ARIC MANUSCRIPT PROPOSAL FORM

Manuscript #191

1. Title:
Black-White Differences in change in ECG Left Ventricular Mass

2. Writing Group:
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3. Timeline:
Preliminary analyses could begin immediately (of approved, anticipating abstract submission to
AHA in May, 1993). Final analyses for publication purposes could not be completed until closure
of visit 2 data.

4. Rationale:
Cross-sectional reports from the ARIC study indicate that electrocardiographic estimates of left ventricular
mass are 1) higher in blacks relative to whites, and 2) are more strongly associated with mean arterial blood
pressure in blacks than whites after controlling for differences in antihypertensive treatment. These cross-
sectional data are consistent with epidemiologic reports of both a higher prevalence and incidence of ECG
LVH in African-Americans compared to Caucasian-Americans. The proposed study will estimate the
change in ECG estimated left ventricular mass at three year follow-up in black and white participants in
ARIC and contrast the determinants of the change in left ventricular mass in each of the four race-sex
groups.

5. Objectives/Hypothesis:
a. Describe the change in ECG left ventricular mass at three year follow-up.
b. Contrast the determinants of change in left ventricular mass in blacks and whites. Hypothesis: Blacks will
have a greater increase in ECG left ventricular mass than whites after controlling for baseline mean arterial
pressure, pulse pressure, body mass index, antihypertensive treatment, and the 3 year change in blood
pressure and body weight.

6. Data (variables, time window, source, inclusions/exclusions):
Visit one and two data.
Variables: ECG LVMI (Edmonton Data) weight, height, BMI, WHR, education, family income, physical
activity score, age, SBP, DBP, insulin, glucose, MSRA medication codes