ARIC MANUSCRIPT PROPOSAL FORM

Manuscript # 440

1. a. Title: Trends in MI Severity: The ARIC Surveillance Study
   b. Abbreviated Title: MI Severity Trends

2. Writing Group:
     Goff (Lead), Howard, Cooper, Rosamond, Folsom, Chambless and other interested
ARIC investigators

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3. Timeline:

Begin ASAP, finish by summer 97

4. Rationale:

Current data from a variety of sources indicate that case-fatality rates are declining. This
trend could be due to impoving medical care or to decreasing severity of MI related to
risk factor change. A FINMONICA paper has reported evidence supporting a decline in
severity. I propose to examine ARIC data to address this issue. It is my impression that
Dr. Rosamond is examining the Case-fatality rate trend in manuscript nurnber 338 and
that treatment trends are being examined by both Dr. Rosamond (#175) and Dr. O'Reilly
(#395).

5. Objectives/Hypothesis:

   1. Describe temporal trends in MI severity using the following indicators of severity:
initial pulse and blood pressure, peak enzymes (stratified by receipt of thrombolysis),
ECG findings (e.g., Q vs. Non-Q), complications (shock, CHF, VF, ?stroke, CPR, in-
hospital mortality), the Peel index and the Norris short term mortality index.
   2. Test hypothesis that MI severity has been declining.
   3. Test hypotheses that the observed trends are similar in magnitude and direction in
subgroups defined by community, sex and race/ethnicity

6. Design: Community surveillance of hospitalized events

7. Data:

      Inclusion: community surveillance events

      Independent variables: time (year), sex, race/ethnicity, community

      Dependent variables: Described above

      Covariate: age

      Analysis: Regression modeling of temporal trends to examine the questions: are the trends linear, if not is there evidence for flattening; are there differences in trends between subgroups defined by community, sex, and race/ethnicity?