Cohort, Exam 3

Ultrasound Data
Reader Trend Adjusted Derived Variables for Far Wall Thickness

Because of method drift over the visit and systematic differences between readers, an additional set of far wall thickness variables was derived to adjust for these problems. These are the Reader Trend Adjusted (RTA) variables for the far wall thickness (ie boundaries 4 and 5) as illustrated in the schematic in Appendix A. The following variables appear in the RTA data files.

Variable Name	Description
id	Aric subject id
lbicrt45	Imputed RTA far wall thickness, LBIC
lbicwt45	Weight for lbicrt45
lincrt45	Imputed RTA far wall thickness, LINC
lincwt45	Weight for lincrt45
lopcrt45	Imputed RTA far wall thickness, LOPC
lopcwt45	weight for lopcrt45
mnc45_1	Mean of the *rt45 variables
rbicrt45	Imputed RTA far wall thickness, RBIC
rbicwt45	Weight for rbicrt45 variables
rincrt45	Imputed RTA far wall thickness, RINC
rincwt45	Weight for rincrt45 variables
ropcrt45	Imputed RTA far wall thickness, ROPC
ropcwt45	Weight for ropcrt45

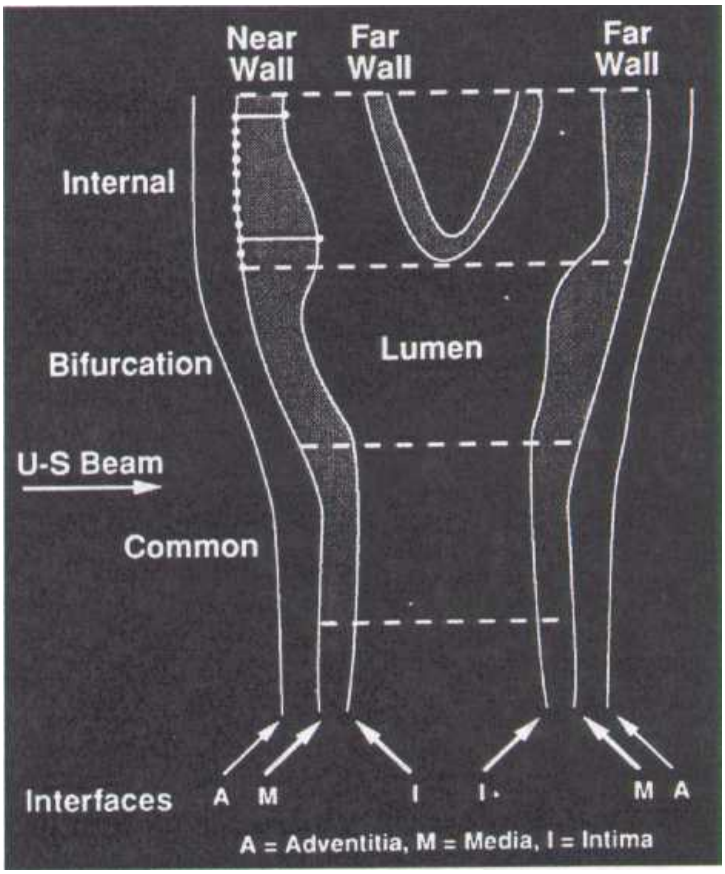
Data Set Names
The data sets containing these variables are: rtabf3x, rtabm3x, rtawf3x, and rtawm3x where rta indicates the variables are reader trend adjusted, the next two letters indicate the gender-race group, the 3 indicates it is a Visit 3 data set, and x is a placeholder for the version of the data set.

APPENDIX A

B-Mode Derived Variable Site Prefixes

LBI	Left Bifurcation
RBI	Right Bifurcation
LIN	Left Internal Carotid
RIN	Right Internal Carotid
LOP	Left Common Carotid: Optimal Angle
ROP	Right Common Carotid: Optimal Angle
QCC1	First QC Repeat Scan (refer to QC01 for site identification)
QCC2	Second QC Repeat Scan (refer to QC02 for site identification)

Schematic Overview of Carotid Artery B-Mode Ultrasound Measurements



Interfaces:

1- Boundary between the periadventitia and adventitia of the near wall (not measured)
2- Boundary between the adventitia and media of the near wall
3- Boundary between the intima of the near wall and the blood
4- Boundary between blood and intima of the far wall
5- Boundary between media and adventitia of the far wall
6- Boundary between adventitia and periadventitia of the far wall (not measured)

Max 23 = B-A; Max 45 = D-C; Min 34 = H-G

The extracranial carotid system is divided into one-centimeter segments: I = internal carotid; II = carotid bifurcation; III = common carotid. A maximum of eleven measurements is made by URC readers on each arterial wall interface, in each arterial segment. These measurements are placed equidistant at 1 millimeter intervals, represented by the eleven points placed on interface B2 on the internal carotid. Also shown on this schematic is the definition of a maximum and a minimum wall thickness variable. Computational formulae for these variables are shown in this appendix.

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Ultrasound data

Reader trend adjusted derived variables for far wall thickness - black male

ID		*Aric Subject ID (Cir)*
N	*Value*	*Description*
946	Present	Text suppressed

LBICRT45		*Imputed RTA far wall thickness, LBIC*
N	*Value*	*Description*
946	Range	0.40082 - 4.64672 (median=0.903928 mean=0.9796722 std=0.3958149)

LBICWT45		*Weight For LBICRT45*
N	*Value*	*Description*
67	0.1666666667	
109	0.3333333333	
109	0.5	
85	0.6666666667	
52	0.8333333333	
524	1	

LINCRT45		*Imputed RTA far wall thickness, LINC*
N	*Value*	*Description*
946	Range	0.253165 - 3.13812 (median=0.662444 mean=0.6927030 std=0.2172851)

LINCWT45		*Weight For LINCRT45*
N	*Value*	*Description*
66	0.1666666667	
95	0.3333333333	
109	0.5	
91	0.6666666667	
44	0.8333333333	
541	1	

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LOPCRT45		*Imputed RTA far wall thickness, LOPC*
N	*Value*	*Description*
946	Range	0.328109 - 2.68795 (median=0.749109 mean=0.7751756 std=0.1975562)

LOPCWT45		*Weight For LOPCRT45*
N	*Value*	*Description*
40	0.1666666667	
35	0.3333333333	
15	0.5	
7	0.6666666667	
3	0.8333333333	
846	1	

MNC45_1		*Mean Of The RT45 Variables*
N	*Value*	*Description*
946	Range	0.505143 - 2.41666 (median=0.787624 mean=0.8325575 std=0.1938252)

RBICRT45		*Imputed RTA far wall thickness, RBIC*
N	*Value*	*Description*
946	Range	0.344474 - 3.81104 (median=0.941467 mean=1.0214136 std=0.4038502)

RBICWT45		*Weight For RBICRT45*
N	*Value*	*Description*
71	0.1666666667	
113	0.3333333333	
132	0.5	
89	0.6666666667	
38	0.8333333333	
503	1	

RINCRT45		*Imputed RTA far wall thickness, RINC*
N	*Value*	*Description*
946	Range	0.258356 - 4.53204 (median=0.696917 mean=0.7431444 std=0.2824940)

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RINCWT45		*Weight For RINCRT45*
N	*Value*	*Description*
69	0.1666666667	
106	0.3333333333	
138	0.5	
106	0.6666666667	
68	0.8333333333	
459	1	

ROPCRT45		*Imputed RTA far wall thickness, ROPC*
N	*Value*	*Description*
946	Range	0.382131 - 2.49933 (median=0.764271 mean=0.7832361 std=0.1943626)

ROPCWT45		*Weight For ROPCRT45*
N	*Value*	*Description*
47	0.1666666667	
34	0.3333333333	
22	0.5	
6	0.6666666667	
1	0.8333333333	
836	1	