ARIC MANUSCRIPT PROPOSAL FORM

Manuscript #175

1. Title:
   Thrombolytic Therapy

2. Writing Group:
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3. Timeline:

4. Rationale:
   While clinical trials have shown that coronary thrombolytic therapy leads to higher patency of infarct-related arteries and improves survival after acute myocardial infarction, little is known about its use in routine community hospital settings. Considerable debate exists regarding the proportion of AMI patients eligible to receive thrombolytic treatment as well as the proportion of eligible who actually are treated. Important issues of patients selection including gender and race differences are also currently being debated in the literature. Electrocardiographic indications for treatment and use of concomitant therapies such as anticoagulant, antiplatelet and surgical procedures are also controversial. The ARIC Surveillance data provides a unique opportunity to assess in detail, the use of thrombolytic therapy in the community.

Since usage of thrombolytic agents is evolving rapidly, it is proposed that this be the first phase of in-depth analyses, with phase-two looking at trends in usage when data from 1989-1990 become available.

It is recognized that manuscript #97 (Medical Care) will include data on thrombolytic therapy, however the current proposal will address issues of patients selection and eligibility, timing and case-fatality not covered in that paper. Also, there does not appear to be significant issues of overlap with manuscripts #85 (Outcomes) or #123 (Gender and Race).

5. Main Hypothesis:
   This study will be descriptive in nature and will determine the proportion of eligible cases receiving thrombolytic therapy. Issue relating to the timing of therapy will also be addressed. Hypotheses include:
   1) The proportion of AMI patients treated with thrombolytic therapy is less than the proportion eligible.
   2) Women are less likely to receive thrombolytic agents as compared to men.
   3) Thrombolytic therapy is used more often in younger MI patients as compared to older patients.
   4) MI patients presenting with delay times greater than four hours are less likely to receive thrombolytic therapy as compared to patients presenting with shorter delay times.
   5) Case-fatality of patients treated with thrombolytic therapy is lower as compared to MI patients not receiving thrombolytic agents.
6. Data:
Entire ARIC Surveillance 1987-1988 data. Variables for analyses are: demographic variables, location of infarct, chest pain history, delay from onset of symptoms to admission, ECG data (ST segment elevation), history of stroke, recent trauma and CPR, history of MI, concomitant medications and procedures. Eligibility for treatment can be determined using data from clinical history and ECG coding.