

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
lopqrt45	Imputed RTA far wall thickness, LOPC
lopqwt45	weight for lopqrt45
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
ropqrt45	Imputed RTA far wall thickness, ROPC
ropqwt45	Weight for ropqrt45

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.

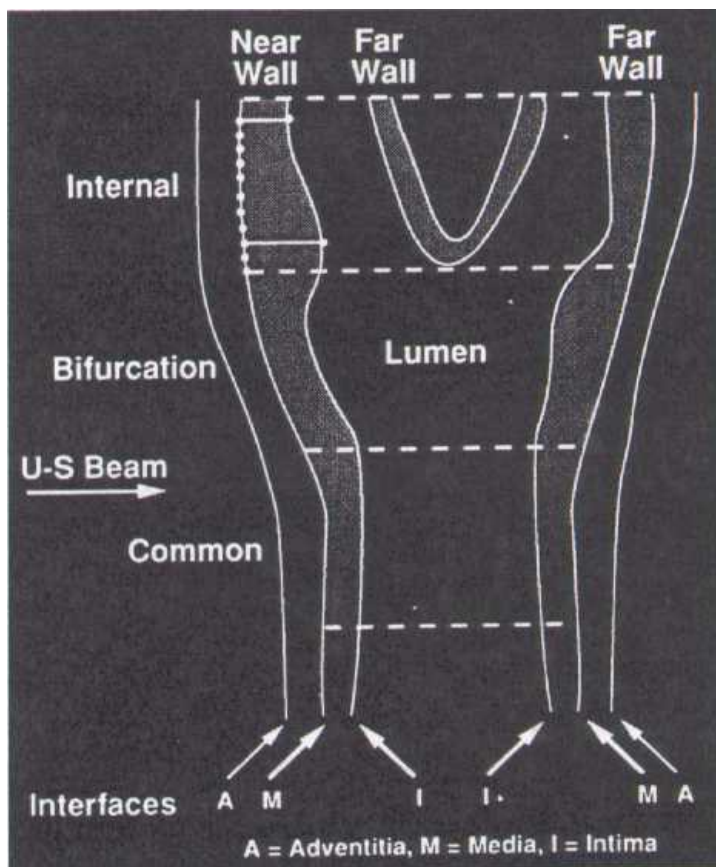
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APPENDIX A

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.

Cohort, Exam 3**Ultrasound data**

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

<i>ID</i>		<i>Aric Subject ID (Cir)</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1664	Present	Text suppressed

<i>LBICRT45</i>		<i>Imputed RTA far wall thickness, LBIC</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1664	Range	0.332859 - 3.94404 (median=0.8663 mean=0.92833 std=0.33922)

<i>LBICWT45</i>		<i>Weight For LBICRT45</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
153	0.1666666667	
225	0.3333333333	
204	0.5	
135	0.6666666667	
56	0.8333333333	
891	1	

<i>LINCRT45</i>		<i>Imputed RTA far wall thickness, LINC</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1664	Range	0.226692 - 4.21077 (median=0.663961 mean=0.7010455 std=0.2727700)

<i>LINCWT45</i>		<i>Weight For LINCRT45</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
157	0.1666666667	
229	0.3333333333	
245	0.5	
186	0.6666666667	
86	0.8333333333	
761	1	

<i>LOPCRT45</i>		<i>Imputed RTA far wall thickness, LOPC</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1664	Range	0.314708 - 2.27701 (median=0.703132 mean=0.7221977 std=0.1699983)

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<i>LOPCWT45</i>		<i>Weight For LOPCRT45</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
95	0.1666666667	
81	0.3333333333	
42	0.5	
25	0.6666666667	
4	0.8333333333	
1417	1	

<i>MNC45_1</i>		<i>Mean Of The RT45 Variables</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1664	Range	0.446107 - 2.392496 (median=0.75635 mean=0.793393 std=0.184103)

<i>RBICRT45</i>		<i>Imputed RTA far wall thickness, RBIC</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1664	Range	0.303205 - 3.85864 (median=0.895456 mean=0.9615266 std=0.3643566)

<i>RBICWT45</i>		<i>Weight For RBICRT45</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
159	0.1666666667	
219	0.3333333333	
233	0.5	
157	0.6666666667	
59	0.8333333333	
837	1	

<i>RINCRT45</i>		<i>Imputed RTA far wall thickness, RINC</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1664	Range	0.249245 - 4.07481 (median=0.664641 mean=0.7095390 std=0.2826417)

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<i>RINCWT45</i>		<i>Weight For RINCRT45</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
156	0.1666666667	
234	0.3333333333	
279	0.5	
229	0.6666666667	
119	0.8333333333	
647	1	

<i>ROPCRT45</i>		<i>Imputed RTA for wall thickness, ROPC</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
1664	Range	0.226344 - 2.01217 (median=0.718192 mean=0.7377226 std=0.1656388)

<i>ROPCWT45</i>		<i>Weight For ROPCRT45</i>
<i>N</i>	<i>Value</i>	<i>Description</i>
105	0.1666666667	
72	0.3333333333	
62	0.5	
8	0.6666666667	
4	0.8333333333	
1413	1	