1. Title: Antioxidants and Cognition
   Abbreviated: ANTIOXIDANTS – COGNITION

2. Writing Group (list individual with lead responsibility first):
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3. Timeline:
   Summer 1997.

4. Rationale:
   There is evidence that antioxidants may protect against oxidative damage in the brain,
   reducing damage to neurons and cognitive decline. A recent clinical trial has indicated
   that high dose Vitamin E therapy can slow the progression of Alzheimer’s disease (N
   Engl J Med 1997;336:1216-22). A prospective study found that Beta-carotene was
   inversely related to cognition (Am J Epidemiol 1996;144:275-80). A case-control study
   found that plasma concentrations of Vitamins A and E were lower in AD patients than in
   non-demented controls (Age and Ageing 1992;21:91-4). ARIC has the potential to
   examine these associations cross-sectionally.

5. Main Hypothesis:
   Compared to low dietary intake, higher dietary intake of vitamins A, C, and E (including
   supplement use) is associated with better cognitive function at visit 2.

6. Data (variables, time window, source, inclusions/exclusions):
   Independent variables: Dietary antioxidant intake (obtained from visit 1 food frequency
   questionnaire) + Use of supplements (obtained from visit 1 and visit 2 medication
   survey).
Dependent variables: Cognitive function tests at visit 2 – 1) Word recall; 2) Digit/Symbol; 3) Word Fluency

Covariates: age, race, sex, center, education, total caloric intake, marital status, employment status, depression score, smoking, hypertension, diabetes, fibrinogen, carotid artery wall thickness, FEV-1, HRT

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