Manuscript #550

1. Full Title: Time Trend of Coronary Angiography After Myocardial Infarction
   Abbreviated Title: Trend in Angiography

2. Writing Group:
   Lead: Robert L. McNamara, MD, MHS
   Address: School of Hygiene and Public Health
             Johns Hopkins University
             615 N. Wolfe St., Room 6009
             Baltimore, MD 21205
   Phone: (410) 614-4768; Fax: (410) 955-8086
   Email: rmcnamara@jhsph.edu
   Wayne Rosamond, PhD
   Lloyd Chambless, PhD
   Lawton Cooper, PhD

3. Timeline:

4. Rationale:
   Nicod et al reported that the proportion of patients in the subacute phase after MI who undergone coronary angiography was higher after 1984 than before 1984 (1). In a study of the elderly, between 1987 and 1990, the percentage of patients undergoing angiography after MI increased some 24% to 33% (2). In a thrombolytic trial published in 1991 (TIMI IIB) selective use of coronary angiography in the subacute phase after myocardial infarction (MI) has since been shown to provide similar outcomes as is routine use (3). The standardized record of all MI's in the ARIC communities between 1987 and 1995 provides a time window in which to evaluate any temporal change in the use patterns of coronary angiography after myocardial infarction. The data concerning demographics, thrombolytics, MI severity, and stress testing may provide explanations if any temporal trend is found.

5. Main Hypothesis:
   The use of coronary angiography after MI decreased from 1987 to 1995, reversing a previous trend.

6. Data:
   In the surveillance component, the proportion of patients undergoing coronary angiography during the MI hospitalization for each year will be calculated. A trend
analysis will be performed. Analysis will also be performed comparing proportion before
publication of TIMI IIB (3) (1987-1990) and after (1992). Covariates which will be
analyzed to include age, gender, ethnicity, use of thrombolytics, use of acute
angiography, MI severity, and time to presentation. Also, any concurrent trend in stress
testing will be analyzed.

REFERENCES
Trends in use of coronary angiography in subacute phase of
2. Pashos CL. Newhouse JP. McNeil BJ. Temporal changes in the care and outcomes of
elderly patients with acute myocardial infarction, 1987 through 1990
JAMA 1993; 270:1832-6.
3. Rogers WJ, Babb JD, Baim DS, Chesebro JH, Roberts R, Williams DO, Frederick M,
Passamani ER, Braunwald E. Selective versus routine predischarge
coronary arteriography after thrombolytic therapy with recombinant tissue-type
plasminogen activator, heparin and aspirin for acute myocardial infarction.