Manuscript #524

1. Full Title: A Comparison of Framingham Risk Model Predicted Coronary Heart Disease Incidence to Actual Coronary Heart Disease Incidence in the ARIC Study
   Abbreviated Title (Length 26): Risk Equation Validation

2. Writing Group (list individual with lead responsibility first):
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3. Timeline:
   1/98 - 9/98

4. Rationale:
The Framingham CHD risk model estimates the incidence of various CHD endpoints according to gender, age, blood pressure (systolic or diastolic), diabetes, current smoking, left ventricular hypertrophy from electrocardiogram, and the total/HDL cholesterol ratio [1]. The model can estimate several CHD endpoints, including CHD (confirmed MI, CHD death, angina, coronary insufficiency), MI (confirmed non-fatal and fatal MI), and CHD death (sudden and non-sudden CHD death). The model is potentially useful for prediction of CHD risk for purposes of planning epidemiological studies as well as for projecting benefits of alternative forms of treatment. However, the model has never been validated in a population-based sample of prospectively followed patients outside of Framingham. This study will validate the model by predicted CHD incidence to actual CHD incidence in the ARIC study.


5. Main Hypothesis:
   No formal hypothesis will be tested. The objectives of the study are to:
   1. Demonstrate that the overall predicted 6-year cumulative incidence of CHD (confirmed MI, CHD death, angina, coronary insufficiency) is consistent with the actual overall incidence of CHD.
   2. Demonstrate that the predicted 6-year cumulative incidence of CHD in subjects at
different levels of CHD risk (i.e. low, moderate, high) is consistent with the actual incidence of CHD in subsets of subjects at different levels of CHD risk.

6. Data (Variables, time window, source, inclusions/exclusions):
All ARIC subjects, baseline prognostic data and incident CHD event data through visit 3.

Baseline prognostic data: gender, age, blood pressure, presence of diabetes, current smoking status, presence of left ventricular hypertrophy from electrocardiogram, total-cholesterol, HDL cholesterol ratio.

Follow-up CHD incident events: confirmed MI, unstable angina/non-Q wave MI, CHD death, stable angina pectoris, CHD death