



Atherosclerosis Risk in Communities Study

## EXAM 3

Derived Variable Dictionary

Version 37

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## 1 ALCOHOL USE

### 1.1 DRNKR31 (V3 Drinker Status)

<i>DRNKR31</i>		<i>Drinker Status</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
6685	1	Current drinker
2956	2	Former drinker
3205	3	Never drinker
2	4	Unknown
39		Missing

This is a numeric variable with values ranging from 1 to 4. These values are explained below.

- 1- Current drinker
- 2- Former drinker
- 3.- Never drinker
- 4 - Unknown

Note: This variable includes a historical component, but no use of Visit 1 and Visit 2 data has been made.

#### Table of assignment of values to DRNKR31

PHXA41: HAVE YOU EVER CONSUMED	PHXA40: DO YOU PRESENTLY DRINK ALCOHOLIC BEVERAGES?
--------------------------------------	---

ALCOHOLIC BEVERAGES?	Y	N	MISSING
Y	1	2	4 (d)
N	Missing (a)	3	3 (b)
Missing	1	4 (c)	Missing

- (a) Bad data (contradictory answers)
- (b) Even though Q40 is not answered, Q41 clearly defines the person as a never drinker
- (c) Could be either former or never drinker
- (d) Could be either former or current drinker

## 1.2 ETHANL32 (V3 usual Ethanol Intake in g/wk)

ETHANL32		Usual Alcohol Intake In Grams/Week
N	Value	Description
12743	Range	0 - 2678 ( median=0 mean=42.1 std=115.0 )
144		Missing

This is a numeric variable.

- i. Current drinker (DRNKR31 =1)

Note: This variable includes a historical component, but no use of Visit 1 and Visit 2 data has been made.

Algorithm:

$$\text{ETHANL32} = [(\text{PHXA49}) \times 10.8] \\ + [(\text{PHXA50}) \times 13.2] \\ + [(\text{PHXA51}) \times 15.1]$$

- ii. Former or never drinker  
[ (DRNKR31 = 2) or (DRNKR31 =3 )

$$\text{ETHANL32} = 0$$

- iii. Any of the following could not be determined:

- a. Drinking status
- b. Amount of wine
- c. Amount of beer
- d. Amount of hard liquor

$$\text{ETHANL32} = \text{missing}$$

PHXA49: Number of glasses of wine per week  
{4 oz. glasses; round down}

PHXA50: Number of bottles/cans of beer per week  
{12 oz. bottles/cans; round down}

PHXA51: Number of drinks of hard liquor per week  
{1.5 oz. shots; round down}

### 1.3 CURDRK31 (Current Drinker)

<i>CURDRK31</i>		<i>Current Drinker</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
40	T	Missing
6161	0	No
6685	1	Yes
1		Missing

CURDRK31 is a categorical variable that takes values according to the definition table below:

CURDRK31	PHXA40	PHXA41
1	Y	Y or Missing
0	N	any
	Missing	N
T	Y	N
	Missing	Not N

PHXA40: Do you presently drink alcoholic beverages? Yes, No

PHXA41: Have you ever consumed alcoholic beverages: Yes, No



#### 1.4 FORDRK31 (Former Drinker)

<i>FORDRK31</i>		<i>Former Drinker</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
40	T	Missing
9890	0	No
2956	1	Yes
1		Missing

FORDRK31 is a categorical variable that takes values according to the definition table below:

FORDRK31	PHXA40	PHXA41
1	N	Y
0	Y	Y or Missing
	N or Missing	N
T	N	Missing
	Y	N
	Missing	Y or .

PHXA40: Do you presently drink alcoholic beverages? Yes, No

PHXA41: Have you ever consumed alcoholic beverages? Yes, No

### 1.5 EVRDRK31 (Ever Drinker)

<i>EVRDRK31</i>		<i>Ever Drinker</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
38	T	Missing
3205	0	No
9644	1	Yes

EVRDRK31 is a categorical variable that takes values according to the definition table below:

EVRDRK31	PHXA40	PHXA41
1	Y	Missing
	any	Y
0	not Y	N
T	Y	N
	not Y	Missing

PHXA40: Do you presently drink alcoholic beverages? Yes, No

PHXA41: Have you ever consumed alcoholic beverages? Yes, No

## 2 ANTHROPOMETRY

### 2.1 BMI32 (V3 Body Mass Index in Kg/m<sup>2</sup>)

<i>BMI32</i>		<i>Body Mass Index In kg/m**2</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12869	Range	13.305 - 61.96084 ( median=27.66109 mean=28.517244 std=5.577540 )
18		Missing

This is a numeric variable.

Algorithm:

$$\text{Body Mass Index} = \left[ \frac{\text{Weight (lbs)}}{2.20} \right] / \left[ \frac{\text{Height (cm)}}{100} \right]^2$$

$$\text{BMI32} = ( \text{ANTC2} / 2.20 ) / ( \text{ANTC1} / 100 )^2$$

= missing, if either or both measure is missing

ANTC2 is weight to nearest pound at Visit 3.

ANTC1 is the standing height at Visit 3.

### 2.2 WSTHPR31 (V3 Waist-to-Hip Ratio)

<i>WSTHPR31</i>		<i>Waist-To-Hip Ratio</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12868	Range	0.5 - 1.980769 ( median=0.950495 mean=0.9407046 std=0.0732819 )
19		Missing

This is a numeric variable.

$$\text{WSTHPR31} = \text{ANTC3A} / \text{ANTC3B}$$

ANTC3A : Girth of Waist in cm

ANTC3B : Girth of Hip in cm

### 3 DISEASE PREVALENCE

#### 3.1 Diabts33 (Diabetes - Lower Cutpoint 140 mg/dL)

<i>DIABTS33</i>		<i>Diabetes Using Lower Cutpoint 140 mg/dL</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
34	T	Missing
11160	0	No
1654	1	Yes
39		Missing

Diabts33 is a categorical Visit 3 variable which assumes the following values according to the table below.

Value	Description
1	Diabetes = Yes
0	Diabetes = No
.T	Diabetes = Missing

**Table of assignment of values to Diabts33**

	LIPC4A	FAST0834	PHXA8K	MSRC2	MSRC24G
Diabts33 = 1	.200	any	any	any	any
	.140	1	any	any	any
	any	any	Y	any	any
	any	any	any	not T	Y
Diabts33 = 0	not missing and <140	any	N or U	any	not Y
Diabts33 = .T	any	0	not Y	any	not Y
	not 140	any	missing	any	not Y
	not 140	any	not Y	not T	missing

LIPC4A: Blood Glucose Level in mg/dL

FAST0834: 8 hours or more of fasting time

PHXA8K: Diabetes (Sugar in Blood)? Y, N, U (Unsure).

MSRC2\*: Took no medications in past 2 weeks? T (no meds) F

MSRC24G: Were any of the medications you took for Diabetes or high blood sugar?  
Y, N, U (Unknown)

\*A value of T on this item skips the patient over MSRC24G.

### 3.2 Diabts34 (Diabetes - Lower Cutpoint 126 mg/dL)

<i>DIABTS34</i>		<i>Diabetes Using Lower Cutpoint 126 mg/dL</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
41	T	Missing
10818	0	No
1988	1	Yes
40		Missing

Diabts34 is a categorical Visit 3 variable which assumes the following values according to the table below.

<b>Value</b>	<b>Description</b>
1	Diabetes = Yes
0	Diabetes = No
.T	Diabetes = Missing

**Table of assignment of values to Diabts34**

	LIPC4A	FAST0834	PHXA8K	MSRC2	MSRC24G
Diabts34 = 1	.200	any	any	any	any
	.126	1	any	any	any
	any	any	Y	any	any
	any	any	any	not T	Y
Diabts34 = 0	not missing and <126	any	N or U	any	not Y
Diabts34 = .T	any	0	not Y	any	not Y
	not 126	any	missing	any	not Y
	not 126	any	not Y	not T	missing

LIPC4A: Glucose in mg/dL

FAST0834: 8 hours or more of fasting time

PHXA8K: Diabetes (Sugar in Blood)? Y, N, U (Unsure).

MSRC2\*\*: Took no medications in past 2 weeks? T (no meds) F

MSRC24G: Were any of the medications you took for Diabetes or high blood sugar?  
Y, N, U (Unknown)

\*A value of T on this item skips the patient over MSRC24G

### 3.3 QWAVE34A (V3 Diagnostic Q-wave present from Adjudicated ECG Data)

QWAVE34A		Diagnostic Q-Wave Present
N	Value	Description
108	T	Missing
12473	0	No
260	1	Yes
46		Missing

In this definition, diagnostic Q-wave corresponds to Minnesota codes in 1-1-x to 1-2-x, but without ST-T changes (Minnesota codes 4 or 5). This numeric Visit 3 variable does not correspond with definitions provided in the ARIC ECG manual. The variable assumes the following values according to the table below.

Value	Description
1	Diagnostic Q-wave present = Yes
0	Diagnostic Q-wave present = No
.T or .	Missing value

**Table of assignment of values to QWAVE34A**

	ECGMCFLG	ECGMC09*	ECGMC10*	ECGMC11*
QWAVE34A = 1	1	11-25 OR 27	any	any
		any	11-25 OR 27	any
		any	any	11-25 or 27
QWAVE34A = 0	1	nonmiss & not 11-25 & not 27	nonmiss & not 11-25 & not 27	nonmiss & not 11-25 & not 27
QWAVE34A = .T	0	any	any	any
QWAVE34A = .	Any other combination of values			

\* The values for these variables in this table correspond to the last two digits of the Minnesota codes: that is, the initial 1 contained in the Minnesota codes has been dropped.

Variable	Description	Range of Possible Values
ECGMCFLG	Whether ECG Form present or not	
ECGMC09	Q-Q.S. Pattern I, aVL, V6	1-1-x, 1-2-x, 1-3-x
ECGMC10	Q-Q.S. Pattern II, III, aVF	1-1-x, 1-2-x, 1-3-x
ECGMC11	Q-Q.S. Pattern V1-V5	1-1-x, 1-2-x, 1-3-x

### 3.4 QWAVE37A

QWAVE37A		V3 Major Q-wave present with no 7-1-1, 7-1-2, or 7-4, from Original Machine Coded ECG Records
N	Value	Description
108	M	Missing
26	T	Missing
12604	0	No
103	1	Yes
46		Missing

(Major Q-Wave present with no 7-1-1, 7-1-2, or 7-4, from Adjudicated ECG Records)

In this definition, major Q-waves correspond to Minnesota codes 1-1-x. This numeric Visit 3 variable is based on definition A in the ARIC ECG Manual and assumes the following values according to the table below.

Value	Description
1	Diagnostic Q-wave present = Yes
0	Diagnostic Q-wave present = No
.T or .M or .	Missing value

**Table of assignment of values to QWAVE37A**

	ECGMCFLG	ECGMC09*	ECGMC10*	ECGMC11*	ECGMC24**
QWAVE37A = 1	1	11-17	any	any	nonmiss & not 4 and not 1 or 11
		any	11-17	any	
		any	any	11-17	
QWAVE37A = 0	1	nonmiss & not 11-17	nonmiss & not 11-17	nonmiss & not 11-17	any
QWAVE37A = .T	1	11-17	any	any	4 or 1 or 11 or missing
		any	11-17	any	
		any	any	11-17	
QWAVE37A = .M	0	any	any	any	any
QWAVE37A = .	Any other combination of values				

\* The values for these variables in this table correspond to the last two digits of the Minnesota codes: that is, the initial 1 contained in the Minnesota codes has been dropped.

\*\* A value of 1 for this variable corresponds to Minnesota codes 7-1-1 or 7-1-2. A value of 4 corresponds to Minnesota code 7-4.

Variable	Description	Range of Possible
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## Values

ECGMCFLG	Whether composite ECG Record with Adjudicated Values is present or not	
ECGMC09	Q-Q.S. Pattern I, aVL, V6	1-1-x, 1-2-x, 1-3-x
ECGMC10	Q-Q.S. Pattern II, III, aVF	1-1-x, 1-2-x, 1-3-x
ECGMC11	Q-Q.S. Pattern V1-V5	1-1-x, 1-2-x, 1-3-x
ECGMC24	Ventricular Conduction Defect	7-1-1 through 7-8

### 3.5 QWAVEM37

(V3 Major Q-wave present with no 7-1-1, 7-1-2, or 7-4, from Original Machine Coded ECG Records)

QWAVEM37		Same As QWAVE37a But Uses Machine Code
N	Value	Description
32	T	Missing
12587	0	No
114	1	Yes
154		Missing

In this definition, major Q-waves correspond to Minnesota codes 1-1-x. This numeric Visit 3 variable is based on definition A in the ARIC ECG Manual and assumes the following values according to the table below.

Value	Description
1	Major Q-wave present = Yes
0	Major Q-wave present = No
.T or .M or .	Missing value



**Table of assignment of values to QWAVEM37**

	ECGDFLAG	ECGD09*	ECGD10*	ECGD11*	ECGD24*
QWAVEM37 = 1	1	11-17	any	any	nonmiss & not 4 and not 1 or 11
		any	11-17	any	
		any	any	11-17	
QWAVEM37 = 0	1	nonmiss & not 11-17	nonmiss & not 11-17	nonmiss & not 11-17	any
QWAVEM37 = .T	1	11-17	any	any	4 or 1 or 11 or missing
		any	11-17	any	
		any	any	11-17	
QWAVEM37 = .M	0	any	any	any	any
QWAVEM37 = .	Any other combination of values				

\* The values for these variables in this table correspond to the last two digits of the Minnesota codes: that is, the initial 1 contained in the Minnesota codes has been dropped.

\*\* A value of 1 for this variable corresponds to Minnesota codes 7-1-1 or 7-1-2. A value of 4 corresponds to Minnesota code 7-4.

<b>Variable</b>	<b>Description</b>	<b>Range of possible values</b>
ECGDFLAG	Whether composite ECG Record with Adjudicated Values is present or not	
ECGD09	Q-Q.S. Pattern I, aVL, V6	1-1-x, 1-2-x, 1-3-x
ECGD10	Q-Q.S. Pattern II, III, aVF	1-1-x, 1-2-x, 1-3-x
ECGD11	Q-Q.S. Pattern V1-V5	1-1-x, 1-2-x, 1-3-x
ECGD24	Ventricular Conduction Defect	7-1-1 through 7-8

### 3.6 QWAVE38B

(V3 Minor Q-Wave present with ST or T codes and no 7-1-1, 7-1-2, or 7-4 codes from Adjudicated ECG Records)

QWAVE38B		Minor Q-Wave present with ST or T codes and no 7-1-1, 7-1-2, or 7-4 codes from Adjudicated ECG Records
N	Value	Description
108	M	Missing
12688	0	No
45	1	Yes
46		Missing

In this definition, minor Q-wave corresponds to Minnesota codes 1-2-x, ST segment corresponds to codes 4-x, and T-wave corresponds to definition B in the ARIC ECG Manual. The variable assumes the following values according to the table below.

Value	Description
1	Minor Q-wave present = Yes.
0	Minor Q-wave present = No.
T or M. or .	Missing value.

**Table of assignment of values to QWAVE38B**

	ECGMCFLG	ECGMC09, 10, 11*	ECGMC12 - ECGMC17**	ECGMC24 <sup>+</sup>
QWAVE38B = 1	1	ECGMC09= (21-25, 27, or 28) or ECGMC10= (21-25, 27, or 28) or ECGMC11= (21-25, 27, or 28)	ECGMC12 = 2, 11, or 12 ECGMC13 = 2, 11 or 12 ECGMC14 = 2, 11 or 12 ECGMC15 = 1 or 2 ECGMC16 = 1 or 2 ECGMC17 = 1 or 2	nonmiss and not (1, 4, or 11)
QWAVE38B = 0	1	nonmiss & not (21-25, 27, or 28)  any	any  (ECGMC12, ECGMC13, and ECGMC14 not missing & not 2, 11, & 12) and  (ECGMC15, ECGMC16, and ECGMC17 not 1 & 2 and not missing)	any
QWAVE38B = .T	1	Values of ECGMC09-11 and ECGMC12-17 that would give QWAVE38B = 1		1, 4, 11, or missing
QWAVE38B = .M	0	any	any	any
QWAVE38B = .	Any other combination of values			

\* The values for these variables in this table correspond to the last two digits of the Minnesota codes: that is, the initial 1 contained in the Minnesota codes has been dropped.

\*\* The values for these variables correspond to the last one or two digits of the Minnesota codes: that is, for variables ECGMC12-ECGMC14, the initial 4 contained in the Minnesota codes has been dropped, and for variables ECGMC15-ECGMC17, the initial 5 contained in the Minnesota codes has been dropped.

+ A value of 1 for this variable corresponds to Minnesota codes 7-1-1 or 7-1-2. A value of 4 corresponds to Minnesota code 7-4.

<b>Variable</b>	<b>Description</b>	<b>Range of Possible Values</b>
ECGMCFLG	Whether composite ECG Record with Adjudicated Values is present or not	
ECGMC09	Q-Q.S. Pattern I, aVL, V6	1-1-x, 1-2-x, 1-3-x
ECGMC10	Q-Q.S. Pattern II, III, aVF	1-1-x, 1-2-x, 1-3-x
ECGMC11	Q-Q.S. Pattern V1-V5	1-1-x, 1-2-x, 1-3-x
ECGMC12	ST Junction & Segment Depression I, aVL, V6	4-1-1 through 4-4
ECGMC13	ST Junction & Segment Depression II, III, aVF	4-1-1 through 4-4
ECGMC14	ST Junction & Segment Depression V1-V5	4-1-1 through 4-4
ECGMC15	T Wave I, aVL, V6	5-1 through 5-4
ECGMC16	T Wave II, III, aVF	5-1 through 5-4
ECGMC17	T Wave V1-V5	5-1 through 5-4
ECGMC24	Ventricular Conduction Defect	7-1-1 through 7-8

### 3.7 QWVEM38B

(Minor Q-wave present with ST or T codes and no 7-1-1, 7-1-2, or 7-4 codes, from Original Machine Coded ECG Records)

<i>QWVEM38B</i>		<i>Same As QWAVE38b But Uses Machine Code</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
108	M	Missing
1	T	Missing
12685	0	No
45	1	Yes
48		Missing

In this definition, minor Q-wave corresponds to Minnesota codes 1-2-x, ST segment corresponds to codes 4-x, and T-wave corresponds to codes 5-1 or 5-2. This numeric Visit 3 variable is based on definition B in the ARIC ECG Manual. The variable assumes the following values according to the table below.

<b>Value</b>	<b>Description</b>
1	Minor Q-wave present = Yes.
0	Minor Q-wave present = No.
T or M. or .	Missing value.

**Table of assignment of values to QWVEM38B**

	ECGDFLAG	ECGD09, 10, 11 <sup>+</sup>	ECGD12-ECGC17 <sup>**</sup>	ECGD24 <sup>+</sup>
QWVEM38B = 1	1	ECGD09= (21-25, 27, or 28) or ECGD10= (21-25, 27, or 28) or ECGD11= (21-25, 27, or 28)	ECGD12 = 2, 11 or 12	nonmiss and not (1,4,or 11)
			ECGD13 = 2, 11 or 12	
			ECGD14 = 2, 11 or 12	
			ECGD15 = 1 or 2	
			ECGD16 = 1 or 2	
QWVEM38B = 0	1	nonmiss & not (21-25, 27, or 28)	any	any
			(ECGD12, ECGD13, and ECGD14 not missing & not 2, 11, & 12) and  (ECGD15, ECGD16, and ECGD17 not missing & not 1 & 2)	any
QWVEM38B = .T	1	Values of ECGD09-11 and ECGD12-17 that would give QWVEM38B = 1		1, 4, 11, or missing
QWVEM38B = .M	0	any	any	any
QWVEM38B = .	Any other combination of values			

\* The values for these variables in this table correspond to the last two digits of the Minnesota codes: that is, the initial 1 contained in the Minnesota codes has been dropped.

\*\* The values for these variables correspond to the last one or two digits of the Minnesota codes: that is, for variables ECGD12-ECGD14, the initial 4 contained in the Minnesota codes has been dropped, and for variables ECGD15-ECGD17, the initial 5 contained in the Minnesota codes has been dropped.

+ A value of 1 for this variable corresponds to Minnesota codes 7-1-1 or 7-1-2. A value of 4 corresponds to Minnesota code 7-4.

Variable	Description	Range of Possible Values
ECGDFLAG	Whether original machine coded ECG is present or not	
ECGD09	Q-Q.S. Pattern I, aVL, V6	1-1-x, 1-2-x and 1-3-x
ECGD10	Q-Q.S. Pattern II, III, aVF	1-1-x, 1-2-x and 1-3-x
ECGD11	Q-Q.S. Pattern V1-V5	1-1-x, 1-2-x and 1-3-x

ECGD12	ST Junction & Segment Depression I, aVL, V6	4-1-1 through 4-4
ECGD13	ST Junction & Segment Depression II, III, aVF	4-1-1 through 4-4
ECGD14	ST Junction & Segment Depression V1-V5	4-1-1 through 4-4
ECGD15	T Wave I, aVL, V6	5-1 through 5-4
ECGD16	T Wave II, III, aVF	5-1 through 5-4
ECGD17	T Wave V1-V5	5-1 through 5-4
ECGD24	Ventricular Conduction Defect	7-1-1 through 7-8

**3.8 PRVCHD31  
(UC3508.03)**

<i>PRVCHD31</i>		<i>V3 Prevalent Coronary Heart Disease</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
11732	0	No
891	1	Yes
264		Missing

(V3 Prevalent Coronary Heart Disease: Reported history of CHD at V1 + adjudicated CHD events by V3)

This is a numeric variable which assumes the following values according to the table below.

<b>Value</b>	<b>Description</b>
1	Coronary Heart Disease = Yes.
0	Coronary Heart Disease = No.
.T or .	Missing value

	PRVCHD05	IN_97SP	DATEISP
PRVCHD31 = 1	1	any	
	any	1	< V1DATE01 + 6*365
PRVCHD31 = 0	0	not 1	any
	0	1	> V1DATE01 + 6*365
PRVCHD31 = .	Any other combination of values		

PRVCHD05: Reported history of Coronary Heart Disease at V1.  
 IN\_97SP: Fatal CHD, MI, silent MI, coronary artery bypass surgery, angioplasty by 1997.  
 DATEISP: Date of IN\_97SP  
 V1DATE01: Visit 1 date

3.9 PRVCHD32 (V3 Prevalent Coronary Heart Disease - unverified)  
(UC3508.03)

PRVCHD32		V3 Prevalent CHD - Unverified
N	Value	Description
146	T	Missing
11771	0	No
947	1	Yes
23		Missing

This is a numeric Visit 3 variable which assumes the following values according to the table below.

Value	Description
1	Coronary Heart Disease = Yes.
0	Coronary Heart Disease = No.
.T or .	Missing value.

**Table of assignment of values to PRVCHD32**

	ECGMI32	HXOFMI31	HHXC4	HHXC5A	HHXC6	HHXC7A
PRVCHD32 = 1	1	any	any	any	any	any
	any	1	any	any	any	any
	any	any	not N	Y	any	any
	any	any	any	any	not N	Y
PRVCHD32 = 0	0	0	any	N	any	N
					N	not Y
			N	not Y	any	N
					N	not Y
PRVCHD32 = .T	missing	not 1	any	not Y	any	not Y
	not 1	missing	any	not Y	not N	not Y
	not 1	not 1	N	Y	any	not Y
			Y	missing		
	not 1	not 1	any	not Y	N	Y
				Y	missing	
PRVCHD32 = .	Any other combination of values					



ECGMI32: V3 MI According to Adjudicated ECG.  
MDDXMI31: V3 MD Diagnosed Myocardial Infarction.  
HHXC4: Heart, neck or leg surgery? Y, N  
HHXC5A: Coronary Bypass. Y, N  
HHXC6: Balloon angioplasty on heart or legs? Y, N  
HHXC7A: Angioplasty of Coronary Artery (ies). Y, N

### 3.10 MDDXMI31 (V3 MD Diagnosed Myocardial Infarction)

MDDXMI31		V3 MD Diagnosed Myocardial Infarction
N	Value	Description
12140	0	No
747	1	Yes

This is a numeric Visit 3 variable which assumes the following values according to the table below.

Value	Description
1	Reported MD Diagnosed MI = Yes.
0	Reported MD Diagnosed MI = No.
.T or .	Missing value.

#### Table of assignment of values to MDDXMI31

	CONSIDER CONTACT YEARS 5, 6, 7				
	PHXA8I	AFUx07	AFUx17	AFUx18	AFUx19
MDDXMI31 = 1	Y	any	any	any	any
	any	Y	Y	Y	H
MDDXMI31 = 0	N	any	any	any	not H
	not Y	Y	Y	Y	0
	not Y	Y	Y	N	missing
	not Y	Y	N	N or missing	missing
	not Y	N	N or missing	missing	missing
MDDXMI31 = .T	not Y	missing	any	any	any
	not Y	Y	missing	any	any
	not Y	Y	Y	Y	missing
	not Y	Y	Y	missing	any
	not Y	Y	N	Y	any
	not Y	Y	N	missing	H or O
	not Y	N	Y	any	any
	not Y	N	missing	Y or N	any
not Y	N	missing	missing	H or O	

MDDXMI31 = . Any other pattern of response

PHXA8I: Has a doctor ever told you that you had a heart attack? Y, N, U

AFUx07: Have you ever had any pain or discomfort in your chest? Y, N

AFUx17: Have you ever had a severe pain across the front of your chest lasting for half an hour or more? Y, N

AFUx18: Did you see a doctor because of this pain? Y, N

AFUx19: What did he say it was? H (Heart Attack), O (Other Disorder)

Note: The algorithm below requires use of Annual Follow-up (AFUx) variables from contact years 5, 6, 7 (afub523, afuc523, afud523, afc0602, afd0602, afe0602, afd0702).

Algorithm:

1. If PHXA8I = Y or  
((AFUx07 = Y) and (AFUx17 = Y) and (AFUx18 = Y) and (AFUx19 = H))  
then set MDDXMI31 = 1 (Positive)
2. If (PHXA8I = N and AFUx19 ne H) or  
[(AFUx07 = Y and AFUx17 = Y) and (AFUx18 = Y and AFUx19 = O)] or  
[(AFUx07 = Y and AFUx17 = Y) and (AFUx18 = N and AFUx19 = missing)] or  
[(AFUx07 = Y and AFUx17 = N) and (AFUx18 = missing & AFUx19=missing)] or  
[(AFUx07 = N and AFUx17 = missing) and  
(AFUx18 = missing and AFUx19 = missing)]  
then set MDDXMI31 = 0. (Negative)
3. If [(AFUx07 = missing)] or  
[(AFUx07 = Y) and (AFUx17 = missing)] or  
[(AFUx07 = Y) and (AFUx17 = Y) and (AFUx18 = Y) & (AFUx19 = missing)] or  
[(AFUx07 = Y) and (AFUx17 = Y) and (AFUx18 = missing)] or  
[(AFUx07 = Y) and (AFUx17 = N) and (AFUx18 = Y or AFUx18 = N)] or  
[(AFUx07 = Y) and (AFUx17 = N) and  
(AFUx18 = missing) and (AFUx19 = H or AFUx19 = 0)] or  
[(AFUx07 = N) and (AFUx17 = Y or AFUx17 = N)] or  
[(AFUx07 = N) and (AFUx17 = missing) and (AFUx18 = Y or AFUx18 = N)] or  
[(AFUx07 = N) and (AFUx17 = missing) and  
(AFUx18 = missing) and (AFUx19 = H or AFUx19 = 0)]  
then set MDDXMI31 to missing.

### 3.11 HXOFMI31 (V3 History of Myocardial Infarction)

<i>HXOFMI31</i>		<i>V3 History Of Myocardial Infarction</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1	T	Missing
12085	0	No
801	1	Yes

This is a numeric Visit 3 variable which assumes the following values according to the table below.

<b>Value</b>	<b>Description</b>
1	Self or Physician-Reported Heart Attack = Yes.
0	Self or Physician-Reported Heart Attack = No.
.T or .	Missing value.

**Table of assignment of values to HXOFMI31**

	MDDXMI31	AFUX30
HXOFMI31 = 1	1	any
	any	Y
HXOFMI31 = 0	0	N or U
HXOFMI31 = .T	Not 1	missing
	missing	N or U

HXOFMI31 = . Any other combination of values

MDDXMI31: MD Diagnosed Myocardial Infarction.

AFUX30: Have you been hospitalized for a heart attack? Y, N, U (Unknown)

Note: Definition requires use of Annual Follow-up (AFUX) variables from contact years 5, 6, 7 (afub523, afuc523, afud523, afc0602, afd0602, afe0602, afd0702).

### 3.12 ECGMI32 Prevalent Myocardial Infarction from Adjudicated Electrocardiograms

ECGMI32		Prevalent Myocardial Infarction from Adjudicated ECG
N	Value	Description
180	T	Missing
12562	0	Yes
145	1	No

This is a numeric Visit 3 variable which assumes the following values according to the table below.

Value	Description
1	MI from ECG = Yes.
0	MI from ECG = No.
.T or .	Missing value.

**Table of assignment of values to ECGMI32**

	QWAVE37A	QWAVE38B
ECGMI32 = 1	1	any
	any	1
ECGMI32 = 0	0	0
ECGMI32 = .T	missing	not 1
	not 1	missing
ECGMI32 = .	Any other combination of values	

QWAVE37A: Major Q-Wave present with no 7-1-1 or 7-4.

QWAVE38B: Minor Q-Wave present with S or ST and no 7-1-1 or 7-4.

### 3.13 MACHMI31

(Prevalent Myocardial Infarction from Original Machine Coded Electrocardiograms)

<i>MACHMI31</i>		<i>Pre Myocard Infarction From Machine Coded ECG</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
186	T	Missing
12547	0	No
154	1	Yes

This is a numeric Visit 3 variable which assumes the following values according to the table below.

<b>Value</b>	<b>Description</b>
1	MI from ECG = Yes.
0	MI from ECG = No.
.T or .	Missing value.

**Table of assignment of values to MACHMI31**

	QWAVEM37	QWVEM38B
MACHMI31 = 1	1	any
	any	1
MACHMI31 = 0	0	0
MACHMI31 = .T	missing	not 1
	not 1	missing
MACHMI31 = .	Any other combination of values	

QWAVEM37: Major Q-wave present with no 7-1-1 or 7-4.

QWVEM38B: Minor Q-wave present with S or ST and no 7-1-1 or 7-4.

### 3.14 PRVCHD33 (Prevalent CHD at Visit 3, definition 3)

<i>PRVCHD33</i>		<i>Prevalent CHD At V3, Definition 3</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
11729	0	No
895	1	Yes
263		Missing

PRVCHD33= 1 if PRVCHD05=1 or (IN\_00SP=1 and ' < DATISP <= V3DATE31) or (IN\_00SP=1 and V3DATE31= ' and DATEISP <= V1DATE01 +6\*365.25).

PRVCHD33= 0 if PRVCHD05=0 and (IN\_00SP=0 or DATISP>V3DATE31> '.') or (V3DATE31= '.' and DATEISP>V1DATE01 +6\*365.25).

Else PRVCHD33=. (missing)

### 3.15 PRVSTR31 (Prevalent Stroke at Visit 3)

<i>PRVSTR31</i>		<i>Prevalent Stroke At V3</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12603	0	No
252	1	Yes
32		Missing

PRVSTR31= 1 if HOM10D=1 or (IN00DP=1 and '.'<DATISP<=V3DATE31) or (IN00DP=1 and V3DATE31= '.' and ED00DP<=V1DATE01 +6\*365.25) .

PRVSTR31= 0 if HOM10D=0 and (IN00DP=0 or DATISP>V2DATE21> '.') or (V2DATE21= '.' and ED00DP>V1DATE01 +3\*365.25).

Else PRVSTR31=. (missing)

## 4 HYPERTENSION

### 4.1 HYPERT34 (V3 Hypertension, definition 4)

<i>HYPERT34</i>		<i>V3 Hypertension, Definition 4</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
8488	0	No
4320	1	Yes
79		Missing

HYPERT34 = 1 if (SBPC23, 90) OR  
 [ (MSRC24A = Y) and (MSRC2 not equal T) ]  
 = 0 if (0, SBPC23 < 90) AND {MSRC24A = N or  
 [ (MSRC24A = missing) and (MSRC2 = T) ] }  
 = missing Otherwise

#### **Table of assignment of values to HYPERT34**

HYPERT34	SBPC23	MSRC24A	MSRC2
1	>=90	any	any
	any	Y	Not T
0	[0,90)	N	any
		missing	T
missing	otherwise		

### 4.2 HYPERT35 (V3 Hypertension, definition 5)

<i>HYPERT35</i>		<i>V3 Hypertension, Definition 5</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
7550	0	No
5269	1	Yes
68		Missing

HYPERT35 = 1 if (SBPC23, 90) or (SBPC22, 140) or  
 [ (MSRC24A = Y) and (MSRC2 = T) ]  
 = 0 if (0, SBPC23 < 90) and (0 < SBPC22 < 140)  
 and {MSRC24A = N or [ (MSRC24A = missing)  
 and (MSRC2 = T) ] }

= missing Otherwise

**Table of assignment of values to HYPERT35**

HYPERT35	SBPC23	SBPC22	MSRC24A	MSRC2
1	>=90	any	any	any
	any	>=140	any	any
	any	any	Y	not T
0	[0,90)	(0,140)	N	any
			missing	T
missing	otherwise			

4.3 HYPERT36 (V3 Hypertension, definition 6)

<i>HYPERT36</i>		<i>V3 Hypertension, Definition 6</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
8498	0	No
4312	1	Yes
77		Missing

HYPERT36 = 1 if (SBPC23 >= 95) or (SBPC22 >= 160) or [(MSRC24A = Y) and (MSRC2 ≠ T)]

= 0 if (0 < SBPC23 < 95) and (0 < SBPC22 < 160) and {MSRC24A = N or [(MSRC24A = missing) and (MSRC2 = T)]}

= missing Otherwise

**Table of assignment of values to HYPERT36**

HYPERT36	SBPC23	SBPC22	MSRC24A	MSRC2
1	>=95	any	any	any
	any	>=160	any	any
	any	any	Y	not T
0	[0,95)	(0,160)	N	any
			missing	T
missing	otherwise			



SBPC22: 2nd and 3rd systolic BP average  
SBPC23: 2nd and 3rd diastolic BP average  
MSRC24A: Were any of the medications you took during the past two weeks for high blood pressure? Y, N, U (Unknown)  
MSRC2: Reason why did not bring all medications

## 5 LIPIDS RECALCULATED

### 5.1 LDL32 (V3 Recalculated LDL Cholesterol)

<i>LDL32</i>		<i>Re-Calibrated LDL Cholesterol In mg/dL</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12625	Range	7.6 - 347 ( median=125.8 mean=127.29 std=34.47 )
262		Missing

This is a numeric variable.

Algorithm:

$LDL32 = LIPC1A - LIPC3A - (LIPC2A/5)$ .

1. If (LIPC1A = missing) or  
(LIPC2A = missing) or  
(LIPC3A = missing) or  
(LIPC2A > 400)  
  
then set LDL32 = missing. (Missing)
2. If LDL32 = negative  
  
then set LDL32 = 0. (Negative)

SAS Code:

```
LDL32 = LIPC1A - LIPC3A - LIPC2A/5;  
if LIPC2A > 400 then LDL32 = .;  
if .z < LDL32 < 0 then LDL32 = 0;
```

LIPC1A : Total cholesterol in mg/dL.

LIPC2A : Total triglycerides in mg/dL.

LIPC3A : HDL cholesterol in mg/dL.

## 6 MEDICATION USE

Medication records were collected at each clinic visit. Participants were reminded to bring all medications used in the previous two weeks. Names of the medications were transcribed and coded by the ARIC medication coding system, developed by a pharmacist at UNC. The ARIC medication codes were then mapped to Medi-Span Therapeutic Classification (MTC) codes and American Hospital formulary Service Classification Compilation (AHFSCC) codes. Variable names for the MTC codes are MSRMTC1-MSRMTC17, and MSRAHF1-MSRAHF17 for AHFSCC codes (in file MSRCOD34 for Visit 3). Definitions of the MTC codes are given in Section 16.

### 6.1 CHOLMD31 (Discontinued: Replaced by CHOLMDCODE31)

### 6.2 CHOLMDCODE31 (Cholesterol Lowering Medications in past 2 weeks)

(Uc 4735) Replaced CHOLMD31 to include the 2004 Medication Coding

<i>CHOLMDCODE31</i>		<i>Cholesterol Lowering Medication Within 2wks: Using 2004 Med Code -V3</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
27	T	Missing
11630	0	No
1230	1	Yes

#### Algorithm.

If CODE1-CODE17 have at least one of the following: 771030, 390000--399999, then FOUND1 = 1. Else FOUND1 = 0. If all CODE1-CODE17 = missing then ALLMISS = 1. Else ALLMISS = 0.

1. If (MSRC2 = F or MSRC2 = missing) and ALLMISS=1 then CHOLMDCODE31 = .T .
2. Else if [MSRC2 NE T] and FOUND1=1 then set CHOLMDCODE31 = 1.
3. Else if [MSRC2 = T and ALLMISS=1] or FOUND1=0 then set CHOLMDCODE31 = 0.
4. Otherwise, set CHOLMDCODE31 = .

	FOUND1	ALLMISS	MSRC2
CHOLMDCODE31 = 1	1	0	Not T
CHOLMDCODE31 = 0	0	Any	Any
	Any	1	T
CHOLMDCODE31 = .T	Any	1	F or missing

CODE1--17: Updated Medication Code number.

MSRC2: Reason why did not bring all medications.  
 T (Took no medications),  
 F (Forgot or was unable to bring medications).

6.3 CHOLMD32 (Discontinued: Replaced by CHOLMDCODE32)

6.4 CHOLMDCODE32 (Medications Which Secondarily Affect Cholesterol)

Uc4735 Replaces CHOLMD32 to include 2004 Medication Code

CHOLMDCODE32		Medications Which Secondarily Affect Cholesterol: Using 2004 Med Code -V3
N	Value	Description
27	T	Missing
8841	0	No
4019	1	Yes

Algorithm:

If CODE1-CODE17 have at least one of the following: 331000, 332000, 340000, 363000, 369920, 372000, 376000, 379900 and 379910, then FOUND2 = 1. Else FOUND2 =0.

If all CODE1-CODE17 = missing then ALLMISS = 1. Else ALLMISS = 0.

1. If (MSRC2 = F or MSRC2 = missing) and ALLMISS=1 then CHOLMDCODE32 = .T .

2. Else if [MSRC2 NE T] and FOUND2=1 then CHOLMDCODE32 = 1.

3. Else if [MSRC2 = T and ALLMISS=1] or FOUND2=0 then CHOLMDCODE32 = 0.

4. Otherwise, set CHOLMDCODE32 = .

	FOUND2	ALLMISS	MSRC2
CHOLMDCODE32 = 1	1	0	Not T
CHOLMDCODE32 = 0	0	Any	Any
	Any	1	T
CHOLMDCODE32 = .T	Any	1	F or missing

CODE1--17: Updated Medication Code number.

MSRC2: Reason why did not bring all medications.  
 T (Took no medications),  
 F (Forgot or was unable to bring medications).

## 6.5 HYPTMD31 (V3 Hypertension Medications in Past 2 Weeks: Self-reported)

HYPTMD31		V3 Hypertension Medications, Definition 1
N	Value	Description
80	T	Missing
8787	0	No
4020	1	Yes

This is numeric Visit 3 variable which assumes the following values according to the table below.

<u>Value</u>	<u>Description</u>
1	Took Hypertension Lowering Med. = Yes
0	Took Hypertension Lowering Med. = No

**Table of assignment of values to HYPTMD31**

	MSRC2	MSRC24A
HYPTMD31 = 1	Not T	Y
HYPTMD31 = 0	T	missing
	any	N
HYPTMD31 = .T	Not T	U or missing
	T	Non-missing

MSRC2 : Reason why did not bring all medications.  
T (Took no medications).  
F (Forgot or was unable to bring medications).

MSRC24A : High blood pressure medications in past 2 weeks.  
Y, N, U (Unknown).

Algorithm:

- If (MSRC2 NE T) and (MSRC24A = Y)  
then set HYPTMD31 = 1.
- If (MSRC2 = T and MSRC24A = missing) or (MSRC24A = N)  
then set HYPTMD31 = 0.
- If [(MSRC2 NE T) and (MSRC24A = U or MSRC24A = missing)] or  
[(MSRC2 = T) & (MSRC24A = Y or U)]  
then set HYPTMD31 to missing.

## 6.6 HYPTMD32 Discontinued: Replaced by HYPTMDCODE31

## 6.7 HYPTMDCODE31 (Hypertension Lowering Medication within past 2 weeks using updated medication codes)

(Uc4688) Replaced HYPTMD32 to include 2004 Medication coding

HYPTMDCODE31		Hypertension Lowering Medication Within Past 2 Weeks (V3)
N	Value	Description
8003	0	No
4884	1	Yes

HYPTMDCODE31, using updated medication codes, replaces HYPTMD32.

HYPTMDCODE31 is a categorical variable that takes on the values of:

- 1 Participant has taken hypertension lowering medication in past two weeks
- 0 Participant has not taken hypertension lowering medication in past two weeks
- Z Unknown whether participant has taken hypertension lowering medication in past two weeks

### Definition:

If participants are on medications and reported to have taken an antihypertensive medications within the last two weeks or taking a medication which is classified as an antihypertensive then set HYPTMDCODE31=1.

If participants did not bring any medications because no medications were being taken, and subsequently confirmed they had not taken any medication to lower blood pressure in the last two weeks or confirmed they had no medications listed, or participants who were taking medications but did not report having taken an antihypertensive within the last two weeks/did not know if they were taking an antihypertensive medication within the last two weeks and none of their listed medications could be classified as an antihypertensive then HYPTMDCODE31=0.

Classify all other participants who meet neither the criteria for 1 or 0 as missing.

### Algorithm

I Create variable ALLMISS: ALLMISS= 1 if all the CODE1-17 are blank. Otherwise, ALLMISS=0.

II Create variables HBPMED

a. HBPMED=1 if ALLMISS=0 AND at least one of the CODE1-17= 330000-339999 or 340000-349999 or 360000-369999 or 370000-379999

b. HBPMED=0 if ALLMISS=1 or [ALLMISS=0 AND none of the CODE1-17=330000-339999 or 340000-349999 or 360000-369999 or 370000-379999]

III. Create HYPTMDCODE31

HYPTMDCODE31=1

If (MSRC2 ^T & Msrc24a = Y) or (MSRC2^T & HBPMED=1)

HYPTMDCODE31 = 0

If MSRC2 = T & Msrc24a=N

Or

If MSRC2=T & Msrc24a=Blank & ALLMISS=1

Or

If MSRC2^=T & Msrc24a^=Y & HBPMED= 0

HYPTMDCODE31= Missing otherwise

### Table of Assignment

	MSRC2	MSRC24A	HBPMED	ALLMISS
Hyptmdcode31 = 1	Not T	Y	Any	Any
		Any	1	Any
Hyptmdcode31 = 0	T	N	Any	Any
		Blank	Any	1
	Not T	N, U, Blank	0	Any
Hyptmdcode31 = Missing	Any other combinations			

MSRC2: Reason why did not bring all medications.  
T (Took no medications),  
F (Forgot or was unable to bring medications).

CODE1--17: Updated Medication Code number.

MSRC24A: High blood pressure medications in past two weeks.  
Y, N, U (Unknown)

### 6.8 ANTICOAGCODE31 (Anticoagulant use in the past 2 weeks based on 2004 medication codes)

UC4892

<i>ANTICOAGCODE31</i>		<i>Used Anticoagulates (At Visit 3) Last 2 Weeks (0=no, 1=yes) Based On 2004 Med Code</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12692	0	No
160	1	Yes
35		Missing

This is a numeric Visit 3 variable which assumes the following values according to the table below.

#### Value Description

1 Anticoagulant medication found  
0 No Anticoagulant medication found

#### Definition:

If at least one of the 17 medication code variables from the Medication Survey Form (MSRC: Q4M01B, Q4M02B, ..., Q4M17B; termed CODE1-CODE17) contained "83" then the anticoagulant flag would have a value of 1, otherwise, the anticoagulant flag would contain a 0.

If a participant brought all or some of their medication to the clinic or if they forgot their medication (but stated that they do take medication) and the anticoagulant flag has a value of 1 then ANTICOAGCODE31=1 for "Anticoagulant medication found".

ANTICOAGCODE31=0 for "No Anticoagulant medication found" if a participant has at least one medication in the 17 medication code variables, but none of them contain "83". ANTICOAGCODE31 takes a missing value for any other combination not mentioned.

**Table of assignment of values to ANTICOAGCODE31**

	MSRC1	MSRC2	ANYMED	ANTICOAG_FLAG
ANTICOAGCODE31=1	N	F	1	1
	Y, S	missing		
ANTICOAGCODE31=0	N	missing	1	0
	N	F	1	0
	N	T	0	0
	Y, S	missing	1	0
	S	F	1	0

MSRC1: Bring all medication from last 2 weeks?

Y Yes, brought all medication

S brought some medication

N No, brought no medication

MSRC2: Reason why did not bring all medications.

T Took no medications

F Forgot or was unable to bring medications

ANYMED

1 any medications recorded in CODE1-CODE17 (MSRC data set)

0 no medications recorded in CODE1-CODE17

ANTICOAG\_FLAG

1 ANYMED=1 AND value of "83" found in CODE1-CODE17

0 ANYMED=0 or ANYMED=1 and no "83" found in CODE1-CODE17

Algorithm:

1. Create variable ANYMED.

ANYMED=1 if any medication codes are recorded in CODE1-CODE17. ANYMED=0 if no medication codes are present. ANYMED= missing if no MSRC is present.

2. Create variable ANTICOAG\_FLAG. ANTICOAG\_FLAG=1 if ANYMED=1 and CODE1-CODE17 contains the first two numbers "83". ANTICOAG\_FLAG=0 otherwise.

3. Create variable ANTICOAGCODE31.

ANTICOAGCODE31=1

    If MSRC1='N' and MSRC2= 'F' and ANTICOAG\_FLAG=1

    Or

    If (MSRC1= 'Y' or 'S') and ANTICOAG\_FLAG=1

ANTICOAGCODE31=0

    If MSRC1='N' and MSRC2=missing and ANYMED=1 and ANTICOAG\_FLAG=0

    Or

    If MSRC1='N' and MSRC2='F' and ANYMED=1 and ANTICOAG\_FLAG=0

    Or

    If MSRC1='N' and MSRC2='T' and ANYMED=0 and ANTICOAG\_FLAG=0

    Or

    If MSRC1='Y', 'S' and MSRC2=missing and ANYMED=1 and ANTICOAG\_FLAG=0

    Or

    If MSRC1='S' and MSRC2='F' and ANYMED=1 and ANTICOAG\_FLAG=0

ANTICOAGCODE31=Missing for all other combinations.



## 6.9 ASPIRINCODE31 (Aspirin use in the past 2 weeks based on 2004 medication codes)

UC4892

ASPIRINCODE31		Used Aspirin-Containing Analgesics (At Visit 3) In Last 2 Weeks (0=no, 1=yes), Based On 2004 Med Code
N	Value	Description
5913	0	No
6938	1	Yes
36		Missing

This is a numeric Visit 3 variable which assumes the following values according to the table below.

### Value Description

1 Aspirin containing medication found

0 No aspirin containing medication found

### Definition:

If at least one of the 17 medication code variables from the Medication Survey Form (MSRC: Q4M01B, Q4M02B, ..., Q4M17B; termed CODE1-CODE17) contained: "6410", "6499", "6599", or "6420" then the aspirin flag would have a value of 1, otherwise, the aspirin flag would contain a 0.

If a participant brought all or some of their medication to the clinic or if they forgot their medication (but stated that they do take medication) and the aspirin flag has a value of 1 then ASPIRINCODE31=1 for "Aspirin containing medication found".

ASPIRINCODE31=0 for "No aspirin containing medication found" if a participant has at least one medication in the 17 medication code variables, but none of them contain "6410", "6499", "6599", or "6420". ASPIRINCODE31 takes a missing value for any other combination not mentioned.

**Table of assignment of values to ASPIRINCODE31**

	MSRC1	MSRC2	ANYMED	ASPIRIN_FLAG
ASPIRINCODE31=1	N	F	1	1
	Y, S	missing		
ASPIRINCODE31=0	N	missing	1	0
	N	F	1	0
	N	T	0	0
	Y, S	missing	1	0
	S	F	1	0

MSRC1: Bring all medication from last 2 weeks?

Y Yes, brought all medication

S brought some medication

N No, brought no medication

MSRC2: Reason why did not bring all medications.

T Took no medications

F Forgot or was unable to bring medications

ANYMED

1 any medications recorded in CODE1-CODE17 (MSRC data set)

0 no medications recorded in CODE1-CODE17

## ASPIRIN\_FLAG

1 ANYMED=1 AND value of "6410", "6499", "6599", or "6420" found in CODE1-CODE17

0 ANYMED=0 or ANYMED=1 and no "6410", "6499", "6599", or "6420" found in CODE1-CODE17

### Algorithm:

1. Create variable ANYMED.

ANYMED=1 if any medication codes are recorded in CODE1-CODE17. ANYMED=0 if no medication codes are present. ANYMED= missing if no MSRC is present.

2. Create variable ASPIRIN\_FLAG. ASPIRIN\_FLAG=1 if ANYMED=1 and CODE1-CODE17 contains the first four numbers "6410", "6499", "6599", or "6420". ASPIRIN\_FLAG=0 otherwise.

3. Create variable ASPIRINCODE01.

ASPIRINCODE31=1

If MSRC1='N' and MSRC2='F' and ASPIRIN\_FLAG=1

Or

If (MSRC1='Y' or 'S') and ASPIRIN\_FLAG=1

ASPIRINCODE31=0

If MSRC1='N' and MSRC2=missing and ANYMED=1 and ASPIRIN\_FLAG=0

Or

If MSRC1='N' and MSRC2='F' and ANYMED=1 and ASPIRIN\_FLAG=0

Or

If MSRC1='N' and MSRC2='T' and ANYMED=0 and ASPIRIN\_FLAG=0

Or

If MSRC1='Y', 'S' and MSRC2=missing and ANYMED=1 and ASPIRIN\_FLAG=0

Or

If MSRC1='S' and MSRC2='F' and ANYMED=1 and ASPIRIN\_FLAG=0

ASPIRINCODE31=Missing for all other combinations.

## 6.10 STATINCODE31 (Statin use in the past 2 weeks based on 2004 medication codes) UC4892

STATINCODE31		Used Statin (At Visit 3) Last 2weeks (0=no, 1=yes) Based On 2004 Med Code
N	Value	Description
12135	0	No
717	1	Yes
35		Missing

This is a numeric Visit 3 variable which assumes the following values according to the table below.

### Value Description

1 Statin medication found

0 No Statin medication found

### Definition:

If at least one of the 17 medication code variables from the Medication Survey Form (MSRC: Q4M01B, Q4M02B, ..., Q4M17B; termed CODE1-CODE17) contained "3940" then the Statin flag would have a value of 1, otherwise, the Statin flag would contain a 0.

If a participant brought all or some of their medication to the clinic or if they forgot their medication (but stated that they do take medication) and the Statin flag has a value of 1 then STATINCODE31=1 for "Statin medication found".

STATINCODE31=0 for “No Statin medication found” if a participant has at least one medication in the 17 medication code variables, but none of them contain “3940”. STATINCODE31 takes a missing value for any other combination not mentioned.

**Table of assignment of values to STATINCODE31**

	MSRC1	MSRC2	ANYMED	STATIN_FLAG
STATINCODE31=1	N	F	1	1
	Y, S	missing		
STATINCODE31=0	N	missing	1	0
	N	F	1	0
	N	T	0	0
	Y, S	missing	1	0
	S	F	1	0

MSRC1: Bring all medication from last 2 weeks?

Y Yes, brought all medication

S brought some medication

N No, brought no medication

MSRC2: Reason why did not bring all medications.

T Took no medications

F Forgot or was unable to bring medications

ANYMED

1 any medications recorded in CODE1-CODE17 (MSRC data set)

0 no medications recorded in CODE1-CODE17

STATIN\_FLAG

1 ANYMED=1 AND value of “3940” found in CODE1-CODE17

0 ANYMED=0 or ANYMED=1 and no “3940” found in CODE1-CODE17

Algorithm:

1. Create variable ANYMED.

ANYMED=1 if any medication codes are recorded in CODE1-CODE17. ANYMED=0 if no medication codes are present. ANYMED= missing if no MSRC is present.

2. Create variable STATIN\_FLAG. STATIN\_FLAG=1 if ANYMED=1 and CODE1-CODE17 contains the first four numbers “3940”. STATIN\_FLAG=0 otherwise.

3. Create variable STATINCODE31.

STATINCODE31=1

If MSRC1='N' and MSRC2= 'F' and STATIN\_FLAG=1

Or

If (MSRC1= 'Y' or 'S') and STATIN\_FLAG=1

STATINCODE31=0

If MSRC1='N' and MSRC2=missing and ANYMED=1 and STATIN\_FLAG=0

Or

If MSRC1='N' and MSRC2='F' and ANYMED=1 and STATIN\_FLAG=0

Or

If MSRC1='N' and MSRC2='T' and ANYMED=0 and STATIN\_FLAG=0

Or

If MSRC1='Y', 'S' and MSRC2=missing and ANYMED=1 and STATIN\_FLAG=0

Or

If MSRC1='S' and MSRC2='F' and ANYMED=1 and STATIN\_FLAG=0

STATINCODE31=Missing for all other combinations.

## 7 PHYSICAL ACTIVITY

### 7.1 SPRT\_I31 (Sport during leisure time )

SPRT_I31		Sport Index
N	Value	Description
12784	Range	1 - 5 ( median=2.5 mean=2.52 std=0.81 )
103		Missing

This is a score of sport index during leisure time. It is one of the three physical activity indices ---- work index, sport index and leisure time index.

SPRT\_I31 = (I9 + I10 + I11 + I12)/4.  
= missing, if one of the above I scores is missing.

I9 - I12 represent ordinal integer re-coding scores of responses to selected items on the Respiratory Symptoms/Physical Activity (RPAC) Form.

(1) I9: sum of 4 simple sport scores coded 1-2-3-4-5 based on its values falling in the ranges: (0 -< 0.01) - (0.01 -< 4) - (4 -< 8) - (8 -< 12) - (12+).

I9 = 1, if RPAC8 = 'N'.  
= (I9\_1 + I9\_2 + I9\_3 + I9\_4) \* 5/4  
= missing, if one of the simple sport scores is missing.

RPAC8: Exercise or sports play?

(a) Simple Sport Score (intensity \* time \* proportion) ++

	intensity * time * prop	remarks
I9_1	RPAC9 * RPAC10 * RPAC11	
I9_2	RPAC13 * RPAC14 * RPAC15	0, if RPAC12 = 'N'
I9_3	RPAC17 * RPAC18 * RPAC19	0, if RPAC12 or RPAC16 = 'N'
I9_4	RPAC21 * RPAC22 * RPAC23	0, if RPAC12 or RPAC16 or RPAC20 = 'N'

++ missing, if one of the relevant RPAC scores is missing.

RPAC12, RPAC16, RPAC20: Do you do other exercises or play other sports ?

(b) Intensity: The degree of most frequent sport coded (0.76), (1.26) or (1.76) based on the activity being light, moderate or heavy.

RPAC9 : Sport or exercise code1.  
RPAC13: Sport or exercise code2.  
RPAC17: Sport or exercise code3.  
RPAC21: Sport or exercise code4.

(c) Time: Hours a week spent for sport or exercise coded (0.5) - (1.5) - (2.5) - (3.5) - (4.5) based on the answer A-B-C-D-E.

[A = (Less than 1) = 0.5,  
B = (At least 1 but not quite 2) = 1.5,  
C = (At least 2 but not quite 3) = 2.5,  
D = (At least 3 but not quite 4) = 3.5,

and E = (4 or more) = 4.5].

RPAC10: hours per week spent on Q48 activity.  
 RPAC14: hours per week spent on Q52 activity.  
 RPAC18: hours per week spent on Q56 activity.  
 RPAC22: hours per week spent on Q60 activity.

(d) Proportion: months a year spent for sport or exercise coded (0.04) - (0.17) - (0.42) - (0.67) - (0.92) based on the answer A-B-C-D-E.

[A = (Less than 1) = 0.04,  
 B = (At least 1 but not quite 4) = 0.17,  
 C = (At least 4 but not quite 7) = 0.42,  
 D = (At least 7 but not quite 10) = 0.67,  
 and E = (10 or more) = 0.92].

RPAC11: months per year spent on Q48 activity.  
 RPAC15: months per year spent on Q52 activity.  
 RPAC19: months per year spent on Q56 activity.  
 RPAC23: months per year spent on Q60 activity.

(2) I10 = RPAC26: Leisure sport-exercise activity V peers coded 1-2-3-4-5 based on the answer A-B-C-D-E [A = Much less = 1, B = Less = 2, C = The same = 3, D = More = 4, and E = Much more = 5].

(3) I11 = RPAC27: Freq sweat at leisure activity coded 1-2-3-4-5 based on the answer N-L-M-O-V [N = Never = 1, L = SeLdom = 2, M = SoMetimes = 3, O = Often = 4, and V = Very often = 5], or score = 1, if RPAC8 = 'N'.

(4) I12 = RPAC25: Freq leisure sport-exercise coded 1-2-3-4-5 based on the answer N-L-M-O-V [N = Never = 1, L = SeLdom = 2, M = SoMetimes = 3, O = Often = 4, and V = Very often = 5].

## 7.2 LISR\_I31 (Physical activity during leisure time excluding sport)

<i>LISR_I31</i>		<i>Lesure Index</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12826	Range	1 - 4.5 ( median=2.25 mean=2.342 std=0.573 )
61		Missing

This is a score of leisure time index. It is one of the three physical activity indices -- work index, sport index and leisure time index.

LISR\_I31 = [(6 - RPAC28N)+RPAC29N+RPAC30N+RPAC31N]/4.  
 = missing, if one of the above I scores is missing.

RPAC28N = RPAC28: Freq watch TV at leisure activity.\*

RPAC29N = RPAC29: Freq walk at leisure activity.\*

RPAC30N = RPAC30: Freq bicycle at leisure activity.\*

RPAC31N = RPAC31: Minutes bike or walk to work or shop.†

\* The score of RPAC28N, RPAC29N or RPAC30N is coded 1-2-3-4-5 based on the answer N-L-M-O-V [N = Never = 1, L = SeLdom = 2, M = SoMetimes = 3, O = Often = 4, and V = Very often = 5].

† The score of RPAC31N is coded 1-2-3-4-5 based on the answer A-B-C-D-E

- [A = (Less than 5) = 1,  
 B = (At least 5 but not quite 15) = 2,  
 C = (At least 15 but not quite 30) = 3,  
 D = (At least 30 but not quite 45) = 4, and  
 E = (45 or more) = 5].

RPAC28-RPAC31 represent ordinal integer re-coding scores of responses to selected items on the Respiratory Symptoms/Physical Activity (RPAC) Form.

### 7.3 WORK\_I32 (Physical activity at work, Definition 2)

WORK_I32		Work Index, Definition 2
N	Value	Description
12462	Range	0.875 - 5 ( median=1.75 mean=1.895 std=0.955 )
425		Missing

This is a score of the work index after occupations were coded. Work index is one of the three physical activity indices -- work index, sport index and leisure time index.

- (1) Individuals who never worked.  
 If HOM57 = 'N' then  
 occupation code = '999' and process through (3).
- (2) Individuals who are not currently working outside the home.  
 If HOM55 = 'A' or HOM55 = 'D' or HOM55 = 'E' or HOM55 = 'F' then  
 WORK\_I32 = 1.
- (3) Individuals working outside the home.
  - (a) If RPAA40 = 'D' and HOM55 is missing, then  
 $WORK\_I32 = 1.$   
 $= \text{missing, if HOM57 is missing.}$
  - (b) If RPAA40 = 'D' and HOM55 is not missing then  
 $I2 = 5, I3 = 1, I4 = 1, I5 = 1, I6 = 1, I7 = 1, I8 = 1.$   
 $WORK\_I32 = [I1 + (6 - I2) + I3 + I4 + I5 + I6 + I7 + I8]/8.$   
 $= \text{missing, if HOM57 is missing.}$
  - (c) If RPAA40 is not 'D' and HOM55 is not missing, then  
 $WORK\_I32 = [I1 + (6 - I2) + I3 + I4 + I5 + I6 + I7 + I8]/8.$   
 $= \text{missing, if either (i) HOM57 is missing}$   
 or  
 $(ii) \text{ any of RPAA40 - 46 is missing.}$

HOM55: Current occupation.

I1 = HOM57: Code of most recent occupation with its intensity level coded as Low, Medium or High by Dr. Aaron Folsom; scores of 1, 3, and 5 were assigned, respectively, for use in quantifying

activity level based on the occupational code.

I2 = RPAA40: Freq sit at work.\*

I3 = RPAA41: Freq stand at work.\*

I4 = RPAA42: Freq walk at work.\*

I5 = RPAA43: Freq lift heavy loads at work.†

I6 = RPAA44: Freq tired after work.†

I7 = RPAA45: Freq sweat at work.†

I8 = RPAA46: Work difficulty compared to peers coded 1-2-3-4-5 based on the answer A-B-C-D-E [A = Much lighter = 1, B = Lighter = 2, C = As heavy = 3, D = Heavier = 4, and E = Much heavier = 5].

\* The score of I2, I3 or I4 is coded 1-2-3-4-5 based on the answer N-L-M-O-A [N = Never = 1, L = SeLdom = 2, M = SoMetimes = 3, O = Often = 4, and A = Always = 5].

† The score of I5, I6 or I7 is coded 1-2-3-4-5 based on the answer N-L-M-O-V [N = Never = 1, L = SeLdom = 2, M = SoMetimes = 3, O = Often = 4, and V = Very Often = 5].

I2 - I8 represent ordinal integer re-coding scores of responses to selected items on the Respiratory Symptoms/Physical Activity (RPAA) Form.

#### 7.4 WORK\_I33 (Physical activity at work, Definition 3)

<i>WORK_I33</i>		<i>Work Index, Definition 3</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
7835	Range	0.875 - 5 ( median=2.5 mean=2.42 std=0.84 )
5052		Missing

This is a score of the interim work index after occupations were coded. Work index is one of the three physical activity indices -- work index, sport index and leisure time index.

(1) Individuals who never worked.

If HOM57 = 'N' then

occupational code = '999' and process through (3).

(2) Individuals who are not currently working outside the home.

If HOM55 = 'A' or HOM55 = 'D' or HOM55 = 'E' or HOM55 = 'F' then

WORK\_I33 = missing.

(3) Individuals working outside the home.

(a) If RPAA40 = 'D' and HOM55 is missing then

WORK\_I33 = missing.

(b) If RPAA40 = 'D' and HOM55 is not missing then

I2 = 5, I3 = 1, I4 = 1, I5 = 1, I6 = 1, I7 = 1, I8 = 1.

WORK\_I33 =  $[I1 + (6 - I2) + I3 + I4 + I5 + I6 + I7 + I8]/8$   
= missing, if HOM57 is missing.

(c) If RPAA40 is not 'D' and HOM55 is not missing then

WORK\_I33 =  $[I1 + (6 - I2) + I3 + I4 + I5 + I6 + I7 + I8]/8$   
= missing, if either (i) HOM57 is missing,

or

(ii) any of RPAA40 - 46 is missing.

HOM55: Current occupation

I1 = HOM57: Code of most recent occupation with its intensity level coded as Low, Medium or High by Dr. Aaron Folsom; scores of 1, 3, and 5 were assigned, respectively, for use in quantifying activity level based on the occupational code.

I2 = RPAA40: Freq sit at work.\*

I3 = RPAA41: Freq stand at work.\*

I4 = RPAA42: Freq walk at work.\*

I5 = RPAA43: Freq lift heavy loads at work.†

I6 = RPAA44: Freq tired after work.†

I7 = RPAA45: Freq sweat at work.†

I8 = RPAA46: Work difficulty compared to peers coded 1-2-3-4-5 based on the answer A-B-C-D-E [A = Much lighter = 1, B = Lighter = 2, C = As heavy = 3, D = Heavier = 4, and E = Much heavier = 5].

\* The score of I2, I3 or I4 is coded 1-2-3-4-5 based on the answer N-L-M-O-A [N = Never = 1, L = SeLdom = 2, M = SoMetimes = 3, O = Often = 4, and A = Always = 5].

† The score of I5, I6 or I7 is coded 1-2-3-4-5 based on the answer N-L-M-O-V [N = Never = 1, L = SeLdom = 2, M = SoMetimes = 3, O = Often = 4, and V = Very often = 5].

I2 - I8 represent ordinal integer re-coding scores of responses to selected items on the Respiratory Symptoms/Physical Activity (RPAA) Form



## 8 PLAQUE DERIVED VARIABLES

### 8.1 BIFSHD31 (Shadowing in either carotid bifurcation)

<i>BIFSHD31</i>		<i>Shadowing In Either Carotid Bifurcation</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
4827	T	Missing
7450	0	No
610	1	Yes

<u>Value</u>	<u>Description</u>
1	Shadow
0	No Shadow

#### Algorithm

1. If [LBIFSHAD = 'y'] or [RBIFSHAD = 'y']  
then set BIFSHD31 to 1.
2. Else if [LBIFSHAD = 'n'] or [RBIFSHAD = 'n']  
then set BIFSHD31 to 0.
3. Else set BIFSHD31 to missing (.T).

LBIFSHAD: Shadowing in the left carotid bifurcation.

RBIFSHAD: Shadowing in the right carotid bifurcation.

### 8.2 INTSHD31 (Shadowing in either internal carotid artery)

<i>INTSHD31</i>		<i>Shadowing In Either Internal Carotid Artery</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
4926	T	Missing
7748	0	No
213	1	Yes

<u>Value</u>	<u>Description</u>
1	Shadow
0	No Shadow

INTSHD31 is derived in a similar manner to BIFSHD31 using the following variables:

LINTSHAD: Shadowing in the left internal carotid artery.

RINTSHAD: Shadowing in the right internal carotid artery.

### 8.3 COMSHD31 (Shadowing in either common carotid artery)

<i>COMSHD31</i>		<i>Shadowing In Either Internal Carotid Artery</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
4803	T	Missing
8027	0	No
57	1	Yes

This variable is a numeric variable which takes on the following values:

<u>Value</u>	<u>Description</u>
1	Shadow
0	No Shadow

#### Algorithm

1. If [LOPTSHAD = 'y'] or [ROPTSHAD = 'y']  
then set COMSHD31 to 1.
2. Else if [LOPTSHAD = 'n'] or [ROPTSHAD = 'n']  
then set COMSHD31 to 0.
3. Else set COMSHD31 to missing (.T)

LOPTSHAD: Shadowing in the left common carotid artery measured from the optimal angle.  
ROPTSHAD: Shadowing in the right common carotid artery measured from the optimal angle.

### 8.4 BIFPLQ31 (Plaque in either carotid bifurcation)

<i>BIFPLQ31</i>		<i>Plaque in either carotid bifurcation</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
4827	T	Missing
5708	0	No Plaque
2352	1	Plaque

<u>Value</u>	<u>Description</u>
1	Plaque
0	No Plaque

#### Algorithm

1. If [LBIFPLAQ = 'y'] or [RBIFPLAQ = 'y']  
then set BIFPLQ31 to 1.
2. Else if [LBIFPLAQ = 'n'] or [RBIFPLAQ = 'n']  
then set BIFPLQ31 to 0.

3. Else set BIFPLQ31 to missing (.T).

LBIFPLAQ: Plaque in the left carotid bifurcation.

RBIFPLAQ: Plaque in the right carotid bifurcation.

### 8.5 INTPLQ31 (Plaque in either internal carotid artery)

<i>INTPLQ31</i>		<i>Plaque In Either Int. Carotid Artery</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
4926	T	Missing
6787	0	No
1174	1	Yes

<u>Value</u>	<u>Description</u>
1	Plaque
0	No plaque

INTPLQ31 is derived in a similar manner to BIFPLQ31 using the following variables:

LINTPLAQ: Plaque in the left internal carotid artery.

RINTPLAQ: Plaque in the right internal carotid artery.

### 8.6 COMPLQ31 (Plaque in either common carotid artery)

<i>COMPLQ31</i>		<i>Plaque In Either Common Carotid Artery</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
4803	T	Missing
7547	0	No
537	1	Yes

This variable is a numeric variable which takes on the following values:

<u>Value</u>	<u>Description</u>
1	Plaque
0	No Plaque

#### Algorithm

1. If [LOPTPLAQ = 'y'] or [ROPTPLAQ = 'y']  
then set COMPLQ31 to 1.
2. Else if [LOPTPLAQ = 'n'] or [ROPTPLAQ = 'n']  
then set COMPLQ31 TO 0.
3. Else set COMPLQ31 to missing (.T).

LOPTPLAQ: Plaque in the left common carotid artery measured from the optimal angle.

ROPTPLAQ: Plaque in the right common carotid artery measured from the optimal angle.

## 8.7 LCOMPS31

(Plaque/shadowing (both, 1 w/o other, neither) in the left common carotid)

LCOMPS31		Plaque/Shadowing In Left Common Carotid
<i>N</i>	<i>Value</i>	<i>Description</i>
4910	T	Missing
24	1	Plaque and shadowing
279	2	Plaque only
3	3	Shadowing only
7671	4	No plaque or shadow

This variable is a numeric variable which takes on the following values:

<u>Value</u>	<u>Description</u>
1	Plaque and shadowing
2	Plaque only
3	Shadowing only
4	No plaque or shadow

### Algorithm

1. If [LOPTSHAD = 'y'] or [LOPTPLAQ = 'y']  
then set LCOMPS31 to missing (.T).
2. Else if [[LOPTSHAD = 'y'] and [LOPTPLAQ = 'y']]  
then set LCOMPS31 to 1.
3. Else if [LOPTPLAQ = 'y']  
then set LCOMPS31 to 2.
4. Else if [LOPTSHAD = 'y']  
then set LCOMPS31 to 3.
5. Else if [LOPTSHAD = 'n'] and [LOPTPLAQ = 'n']  
then set LCOMPS31 to 4.

LOPTSHAD: Shadowing in the left common carotid artery measured from the optimal angle.

LOPTPLAQ: Plaque in the left common carotid artery measured from the optimal angle.

The following are derived in a similar manner using the variables indicated:

### 8.8 RCOMPS31

(Plaque/shadowing (both, 1 w/o other, neither) in the right common carotid)

<i>RCOMPS31</i>		<i>Plaque/Shadowing In Right Common Carotid</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
4953	T	Missing
28	1	Plaque and shadowing
276	2	Plaque only
5	3	Shadowing only
7623	4	No plaque or shadow
2		Missing

<u>Value</u>	<u>Description</u>
1	Plaque and shadowing
2	Plaque only
3	Shadowing only
4	No plaque or shadow

ROPTSHAD: Shadowing in the right common carotid artery measured from the optimal angle.

ROPTPLAQ: Plaque in the right common carotid artery measured from the optimal angle.

### 8.9 LBIFPS31

(Plaque/shadowing (both, 1 w/o other, neither) in the left carotid bifurcation)

<i>LBIFPS31</i>		<i>Plaque/Shadowing In Left Carotid Bifurcation</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
5011	T	Missing
299	1	Plaque and shadowing
1212	2	Plaque only
90	3	Shadowing only
6275	4	No plaque or shadow

<u>Value</u>	<u>Description</u>
1	Plaque and shadowing
2	Plaque only
3	Shadowing only
4	No plaque or shadow

LBIFSHAD: Shadowing in the left carotid bifurcation.

LBIFPLAQ: Plaque in the left carotid bifurcation.

## 8.10 RBIFPS31

(Plaque/shadowing (both, 1 w/o other, neither) in the right carotid bifurcation)

<i>RBIFPS31</i>		<i>Plaque/Shadowing In Right Carotid Bifurcation</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
5016	T	Missing
257	1	Plaque and shadowing
1234	2	Plaque only
57	3	Shadowing only
6323	4	No plaque or shadow

<u>Value</u>	<u>Description</u>
1	Plaque and shadowing
2	Plaque only
3	Shadowing only
4	No plaque or shadow

RBIFSHAD: Shadowing in the right carotid bifurcation.

RBIFPLAQ: Plaque in the right carotid bifurcation.

## 8.11 LINTPS31

(Plaque/shadowing (both, 1 w/o other, neither) in the left internal carotid)

<i>LINTPS31</i>		<i>Plaque/Shadowing In Left Internal Carotid</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
5207	T	Missing
89	1	Plaque and shadowing
605	2	Plaque only
12	3	Shadowing only
6974	4	No plaque or shadow

<u>Value</u>	<u>Description</u>
1	Plaque and shadowing
2	Plaque only
3	Shadowing only
4	No plaque or shadow

LINTSHAD: Shadowing in the left internal carotid.

LINTPLAQ: Plaque in the left internal carotid.

## 8.12 RINTPS31

(Plaque/shadowing (both, 1 w/o other, neither) in the right internal carotid)

<i>RINTPS31</i>		<i>Plaque/Shadowing In Right Internal Carotid</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
5369	T	Missing
113	1	Plaque and shadowing
583	2	Plaque only
13	3	Shadowing only
6809	4	No plaque or shadow

<u>Value</u>	<u>Description</u>
1	Plaque and shadowing
2	Plaque only
3	Shadowing only
4	No plaque or shadow

RINTSHAD: Shadowing in the right internal carotid.

RINTPLAQ: Plaque in the right internal carotid.

## 8.13 COMPS31

(Plaque/shadowing (both, 1 w/o other, neither) in either common carotid)

<i>COMPS31</i>		<i>Plaque/Shadow In Either Common Carotid</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
4803	T	Missing
49	1	Plaque and shadowing (same side)
488	2	Plaque only
8	3	Shadowing only
7539	4	No plaque or shadow (on either side)

This variable is a numeric variable which takes on the following values:

<u>Value</u>	<u>Description</u>
1	Plaque and shadowing (same side)
2	Plaque only
3	Shadowing only
4	No plaque or shadow (on either side)

### Algorithm

1. If [LCOMPS31 = 1] or [RCOMPS31 = 1]  
then set COMPS31 to 1.
2. Else if [LCOMPS31 = 2] or [RCOMPS31 =2]  
then set COMPS31 to 2.

3. Else if [LCOMPS31 = 3] or [RCOMPS31 = 3]  
then set COMPS31 to 3.
4. Else if [LCOMPS31 = 4] or [RCOMPS31 = 4]  
then set COMPS31 to 4.
5. Else set COMPS31 to missing (.T).

LCOMPS31: Plaque/shadowing in the left common carotid.

RCOMPS31: Plaque/shadowing in the right common carotid.

The following are derived in a similar manner using the variables indicated:

#### 8.14 BIFPS31

(Plaque/shadowing (both, 1 w/o other, neither) in either carotid bifurcation)

<i>BIFPS31</i>		<i>Plaque/Shadowing In Either Carotid Bifurcation</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
487	1	Plaque and shadowing (same side)
1865	2	Plaque only
105	3	Shadowing only
5603	4	No plaque or shadow (on either side)
4827		Missing

<u>Value</u>	<u>Description</u>
1	Plaque and shadowing (same side)
2	Plaque only
3	Shadowing only
4	No plaque or shadow (on either side)

LBIFPS: Plaque/shadowing in the left carotid bifurcation.

RBIFPS: Plaque/shadowing in the right carotid bifurcation.



### 8.15 INTPS31

(Plaque/shadowing (both, 1 w/o other, neither) in either internal carotid)

<i>INTPS31</i>		<i>Plaque/Shadowing In Either Internal Carotid</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
188	1	Plaque and shadowing (same side)
986	2	Plaque only
23	3	Shadowing only
6764	4	No plaque or shadow (on either side)
4926		Missing

<u>Value</u>	<u>Description</u>
1	Plaque and shadowing (same side)
2	Plaque only
3	Shadowing only
4	No plaque or shadow (on either side)

LINTPS31: Plaque/shadowing in the left internal carotid.

RINTPS31: Plaque/shadowing in the right internal carotid.

### 8.16 LPLQSD31

(Plaque/shadowing (both, 1 w/o other, neither) in any left carotid site)

<i>LPLQSD31</i>		<i>Plaque/Shadowing In Any Left Carotid Site</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
5279	T	Missing
337	1	Plaque and shadowing (any site)
1457	2	Plaque only
91	3	Shadowing only
5723	4	No plaque or shadow (at both sites)

This variable is a numeric variable which takes on the following values:

<u>Value</u>	<u>Description</u>
1	Plaque and shadowing (any site)
2	Plaque only
3	Shadowing only
4	No plaque or shadow (at both sites)

#### Algorithm

- If [LCOMPS31 = .T] or [LBIFPS31 = .T] or [LINTPS31 = .T]  
then set LPLQSD31 to missing (.T).
- Else if [LCOMPS31 = 1] or [LBIFPS31 = 1] or [LINTPS31 = 1]  
then set LPLQSD31 to 1.

3. Else if [[LCOMPS31 = 2] or [LBIFPS31 =2] or [LINTPS31 = 2]  
then set LPLQSD31 to 2.
  
4. Else if [LCOMPS31 = 3] or [LBIFPS31 = 3] or [LINTPS31 = 3]  
then set LPLQSD31 to 3.
  
5. Else if [LCOMPS31 = 4] and [LBIFPS31 = 4] and [LINTPS31 = 4]  
then set LPLQSD31 to 4.

LCOMPS31: Plaque/shadowing in the left common carotid.  
 LBIFPS31: Plaque/shadowing in the left bifurcation carotid.  
 LINTPS31: Plaque/shadowing in the left internal carotid.

### 8.17 RPLQSD31

(Plaque/shadowing (both, 1 w/o other, neither) in any right carotid site)

<i>RPLQSD31</i>		<i>Plaque/Shadowing In Any Right Carotid Site</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
5404	T	Missing
317	1	Plaque and shadowing (any site)
1447	2	Plaque only (any site)
59	3	Shadowing only (any site)
5660	4	No plaque or shadow (at both sites)

<u>Value</u>	<u>Description</u>
1	Plaque and shadowing (any site)
2	Plaque only (any site)
3	Shadowing only (any site)
4	No plaque or shadow (at both sites)

RPLQSD31 is created in a similar manner to LPLQSD31 using the following variables:

RCOMPS31: Plaque/shadowing in the right common carotid.  
 RBIFPS31: Plaque/shadowing in the right bifurcation carotid.  
 RINTPS31: Plaque/shadowing in the right internal carotid.

## 8.18 PLQSHD31

(Plaque/shadowing (both, 1 w/o other, neither) in any carotid site)

<i>PLQSHD31</i>		<i>Plaque/Shadowing In Any Carotid Site</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
5736	T	Missing
526	1	Plaque and shadowing (any site)
2015	2	Plaque only (any site)
97	3	Shadowing only (any site)
4513	4	No plaque or shadow (at both sites)

This variable is a numeric variable which takes on the following values:

<u>Value</u>	<u>Description</u>
1	Plaque and shadowing (any site)
2	Plaque only (any site)
3	Shadowing only (any site)
4	No plaque or shadow (at both sites)

### Algorithm

1. If [LPLQSD31 = .T] or [RPLQSD31 = .T]  
then set PLQSHD31 to missing (.T).
2. Else if [LPLQSD31 = 1] or [RPLQSD31 = 1]  
then set PLQSHD31 to 1.
3. Else if [LPLQSD31 = 2] or [RPLQSD31 = 2]  
then set PLQSHD31 to 2.
4. Else if [LPLQSD31 = 3] or [RPLQSD31 = 3]  
then set PLQSHD31 to 3.
5. Else if [LPLQSD31 = 4] and [RPLQSD31 = 4]  
then set PLQSHD31 to 4.

LPLQSD31: Plaque/shadowing (both, 1 w/o other, neither) in any left carotid site.

RPLQSD31: Plaque/shadowing (both, 1 w/o other, neither) in any right carotid site.

### 8.19 PLAQUE31

(Plaque (with or without shadowing) in any carotid site)

<i>PLAQUE31</i>		<i>Plaque With or Without Shadowing</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
5736	T	Missing
4610	0	No
2541	1	Yes

This variable is a numeric variable which takes on the following values:

<u>Value</u>	<u>Description</u>
1	Plaque
0	No plaque

#### Algorithm

1. If [PLQSHD31 = .T]  
then set PLAQUE31 to missing (.T).
2. Else if [PLQSHD31 = 1] or [PLQSHD31 = 2]  
then set PLAQUE31 to 1.
3. Else set PLAQUE31 to 0.

PLQSHD31: Plaque/shadowing (both, 1 w/o other, neither) in any carotid site.

### 8.20 PLAQUE33


(Plaque in any carotid site - alternative definition)

<i>PLAQUE33</i>		<i>Plaque With or Without Shadowing - Alternate Definition</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
4797	T	Missing
5330	0	No
2760	1	Yes

This variable is a numeric variable which takes on the following values:

<u>Value</u>	<u>Description</u>
1	Plaque
0	No plaque

### Algorithm

1. If [LOPTPLAQ = 'y'] or [LBIFPLAQ = 'y'] or [LINTPLAQ = 'y'] or  
[ROPTPLAQ = 'y'] or [RBIFPLAQ = 'y'] or [RINTPLAQ = 'y']  
then set PLAQUE33 =1.
  2. Else if [LOPTPLAQ = 'n'] or [LBIFPLAQ = 'n'] or [LINTPLAQ = 'n'] or  
[ROPTPLAQ = 'n'] or [RBIFPLAQ = 'n'] or [RINTPLAQ = 'n']  
then set PLAQUE33 =0.
  3. Else set PLAQUE33 = .T.
- 

## 9 RETINAL DERIVED VARIABLES

(Created in UC25448)

### 9.1 ARTSS31 (V3 Arterial Sum of Squares)

<i>ARTSS31</i>		<i>Arterial Sum Of Squares</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
11033	Range	11306 - 86810 ( median=43260 mean=43705.2 std=8495.4 )
1854		Missing

This is a numeric Visit 3 variable which is the sum of the squared artery measurements. The RIPA dataset contains 18 artery measurements (RIPA1 - RIPA18). The value of ARTSS31 is determined according to the following logic:

- . Square the values of variables RIPA1-RIPA18.
- . ARTSS31 = sum of the 18 squared values created above.

RIPA1-18: Arteriole measurements

### 9.2 AV\_B (Ratio of Arteriolar Equivalentents, branch to the venous equivalent)

<i>AV_B31</i>		<i>Derived AV_ratio_B</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
11033	Range	0.565278 - 1.217897 ( median=0.84104 mean=0.842693 std=0.078564 )
1854		Missing

This is a numeric visit 3 variable defined as follows:

If both CRAE\_B and CRVE are non-missing  
then  $AV\_B = CRAE\_B / CRVE$

If either or CRAE\_B or CRVE are missing  
then  $AV\_B = .$  (missing)

NOTE: CRVE and CRAE\_B are derived variables, described in Section 12.6 and 12.4, respectively.

AV\_B will be renamed AV\_T31 when approved.

### 9.3 AV\_T (Ratio of Arteriolar Equivalentents, trunk to the venous equivalent)

<i>AV_T31</i>		<i>Derived AV_ratio_T</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
11033	Range	0.565278 - 1.163015 ( median=0.825855 mean=0.8281963 std=0.0731649 )
1854		Missing

This is a numeric visit 3 variable defined as follows:

If both CRAE\_T and CRVE are non-missing  
then AV\_T = CRAE\_T/CRVE

If either or CRAE\_T or CRVE are missing  
then AV\_T = . (missing)

Note: CRAE\_T and CRVE are derived variables, described in Section 12.5 and 12.6, respectively.

AV\_T will be renamed AV\_T31 when approved.

#### 9.4 CRAE\_B (Central Retinal Artery Equivalent using branch arteriole equivalents)

CRAE_B		Derived CRAE_B
N	Value	Description
11033	Range	81.4 - 240.9 ( median=162.2 mean=162.27 std=16.75 )
1854		Missing

This is a continuous numeric Visit 3 variable which is calculated according to the following algorithm:

I. A Branch Arteriole Equivalents (BAE) was created for each of the 18 possible arteriole measurements (RIPA1-18) . BAE values were defined as follows:

Consider date of grading at the retinal reading center and the arteriole values in RIPA1-18.

If RIPA97 => October 26, 1994 and any arteriole value => 75 microns

**OR**

If RIPA97 < October 26, 1994 and any arteriole value => 80 microns

**Then** examine the respective branch measurements contained in RIPA34-66 to compute a BAE for the large arteriole as follows:

(a) If one or both of the required branch measurements = -1 then BAE value will be the same as the original arteriole value.

(b) If both branch measurements are gradeable (i.e. not -1) , then define BAE as:

$$BAE = (0.87W_{b1}^2 + 1.01W_{b2}^2 - 0.22W_{b1}W_{b2} - 10.76)^{1/2}$$

where,

$W_{b1}$  = width of **smallest** branch

$W_{b2}$  = width of **largest** branch

Otherwise, if the branch measurements are not required due to excessive arteriole widths, the BAE value will be the same as the original arteriole value.

II. CRAE\_B is then calculated as follows:

If GRADE32 = . or 0 then **CRAE\_T = . (Missing)**

Else if GRADE32=1 then consider the set of all BAE's

(1) Find the MAX and MIN width. These two 'daughter' measurements (branch) will be used to calculate the caliber of the 'parent' arteriole (trunk).

(2) Find the width (diameter) of the parent using the following formula:

$$W_p = (0.87W_{d1}^2 + 1.01W_{d2}^2 - 0.22W_{d1}W_{d2} - 10.76)^{1/2}$$

where,

$W_p$  = width of parent

$W_{d1}$  = width of smallest daughter branch = MIN

$W_{d2}$  = width of largest daughter branch = MAX

(3) Considering all of the remaining BAE measurements (excluding those selected in step 1), steps 1 through 3 are repeated, pairing the largest with the smallest, and the second largest with the second smallest until there is either 0 or 1 measurement left in the set

(4a) If the original number of non-missing measurements (RIPA1-18) was **even** (likewise the number of non-missing BAE's will be even), there should be 0 measurements left. The parent width measurements from 2 are grouped into a new set. (Note that now the parent trunk measurements from 2 are considered to be daughters for new parents.) Steps 1-3 are repeated until there is only one trunk measurement remaining. **This is CRAE\_B.**

(4b) If the original number of non-missing measurements (RIPA1-18) is **odd**, there should be 1 unused BAE left. This number is placed in the new set of numbers generated by step 2. From this set, steps 1-3 are repeated until there is only one parent trunk measurement remaining. **This is CRAE\_B.**

Variable	Description (Visit 3 unless noted)
RIPA1-18:	Arterioles measurements 1-18.
RIPA34-66:	Arteriolar branch measurements (2 for each arteriole).
RIPA97:	Date Graded

NOTE: CRAE\_B will be renamed CRAE\_B31 when approved.

## 9.5 CRAE\_T(Central Retinal Artery Equivalent using trunk values)

CRAE_T		Derived CRAE_T
N	Value	Description
11033	Range	81.4 - 220.9 ( median=159.4 mean=159.37 std=14.65 )
1854		Missing

This is a continuous numeric Visit 3 variable which is calculated according to the following algorithm:

If GRADE32=. or 0 then CRAE\_T = . (Missing)

Else if GRADE32=1 then consider the set of all Arteriole width measurements (RIPA1-18).

(1) Find the MAX and MIN width. These two 'daughter' measurements (branch) will be used to calculate the caliber of the 'parent' arteriole (trunk).

(2) Find the width (diameter) of the parent using the following formula:

$$W_p = (0.87W_{d1}^2 + 1.01W_{d2}^2 - 0.22W_{d1}W_{d2} - 10.76)^{1/2}$$

where,

$W_p$  = width of parent

$W_{d1}$  = width of smallest daughter branch = MIN

$W_{d2}$  = width of largest daughter branch = MAX





**Variable**                      **Description (Visit 3 unless noted)**

RIPA19-33:    Vein measurements 1-15  
RIPA98-100:    Vein measurements 16-18

NOTE: CRVE will be renamed CRVE31 when approved.

**9.7 GRADE31 (Gradeability of photo)**

(UC2548)

<i>GRADE31</i>		<i>Photo Gradeable: 1=yes, 0=no</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1572	0	No
11033	1	Yes
282		Missing

This is a numeric Visit 3 variable assuming the values:

- 1 = Gradeable
- 0 = Ungradeable
- . = Missing according to the following algorithm:

**Table of assignment of values to GRADE31**

VARIABLE = VALUE	CREATING LOGIC
GRADE31 = 0	If RIPA1, RIPA19, RIPX88, RIPX89, RIPX90, RIPX91, RIPX92 each = .u then GRADE31 = 0
GRADE31 = 1	Else if none of RIPA1, RIPA19, RIPX88, RIPX89, RIPX90, RIPX91, RIPX92 = .u then GRADE31 = 1
GRADE31 = .	Else GRADE31 = .

Variables from the Retinal Image Processing dataset (RIPA) are used.

**Variable**                      **Description (Visit 3 unless noted)**

RIPA1 :                      A\_1  
RIPA19:                      V\_1  
RIPX88:                      CRAE\_T  
RIPX89:                      CRAE\_BRIPX90:              CRVE  
RIPX91:                      AV\_RATIO\_T  
RIPX92:                      AV\_RATIO\_B

NOTE: There are two versions of gradeability currently being evaluated: GRADE32 and GRADE31. Once consensus is reached for the preferred definition, the approved variable will be named in the convention GRADE3# (i.e. if GRADE32 is the preferred definition, it will be renamed). Whichever gradeability variable is approved will be the one used in deriving the CRAE\_B, CRAE\_T, AND CRVE variables.

## 9.8 GRADE32 (Gradeability of eye measured)

GRADE32		Gradeability Of Photo, Definition #2
<i>N</i>	<i>Value</i>	<i>Description</i>
1572	0	No
11033	1	Yes
282		Missing

This is a numeric Visit 3 variable assuming the values:

1 = Gradeable

0 = Ungradeable

. = Missing according to the following algorithm:

1. if RIPA1 and RIPA19 are both = .U (or -1)  
OR  
if RIPA1 and RIPA19 are both not = .U and at least  
one of RIPA2-18, 20-33, or 98-100 are =(-1)  
OR  
if any arteriole or vein measurement exceeds the  
max acceptable value (175 microns for arterioles and 200 microns for veins)

then GRADE32 = 0

2. else if (25 <=RIPA1<= 175) AND  
(25 <=RIPA19<= 200)

then GRADE32 = 1

3. Otherwise, GRADE32 = .

<b>Variable</b>	<b>Description (Visit 3 unless noted)</b>
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RIPA1-18	Arteriole measurements 1-18
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RIPA19-33;	Vein measurements 1-15 98-100
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NOTE: There are two versions of gradeability currently being evaluated: GRADE32 and GRADE31. Once consensus is reached for the preferred definition, the approved variable will be named in the convention GRADE3# (i.e. if GRADE32 is the preferred definition, it will be renamed). Whichever gradeability variable is approved will be the one used in deriving the CRAE\_B, CRAE\_T, AND CRVE variables.

## 9.9 VEINS31 (Vein Sum of Squares)

<i>VEINSS31</i>		<i>Vein Sum Of Squares</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
11033	Range	22912 - 137752 ( median=59019 mean=59932.4 std=11510.5 )
1854		Missing

This is a numeric Visit 3 variable which is the sum of the squared vein measurements.

The RIPA dataset contains 18 vein measurements (RIPA19 - RIPA33, and RIPA98 - RIPA100). The value of VEINS31 is determined according to the following logic:

- . Square the values of variables RIPA19-RIPA33, and RIPA98 - RIPA100.
- . VEINS31 = sum of the 18 squared values created above.
- RIPA19-33: Vein measurements
- RIPA98-100: Vein measurements

## 9.10 ADV\_RTP\_31 (Advanced Retinopathy Indicator) UC3951

<i>ADV_RTP_31</i>		<i>Advanced Retinopathy Indicator</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
11507	0	No
958	1	Yes
422		Missing

VARIABLE = VALUE	CREATING LOGIC
ADV_RTP_31 = 1	If RLBA16 in (1,2,3,4,5,6) or RLBA17 in (1,2,3) or RLBA20 in (1,2) or RLBA21 in (1,2,3,4) or SOFTXUD=1 or RLBA23 in (1,2,3,4) or RLBA24 in (1,2,3) or RLBA25 in (1,2,3) or RLBA26 in (1,2,3) or RLBA27 in (1,2,3) or RLBA28 in (1,2) or RLBA29 in (1,2,3) or RLBA30 in (1,2,3,4) = then ADV_RTP_31 = 1
ADV_RTP_31 = .	Else if all of RLBA16, RLBA17, RLBA20, RLBA21, RLBA22, RLBA23, RLBA24, RLBA25, RLBA26, RLBA27, RLBA28, RLBA29. RLBA30 = .z then ADV_RTP_31 = .
ADV_RTP_31 = 0	Else ADV_RTP_31 = 0

Variables from the Visit 3 Retinal Image Processing dataset (RLBA) are used.

### 9.11 AVN\_EYE\_31 (A/V Nicking in Quadrants Indicator) UC3951

<i>AVN_EYE_31</i>		<i>A/V Nicking In Quadrants Indicator</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
10022	0	No
1663	1	Yes
1202		Missing

VARIABLE = VALUE	CREATING LOGIC
AVN_EYE_31 = 1	If RLBA15A in (1,2,3) or RLBA15B in (1,2,3) or RLBA15C in (1,2,3) or RLBA15D in (1,2,3) = then AVN_EYE_31 = 1
AVN_EYE_31 = 0	Else if RLBA15A and RLBA15B = 0, or RLBA15A and RLBA15C = 0, or RLBA15A and RLBA15D = 0, or RLBA15B and RLBA15D = 0, or RLBA15C and RLBA15D = 0, then AVN_EYE_31 = 0
AVN_EYE_31 = .	Else AVN_EYE_31 = .

Variables from the Visit 3 Retinal Image Processing dataset (RLBA) are used.

## 9.12 AV\_MABP\_31 (Average Mean Arterial Blood Pressure)

UC3951

<i>AV_MABP_31</i>		<i>Average Mean Arterial Blood Pressure</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12887	Range	46.33333 - 157 ( median=88.33333 mean=88.914311 std=10.407511 )

av\_mabp = MEAN (OF mabp1-mabp3)

Mean Arterial Blood Pressure at Visit 1: mabp1 = (sbpa21+2\*sbpa22)/3

Mean Arterial Blood Pressure at Visit 2: mabp2 = (sbpb21+2\*sbpb22)/3

Mean Arterial Blood Pressure at Visit 3: mabp3 = (sbpc22+2\*sbpc23)/3

Variables from the Sitting Blood Pressure dataset (SBPA) are used.

## 9.13 BLOT\_HEM\_31 (Blot Hemorrhage Indicator)

UC3951

<i>BLOT_HEM_31</i>		<i>Blot Hemorrhage Indicator</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
11360	0	No
323	1	Yes
1204		Missing

VARIABLE = VALUE	CREATING LOGIC
BLOT_HEM_31 = 1	If RLBA18 in (3,4) = then BLOT_HEM_31 = 1
BLOT_HEM_31 = 0	Else if RLBA18 in (0,1,2), then BLOT_HEM_31 = 0
BLOT_HEM_31 = .	Else BLOT_HEM_31 = .

Variables from the Visit 3 Retinal Image Processing dataset (RLBA) are used.

### 9.14 FLAM\_HEM\_31 (Flame Hemorrhage Indicator)

UC3951

<i>FLAM_HEM_31</i>		<i>Flame Hemorrhage Indicator</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
11534	0	No
149	1	Yes
1204		Missing

VARIABLE = VALUE	CREATING LOGIC
FLAM_HEM_31 = 1	If RLBA18 in (2,4) = then FLAM_HEM_31 = 1
FLAM_HEM_31 = 0	Else if RLBA18 in (0,1,3), then FLAM_HEM_31 = 0
FLAM_HEM_31 = .	Else FLAM_HEM_31 = .

Variables from the Visit 3 Retinal Image Processing dataset (RLBA) are used.

### 9.15 FOC\_EYE31 (Focal Narrowing in Quadrants Indicator)

UC3951

<i>FOC_EYE_31</i>		<i>Focal Narrowing In Quadrants Indicator</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
9759	0	No
1713	1	Yes
1415		Missing

VARIABLE = VALUE	CREATING LOGIC
FOC_EYE_31 = 1	If RLBA12A in (1,2,3,4) or RLBA12B in (1,2,3,4) or RLBA12C in (1,2,3,4) or RLBA15D in (1,2,3,4) = then FOC_EYE_31 = 1
FOC_EYE_31 = 0	Else if RLBA12A and RLBA12B = 0, or RLBA12A and RLBA12C = 0, or RLBA12A and RLBA12D = 0, or RLBA12B and RLBA12C = 0, or RLBA12B and RLBA12D = 0, or RLBA12C and RLBA12D = 0, then FOC_EYE_31 = 0
FOC_EYE_31 = .	Else FOC_EYE_31 = .

Variables from the Visit 3 Retinal Image Processing dataset (RLBA) are used.

## 9.16 MICROANY31 (Microaneurysm Indicator)

UC3951

<i>MICROANY_31</i>		<i>Microaneurysm Indicator</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
10556	0	No
488	1	Yes
1843		Missing

VARIABLE = VALUE	CREATING LOGIC
MICROANY_31 = 0	If RLBA16 in (0,1) = then MICROANY_31 = 0
MICROANY_31 = 1	Else if RLBA16 in (2,3,4,5,6), then MICROANY_31 = 1
MICROANY_31 = .	Else MICROANY_31 = .

Variables from the Visit 3 Retinal Image Processing dataset (RLBA) are used.

## 9.17 PAPSWELL31 (Papillary Swelling Indicator)

UC3951

<i>PAPSWELL_31</i>		<i>Papillary Swelling Indicator</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12287	0	No
62	1	Yes
538		Missing

VARIABLE = VALUE	CREATING LOGIC
PAPSWELL_31 = 1	If RLBA29 in (1,2,3) = then PAPSWELL_31 = 1
PAPSWELL_31 = 0	Else if RLBA29 = 0, then PAPSWELL_31 = 0
PAPSWELL_31 = .	Else PAPSWELL_31 = .

Variables from the Visit 3 Retinal Image Processing dataset (RLBA) are used.



### 9.18 RET\_HEM\_31 (Retinal Hemorrhage Indicator) UC3951

<i>RET_HEM_31</i>		<i>Retinal Hemorrhage Indicator</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
11229	0	No
454	1	Yes
1204		Missing

### 9.19 SOFTEXUD\_31 (Soft Exudate Indicator)

UC3951

<i>SOFTEXUD_31</i>		<i>Soft Exudate Indicator</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
11789	0	No
211	1	Yes
887		Missing

VARIABLE = VALUE	CREATING LOGIC
SOFTEXUD_31 = 1	If RLBA22 in (1,2) = then SOFTEXUD_31 = 1
SOFTEXUD_31 = 0	Else if RLBA22 = 0, then SOFTEXUD_31 = 0
SOFTEXUD_31 = .	Else SOFTEXUD_31 = .

Variables from the Visit 3 Retinal Image Processing dataset (RLBA) are used.

## 10 SI UNIT CHANGE

### 10.1 TCHSIU31 (V3 Total Cholesterol in SI Units)

<i>TCHSIU31</i>		<i>Total Cholesterol In SI Units</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12831	Range	1.99122 - 14.42988 ( median=5.3013 mean=5.36849 std=0.97566 )
56		Missing

This variable expresses total cholesterol in the System International (SI) unit system.

Present System	Conversion factor (CF)	SI Unit System
mg/dL	0.02586	mmol/L

$$TCHSIU31 = LIPC1A \times CF$$

LIPC1A : Total Cholesterol in mg/dL.

### 10.2 HDLSIU31 (V3 HDL Cholesterol in SI Units)

<i>HDLSIU31</i>		<i>Re-Calibrated HDL Cholesterol In mmol/L</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12831	Range	0.28446 - 5.0427 ( median=1.24128 mean=1.348910 std=0.470199 )
56		Missing

This variable expresses HDL cholesterol level in the System International (SI) unit system.

Present System	Conversion factor (CF)	SI Unit System
mg/dL	0.02586	mmol/L

$$HDLSIU31 = LIPC3A \times CF$$

LIPC3A: HDL Cholesterol in mg/dL

### 10.3 LDLSIU32 (V3 Recalculated LDL Cholesterol in SI Units)

<i>LDLSIU32</i>		<i>Re-Calibrated LDL Cholesterol In mmol/L</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12625	Range	0.196536 - 8.97342 ( median=3.253188 mean=3.2916021 std=0.8914472 )
262		Missing

This variable expresses LDL cholesterol level in the System International (SI) unit system.

Present System	Conversion factor (CF)	SI Unit System
mg/dL	0.02586	mmol/L

$$\text{LDLSIU32} = \text{LDL32} \times \text{CF}$$

LDL32: LDL re-calculated Cholesterol in mg/dL

#### 10.4 TRGSIU31 (V3 Triglycerides in SI Units)

<i>TRGSIU31</i>		<i>Triglycerides In SI Units</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12831	Range	0.24838 - 23.77674 ( median=1.36609 mean=1.608808 std=1.027074 )
56		Missing

This variable expresses Total Triglycerides in the System International (SI) unit system.

Present System	Conversion factor (CF)	SI Unit System
mg/dL	0.01129	mmol/L

$$\text{TRGSIU31} = \text{LIPC2A} \times \text{CF}$$

LIPC2A : Total Triglycerides in mg/dL

# 11 SMOKING

## 11.1 CIGT31 (V3 Cigarette smoking status) (uc2315)

CIGT31		V3 Cigarette Smoking Status
N	Value	Description
2283	1	Current smoker
5286	2	Former smoker
5277	3	Never smoker
2	4	Unknown, but one of the above 3 categories may be ruled out
39		Missing

This is a numeric variable which assumes the following values according to the table below:

Value	Description
1	Current smoker
2	Former smoker
3	Never smoker
4	Unknown, but one of the above three categories may be ruled out.

Missing No responses or contradictory answers.

Note: This variable includes a historical component, but no use of Visit 1 & 2 data has been made.

### **Table of assignment of values to CIGT31**

PHXA25: HAVE YOU EVER SMOKED CIGARETTES?	PHXA27: DO YOU NOW SMOKE CIGARETTES?		
	Y	N	Missing
Y	1	2	4 (d)
N	Missing (a)	3	3
Missing	1 (b)	4 (c)	Missing

Footnotes to the table:

- (a) Bad data (contradictory answers)
- (b) Even though Q44 is not answered, Q45 defines the person as a current smoker
- (c) Could be either former or never smoker
- (d) Could be either former or current smoker

### 11.2 CURSMK31 (Current cigarette smoker)

<i>CURSMK31</i>		<i>Current Smoker</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
41	T	Missing
10563	0	No
2283	1	Yes

CURSMK31 is a categorical variable that takes values according to the definition table below:

CURSMK31	PHXA25	PHXA27
Y	Y OR MISSING	Y
N	N	Not Y
	Y or Missing	N
.	N	Y
	not N	Missing

PHXA25: Have you ever smoked cigarettes? Yes, No

PHXA27: Do you now smoke cigarettes? Yes, No

### 11.3 FORSMK31 (Former cigarette smoker)

<i>FORSMK31</i>		<i>Former Smoker</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
41	T	Missing
7560	0	No
5286	1	Yes

FORSMK31 is a categorical variable that takes values according to the definition table below:

FORSMK31	PHXA25	PHXA27
Y	Y	N
N	N	N or Missing
	Y or Missing	Y
.	N	Y
	Y	Missing
	Missing	Missing or N

PHXA25: Have you ever smoked cigarettes? Yes, No

PHXA27: Do you now smoke cigarettes? Yes, No

#### 11.4 EVRSMK31 (Ever smoked cigarettes)

<i>EVRSMK31</i>		<i>Ever Smoker</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
39	T	Missing
5277	0	No
7571	1	Yes

EVRSMK31 is a categorical variable that takes values according to the definition table below:

EVRSMK31	PHXA25	PHXA27
1	Y	any
	Missing	Y
0	N	not Y
.	N	Y
	Missing	not Y

PHXA25: Have you ever smoked cigarettes? Yes, No

PHXA27: Do you now smoke cigarettes? Yes, No

## 12 OTHER VARIABLES

### 12.1 GENDER(Sex)

<i>GENDER</i>		<i>Sex (From FTRA22)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
7170	F	Female
5717	M	Male

During the closure of the AFU Medical History Data, it comes to our attention that there are two ARIC Ids with gender incorrectly identified in our consolidated database. Both Ids(J252435 & J327948) involve female participants who were incorrectly identified as male in our database. The uncorrected gender variable(GENDER) stays in DERIVE33 and the corrected gender viable(CORGEND1) stays in UNOFF23. Since many analyses were already done using the UNCORRECTED gender variable, the Executive Committee has recommended to use the uncorrected gender variable (GENDER) for Visit1 and longitudinal analyses. The corrected version could be used for cross-sectional analyses other than Visit1.

### 12.2 RACEGRP(Race)

<i>RACEGRP</i>		<i>Race (From FTRA23)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
28	A	
2997	B	Black
10	I	
9852	W	White

While we have been tracking all known errors,we found there are two Ids with race group incorrectly identified in our consolidated database. Both Ids(F134145 & F158363) were incorrectly identified as Whites in our database. Now F134145 is Asian and F158363 is Black. The uncorrected race variable (RACEGRP) stays in DERIVE33 and the corrected race variable (CORRACE1) stays in UNOFF23. Since many analyses were already done using the uncorrected race variable, the Executive Committee has recommended to use the uncorrected race variable(RACEGRP) for Visit 1 and longitudinal analyses. The corrected version could be used for cross-sectional analyses other than Visit 1.

### 12.3 BIRTHDAT (Date of Birth)

Birthdat is in file Derive 37

<i>BIRTHDAT</i>		<i>Date Of Birth Of Subject</i> Q11
<i>N</i>	<i>Value</i>	<i>Description</i>
12887	Range	02/25/1920 - 03/17/1945

## 12.4 V3DATE31 (Visit 3 Date)

<i>V3DATE31</i>		<i>Visit 3 Date</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12887	Range	03/16/1993 - 02/05/1996

Search the Visit 3 dates on Visit 3 forms in the following order:

FTRC14, SBPC24, ANTC4

V3DATE31 is the first non-missing date that is found.

Notes:

- a. V3DATE31 = FTRC1 for 12884 persons  
=SBPC24 for 1 person  
=MRCA001 for 2 persons
- b. Consistency checks among the dates are not performed.

## 12.5 V3AGE31 (Age at Visit 3)

<i>V3AGE31</i>		<i>Age At Visit 3</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12887	Range	49 - 73 ( median=60 mean=60.0 std=5.7 )

V3AGE31 is calculated as the difference in years between IDNA11 (Birth date) and V3DATE31 (Derived Visit 2 date).

- i. Birthday is prior to the visit 3 day:
  - a. (birth month) < (month of visit)
  - b. (birth month) = (month of visit) and (birth day) ≤ (day of visit)

V3AGE31 = (year of visit) - (birth year)
- ii. Birthday is on or after the visit 3 day:
  - a. (birth month) > (month of visit)
  - b. (birth month) = (month of visit) and (birth day) > (day of visit)
- iii. Any of the following cannot be determined:
  - a. Relationship between birthday and visit 3 day.
  - b. Year of visit.
  - c. Birth year.

V3AGE31 = missing.

Notes:



- a. Birth month, day, and year are determined from IDNA11M, IDNA11D, and IDNA11Y, respectively.
- b. Visit month, day, and year are determined from the derived variable, V3DATE31, for visit date.

## 12.6 Fast0834 (8 Hours or More of Fasting Time)

<i>FAST0834</i>		<i>Fasting Time Of 8 Hours Or More</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
106	T	Missing
497	0	No
12284	1	Yes

This is a categorical variable that takes on the values of:

- 0 Not fasting 8 hours or more
- 1 Fasting 8 hours or more
- .T Missing (fasting status cannot be determined)

### Definition:

If either the FTRC or VENC form (or both) is missing or either form has a missing date (FTRC2 or VENC2 = missing), then

- A. Set Fast0834 to missing.

If both dates are present and equal (FTRC2 = VENC2), then

- A. Compute CLINTIME, the time between the FTRC interview time (FTRC3A) and venipuncture time (VENC3). Convert FTRC interview time and/or venipuncture time to a 24-hour clock value if the hour value (FTRC3AH, VENC3AH) falls in the range 1-11 and the time of day (FTRC3B, VENC3B) is PM. Do this by adding 12 to the hour value.
- B. If time of consumption of last meal is 'before yesterday' (FTRC4A = B) or the total time between consumption of last meal and blood draw is  $\geq 8$  hours, then set Fast0834 to 1 if blood draw is before consumption of the snack (VENC4 = Y or blank).
- C. If the snack was consumed before blood draw (VENC4 = N) or the total time between consumption of last meal and blood draw is not missing and  $< 8$  hours, then set Fast0834 to 0.
- D. If neither B nor C above is met, set Fast0834 to missing if either FTRC5 or CLINTIME is missing.

If both dates are present and FTRC visit occurred before VENC visit (FTRC2 < VENC2) then

- A. In this case, the clinic is assumed to have changed the fasting information, so that FTRC4A and FTRC5 refer to the VENC visit day. If time of consumption of last meal is 'before yesterday' (FTRC4A = B) or FTRC5  $\geq 8$ , then set FAST0834 to 1 if blood draw is before consumption of the snack (VENC4 = Y or blank).
- B. If the snack was consumed before blood draw (VENC4 = N) or FTRC5 is nonmissing and  $< 8$ , then set FAST0834 to 0.

If both dates are present and FTRC visit occurred after VENC visit (FTRC2 > VENC2) then

- A. Set Fast0834 to missing.

CLINTIME : A temporary variable to determine the total elapsed times since the participant

provided their fasting information and when venipuncture was performed.

- FTRC1 : Date of visit in mmddyy.  
FTRC2 : Date of fasting determination.  
FTRC3AH : Time of fasting determination hour component.  
FTRC3AM : Time of fasting determination minute component.  
FTRC3B : Time of visit: AM or PM.  
FTRC4A : Day last consumed.  
T (Today), Y (Yesterday), B (Before yesterday)  
FTRC5 : Computed fasting time in hours.  
VENC2 : Date of blood drawing in mmddyy.  
VENC3B : Time of blood drawing: AM or PM.  
VENC 3AH : Time of blood drawing hour component.  
VENC3AM : Time of blood drawing minute component.  
VENC4 : Was blood drawn before the snack? Y, N

### 12.7 Fast1234 (12 Hours or more of Fasting Time)

<i>FAST1234</i>		<i>Fasting Time Of 12 Hours Or More</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
106	T	Missing
875	0	No
11906	1	Yes

This is a categorical variable that takes on the values of:

- 0 Not fasting 12 hours or more
- 1 Fasting 12 hours or more
- .T Missing (fasting status cannot be determined)

#### **Definition:**

If either the FTRC or VENC form (or both) is missing or either form has a missing date (FTRC2 or VENC2 = missing), then

- A. Set Fast1234 to missing.

If both dates are present and equal (FTRC2 = VENC2) then

- A. Compute CLINTIME, the time between the FTRC interview time (FTRC3A) and venipuncture time (VENC3). Convert FTRC interview time and/or venipuncture time to a 24-hour clock value if the hour value (FTRC3AH, VENC3H) falls in the range 1-11 and the time of day (FTRC3B, VENC3B) is PM. Do this by adding 12 to the hour value.
- B. If time of consumption of last meal is 'before yesterday' (FTRC4A = B) or the total time between

consumption of last meal and blood draw is  $\geq 12$  hours, then set Fast1234 to 1 if blood draw is before consumption of the snack (VENC4 = Y or blank).

- C. If the snack was consumed before blood draw (VENC4 = N) or the total time between consumption of last meal and blood draw is not missing and  $< 12$  hours, then set Fast1234 to 0.
- D. If neither B or C above is met, set Fast1234 to missing if either FTRC5 or CLINTIME is missing.

If both dates are present and FTRC visit occurred before VENC visit (FTRC2 < VENC2) then

- A. In this case, the clinic is assumed to have changed the fasting information, so that FTRC4A and FTRC5 refer to the VENC visit day. If time of consumption of last meal is 'before yesterday' (FTRC4A = B) or  $FTRC5 \geq 12$ , then set FAST1234 to 1 if blood draw is before consumption of the snack (VENC4 = Y or blank).
- B. If the snack was consumed before blood draw (VENC4 = N) or FTRC5 is nonmissing and  $< 12$ , then set FAST1234 to 0.

If both dates are present and FTRC visit occurred after VENC visit (FTRC2 > VENC2) then

- A. Set Fast1234 to missing.

CLINTIME	:	A temporary variable to determine the total elapsed time since the participant provided their fasting information and when venipuncture was performed.
FTRC1	:	Date of visit in mmddyy.
FTRC2	:	Date of fasting determination.
FTRC3AH	:	Time of fasting determination hour component.
FTRC3AM	:	Time of fasting determination minute component.
FTRC3B	:	Time of visit: AM or PM.
FTRC4A	:	Day last consumed. T (Today), Y (Yesterday), B (Before yesterday).
FTRC5	:	Computed fasting time in hours.
VENC2	:	Date of blood drawing in mmddyy.
VENC3B	:	Time of blood drawing: AM or PM.
VENC3AH	:	Time of blood drawing hour component.
VENC3AM	:	Time of blood drawing minute component.
VENC4	:	Was blood drawn before the snack? Y, N

## 12.8 TGLEFH31 (Triglycerides less than or equal to 400 mg/dL)

<i>TGLEFH31</i>		<i>Triglycerides &lt;= 400 mg/dL</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
206	0	No
12625	1	Yes
56		Missing

This is a numeric Visit 3 variable which assumes the following values according to the table below.

<u>Value</u>	<u>Description</u>
1	Triglycerides under 400 mg/dL = Yes.
0	Triglycerides under 400 mg/dL = No.

### **Table of assignment of values to TGLEFH31**

	LIPC2A (MG/DL)
TGLEFH31 = 1	Not missing and Less than or equal to 400
TGLEFH31 = 0	More than 400
TGLEFH31 = missing	Missing

LIPC2A: Total Triglycerides (mg/dL).

## 12.9 MENOPS31 (Menopausal Status)

<i>MENOPS31</i>		<i>Menopause Status Variable For Visit 3</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
11	T	Missing
374	2	Premenopause
447	3	Perimenopause
4341	4	Post Natural
1212	5	Post Surgical
340	6	Unknown Ovarian
14	7	Post Radiation
50	8	Post Unknown
6098		Missing

MENOPS31 is a categorical variable that takes on the values 1 through 8 as follows:

- 1=Primary Amenorrhea
- 2=Premenopause
- 3=Perimenopause

4=Post Natural  
5=Post Surgical  
6=Unknown Ovarian  
7=Post Radiation  
8=Post Unknown  
.T=Special Missing  
.=missing

Values are assigned according to the conditions defined below:

[Note: MENOPS02 and MENOPS21 are menopausal status variables at Visit 1 and 2, respectively.]

1. If {MENOPS02=1 or MENOPS21=1} and RHXB2=N  
then set MENOPS31=1 (Primary Amenorrhea)
2. If the above condition is not met and the following condition is met  
then set MENOPS31=2 (Premenopause)  
  
if rhxb2 = Yes & rhxb40 ≠ Both & (rhxb6=No or (rhxb5=0 & rhxb6 = missing))
3. If none of the above conditions are met and at least one of the following conditions is met then  
set MENOPS31=5 (Post Surgical)  
  
If { MENOPS02=Post:surgery or MENOPS21= Post:surgery } or  
{ RHXB2=No and (RHXB8=Surgery or missing) and RHXB40=Both} or  
{ MENOPS21=Pre, Peri, Unknown & RHXB40=Both &  
RHXB2 ≠Yes & RHXB8 ≠Natural }
4. If none of the above conditions are met and the following condition is met  
then set MENOPS31=3 (Perimenopause)  
  
If { (MENOPS21= Pre, Peri ) &  
( RHXB2=Yes & RHXB6=Yes & RHXB40 ≠ Both) or  
(RHXB2=Yes & (RHXB6=U or (RHXB6=missing & RHXB40 ≠ Both))) }
5. If none of the above conditions are met and the following condition is met  
then set MENOPS31=.T (Special Missing)  
  
If {RHXB2=Yes & RHXB40=Both &  
(RHXB6=No or (RHXB6=missing & RHXB5=0)) }
6. If none of the above conditions are met and at least one of the following conditions is met then  
set MENOPS31=4 (Post Natural)  
  
If { (MENOPS02 or MENOPS21 =Post:natural & RHXB40 ≠ Both) or  
(MENOPS02 or MENOPS21 =Post:natural & RHXB40 = Both &  
age when ovaries removed > age at menopause) or  
(RHXB2=No & (RHXB8=Natural or Unknown) ) or  
(RHXB2=No & RHXB37=No ) or  
(RHXB2=No & RHXB40 ≠ Both & V2AGE31 ≥ 55) or  
(RHXB6=Y & RHXB8=Natural & RHXB40 ≠ Both) or  
(RHXB2=No & RHXB6=Y & RHXB8 ≠ Surgery or radiation & RHXB40 = No) }
7. If none of the above conditions are met and at least one of the following conditions is met then  
set MENOPS31=6 (Unknown Ovarian)  
  
If (MENOPS21=6 & RHXB1=No & V4AGE < 55) or  
(RHXB2=No & RHXB6=Yes & RHXB8=Surgery & RHXB37=Yes &  
RHXB38=No & RHXB40=One) or  
(RHXB2=No & (RHXB8=Surgery or missing) & RHXB40=Unknown) or  
(RHXB2=No & RHXB6=Yes & RHXB8=Surgery &

(RHXB37=Yes or Unknown) &  
 (RHXB8=missing or Both or Surgery)) or  
 (RHXB2=No & RHXB6=Unknown and RHXB8=missing & RHXB37=Yes &  
 RHXB38=Yes & RHXB40=missing) or  
 (RHXB38=Yes & RHXB04 ≠ Both & (RHXB7 ≥ RHXB39) & RHXB8 ≠ Natural) or  
 (RHXB2=No & (RHXB8=Surgery, missing) & (RHXB40=No, One) &  
 V4AGE < 55) or  
 (MENOPS31=6 & RHXB37=Unknown and V4AGE ≥ 55) }

8. If none of the above conditions are met and the following condition is met then set MENOPS31=7 (Post Radiation)

If MENOPS21 = 7 or (RHXB6=No & RHXB8=Radiation)

9. If none of the above conditions are met and at least one of the following conditions is met then set MENOPS21=8 (Post Unknown)

If {(MENOPS21=2 or 3) &  
 (RHXB6=Yes & RHXB8=Natural & RHXB40=Both & RHXB38=Yes) or  
 (RHXB6=Yes & RHXB8=Surgery & RHXB40 ≠ Both) or  
 (RHXB6=Yes & RHXB2=No & V3AGE < 55) }

10. If none of the above conditions are met then set MENOPS21=missing

RHXB2: Have you had any menstrual periods during the past two years? Y, N, U

RHXB5: In the past 2 years how many periods did you miss?

RHXB6: Have you reached menopause? Y, N, U

RHXB7: Age when menopause began

RHXB8: Was your menopause natural or the result of surgery or radiation?

N(Natural), S (Surgery), R (Radiation), U (Unknown)

RHXB37: Have you had surgery to have your uterus or ovaries removed? Y, N, U (Unknown)

RHXB38: Has your uterus (womb) been removed? Y, N, U

RHXB40: Have you had either one or both ovaries removed?

O (Yes, One), B (Yes, Both), N (No), U (Unknown)

RHXB41: Age when ovary(ies) removed

## 12.10 HORMON31 (Use of Hormones, Female Participants) (UC3004)

<i>HORMON31</i>		<i>V3 Hormone Use</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1462	1	Current Estrogen User
801	2	Current Estrogen and Progestin User
3191	3	Never Used Hormones
254	4	Former Hormone User or Former User of other medications reported by Participants as hormones
7179		Missing

This is a numeric, categorical variable that can take the values 1 through 4 as follows:

- 1 = Current Estrogen User
- 2 = Current Estrogen and Progestin User
- 3 = Never Used Hormones
- 4 = Former Hormone User or Former User of other medications reported by Participants as hormones \*
- . = Missing

\* This group reported having taken hormone pills since the last exam on the RHX (Reproductive History) form, but some of the hormone codes reported by participants failed to be classified into none of the following hormones: Estrogen, Progest, Oral Cont, Estcrm, Androg, Estrandr, and Unkgonad. Note that this group is defined as former hormone users who possibly misunderstood non-hormones as hormones. We don't highly recommend use of this group.

### Table of assignment of values to HORMON31

1	if CURR3 = 1 then HORMON31 = 1;
2	else if CURR3 = 2 then HORMON31 = 2;
3	else if HORMTIM3 = 3 then HORMON31 = 3;
4	else if HORMTIM3 = 4 & ((ESTROGE3 = 'Y' or PROGEST3 = 'Y' or ORALCON3 = 'Y' OR ESTRCRM3 = 'Y' OR ANDROG3 = 'Y' or ESTRAND3 = 'Y' or UNKGONA3 = 'Y' or OTHER3='Y')) then HORMON31 = 4;
.	else HORMON31 = .;

Values of HORMON31 are assigned according to the values of several intermediate(derived) variables. Some Visit1 and Visit 2 variables are used to determine values of intermediate variables.

The following character variables designate use of hormones based on the Visit 3 RHXB dataset, using the same logic for their Visit 2 equivalents. Each created variable described below can take a value of 'Y' = yes or 'N' = no. For each hormone, two variables are created: one designates whether it was ever used; the other designates whether it is currently being used.

<b>Variable</b>	<b>Description</b>
<i>Variables to designate "ever used":</i>	
ANDROG3	'Androg at v3'
ESTRAND3	'Estrandr at v3'
ESTRCRM3	'Estrcrm at v3'
ESTROGE3	'Estrogen at v3'
ORALCON1	'Oral Cont at v1'
ORALCON2	'Oral Cont at v2'
ORALCON3	'Oral Cont at v3'
OTHER3	'Other at v3'

PROGEST3	'Progest at v3'
UNKGONA3	'Unkgonad at v3'

Variables to designate "current use":

CANDROG3	'Current Androg Use at v3'
CESTRAN3	'Current Estrand Use at v3'
CESTRCR3	'Current Estrcrm Use at v3'
CESTROG3	'Current Estrogen Use at v3'
CORALCO3	'Current Oral Cont Use at v3'
CORALCON1	'Current Oral Cont Use at v1'
CORALCON2	'Current Oral Cont Use at v2'
COTHER3	'Current Other Use at v3';
CPROGES3	'Current Progest Use at v3'
CUNKGON3	'Current Unkgonad Use at v3'



The following table shows the MTC codes and labels for the preceding intervening variables. The MTC code is equivalent to the first six digits of the GPI code. MTC labels are from the Medispan Master Drug Data Base, Therapeutic Classification System.

INTERVENING VARIABLE	VARIABLE LABEL	MTC CODE	MTC LABEL
ESTROGE3	'Estrogen at v3'	240000	Estrogens
		249920	Estrogen-Antianxiety
		260000	Progestins
PROGEST3	'Progest at v3'	250000	Contraceptives, Oral
		259900	Combinations, OC's
		259920	Triphasic OC's
ESTRCRM3	'Estrcrm at v3'	553500	Vaginal Estrogens
ANDROG3	'Androg at v3'	231000	Androgens
ESTRAND3	'Estrandr at v3'	249910	Estrogen-Androgen
UNKGONA3	'Unkgonad at v3'	300000	Miscellaneous Endocrine
OTHER3	'Other at v3'	other	

Of course, the MTC values for the current use of hormones variables are identical to these.

Current hormone usage is summarized by the following created variable, which can take values 1-4.

**CURR3** Checks for current use of specific hormones:  
 1 = Current estrogen user only.  
 2 = Current estrogen and progestin user.  
 3 = User of other hormones or other medications reported by participants as hormones (oral contraceptives, estrogen creams, androgens).  
 4 = All other participants.

The values for CURR3 are determined based on Visit 3 intermediate variables that are equivalent to Visit 2 variables. Logic parallels that used to create CURR2 for Visit 2).

**Table of assignment of values to CURR3**

1	if (ESTROGE3 = 'Y' & CESTROG3 = 'Y') & (CPROGES3 = 'N' & CORALCO3 = 'N' & CESTRCR3 = 'N' & CANDROG3 = 'N' & CESTRAN3 = 'N' & CUNKGON3 = 'N' & COTHER3 = 'N') then CURR3 = 1;
2	else if (ESTROGE3 = 'Y' & CESTROG3 = 'Y' & PROGEST3 = 'Y' & CPROGES3 = 'Y') & (CORALCO3 = 'N' & CESTRCR3 = 'N' & CANDROG3 = 'N' & CESTRAN3 = 'N' & CUNKGON3 = 'N' & COTHER3 = 'N') then CURR3 = 2;
3	else if (ESTROGE3 = 'N' or CESTROG3 = 'N') & (ORALCON3 = 'Y' & CORALCO3 = 'Y') or (ESTRCRM3 = 'Y' & CESTRCR3 = 'Y') or (PROGEST3 = 'Y' & CPROGES3 = 'Y') or (ANDROG3 = 'Y' & CANDROG3 = 'Y') or (ESTRAND3='Y' & CESTRAN3 = 'Y') or (UNKGONA3 = 'Y' & CUNKGON3 = 'Y') or (OTHER3='Y' & COTHER3='Y') then CURR3 = 3;
4	else CURR3=4;

HORMTIM3 is a created variable that summarizes hormone use over time. It uses same logic as its Visit 2 equivalent (HORMTIM2).

HORMTIM3

Checks for current, past, never use of hormones. This is a numeric variable which assumes values according to the table below. It uses datasets from both Visit 2 and Visit 3.

- 1 = Unknown
- 2 = Currently taking hormones.
- 3 = Never took hormones.
- 4 = Former hormone user or former use of other medications reported by participants as hormones
- . = Missing value.

**\*Table of assignment of values to HORMTIM3**

HORMTIM 3 =	1	if (RHXA16 = 'U' or RHXA16 = '' or HHXB22 = '' or HHXB22 = 'U' or RHXB10 = 'U' or RHXB10 = ''
=	2	if RHXB10 = 'Y' & ((RHXB14 = 'Y' & RHXB12 ne ' ') or (RHXB26 = 'Y' & RHXB24 ne ' '))
=	3	if (RHXA16 = 'N' or HORMTIM1 = 3) & (HHXB22='N' or HORMTIM2 = 3) & (RHXB10 = 'N')
=	4	if (HORMTIM1 = 2 or HORMTIM2 = 2) and RHXB10 = 'N') or ((RHXB10 = 'Y' and RHXB14 = 'N' ) and (RHXB26 = 'N' or RHXB26='')) or ((ESTROGE3 = 'Y' and CESTROG3 = 'N') or (PROGEST3 = 'Y' and CPROGES3 = 'N') or (ORALCON3 = 'Y' and CORALCO3 = 'N') or (ESTRCRM3 = 'Y' and CESTRCR3 = 'N') or (ANDROG3 = 'Y' and CANDROG3 = 'N') or (ESTRAND3 = 'Y' and CESTRAN3 = 'N') or (UNKGONA3 = 'Y' and CUNKGON3 = 'N') or (OTHER3 = 'Y' and COTHER3 = 'N'))

ORALTIM3 is a created variable that checks for use of oral birth control hormones. It is derived using the same logic as its Visit 2 equivalent (ORALTIM2).

ORALTIM3

Checks for current, past, never use of oral birth control. This is a numeric variable which assumes values according to the table below. It uses datasets from Visit 1, Visit 2 and Visit 3.

- 1 = Never took oral contraceptives
- 2 = Currently taking oral contraceptives
- 3 = Past user of oral contraceptives
- 4 = Unknown

**Table of assignment of values to ORALTIM3**

1	if ORALCON3='N' & ORALCON2='N' & ORALCON1 = 'N' then ORALTIM3=1;
2	else if (ORALCON3 = 'Y' & CORALCO3 = 'Y' then ORALTIM3=2;
3	else if (ORALCON1 = 'Y' ORALCON2 = 'Y') & (ORALCON3 = 'Y' or CORALCO3 = 'N' or CORALCO2 = 'N') or (ORALCON3 = 'Y' & CORALCO3 = 'N') then ORALTIM3=3;
4	else if (ORALCON1 = 'N' and (RHXA11 ne 'Y' and RHXA11 ne 'N')) or (ORALCON2 = 'N' and (RHXB10 ne 'Y' and RHXB10 ne 'N')) then ORALTIM3=4;

NOTES:

Hormone codes are taken from the RHXB dataset, rather than the RHXCOD31 dataset. The latter(Visit 3) dataset has not yet been created. It differs from the RHXS dataset in that hormone codes are verified, added if missing, and corrected where necessary. This is the same process used to create the HHXCOD21 dataset that was used in HORMON21.

## 12.11 CENTER (Field Center)

<i>CENTER</i>		<i>ARIC Field Center (Cir)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
3342	F	Forsyth County, NC
2622	J	Jackson City, MS
3497	M	Minneapolis Townships, MN
3426	W	Washington County, MD

The ARIC Study collects data in four diverse communities. This design was chosen so that data could be obtained for groups which differ by geography, race, and socio-economic status. The ARIC study was not designed to select a random or representative sample of the entire U.S. population.

This is a character variable that takes on the values of:

F: Forsyth County, North Carolina  
 J: The city of Jackson, Mississippi  
 W: Selected northwestern suburbs of Minneapolis, Minnesota  
 M: Washington County, Maryland

## 12.12 V3CENTER (Visit 3 Field Center)

<i>V3CENTER</i>		<i>Center For Visit 3 Exam</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
3338	F	Forsyth County, NC
2621	J	Jackson City, MS
3496	M	Minneapolis Townships, MN
3432	W	Washington County, MD

If ARIC study participants move into another field center at visit 3, V3CENTER value is assigned to that field center. If not, V3CENTER is the same as CENTER.

## 13 CORNELL VOLTAGE LVH

### 13.1 LVHSCR31

<i>LVHSCR31</i>		<i>Cornell Voltage In UV (S In V3+r In AVL)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12677	Range	101 - 7986 ( median=1179 mean=1248.6 std=556.2 )
210		Missing

LVHSCR31 is a continuous Visit 3 variable defined to be the absolute value of ECGRA198 plus ECGRA170.

$$\begin{aligned} \text{LVHSCR31} &= | \text{ECGRA198} | + \text{ECGRA170} \\ &= \text{Missing if } | \text{ECGRA198} | + \text{ECGRA170} < 100 \text{ uV} \end{aligned}$$

ECGRA198: S amplitude in V3.  
ECGRA170: R amplitude in AVL.

### 13.2 NLVHSC31

<i>NLVHSC31</i>		<i>Cornell Voltage In mm</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12677	Range	1.01 - 79.86 ( median=11.79 mean=12.486 std=5.562 )
210		Missing

NLVHSC31 is a continuous Visit 3 variable defined to be LVHSCR31 divided by 100.

$$\text{NLVHSC31} = \text{LVHSCR31} / 100.$$

### 13.3 CLVH31

<i>CLVH31</i>		<i>LVH Present By Cornell Definition</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
12345	0	No
332	1	Yes
210		Missing

CLVH31 is a dichotomous Visit 3 LVH variable. The algorithm for computation of CLVH31 is given in the table below.

CLVH31	GENDER	NLVHSC31
1	Male	Greater than 28
	Female	Greater than 22
0	Male	Less than or Equal to 28
	Female	Less than or Equal to 22

## 14 RISK FACTORS

### 14.1 CHDRISK10yr\_31( % Predicted 10 year Risk of Incident CHD at Visit3)

(uc4677)

CHDRISK10yr\_31 is the predicted 10 year risk of incident coronary heart disease (CHD). It is a percentage variable thus can take values from 0 to 100 or missing. The beta-coefficients used for the prediction are given below. The beta coefficients were obtained from an output found in uc467701 and were published in ARIC manuscript 661(for those without diabetes)<sup>1</sup> and ARIC manuscript 781 (for those with diabetes)<sup>2</sup>. If a participant had prevalent CHD or had a missing value for at least one of the variables used, then predicted risk was not calculated and a missing value was assigned.

Participants were separated based on gender, race, and diabetes status. The predicted 10 year risk of incident CHD was then calculated using the following Cox regression equation:

$$CHDRISK10yr\_31 = 100 * \left[ 1 - (1 - P_0)^{\exp(RS - RS_0)} \right]$$

Where  $P_0$  is a constant

$RS_0$  is a constant

RS is a linear combination of B-coefficients times the risk factor variables (see table below).

CHDRISK10yr\_31 = Missing  
if any risk factor variable is missing  
or  
if PREVCHD33^=0

<b>Table 1: CHD Risk for those without Diabetes: 10 year CHD Risk Score Beta coefficients, <math>RS_0</math>, and <math>1-P_0</math> values for participants without diabetes</b>				
<b>Risk Factor Variables</b>	<b>Beta Coefficients</b>			
	<b>Black Females</b>	<b>White Females</b>	<b>Black Males</b>	<b>White Males</b>
newage	0.31989	0.39378	0.63186	0.36528
newage_2	-0.090856	-0.22346	-0.15692	-0.27146
tccat2	0.1173	0.64727	0.33314	0.44555
tccat3	0.1173*	0.80937	0.37726	0.77279
tccat4	0.81459	0.9329	0.69569	0.77279
hdlcat1	1.07081	1.20919	0.79192	1.27295
hdlcat2	0.39727	0.91366	0.43293	0.9178
hdlcat3	0.3927	0.91366	0.43293	0.65401
hdlcat4	0.23253	0.56967	0.28026	0.61373
sbgpc22	0.024899	0.015023	0.002253654	0.013634
hyptmdcode31	0.8091	0.58733	0.6937	0.12
curismk31	1.01048	1.10297	0.63094	0.37602
$1-P_0$	0.99126	0.99391	0.97262	0.97262
$RS_0$	2.93014	1.74618	0.20343	0.20343

\* In this and other cases the repeating of a coefficient from the row above is not an error. The adjacent categories were collapsed for the particular population, for sample size reasons.

[1] Chambless LE, Folsom AR, Sharrett AR, Sorlie P, Couper D, Szklo M, Neito FJ. Coronary heart disease risk prediction in the ARIC Study. J Clin Epidemiol 2003;56:880-90.

[2] Folsom AR, Chambless LE, Duncan BB, Gilbert AC, Pankow JS. Prediction of coronary heart disease in middle-aged adults with diabetes. Diabetes Care 2003;10:2777-84.

**Table 2: CHD Risk for those with Diabetes:**  
10-year CHD risk score beta coefficients,  $RS_0$ , and  $1-P_0$  values for participants with diabetes

Risk Factor Variables	Beta Coefficients	
	Females	Males
racegrp	0.51819	0.49764
newage	0.11855	0.41088
newage_2	0.008189254	-0.26545
tccat23	0.66224	0.49266
tccat4	1.0978	1.04681
hdlcat12	0.38941	0.67931
hdlcat3	0.33487	-0.14568
sbpc22	0.15579	0.004552397
hyptmdcode31	0.38741	-0.019692
cursmk31	0.091353	0.18137
$1-P_0$	0.97643	0.9291
$RS_0$	1.84209	0.49799

Continuous Variables used:  
 NEWAGE= (V3AGE31-55)/10  
 NEWAGE\_2= (NEWAGE)<sup>2</sup>

Categorical Variables used:  
 Total Cholesterol (all measured in mg/dl)  
 TCCAT1= 1 if LIPC01A <200  
 TCCAT2= 1 if 200 <= LIPC01A < 240  
 TCCAT3= 1 if 240 <= LIPC01A < 280  
 TCCAT4=1 if LIPC01A >=280  
 TCAT23= 1 if 200<= LIPC01A <280 (combine tccat2 & tccat3)

High Density Lipids (all measured in mg/dl)  
 HDLCAT1=1 if LIPAC03A < 35  
 HDLCAT2=1 if 35<= LIPAC03A <45  
 HDLCAT3=1 if 45<= LIPAC03A <50  
 HDLCAT4=1 if 50<= LIPAC03A <60  
 HDLCAT5=1 if LIPAC03A >=60  
 HDLCAT12=1 if LIPAC03A <45 (combine hdlcat1 & hdlcat2)

Visit 3 Variables Used	Description
PRVCHD33	Prevalent Coronary Heart Disease
RACE	Race
GENDER	Gender
CURSMK31	Current Smoker
DIABTS34	Diabetic
V3AGE31	Age a Visit 'n'
LIPAC03A	HDL-High Density Lipids (mg/dL)
HYPTMDCODE31	Took Medication for hypertension w/in 2wks using 2004 medication coding
SBPC22	SBP (2nd & 3rd Average) (mmHg)
LIPC01A	Total Cholesterol (mg-dL)

## 14.2 STROKERISK10YR\_31: (% Predicted 10 Year Risk of Incident Ischemic Stroke at Visit3) UC4678

STROKERISK10YR\_31 is the predicted 10 year risk of incident Ischemic Stroke. It is a percentage variable thus can take values from 0 to 100 or missing. The beta-coefficients used for the prediction are given below. The beta coefficients were obtained from an output found in UC4077\_3b<sup>1</sup> and were published in ARIC manuscript #824<sup>2</sup>. If a participant had prevalent stroke or had a missing value for at least one of the variables used, then the predicted risk was not calculated and a missing value was assigned.

Participants were separated based on gender. The 10 year predicted risk of incident Ischemic Stroke was then calculated using the following Cox regression equation:

$$\text{STROKERISK 10YR}_31 = 100 * \left[ 1 - (1 - P_0)^{\exp(RS - RS_0)} \right]$$

Where  $P_0$  is a constant

$RS_0$  is a constant

$RS$  is a linear combination of B-coefficients times the risk factor variables (see table below).

STROKERISK10YR\_31= Missing  
if any risk factor variables are missing  
or  
if PRVSTR31=0

Table 2: Calculating Risk: Categorical and continuous variables w/ Beta -coefficients used to calculate 10-year stroke risk.

	Female	Male
racegrp	0.4155701	0.3514973
cursmk31	0.8002466	0.6931732
v3age341	0.0689097	0.0807621
prvchd33	0.6298822	0.7332341
hyptmdcode31	0.4072694	0.4544168
clvh31	0.808223	0.386121
diabts34	1.1371047	0.8892109
sbpc22	0.0174648	0.0184501
$RS_0$	5.79944	6.55671
$1-P_0$	0.99390574	0.989928

Variables Used	Description
V3DATE31	Date of Visit X
GENDER	Gender
RACE	Race
CURSMK31	Current Smoker
V3AGE31	Age at Visit X
PRVCHD33	Prevalent CHD definition 3
HYPTMDCODE31	Hypertension Meds
CLVH31	Left Ventricle hypertrophy
DIABTS34	Diabetes
SBPC22	Systolic BP (Ave)
PREVSTR31	Prevalent Stroke

[1] J:\aric\sc\source\archive\zip\uc4077.zip

[2] Chambless LE, Heiss G, Shahar E, Earp MJ, Toole J. Ischemic stroke risk prediction in the Atherosclerosis Risk in Communities study. *Am J Epidemiol* 2004;160:259-269.



**14.3 DIABETESRISK9YR\_31(%Predicted 9 year Risk of Diabetes at Visit3)  
(uc4679)**

DIABETESRISK9YR\_31 is the predicted 9 year risk of incident type two diabetes. It is a percentage variable thus can take values from 0 to 100 or missing. The beta-coefficients used for the prediction are given below. The beta coefficients were obtained from an output found in uc439216<sup>1</sup> and were published in ARIC manuscript 808b<sup>2</sup> If a participant had prevalent diabetes or had a missing value for at least one of the variables used, then the predicted risk was not calculated and a missing value was assigned.

$$DIABETES_{9yr\_31} = \frac{1}{1 + e^{-RS}}$$

DIABETES9yr\_31= Missing  
If DIABTS34^=0  
Or if any risk factor variables are missing

RS is a linear combination of B-coefficients times the risk factor variables.  
RS= -9.98078+ 0.017254\*(V3AGE31) + 0.44330\*(BLACK)+ 0.49810\*(FAMDIABETES) + 0.0880\*(LIPC4a<sub>[mg/dl]</sub>) + 0.011097 \*(SBPC22<sub>[mmHg]</sub>)-0.032616\*(ANTA01<sub>[cm]</sub>) +0.027316\*(ANTA07a<sub>[cm]</sub>) - 0.012227\*(LIPC3a<sub>[mg/dL]</sub>) + 0.002710939\*(LIPC02a<sub>[mg/dL]</sub>)

BLACK= 1 if RACEGRP="B"  
BLACK=0 if RACEGRP="W"  
BLACK=missing otherwise.

FAMDIABETES- if either participants mother or father had diabetes then FAMDIABETES=1  
Neither mother nor father had diabetes then FAMDIABETES=0  
FAMDIABETES=1 if HOM15B='Y' or HOM18B='Y' or HOM23B='Y' or HOM26B='Y'  
FAMDIABETES =0 if (HOM15B='N' or HOM18B='N') and if (HOM23B='N' or HOM26B='N')  
FAMDIABETES = . Otherwise

Visit 3	Description
v3age31	Age at Visit X
racegrp	Race
lipc3a	High density lipids (mg/dl)
lipc4a	Fasting Glucose Value (mg/dl) [recalibrated]
diabts34	Prevalent Diabetes?
sbpc22	SBP- Systolic BP 2nd & 3rd average (mmHg)
lipc2a	Triglycerides (mg/dl)
anta01	Height (cm)
anta07a	Waist size (cm)
hom15b	Natural Mother ever have Diabetes?
hom18b	Natural Mother ever have Diabetes?
hom23b	Natural Father ever have Diabetes
hom26b	Natural Father ever have Diabetes

[1] j:\aric\sc\source\archive\zip\uc4392.zip

[2] Schmidt MI, Duncan BB, Bang H, Pankow J, Ballantyne CM, Golden S, Folsom AR, Chambless LE. Identifying individuals at high risk for diabetes: The Atherosclerosis Risk in Communities Study Diabetes Care 2005;28:2013-18.

## 15 MEDI-SPAN THERAPEUTIC CLASSIFICATION SYSTEM

The classification listings are current as of the time of this printing. Medi-Span may make revisions to the TCS to increase usefulness which may impact existing GPI values. This listing may be reproduced by printing the Record Types 1 through 3 from the optional Therapeutic Classification Reference File. Variable names for the MTC codes are MSRMTTC1-MSRMTTC17 in file MSRCOD34 for Visit 3).

Value \$MTCNAME "000000" = "PLACEBO"

### **GROUPS 1-16 ANTI-INFECTIVE AGENTS**

"010000"="PENICILLINS"  
"011000"="PENICILLIN G"  
"012000"="AMPICILLINS"  
"013000"="PENICILLINASE-RESISTANT"  
"014000"="EXTENDED SPECTRUM"  
"015000"="AMIDINOPENICILLIN"  
"019900"="PENICILLIN COMBINATIONS"  
"020000"="CEPHALOSPORINS"  
"021000"="CEPHALOSPORINS - 1ST GENERATION"  
"022000"="CEPHALOSPORINS - 2ND GENERATION"  
"023000"="CEPHALOSPORINS - 3RD GENERATION"  
"030000"="MACROLIDE ANTIBIOTICS"  
"031000"="ERYTHROMYCINS"  
"031099"="ERYTHROMYCIN COMBINATIONS"  
"032000"="TROLEANDOMYCIN"  
"033000"="LINCOMYCINS"  
"034000"="AZITHROMYCIN"  
"035000"="CLARITHROMYCIN"  
"035500"="MIOCAMYCIN"  
"035700"="ROXITHROMYCIN"  
"036000"="SPIRAMYCIN"  
"040000"="TETRACYCLINES"  
"049900"="TETRACYCLINE COMBINATIONS"  
"050000"="FLUROQUINOLONES"  
"060000"="R E S E R V E D"  
"070000"="AMINOGLYCOSIDES"  
"080000"="SULFONAMIDES"  
"089900"="SULFA COMBINATIONS"  
"090000"="ANTIMYCOBACTERIAL AGENTS"  
"099900"="ANTI TB COMBINATIONS"  
"100000"="R E S E R V E D"  
"110000"="ANTIFUNGALS"  
"120000"="ANTIVIRAL"  
"129900"="ANTIVIRAL COMBINATIONS"  
"130000"="ANTIMALARIAL"  
"139900"="ANTI MALARIAL COMBINATIONS"  
"140000"="AMEBICIDES"  
"149900"="AMEBICIDE COMBINATIONS"  
"150000"="ANTHELMINTIC"  
"159900"="ANTHELMINTIC COMBINATIONS"  
"160000"="MISC. ANTI-INFECTIVES"  
"161000"="POLYMYXINS"  
"162000"="CHLORAMPHENICOLS"  
"163000"="LEPROSTATICS"  
"164000"="ANTIPROTOZOAL AGENTS"

"165000"="ANTIINFECTIVE ADJUVANTS"  
"169900"="MISC. ANTIINFECTIVE COMBINATIONS"

### **GROUPS 17-20 BIOLOGICALS**

"170000"="VACCINES"  
"171000"="VIRAL VACCINES"  
"171099"="VACCINE COMBINATIONS"  
"172000"="BACTERIAL VACCINES"  
"180000"="TOXOIDS"  
"189900"="TOXOID COMBINATIONS"  
"190000"="ANTISERA"  
"191000"="IMMUNE SERUMS"  
"192000"="ANTITOXINS-ANTIVENINS"  
"199900"="ANTISERA COMBINATIONS"  
"200000"="BIOLOGICALS MISC"  
"201000"="ALLERGENIC EXTRACTS"

### **GROUPS 21 - ANTINEOPLASTIC AGENTS**

"210000"="ANTINEOPLASTICS"  
"211000"="ALKYLATING AGENTS"  
"211010"="NITROGEN MUSTARDS"  
"211020"="NITROSOUREAS"  
"212000"="ANTINEOPLASTIC ANTIBIOTICS"  
"213000"="ANTIMETABOLITES"  
"214000"="ANTINEOPLASTIC HORMONES"  
"214020"="ANDROGENS-ANTINEOPLASTIC"  
"214030"="ESTROGENS-ANTINEOPLASTIC "  
"214040"="PROGESTINS-ANTINEOPLASTIC"  
"214050"="ANTINEOPLASTIC HORMONES MISC."  
"215000"="MIOTIC INHIBITORS"  
"216000"="RADIOPHARMACEUTICALS"  
"217000"="ANTINEOPLASTICS MISC."  
"217030"="ANTINEOPLASTICS - INTERLUKINS"  
"218000"="INVESTIGATIONAL-ANTINEOPLASTIC"  
"219900"="ANTINEOPLASTIC COMBINATIONS"

### **GROUPS 22-30 ENDOCRINE AND METABOLIC DRUGS**

"220000"="CORTICOSTEROIDS"  
"221000"="GLUCOCORTICOSTEROIDS"  
"221099"="STEROID COMBINATIONS"  
"222000"="MINERALOCORTICIDS "  
"230000"="ANDROGEN-ANABOLIC"  
"231000"="ANDROGENS"  
"231099"="ANDROGEN COMBINATIONS"  
"232000"="ANABOLIC STEROIDS"  
"240000"="ESTROGENS"  
"249900"="ESTROGEN COMBINATIONS"  
"249910"="ESTROGEN-ANDROGEN"  
"249920"="ESTROGEN-ANTIANSXIETY AGENT"  
"249930"="ESTROGEN-PROGESTIN"  
"249940"="ESTROGEN-ANDROGEN-PROGESTIN"  
"250000"="CONTRACEPTIVES"  
"251000"="PROGESTIN OC'S"

"251500"="PROGESTIN CONTRACEPTIVES - INJECTABLE"  
"252000"="PROGESTERONE IUD"  
"253000"="PROGESTIN IMPLANTS"  
"259800"="COMBINATION CONTRACEPTIVES - INJECTABLE"  
"259900"="COMBINATIONS OC'S"  
"259910"="BIPHASIC OC'S"  
"259920"="TRIPHASIC OC'S"  
"260000"="PROGESTINS"  
"270000"="ANTIDIABETIC"  
"271000"="INSULIN"  
"271010"="MIXED INSULIN"  
"271020"="BEEF INSULIN"  
"271030"="PORK INSULIN"  
"271040"="HUMAN INSULIN"  
"272000"="SULFONYLUREAS"  
"272099"="SULFOYLUREA COMBINATIONS"  
"273000"="DIABETIC OTHER"  
"274000"="ALDOSE REDUCTASE INHIBITORS"  
"280000"="THYROID"  
"281000"="THYROID HORMONES"  
"283000"="ANTITHYROID AGENTS"  
"290000"="OXYTOCICS"  
"292000"="ABORTIFACIENTS"  
"292010"="PROSTAGLANDINS"  
"300000"="MISC. ENDOCRINE"  
"301000"="GROWTH HORMONE"  
"302000"="POSTERIOR PITUITARY"  
"302010"="VASOPRESSIN"  
"303000"="CORTICOTROPIN"  
"309900"="MISC. ENDOCRINE COMBINATIONS"

#### **GROUPS 31-40 CARDIOVASCULAR AGENTS**

"310000"="CARDIOTONICS"  
"311000"="AMRINONE"  
"312000"="DIGITALIS"  
"320000"="ANTIANGINAL AGENTS"  
"321000"="NITRATES"  
"322000"="ANTIANGINALS - OTHER"  
"329900"="ANTIANGINAL COMBINATIONS"  
"329910"="PETN COMBINATIONS"  
"330000"="BETA BLOCKERS"  
"331000"="BETA BLOCKERS NON-SELECTIVE"  
"332000"="BETA BLOCKERS CARDIO-SELECTIVE"  
"333000"="ALPHA-BETA BLOCKERS"  
"340000"="CALCIUM BLOCKERS"  
"350000"="ANTIARRHYTHMIC"  
"350500"="ANTIARRHYTHMICS TYPE I -- NONSPECIFIC"  
"351000"="ANTIARRHYTHMICS TYPE 1-A"  
"352000"="ANTIARRHYTHMICS TYPE 1-B"  
"353000"="ANTIARRHYTHMICS TYPE 1-C"  
"354000"="ANTIARRHYTHMICS TPYE III"  
"355000"="MISC. ANTIARRHYTHMIC"  
"360000"="ANTIHYPERTENSIVE"  
"361000"="ACE INHIBITORS"  
"362000"="ADRENOLYTIC ANTIHYPERTENSIVES"  
"362010"="ADRENOLYTICS - CENTRAL"  
"362020"="ADRENOLYTICS - PERIPHERAL"

"362030"="RESERPINE"  
"363000"="ALPHA BLOCKERS"  
"364000"="VASODILATORS "  
"364010"="FLUOROQUINOLONE VASODIALATORS"  
"365000"="ANTIHYPERTENSIVE - MAOIS"  
"366000"="MISC. ANTIHYPERTENSIVES"  
"369900"="ANTIHYPERTENSIVE COMBINATIONS"  
"369910"="RESERPINE COMBINATIONS"  
"369920"="BETA BLOCKER COMBINATIONS"  
"370000"="DIURETICS"  
"371000"="CARBONIC ANHYDRASE INHIBITORS"  
"372000"="LOOP DIURETICS"  
"373000"="MERCURIAL DIURETICS"  
"374000"="OSMOTIC DIURETICS"  
"375000"="POTASSIUM SPARING DIURETICS"  
"376000"="THIAZIDES"  
"379000"="MISC. DIURETICS"  
"379900"="COMBINATION DIURETICS"  
"379910"="DIURETICS & POTASSIUM"  
"379920"="NON-PRESCRIPTION DIURETICS"  
"380000"="PRESSORS"  
"389000"="EMERGENCY KITS"  
"390000"="ANTIHYPERLIPIDEMIC"  
"391000"="BILE SEQUESTRANTS"  
"400000"="MISC. CARDIOVASCULAR"  
"401000"="PERIPHERAL VASODILATORS"  
"401099"="VASODILATOR COMBINATIONS"  
"401500"="MICROVASODILATORS"  
"402000"="CARDIOPLEGIC SOLN"  
"402500"="VASOCONSTRICTOR INHIBITORS"

#### **GROUPS 41-45 RESPIRATORY AGENTS**

"410000"="ANTI HISTAMINES"  
"411000"="ANTI HISTAMINES - ALKYLAMINES"  
"412000"="ANTI HISTAMINES - ETHANOLAMINES"  
"413000"="ANTI HISTAMINES - ETHYLENEDIAMINES"  
"414000"="ANTI HISTAMINES - PHENOTHIAZINES"  
"415000"="ANTI HISTAMINES - PIPERIDINES"  
"415500"="ANTI HISTAMINES - NON-SEDATING"  
"416000"="ANTI HISTAMINES - MISC."  
"419900"="ANTI HISTAMINE COMBINATIONS"  
"419910"="ANTI HISTAMINE MIXTURES"  
"419920"="ANTI HISTAMINE - ANTICHOLINERGICS"  
"420000"="DECONGESTANTS"  
"421000"="SYMPATHOMIMETICS"  
"421010"="SYSTEMIC DECONGESTANTS"  
"421020"="TOPICAL DECONGESTANTS"  
"421030"="NASAL INHALERS"  
"422000"="NASAL STEROIDS"  
"425000"="MISC. NASAL PREPARATIONS"  
"425099"="MISC. NASAL COMBINATION PREPARATIONS"  
"429900"="NASAL COMBINATIONS"  
"429910"="DECONGESTANT-ANTI HISTAMINE"  
"430000"="COUGH/COLD"  
"431000"="ANTITUSSIVES"  
"431010"="ANTITUSSIVE - NARCOTIC"  
"431020"="ANTITUSSIVE - NONNARCOTIC"

"432000"="EXPECTORANTS"  
"432020"="IODINE EXPECTORANTS"  
"432099"="EXPECTORANT MIXTURES"  
"433000"="MUCOLYTICS"  
"434000"="MISC. RESPIRATORY INHALENTS"  
"434010"="AROMATIC INHALANTS"  
"439900"="COUGH/COLD COMBINATIONS"  
"439910"="DECONGESTANT-ANALGESIC"  
"439915"="DECONGESTANT-ANALGESIC-ANTICHOLINERGIC"  
"439920"="ANTI HISTAMINE-ANALGESIC"  
"439925"="ANTI HISTAMINE-ANALGESIC-ANTICHOLINERGIC"  
"439930"="DECONGESTANT & ANTIHISTAMINE"  
"439935"="DECONGEST-ANTI HISTAMINE-ANTICHOLINERGIC"  
"439940"="DECONGESTANT-ANTI HISTAMINE-ANALGESIC"  
"439945"="DECONGEST-ANTI HIST-ANALGESIC-ANTICHOLIN"  
"439950"="ANTITUSSIVE COMBOS-NARCOTIC"  
"439951"="NARCOTIC ANTITUSSIVE-DECONGESTANT"  
"439952"="NARCOTIC ANTITUSSIVE-ANTI HISTAMINE"  
"439953"="NARCOTIC ANTITUSSIVE-DECONGEST-ANTI HIST"  
"439954"="NARC ANTITUSS-DECONGEST-ANTI HISTA-ANALG"  
"439955"="ANTITUSSIVE COMBOS-NON-NARCOTIC"  
"439956"="NON-NARC ANTITUSSIVE-DECONGESTANT"  
"439957"="NON-NARC ANTITUSSIVE-ANTI HISTAMINE"  
"439958"="NON-NARC ANTITUSS-DECONGEST-ANTI HIST"  
"439959"="NON-NARC ANTITUSS-DECONG-ANTI HISTA-ANALG"  
"439960"="EXPECTORANT COMBINATIONS"  
"439962"="DECONGESTANT W/EXPECTORANT"  
"439964"="ANTI HISTAMINE W/EXPECTORANT"  
"439966"="DECONGESTANT-ANTI HISTAMINE W/EXPECTORANT"  
"439968"="DECONGEST-ANTI HIST-ANALGESIC E/EXPECT"  
"439970"="ANTITUSSIVE-EXPECTORANT"  
"439973"="ANTITUSSIVE-EXPECTORANT-DECONGESTANT"  
"439975"="ANTITUSSIVE-EXPECTORANT-ANTI HISTAMINE"  
"439978"="ANTITUSSIVE-EXPECTORANT-ANALGESIC"  
"439980"="ANTITUSSIVE-EXPECTOR-DECONGEST-ANTI HIST"  
"439983"="ANTITUSSIVE-EXPECTOR-DECONGEST-ANALGESIC"  
"439985"="ANTITUSSIVE-EXPECTOR-ANTI HISTA-ANALGESIC"  
"439988"="ANTITUSS-EXPECTOR-DECONG-ANTI HISTA-ANALG"  
"439990"="MISC. RESPIRATORY COMBINATIONS"  
"440000"="ANTI ASTHMATICS"  
"441000"="ANTICHOLINERGICS"  
"441500"="ANTI-INFLAMMATORY AGENTS"  
"442000"="SYMPATHOMIMETICS"  
"442010"="BETA ADRENERGICS"  
"442020"="MIXED ADRENERGICS"  
"442099"="ADRENERGIC COMBINATIONS"  
"443000"="XANTHINES"  
"444000"="STEROID INHALANTS"  
"449900"="ASTHMA COMBINATIONS"  
"449910"="XANTHINE-EXPECTORANTS"  
"449920"="XANTHINE-SYMPATHOMIMETICS"  
"449922"="XANTHINE-SYMPATHOMIMETIC-EXPECTORANT"  
"449925"="XANTHINE-BARBITURATES"  
"449927"="SYMPATHOMIMETIC-BARBITURATE"  
"449930"="XANTHINE-SYMPATHOMIMETIC-BARBITURATE"  
"449932"="XANTHINE-SYMPATHO-BARBIT-EXPECTOR"  
"449940"="SYMPATHOMIMETIC-EXPECTORANTS"  
"449950"="XANTHINE-ANTITUSSIVE"

"449990"="MISC. ANTI-ASTHMATIC PRODUCTS"  
"450000"="MISC. RESPIRATORY"  
"451000"="ALPHA-PROTEINASE INHIBITOR (HUMAN)"

#### **GROUPS 46-52 GASTROINTESTINAL AGENTS**

"460000"="LAXATIVES"  
"461000"="SALINE LAXATIVES"  
"461099"="SALINE LAXATIVE MIXTURES"  
"462000"="STIMULANT LAXATIVES"  
"463000"="BULK LAXATIVES"  
"464000"="LUBRICANT LAXATIVES"  
"465000"="SURFACTANT LAXATIVES"  
"466000"="MISC. LAXATIVES"  
"469900"="LAXATIVE COMBINATIONS"  
"469910"="LAXATIVES & DSS"  
"469920"="BOWEL PREP KITS"  
"470000"="ANTI-DIARRHEALS"  
"471000"="ANTI-PERISTALTIC AGENTS"  
"472000"="GI ADSORBANTS"  
"473000"="MISC. ANTI-DIARRHEAL AGENTS"  
"479900"="ANTI-DIARRHEAL COMBINATIONS"  
"479910"="DIARRHEA COMBINATIONS-OPIATE"  
"479920"="DIARRHEA COMBINATIONS-ANTICHOLINERGIC"  
"480000"="ANTACIDS"  
"481000"="ANTACIDS - ALUMINUM SALTS"  
"482000"="ANTACIDS - BICARBONATE"  
"482099"="ANTACIDS - BICARBONATE COMBINATIONS"  
"483000"="ANTACIDS - CALCIUM SALTS"  
"484000"="ANTACIDS - MAGNESIUM SALTS"  
"489900"="ANTACID COMBINATIONS"  
"489905"="ANTACID & DIMETHICONE"  
"489910"="ANTACID-SIMETHICONE"  
"490000"="ULCER DRUGS"  
"491000"="GI ANTISPASMODICS - ANTICHOLINERGICS"  
"491010"="BELLADONNA ALKALOIDS"  
"491020"="QUATERNARY ANTICHOLINERGICS"  
"491030"="ANTISPASMODICS"  
"491040"="ANTICHOLINERGICS"  
"491099"="ANTICHOLINERGIC COMBINATIONS"  
"492000"="H-2 ANTAGONISTS"  
"492500"="PROSTAGLANDINS"  
"493000"="MISC. ANTI-ULCER"  
"500000"="ANTIEMETICS"  
"501000"="ANTIEMETICS - ANTIDOPAMINERGIC"  
"502000"="ANTIEMETICS - ANTICHOLINERGIC"  
"503000"="ANTIEMETICS MISC."  
"503099"="ANTIEMETICS COMBINATIONS"  
"510000"="DIGESTIVE AIDS"  
"511000"="CHOLERETICS"  
"511099"="BILE COMBINATIONS"  
"512000"="DIGESTIVE ENZYMES"  
"512099"="DIGESTIVE ENZYME COMBINATIONS"  
"513000"="GASTRIC ACIDIFIERS"  
"514000"="HYDROCHOLERETICS"  
"519900"="DIGESTIVE AIDS - MIXTURES"  
"519910"="DIGESTIVE MIXTURES W/ SIMETHICONE"  
"519920"="DIGESTIVE MIXTURES W/ ANTICHOLINERGICS"

"520000"="MISC. GI"  
"521000"="GALLSTONE SOLUBILIZING AGENTS"  
"522000"="ANTIFLATULENTS"  
"522099"="ANTIFLATULENTS COMBINATIONS"  
"523000"="GI STIMULANTS"  
"523099"="GI STIMULANTS COMBINATIONS"  
"524000"="INTESTINAL ACIDIFIERS"  
"525000"="INFLAMMATORY BOWEL AGENTS"  
"526000"="HEPATOTROPIC"

### **GROUPS 53-56 GENITOURINARY PRODUCTS**

"530000"="URINARY ANTIINFECTIVES"  
"539900"="COMBINATION URINARY ANTIINFECTIVES"  
"539905"="METHENAMINE COMBINATIONS"  
"539910"="URINARY ANTIINFECTIVE & ANALGESIC"  
"539920"="URINARY ANTISEPTIC - ANTISPASMODIC"  
"539930"="URINARY ANTIINFECTIVE-ANTISPASM-ANALGESIC"  
"540000"="URINARY ANTISPASMODICS"  
"549900"="URINARY ANTISPASMODIC COMBINATIONS"  
"550000"="VAGINAL PRODUCTS "  
"551000"="VAGINAL ANTIINFECTIVES"  
"551010"="MISC. VAGINAL ANTIINFECTIVES"  
"551099"="VAGINAL ANTIINFECTIVE COMBINATIONS"  
"551500"="VAGINAL ANTIINFLAMMATORY AGENTS"  
"551510"="VAGINAL CORTICOSTEROIDS"  
"552000"="DOUCHE PRODUCTS"  
"553000"="SPERMICIDES"  
"553500"="VAGINAL ESTROGENS"  
"554000"="MISC. VAGINAL PRODUCTS"  
"554110"="FERTILITY ENHANCERS"  
"560000"="MISC. GENITOURINARY PRODUCTS"  
"561000"="ACIDIFIERS"  
"561010"="PHOSPHATES"  
"561020"="SYSTEMIC ACIDIFIERS"  
"562000"="ALKALINIZERS"  
"562020"="CITRATES"  
"563000"="URINARY ANALGESICS"  
"565000"="DMSO"  
"566000"="URINARY STONE AGENTS"  
"567000"="G U IRRIGANTS"  
"567010"="ANTIINFECTIVE GU IRRIGANTS"  
"568000"="UROPROTECTANTS"  
"568500"="PROSTATIC HYPERTROPHY AGENTS"

### **GROUPS 57-63 CENTRAL NERVOUS SYSTEM DRUGS**

"570000"="ANTIANKXIETY AGENTS"  
"571000"="BENZODIAZEPINES"  
"571020"="BENZODIAZEPINE ANTAGONISTS"  
"572000"="MISC. ANTIANKXIETY AGENTS"  
"580000"="ANTIDEPRESSANTS"  
"581000"="MAO INHIBITORS"  
"582000"="TRICYCLIC AGENTS"  
"583000"="MISC. ANTIDEPRESSANTS"  
"590000"="ANTIPSYCHOTICS"



"591000"="BUTYROPHENONES"  
 "591500"="DIBENZODIAZEPINES"  
 "592000"="PHENOTHIAZINES"  
 "593000"="THIOXANTHINES "  
 "594000"="MISC. ANTIPSYCHOTICS"  
 "595000"="LITHIUM"  
 "600000"="HYPNOTICS"  
 "601000"="BARBITURATE HYPNOTICS"  
 "602000"="NON-BARBITURATE HYPNOTICS"  
 "602010"="BENZODIAZEPINE HYPNOTICS"  
 "602040"="IMIDAZOPYRIDINE HYPNOTICS"  
 "603000"="ANTIHISTAMINE HYPNOTICS"  
 "603099"="ANTIHISTAMINE HYPNOTIC COMBINATIONS"  
 "609900"="HYPNOTIC COMBINATIONS"  
 "610000"="STIMULANTS"  
 "611000"="AMPHETAMINES"  
 "611099"="AMPHETAMINE MIXTURES"  
 "612000"="ANOREXIANTS NON-AMPHETAMINE"  
 "612099"="ANOREXIANT COMBINATIONS"  
 "613000"="ANALEPTICS"  
 "613099"="ANALEPTIC COMBINATIONS"  
 "614000"="MISC. STIMULANTS"  
 "620000"="MISC. PSYCHOTHERAPEUTIC"  
 "621000"="SMOKING DETERRENTS"  
 "621099"="SMOKING DETERRENT COMBINATIONS"  
 "629900"="COMBINATION PSYCHOTHERAPEUTICS"  
 "630000"="R E S E R V E D"

#### **GROUPS 64-71 ANALGESICS AND ANESTHETICS**

"640000"="ANALGESICS - NONNARCOTIC"  
 "641000"="SALICYLATES"  
 "641099"="SALICYLATE COMBINATIONS"  
 "642000"="ANALGESICS OTHER"  
 "642099"="ANALGESICS - OTHER COMBINATIONS"  
 "649900"="ANALGESIC COMBINATIONS"  
 "649910"="ANALGESIC-SEDATIVES"  
 "649920"="ANALGESIC-ANTICHOLINERGICS"  
 "650000"="ANALGESICS - NARCOTIC"  
 "651000"="NARCOTIC AGONISTS"  
 "652000"="NARCOTIC PARTIAL AGONISTS"  
 "654000"="NARCOTIC ANTAGONISTS"  
 "659900"="NARCOTIC COMBINATIONS"  
 "659910"="CODEINE COMBINATIONS"  
 "659913"="DIHYDROCODEINONE COMBINATIONS"  
 "659917"="HYDROCODONE COMBINATIONS"  
 "659920"="PROPOXYPHENE COMBINATIONS"  
 "659930"="MEPERIDINE COMBINATIONS"  
 "659940"="PENTAZOCINE COMBINATIONS"  
 "660000"="ANTI-RHEUMATIC"  
 "661000"="NSAIA'S"  
 "661010"="PHENYLBUTAZONES"  
 "661099"="NSAIA COMBINATIONS"  
 "662000"="GOLD COMPOUNDS"  
 "662500"="ANTI-RHEUMATIC ANTIMETABOLITE"  
 "663000"="MISC. ANTI-RHEUMATIC"  
 "663099"="MISC. ANTI-RHEUMATIC COMBINATIONS"

"670000"="MIGRAINE PRODUCTS"  
"679900"="MIGRAINE COMBINATION"  
"679910"="ERGOT COMBINATIONS"  
"680000"="GOUT"  
"681000"="URICOSURICS"  
"689900"="COMBINATION GOUT DRUGS"  
"690000"="LOCAL ANESTHETICS - PARENTERAL"  
"691000"="LOCAL ANESTHETICS - AMIDES"  
"692000"="LOCAL ANESTHETICS - ESTERS"  
"699900"="LOCAL ANESTHETIC COMBINATIONS"  
"699910"="LOCAL ANESTHETIC & EPINEPHRINE"  
"700000"="GENERAL ANESTHETICS"  
"700500"="ANESTHETIC GASSES"  
"701000"="BARBITURATE ANESTHETICS"  
"702000"="VOLATLE ANESTHETICS"  
"704000"="MISC. ANESTHETICS"  
"704099"="ANESTHETIC COMBINATIONS"  
"710000"="R E S E R V E D"

#### **GROUPS 72-76 NEUROMUSCULAR DRUGS**

"720000"="ANTICONVULSANT"  
"721000"="BENZODIAZEPINES"  
"722000"="HYDANTOINS"  
"723000"="OXAZOLIDINEDIONES"  
"724000"="SUCCINIMIDES"  
"725000"="VALPROIC ACID"  
"726000"="MISC. ANTICONVULSANTS"  
"726099"="ANTICONVULSANT COMBINATIONS"  
"730000"="ANTIPARKINSONIAN"  
"731000"="ANTIPARKINSONIAN ANTICHOLINERGICS"  
"732000"="ANTIPARKINSONIAN DOPAMINERGIC"  
"732099"="CARBIDOPA-LEVODOPA"  
"733000"="ANTIPARKINSONIAN MONOAMINE OXIDASE INHIBITOR"  
"740000"="NEUROMUSCULAR BLOCKERS"  
"741000"="DEPLOORIZING MUSCLE RELAXANTS"  
"742000"="NONDEPLOORIZING MUSCLE RELAXANTS"  
"750000"="SKELETAL MUSCLE RELAXANTS"  
"751000"="CENTRAL MUSCLE RELAXANTS"  
"752000"="DIRECT MUSCLE RELAXANTS"  
"753000"="MISC. MUSCLE RELAXANTS"  
"759900"="MUSCLE RELAXANT COMBINATIONS"  
"760000"="ANTIMYASTHENIC AGENTS"  
"769900"="ANTIMYASTHENIC COMBINATIONS"

#### **GROUPS 77-81 NUTRITIONAL PRODUCTS**

"770000"="VITAMINS"  
"771000"="WATER SOLUBLE VITAMINS"  
"771010"="VITAMIN B-1"  
"771020"="VITAMIN B-2"  
"771030"="VITAMIN B-3"  
"771040"="VITAMIN B-5"  
"771050"="VITAMIN B-6"  
"771060"="BIOTIN"  
"771070"="PABA"

"771080"="VITAMIN C"  
 "772000"="OIL SOLUBLE VITAMINS"  
 "772010"="VITAMIN A"  
 "772020"="VITAMIN D"  
 "772030"="VITAMIN E"  
 "772040"="VITAMIN K"  
 "773000"="MISC. NUTRITIONAL FACTORS"  
 "773030"="BIOFLAVINOIDS"  
 "773099"="MISC. NATURAL VITAMINS"  
 "780000"="MULTIVITAMINS"  
 "781000"="VITAMIN MIXTURES"  
 "781010"="VITAMINS A & D"  
 "781015"="VITAMINS A & D W/ C"  
 "781017"="VITAMINS A, C, D & E"  
 "781020"="VITAMINS ACE & ZN"  
 "781030"="VITAMINS B 1-2-3"  
 "781040"="VITAMINS C & E"  
 "781045"="NIACIN W/ C"  
 "781050"="VITAMINS B1 & B6"  
 "781060"="VITAMINS B1, B6 & B12"  
 "781100"="B-COMPLEX VITAMINS"  
 "781110"="BREWERS YEAST"  
 "781200"="B-COMPLEX W/ C"  
 "781205"="B-COMPLEX W/ C & MG"  
 "781210"="B-COMPLEX W/ C + MG ZN"  
 "781220"="B-COMPLEX W/ C & E"  
 "781225"="B-COMPLEX W/ C & E + ZN"  
 "781300"="B-COMPLEX W/ FOLIC ACID"  
 "781330"="B-COMPLEX W/ C FOLIC ACID"  
 "781400"="B-COMPLEX W/ IRON"  
 "781500"="B-COMPLEX W/ MINERALS"  
 "781600"="BIOFLAVONOID PRODUCTS"  
 "782000"="MULTIPLE VITAMINS"  
 "782010"="HEXAVITAMINS"  
 "782100"="MULTIPLE VITAMINS W/ IRON"  
 "783000"="MULTIPLE VITAMINS & MINERALS"  
 "783100"="MULTIPLE VITAMINS W/ MINERALS"  
 "783400"="MULTIPLE VITAMINS W/ FLUORIDE"  
 "783500"="MULTIPLE VITAMINS W/ CALCIUM"  
 "784000"="PEDIATRIC VITAMINS"  
 "784015"="PEDIATRIC VITAMINS A & D W/ C"  
 "784100"="PEDIATRIC MULTIPLE VITAMINS"  
 "784200"="PED MULTIPLE VITAMINS W/ MINERALS"  
 "784300"="PED MV W/ IRON"  
 "784400"="PED MV W/ FLUORIDE"  
 "784405"="PED VITAMINS ACD W/FLUORIDE"  
 "784410"="PED MV W/FLUORIDE"  
 "784500"="PED MULTIPLE VITAMINS W/FL & FE"  
 "784520"="PED VITAMINS ACD FLUORIDE & IRON"  
 "785000"="SPECIALTY VITAMINS PROCDUCTS"  
 "785100"="PRENATAL VITAMINS"  
 "785110"="PRENATAL MV & MINERALS W/ IRON"  
 "785120"="PRENATAL MV & MINERALS W/ IRON & FA"  
 "785130"="PRENATAL MV & MINERALS W/ FA"  
 "785200"="VITAMINS W/ LIPOTROPICS"  
 "785300"="VITAMINS W/ HORMONES"  
 "786000"="HEMATINIC-VITAMIN PRODUCTS"  
 "786100"="IRON W/ VITAMINS"

"786200"="B-12 W/ VITAMINS"  
"786300"="IRON & B12 W/ VITAMINS"  
"790000"="MINERALS - ELECTROLYTES"  
"790500"="BICARBONATES"  
"791000"="CALCIUM"  
"791099"="CALCIUM COMBINATIONS"  
"792000"="CHLORIDE"  
"793000"="FLUORIDE"  
"793500"="IODINE PRODUCTS"  
"794000"="MAGNESIUM"  
"794099"="MAGNESIUM COMBINATIONS"  
"795000"="MANGANESE"  
"796000"="PHOSPHATE"  
"797000"="POTASSIUM"  
"797099"="POTASSIUM COMBINATIONS"  
"797500"="SODIUM"  
"798000"="ZINC"  
"798099"="ZINC COMBINATIONS"  
"798500"="MINERAL COMBINATIONS"  
"799000"="TRACE MINERALS"  
"799099"="TRACE MINERAL COMBINATIONS"  
"799900"="ELECTROLYTE MIXTURES"  
"799910"="ELECTROLYTES ORAL"  
"799920"="ELECTROLYTES PARENTERAL"  
"799930"="ELECTROLYTES & DEXTROSE"  
"799940"="ELECTROLYTES & INVERT SUGAR"  
"799950"="PARENTERAL ELECTROLYTES W/ FRUCTOSE"  
"800000"="NUTRIENTS"  
"801000"="CARBOHYDRATE"  
"802000"="LIPIDS"  
"803000"="PROTEIN"  
"803010"="PROTEIN PRODUCTS"  
"803020"="AMINO ACID MIXTURES"  
"803030"="AMINO ACIDS-SINGLE"  
"804000"="LIPOTROPICS"  
"804099"="LIPOTROPIC COMBINATIONS"  
"805000"="MISC. NUTRITIONAL SUBSTANCES"  
"805099"="MISC. NUTRITIONAL SUBSTANCES COMBINATIONS"  
"810000"="DIETARY PRODUCTS"  
"811000"="INFANT FOODS"  
"812000"="NUTRITIONAL SUPPLEMENTS"  
"812010"="NUTRITIONAL SUPPLEMENTS - DIET AIDS"  
"813000"="TUBE FEEDINGS"  
"814000"="NUTRITIONAL SUBSTITUTES"  
"814010"="SALT SUBSTITUTES"  
"814020"="SWEETNERS"  
"819000"="NUTRITIONAL MODIFIERS"

#### **GROUPS 82-85 HEMATOLOGICAL AGENTS**

"820000"="HEMATOPOETIC AGENTS"  
"821000"="COBALAMINES"  
"821010"="LIVER PREPARATIONS"  
"821500"="INTRINSIC FACTOR"  
"822000"="FOLIC ACID"  
"823000"="IRON"  
"823099"="IRON COMBINATIONS "

"824000"="COLONY STIMULATING FACTOR"  
 "824010"="ERYTHROPOIETINS"  
 "824020"="LEUKOCYTES"  
 "824030"="PLATELETS"  
 "827000"="MISC. HEMATOPOETIC AGENTS"  
 "829900"="HEMATOPOETIC MIXTURES"  
 "829910"="COBALAMINE COMBINATIONS"  
 "829920"="IRON COMBINATIONS"  
 "829930"="IRON W/ B12"  
 "829940"="IRON W/ FOLIC ACID"  
 "829950"="IRON-B12-FOLATE"  
 "830000"="ANTICOAGULANTS"  
 "831000"="HEPARINS"  
 "831010"="LOW MOLECULAR WEIGHT HEPARINS"  
 "832000"="COUMARIN ANTICOAGULANTS"  
 "833000"="INDANDIONE ANTICOAGULANTS"  
 "834000"="IN VIRO ANTICOAGULANTS"  
 "840000"="HEMOSTATICS"  
 "841000"="HEMOSTATICS - SYSTEMIC"  
 "841099"="SYSTEMIC HEMOSTATIC COMBINATIONS"  
 "842000"="HEMOSTATICS - TOPICAL"  
 "850000"="MISC. HEMATOLOGICAL"  
 "851000"="ANTIHEMOPHILIC PRODUCTS"  
 "851500"="ANTIPLATELET"  
 "851599"="ANTIPLATELET COMBINATIONS"  
 "852000"="HEMATORHEOLOGICAL"  
 "852500"="HEMIN"  
 "853000"="PLASMA EXPANDERS"  
 "854000"="PLASMA PROTEINS"  
 "855000"="PROTAMINE"  
 "856000"="THROMBOLYTIC ENZYMES"  
 "856010"="TISSUE PLASMINOGEN ACTIVATOR"  
 "857000"="HEMATOLOGIC OXYGEN TRANSPORTER"

### **GROUPS 86-91 TOPICAL PRODUCTS**

"860000"="OPHTHALMIC"  
 "861000"="OPHTHALMIC ANTIINFECTIVES"  
 "861010"="OPHTHALMIC ANTIBIOTICS"  
 "861020"="OPHTHALMIC SULFONAMIDES"  
 "861030"="OPHTHALMIC ANTIVIRALS"  
 "861040"="OPHTHALMIC ANTIFUNGAL"  
 "861050"="OPHTHALMIC ANTISEPTICS"  
 "861099"="OPHTHALMIC ANTIINFECTIVE COMBINATIONS"  
 "862000"="ARTIFICIAL TEARS AND LUBRICANTS"  
 "862010"="ARTIFICIAL TEAR SOLUTIONS"  
 "862020"="ARTIFICIAL TEAR OINTMENTS"  
 "862030"="ARTIFICIAL TEAR INSERT"  
 "862040"="GONIOSCOPIIC SOLUTION"  
 "862500"="BETA-BLOCKERS - OPHTHALMIC"  
 "863000"="OPHTHALMIC STEROIDS"  
 "863099"="OPHTHALMIC STEROID COMBINATIONS"  
 "863500"="CYCLOPLEGICS"  
 "863599"="CYCLOPLEGIC COMBINATIONS"  
 "864000"="OPHTHALMIC DECONGESTANTS"  
 "864099"="OPHTHALMIC DECONGESTANT COMBINATIONS"  
 "865000"="MIOTICS"

"865010"="MIOTICS - DIRECT ACTING"  
"865020"="MIOTICS - CHOLINESTERASE INHIBITORS"  
"865099"="MIOTIC COMBINATIONS"  
"866000"="ADRENERGIC MYDRIATICS"  
"867500"="OPHTHALMIC LOCAL ANESTHETICS"  
"868000"="MISC. OPHTHALMICS"  
"868010"="OPHTHALMIC ENZYMES"  
"868020"="OPHTHALMIC ANTIALLERGIC"  
"868030"="OPHTHALMIC IRRIGATION SOLUTIONS"  
"868040"="OPHTHALMIC HYPEROSMOLAR PRODUCTS"  
"868050"="OPHTHALMIC NSAIA'S AGENT"  
"868060"="OPHTHALMIC DIAGNOSTIC PRODUCTS"  
"868070"="MISC. OPHTHALMICS"  
"869000"="CONTACT LENS SOLUTIONS"  
"869010"="HARD LENS PRODUCTS"  
"869020"="SOFT LENS PRODUCTS"  
"869030"="OXYGEN PERMEABLE LENS PRODUCTS"  
"870000"="OTIC"  
"871000"="OTIC ANTIBIOTICS"  
"871099"="OTIC ANTIBIOTIC COMBINATIONS"  
"872000"="OTIC ANALGESICS"  
"873000"="OTIC STEROIDS"  
"874000"="OTIC MISC."  
"879900"="OTIC COMBINATIONS"  
"879910"="OTIC STEROID COMBINATIONS"  
"879920"="OTIC ANALGESIC COMBINATIONS"  
"879930"="OTIC ANTIFUNGAL COMBINATIONS"  
"880000"="MOUTH - THROAT (LOCAL)"  
"881000"="ANTIINFECTIVES - THROAT"  
"881099"="MISC. ANTIINFECTIVES - THROAT"  
"881500"="ANTISEPTICS - MOUNT/THROAT"  
"881599"="ANTISEPTIC COMBINATIONS - MOUTH/THROAT"  
"882000"="LOZENGES"  
"825000"="STEROIDS - MOUTH"  
"883000"="MOUTHWASHES"  
"883500"="ANESTHETICS, TOPICAL ORAL"  
"883599"="ANESTHETICS, TOPICAL ORAL - COMBOS 8"  
"884000"="DENTAL PRODUCTS"  
"884010"="FLUORIDE DENTAL RINSE"  
"884020"="FLUORIDE DENTAL GEL"  
"884030"="FLUORIDE TOOTHPASTE"  
"885000"="MISC. THROAT PRODUCTS"  
"885010"="ARTIFICIAL SALIVA"  
"885020"="PROTECTANTS"  
"890000"="ANORECTAL"  
"891000"="RECTAL STEROIDS"  
"891500"="INTRARECTAL STEROIDS"  
"892000"="RECTAL LOCAL ANESTHETICS"  
"893000"="MISC. RECTAL PRODUCTS"  
"894000"="RECTAL PROTECTANTS - EMOLLIENTS"  
"899900"="RECTAL COMBINATIONS"  
"889910"="RECTAL ANESTHETIC/STEROIDS"  
"899920"="RECTAL ANESTHETIC COMBINATIONS"  
"899930"="RECTAL STEROID COMBINATIONS"  
"899940"="MISC. RECTAL COMBINATIONS"  
"900000"="DERMATOLOGICAL"  
"900500"="ACNE PRODUCTS"  
"900510"="ACNE ANTIBIOTICS"

"900520"="ACNE CLEANSERS"  
 "900599"="ACNE COMBINATIONS"  
 "900700"="ANALGESICS"  
 "901000"="ANTIBIOTICS - TOPICAL"  
 "991098"="ANTIBIOTIC MIXTURES TOPICAL"  
 "901099"="ANTIBIOTIC STEROID COMBINATIONS"  
 "901500"="ANTIFUNGALS - TOPICAL"  
 "901599"="ANTIFUNGALS - TOPICAL COMBINATIONS"  
 "902000"="ANTIHISTAMINES-TOPICAL"  
 "902099"="ANTIHISTAMINES - TOPICAL COMBINATIONS"  
 "902100"="ANTIINFLAMMATORY AGENTS"  
 "902200"="ANTI PRURITICS"  
 "902299"="ANTI PRURITICS - COMBINATIONS"  
 "902500"="ANTIPSORATICS"  
 "902510"="ANTIPSORATIC, TAR CONTAINING"  
 "902599"="ANTIPSORATIC COMBINATIONS"  
 "903000"="ANTISEBORRHEIC PRODUCTS"  
 "903099"="ANTISEBORRHEIC COMBINATIONS"  
 "903500"="ANTIVIRAL - TOPICAL"  
 "904000"="BATH PRODUCTS"  
 "904500"="BURN PRODUCTS"  
 "905000"="CAUTERIZING AGENTS"  
 "905099"="CAUTERIZING AGENT COMBINATIONS"  
 "905200"="TAR PRODUCTS"  
 "905299"="TAR COMBINATIONS"  
 "905500"="CORTICOSTEROIDS - TOPICAL"  
 "905598"="STEROID-LOCAL ANESTHETICS"  
 "905599"="TOPICAL STEROID COMBINATIONS"  
 "906000"="DIAPER RASH PRODUCTS"  
 "906500"="EMOLLIENTS"  
 "906599"="EMOLLIENT COMBINATIONS"  
 "907000"="ENZYMES - TOPICAL"  
 "907099"="ENZYME MIXTURES - TOPICAL"  
 "907500"="KERATOLYTICS"  
 "907599"="KERATOLYTIC COMBINATIONS"  
 "908000"="LIMINENTS"  
 "908500"="LOCAL ANESTHETICS - TOPICAL"  
 "908510"="TOPICAL ANESTHETIC GASSES"  
 "908599"="TOPICAL ANESTHETIC COMBINATIONS"  
 "908700"="PIGMENTING-DEPIGMENTING AGENTS"  
 "908710"="PIGMENTING AGENTS"  
 "908720"="DEPIGMENTING AGENTS"  
 "909000"="SCABICIDES & PEDICULOCIDES"  
 "909099"="SCABICIDE COMBINATIONS"  
 "909200"="SUNSCREENS"  
 "909500"="POISON IVY PRODUCTS"  
 "909700"="MISC. TOPICAL"  
 "909710"="ASTRINGENTS"  
 "909720"="SKIN PROTECTANTS"  
 "909730"="SOAPS"  
 "909740"="SHAMPOOS"  
 "909750"="POWDERS"  
 "909760"="SKIN OILS"  
 "909770"="LUBRICANTS"  
 "909800"="PODIATRIC PRODUCTS"  
 "909900"="MISC. DERMATOLOGICAL PRODUCTS"  
 "910000"="R E S E R V E D"

## **GROUPS 92-99 MISCELLANEOUS PRODUCTS**

"920000"="ANTISEPTICS & DISINFECTANTS"  
"921000"="CHLORINE ANTISEPTICS"  
"921099"="CHLORINE ANTISEPTIC COMBINATIONS"  
"922000"="IODINE ANTISEPTICS"  
"922099"="IODINE ANTISEPTIC COMBINATIONS"  
"923000"="MERCURY ANTISEPTICS"  
"924000"="SILVER ANTISEPTICS"  
"929900"="ANTISEPTIC COMBINATIONS"  
"930000"="ANTIDOTES"  
"931000"="CHELATING AGENTS"  
"939900"="ANTIDOTE KITS"  
"940000"="DIAGNOSTIC PRODUCTS"  
"941000"="DIAGNOSTIC REAGENTS"  
"941010"="INFECTION TESTS"  
"941075"="CONTROL REAGENTS"  
"941099"="MULTIPLE URINE TESTS"  
"942000"="DIAGNOSTIC DRUGS"  
"943000"="DIAGNOSTIC BIOLOGICALS"  
"943099"="MULTIPLE SKIN TESTS"  
"944000"="RADIOGRAPHIC CONTRAST MEDIA"  
"944010"="BARIUM"  
"944020"="IODINATED"  
"945000"="NON-RADIOGRAPHIC CONTRAST MEDIA"  
"946000"="DIAGNOSTIC PRODUCTS, MISC."  
"950000"="R E S E R V E D"  
"960000"="CHEMICALS"  
"961000"="ACIDS, BASES, & BUFFERS"  
"961010"="ACIDS"  
"961020"="BASES"  
"961030"="BUFFERS"  
"962000"="LIQUIDS"  
"962010"="SOLVENTS"  
"962020"="FIXED OILS"  
"962025"="ESSENTIAL OILS"  
"963000"="SOLIDS"  
"963099"="SOLID COMBINATIONS"  
"964000"="SEMI-SOLIDS"  
"970000"="MEDICAL DEVICES"  
"970500"="PARENTERAL THERAPY SUPPLIES"  
"970510"="NEEDLES & SYRINGES"  
"970520"="IV SETS/TUBING"  
"970530"="BLOOD ADMINISTRATION SETS"  
"970540"="INFUSION PUMPS"  
"971000"="RESPIRATORY THERAPY SUPPLIES"  
"971010"="NEBULIZERS"  
"971020"="HUMIDIFIERS"  
"971200"="RESPIRATORY AIDS"  
"971210"="MASKS"  
"971500"="GI-GU OSTOMY - IRRIGATION SUPPLIES"  
"971505"="CATHETERS"  
"971510"="OSTOMY SUPPLIES"  
"971520"="INCONTINENCE SUPPLIES"  
"971525"="IRRIGATION - TYPE SYRINGES"  
"971530"="URINARY DRAINAGE & IRRIGATION SUPPLIES"  
"971700"="PERITONEAL DIALYSIS"



"972000"="DIABETIC SUPPLIES"  
"972010"="INSULIN ADMINISTRATION SUPPLIES"  
"972020"="GLUCOSE MONITORING TEST SUPPLIES"  
"972500"="ENTERAL NUTRITION SUPPLIES"  
"972510"="FEEDING TUBES"  
"973000"="BANDAGES - DRESSINGS - TAPE"  
"973010"="ADHESIVE BANDAGES"  
"973020"="GAUZE BANDAGES"  
"973030"="GAUZE PADS & DRESSINGS"  
"973040"="ADHESIVE TAPE"  
"973500"="ELASTIC BANDAGES - SUPPORTS"  
"973700"="HEATING AIDS"  
"973710"="HEATING PADS"  
"973720"="HOT PACKS"  
"973800"="COOLING AIDS"  
"973810"="COLD PACKS"  
"973900"="BACK PLASTERS"  
"974000"="CONTRACEPTIVES"  
"974010"="CONDOMS"  
"974020"="DIAPHRAGMS"  
"974030"="IUD'S"  
"974040"="CONTRACEPTIVE SPONGE"  
"974500"="FEMALE PERSONAL CARE PRODUCTS"  
"974510"="SANITARY NAPKINS & TAMPONS"  
"974520"="DOUCHE SUPPLIES"  
"975000"="ORAL HYGIENE PRODUCTS"  
"975005"="DENTAL SUPPLIES"  
"975010"="DENTURE CARE PRODUCTS"  
"975020"="TOOTHBRUSHES - FLOSS"  
"975030"="DENTIFRICES"  
"975500"="INFANT CARE PRODUCTS"  
"975510"="FEEDING SUPPLIES"  
"975520"="DIAPERS"  
"975530"="NURSING PADS"  
"976000"="OPTICAL SUPPLIES"  
"976010"="CONTACT LENS CARE SUPPLIES"  
"976020"="EYEGLASS CARE SUPPLIES"  
"976030"="EYE PATCHES"  
"976500"="DURABLE MEDICAL EQUIPMENT"  
"977000"="MISC. DEVICES"  
"977010"="THERMOMETERS"  
"977020"="DISPOSABLE GLOVES"  
"977030"="APPLICATORS, COTTON BALLS, ETC."  
"977040"="RUBBER GOODS"  
"977070"="RAZORS AND BLADES"  
"977080"="SPONGES"  
"978000"="FOOT CARE PRODUCTS"  
"978500"="FIRST AID KITS"  
"980000"="PHARMACEUTICAL ADJUVANTS"  
"981000"="ANTIMICROBIAL AGENTS"  
"982000"="ANTIOXIDANTS"  
"983000"="COLORING AGENTS"  
"983500"="PHARMACEUTICAL EXCIPIENTS"  
"983510"="EXTERNAL VEHICLE INGREDIENTS"  
"984000"="LIQUID VEHICLE"  
"984010"="PARENTERAL VEHICLES"  
"984020"="ORAL VEHICLES"  
"984030"="EXTERNAL VEHICLES"

"985000"="PRESERVATIVES, OTHER"  
"986000"="SEMISOLID VEHICLE"  
"990000"="UNCLASSIFIED"  
"991000"="CARDIOPLEGIC SOLUTION"  
"992000"="CHELATING AGENTS"  
"993000"="COLLAGEN IMPLANT"  
"993500"="ENZYMES"  
"994000"="IMMUNOSUPPRESSIVE AGENTS"  
"994500"="K REMOVING RESIN"  
"995000"="PROSTAGLANDINS"  
"996500"="SCLEROSING AGENTS"  
"997000"="PERITONEAL DIALYSIS SOLUTIONS"  
"997500"="IRRIGATION SOLUTIONS"  
"998000"="ORGAN PRESERVATION SOLUTION"  
"998500"="MISC. NATURAL PRODUCTS"  
"999000"="NOT CLASSIFIED"  
"999030"="UNCLASSIFIED OTC PRODUCT"  
"\$\$\$\$\$\$" = "NON-MEDICATIONS" ;

**Date Last Changed: 06/01/95**