

ARIC MANUSCRIPT PROPOSAL FORM

Manuscript #210

1. Title:

Validation of MI Diagnoses

2. Writing Group:

(lead) W. Rosamond A. Folsom L. Cooper
L. Chambless C. Smith

3. Timeline:

Analysis to begin immediately. Draft completed in 3 months.

4. Rationale:

ARIC Surveillance uses a standard procedure to validate the hospitals diagnostic coding of events to determine an independent myocardial infarction diagnosis classification. This classification is based on chest pain history, electrocardiographic (ECG) evidence and cardiac enzyme values. Hospital coding of events is determined by hospital coders using the nomenclature of the attending physician and other information contained in the hospital record. The ARIC study presents an opportunity to critically evaluate the use of a diagnostic algorithm to validate hospital discharge diagnoses for myocardial infarction.

5. Main Hypotheses:

- (1) The proportion of events screened by ARIC (eligible codes) which are validated as definite and probable myocardial infarction differs by race, sex, geographic location and teaching status of hospital. Relative rates of validation among these groups are similar.
- (2) Event classification schemes based only on ICD codes, pain and enzymes produce different event rates for definite (or definite plus probable) myocardial infarction compared to a algorithm of pain, ECG and enzymes, and the differences vary by race, sex, location, and teaching status of hospital.
- (3) Differential use of diagnostic procedures (e.g. angiography, echocardiography) among subsets of patients affects the proportion classified as definite myocardial infarction.
- (4) The female:male ratio will be higher in no MI group than in MI groups.
- (5) Explore cost considerations of validating hospital-based statistics.

6. Data:

Begin with closed 1987-88 surveillance data set, though final analysis can add 1989 data to be closed by October 1993. Diagnostic variables from the hospital abstraction form and derived variables from the ECG will be used.