1. Title (length 26):
   White Blood Cell Count and Atherosclerosis

2. Writing Group (list individual with lead responsibility first):
   (lead) Mercuri                  Rock
           Bond                         Wu
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3. Timeline:
   Complete analysis (years 01 and 02 data) within 6 months of receipt of writing group approval.

4. Rationale: Several risk factors for non-invasively determined atherosclerosis have been described and their measurement may allow an estimation of risk of ischaemic events. WBC's, assessed as their count in the peripheral circulation, could be an additional risk factor. Several studies have shown that WBC count is a predictor of cardiovascular risk (the relative risk ranged between 1.4 and 4). Potential mechanisms to explain the predictive value could be mentioned: smoking habit, inflammation, stress, mediators of vascular injury, impairment of microvascular flow. There are no epidemiologic data which correlate WBCs to atherosclerosis. The ARIC program offers a unique opportunity to define this point and eventually to develop concepts to design more precise investigations.

5. Main Hypothesis:
   To determine whether WBC count predicts the extent and severity of carotid atherosclerosis.

6. Data (variables, time window, source, inclusions/exclusions):
   Variables: absolute and relative WBC count, carotid atherosclerosis indexes
   Covariables: haematocrit, haemoglobin, platelet count, smoking habit, fibrinogen
   Other: medications, history of cancer, chronic lung disease, asthma