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.

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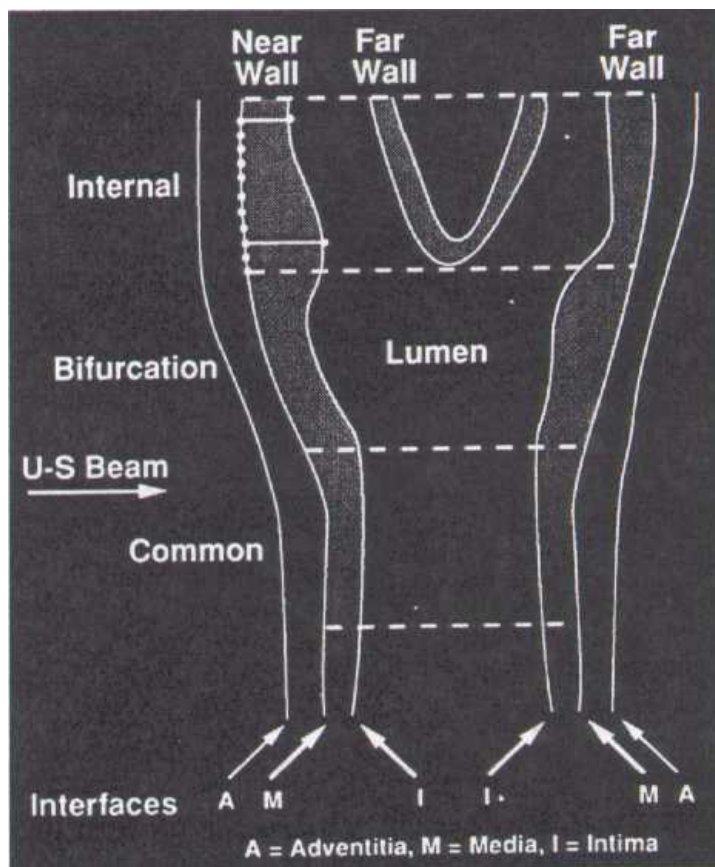
Interfaces:
1- Boundary between the periadventitia and adventitia of the near wall (not measured)
2- Boundary between the adventitia and media of the near wall
3- Boundary between the intima of the near wall and the blood
4- Boundary between blood and intima of the far wall
5- Boundary between media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

ID	Aric Subject ID	(Cir)
N	Value	Description
2883	Present	Text suppressed

LBICRT45	Imputed RTA far wall thickness, LBIC	
N	Value	Description
2883	Range	0.240522 - 4.44891 (median=0.810095 mean=0.8831183 std=0.3487395)

LBICWT45	Weight For LBICRT45	
N	Value	Description
87	0.1666666667	
138	0.3333333333	
202	0.5	
213	0.6666666667	
131	0.8333333333	
2112	1	

LINCRT45	Imputed RTA far wall thickness, LINC	
N	Value	Description
2883	Range	0.257689 - 5.08815 (median=0.639437 mean=0.7028950 std=0.3298585)

LINCWT45	Weight For LINCRT45	
N	Value	Description
82	0.1666666667	
148	0.3333333333	
236	0.5	
305	0.6666666667	
245	0.8333333333	
1867	1	

LOPCRT45	Imputed RTA far wall thickness, LOPC	
N	Value	Description
2883	Range	0.324102 - 2.3387 (median=0.67152 mean=0.695240 std=0.169750)

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LOPCWT45		Weight For LOPCRT45
N	Value	Description
60	0.1666666667	
70	0.3333333333	
55	0.5	
41	0.6666666667	
16	0.8333333333	
2641	1	

MNC45_1		Mean Of The RT45 Variables
N	Value	Description
2883	Range	0.413798 - 2.959297 (median=0.728174 mean=0.7769139 std=0.2041190)

RBICRT45		Imputed RTA far wall thickness, RBIC
N	Value	Description
2883	Range	0.263454 - 4.86153 (median=0.819207 mean=0.8969621 std=0.3640562)

RBICWT45		Weight For RBICRT45
N	Value	Description
83	0.1666666667	
131	0.3333333333	
177	0.5	
171	0.6666666667	
113	0.8333333333	
2208	1	

RINCRT45		Imputed RTA far wall thickness, RINC
N	Value	Description
2883	Range	0.195434 - 4.57379 (median=0.698096 mean=0.7737854 std=0.3816949)

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RINCWT45		Weight For RINCRT45
N	*Value*	*Description*
86	0.1666666667	
150	0.3333333333	
229	0.5	
298	0.6666666667	
202	0.8333333333	
1918	1	

ROPCRT45		Imputed RTA far wall thickness, ROPC
N	*Value*	*Description*
2883	Range	0.254885 - 2.5197 (median=0.684167 mean=0.7094825 std=0.1726495)

ROPCWT45		Weight For ROPCRT45
N	*Value*	*Description*
47	0.1666666667	
51	0.3333333333	
52	0.5	
22	0.6666666667	
18	0.8333333333	
2693	1	