1. Title:
Arterial Distensibility and ECG LV Mass

2. Writing Group:
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3. Timeline:
The data are available from the latest Visit 1 files. The Halifax ECG data from Visit 1 have been successfully
uploaded at the Coordinating Center. The writing group has the necessary resources to undertake the
analyses. Conditional upon the Publications Committee acceptance, analyses can begin in January.

4. Rationale:
Left ventricular hypertrophy is associated with increasing blood pressure. However, blood pressure alone
does not adequately assess the afterload placed on the left ventricle during systole. Since left ventricular
muscle mass increases in response to increased afterload, and because the distensibility of the arterial system
in an important determinant of afterload, it is important to assess the relationship of distensibility to left
ventricular mass in addition to blood pressure. The relation between these parameters can efficiently be
studied in the ARIC study, but has not yet been attempted.

5. Main Hypothesis:
Reduced arterial distensibility will be associated with increasing ECG LV mass in men and women ages 45-
64 years, independently of the effect of mean arterial pressure.

6. Data Requested:
The data needed for this manuscript include derived variables for arterial distensibility, Halifax ECG LV
mass, anthropomorphic measurements, medication survey data, and medical history and home interviews.
Covariates will include demographic characteristics, study center, chemistries, mean arterial pressure, and
established cardiovascular risk factors.