Manuscript #441

1. a. Title: Association of Serum Albumin and Incident Stroke--The ARIC Study
   b. Abbreviated Title: Albumin and Incident Stroke


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3. Timeline:

   Submit Proposal to Publications Committee                         October 2, 1996
   Complete analysis                                                   December, 1996
   Submit first draft to Publications Committee                     March, 1997
   Submit to Journal                                                   May, 1997

4. Rationale:

   Lower serum levels of albumin has been found to be significantly associated with incident CHD, stroke, indication of atherosclerosis in the carotid arteries, and lower extremity arterial disease. However, the pathological mechanisms are not clear. The proposed mechanisms include albumin as a marker of chronic inflammation or infection; its relationship and/or interaction with fibrinolysis and hemostatsis factors; its relationship with platelet aggregation; its role as an antioxidant. The now available incident stroke events in the ARIC study (through 1994) provide an opportunity to not only verify the only prospective study of serum albumin and incident stroke, but also to examine the potential mechanism(s) if an association between serum albumin and incident stroke is detected. Therefore, the proposed analysis will address the research questions listed below:
5. Main Study Questions:

(1) Are baseline levels of serum albumin associated with the risk of incident stroke over an average of 5.2 years of follow-up?
(2) Is the association independent of participant's age, sex, and ethnicity and other conventional stroke risk factors?
(3) Is the association influenced by ethnicity, sex and cigarette smoking status?
(4) Is there indirect evidence of involvement by markers of chronic inflammation, fibrinolysis and hemostasis factors.

6. Data(variables, source, inclusion/exclusion):

The following variables are needed for this analysis: Visit 1 serum albumin, demographic and SES variables, smoking status and intensity, hypertension and treatment variables, fibrinolysis and hemostasis variables, diabetes, cholesterol levels. All available incident stroke events and follow-up time for each participant.