible option for community level screening in rural areas. Hence a 12 lead ECG is often of limited value in risk stratification in the community. Probable AF can be identified in the community using single lead hand held ECGs.

In this study we aim to develop an AF based risk prediction model which is easy to use among community dwelling older people. This will help in targeted preventive care for those with high risk in community. Also, we aim to assess if the addition of probable AF increases the risk prediction accuracy of commonly used cardiovascular 10-year risk prediction score for all cause mortality.

Objectives

1. To develop an atrial fibrillation-based risk prediction model to predict all-cause mortality among community dwelling older adults in semi-urban population of Malaysia
2. To compare the performance/ accuracy of this model against existing cardiovascular risk prediction models (Framingham risk score) in predicting cardiovascular death among the same population, using SEACO Health round 2013 data.

Skills required:

The candidate will be responsible coordinate the day to day activities of the programme and is expected to have the following skills:

- Education background: Public health, community health, medical sciences, allied health sciences, epidemiology
- Research skills: Literature review, quantitative research methods, data analysis (STATA, R, SPSS)
- Ability to work with broad range of stake holders- community, Ministry of health etc
- Good communication skills

Methodology

This study will be retrospective cohort study embedded in the ongoing longitudinal data collection in the demographic and health surveillance system of South East Asia Community Observatory (SEACO), Segamat, Malaysia. The current objectives will be answered through secondary data analysis of various studies in SEACO, and triangulation from other data sources. (verbal autopsy, Ministry of health medically certified deaths etc)

Supervisory team:

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