

ARIC MANUSCRIPT PROPOSAL FORM

Manuscript #539B

1. Full Title: Smoking as a predictor of incident diabetes mellitus.

Abbreviated Title (length 26): Smoking -- Diabetes

2. Writing Group (list individual with lead responsibility first):

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3. Timeline:

7/99- 6/00

4. Rationale:

Our working group, AWG539, has investigated the association of markers of inflammation and perhaps also endothelial dysfunction with incident diabetes mellitus, resulting in 2 manuscripts. One of the original objectives of the group, to investigate the association of smoking with incident diabetes, remains to be completely analyzed and written up. Thus we would maintain the AWG539 working group on this remaining topic.

The objective of this proposal is to describe the prospective association of smoking with the development of diabetes mellitus, and to explore, to the extent possible through multivariate modeling, the degree to which this association may be mediated through inflammation.

5. Main Hypotheses:

1. Smoking is associated with the development of diabetes mellitus.
2. This association decreases (qualitatively) when adjustment for markers of inflammation is undertaken.

6. Data (variables, time window, source, inclusions/exclusions):

As for the AWG539 dataset, already created: All ARIC subjects, Visit 1 baseline data and incident diabetes data.

Baseline data: to define diabetes (fast0802, medication use, physician history, glucos01);
fasting insulin

Incident diabetes: V3 (and possibly V4) data to define incident diabetes.

Exposure variables: Smoking, HCT, WBC, platelet count, fibrinogen, Factors VII and VIII, von Willebrand factor, ATIII Protein C, APTT, albumin, aspirin/non-steroidal anti-inflammatory drug use

Covariates: Gender, age, ethnicity, BMI, WHR, physical activity, blood pressure, lipids, alcohol