

Analysis Data Set from the EDIC Carotid IMT Year 1 Paper*

(*DCCT/EDIC Research Group. Effect of Intensive Diabetes Treatment on Carotid Artery Wall Thickness in the Epidemiology of Diabetes Interventions and Complications. Diabetes, vol. 48, 383-390, 1999)

FORMAT: Two data sets are named **CURU1 (EDIC patients)** and **CURU1NRM (non-diabetic subjects)**, are stored in a **SAS** export library.

STRUCTURE: One record per patient.

CURU1: A total of 1325 patients (observations) containing EDIC year 1 carotid data.

CURU1NRM: A total of 153 non-diabetic subjects with EDIC year 1 carotid data.

CONTENTS: A complete SAS contents listing is attached separately.

Summary Statistics: A complete summary statistics (mean/std for continuous variables, frequency for categorical variables) is attached separately.

Data Collection: Renal and lipid data are collected every other year during EDIC. Two EDIC years make one complete data collection cycle. EDIC baseline renal and lipid data are combined one half of EDIC years 1 and 2.

I. CURU1 Data Set

Definition of Main Outcomes and Covariates:

Main Outcomes:

Common and Internal Maximum Intimal-Medial Thickness (IMT).

Carotid ultrasonography was performed in 1994-1995 (EDIC year 1). The scans were read in a central unit by a single reader. The maximum common IMT was defined as the mean of the maximum IMT for near and far walls in both right and left sides. The maximum internal IMT was defined in the same way, and the results from the three scans were averaged (anterior, lateral, and posterior views on both sides).

Reciprocal of Internal Intima-Media Thickness (IMT).

A reciprocal transformation of internal IMT was used in the regression models to yield approximately normal residual.

Covariate:

All covariates were obtained from the EDIC year 1 history and physical examination and from the laboratory data collected in either year 1 or year 2.

1. Albumin Excretion Rate (AER). Four-hour timed collection at every other year during EDIC.

The **AER** data are presented as the unit of ug / min. They can be transformed to mg/24 hrs.

The formula is:

$$\begin{aligned} & (\text{mg}/24\text{hrs}) * (1000 \text{ ug}/\text{mg} / (60\text{min}/\text{hour} * 24\text{hrs})) = (\text{ug} / \text{min}) \\ & \text{or } (\text{mg}/24\text{hrs})/ 1.44 = (\text{ug}/ \text{min}) \end{aligned}$$

Example:

AER = 40 mg/ 24hrs equals **AER** = 28 ug/ min. (rounded up to the closest integer)

2. Hypertension.

Hypertension was defined by a systolic blood pressure ≥ 140 mmHg, a diastolic blood pressure ≥ 90 mm Hg, the presence of documented hypertension, or the use of antihypertensive agents.

3. Attained age decade

The variable **DECADE** was defined as follows:

If $20 \leq \text{attained age} < 30$ then Decade = "20 - 29";
else if $30 \leq \text{attained age} < 40$ then Decade = "30 - 39";
else if $40 \leq \text{attained age} < 50$ then Decade = "40 - 49";

Six EDIC patients who were 19 years old when scanned and five who were aged 50 or 51 years old were excluded from the analysis in Tables 2 and 5.

II. CURU1NRM Data Set

During the first year of EDIC, each of the 28 clinics perform up to six carotid ultrasounds on non-diabetic subjects who were between the ages of 20 and 49 years old with no history of CVD, hypertension, or stroke. These 153 subjects serve as a control sample for EDIC patients in EDIC year 1.

De-identification:

1. Replaced Patient ID with MASK Patient ID.
2. Stripped obvious identifier, like CLINIC, INITIALS, RACE, DOB, etc.