Cohort, Exam 3

Ultrasound data
Imputed, black male

Data Sets Containing Imputed Values

Because gender-race specific regression models were used to perform the imputation, a separate data set exists for White Males, White Females, Black Males, and Black Females. Each data set name consists of UBMF (indicating ultrasound) + WM, WF, BF, or BM (indicating the specific gender-race group)+02(updated version number). For example, the data set containing imputed ultrasound data for white males is named UBMFWM02. Similarly, the data set containing imputed ultrasound data for black females is named UBMFBF02. A similar pattern holds for the other gender-race groups.

The variables contained within the data sets are summarized in the table below. Most variable names consist of LBIC, RBIC, LOPC, ROPC, LINC, or RINC (indicating location) + DA or WA (indicating the type of statistic) +45 (indicating that the measurement is of the far wall). There are a few other summary variables which have unique names. These are included in the following list.

VARIABLE	DESCRIPTION	TYPE
ID	Participant ID number	Character
*DA45	Imputed site-specific average far wall thickness *=LBIC, RBIC, LOPC, ROPC, LINC, RINC	Continuous
*WA45	Weight for site-specific imputed average wall thickness *=LBIC, RBIC, LOPC, ROPC, LINC, RINC	Continuous
SUM45_31	Simple average of *DA45	Continuous
SUM45_32	Weighted average of *DA45	Continuous
SUM45_33	Z score summary statistic for *DA45	Continuous
SUM3WT45	Number of observed values / 6 = weight for Sum45_31, Sum45_32, or Sum45_33	Continuous

Imputed versus Unimputed Data

You may want to rerun analyses previously run on unimputed (observed) ultrasound data (using the UBMF34 data set), on imputed data (using the UBMFxx02 data sets, where xx can be BM, BF, WM, or WF). Because of the naming conventions used, this should be a relatively easy task. Note that the data set containing unimputed ultrasound data (UBMF) contains variables of average far wall width, such as LINCAV45 and LBICAV45. These unimputed variables on the UBMF data set correspond to the imputed variables LINCDA45 and LBICDA45, respectively, on the UBMFxx02 data sets. Thus, only the middle component of the variable name must be changed for AV (unimputed average) to DA (imputed average). This logic holds true for all of the site-specific averages.

Use of Weights

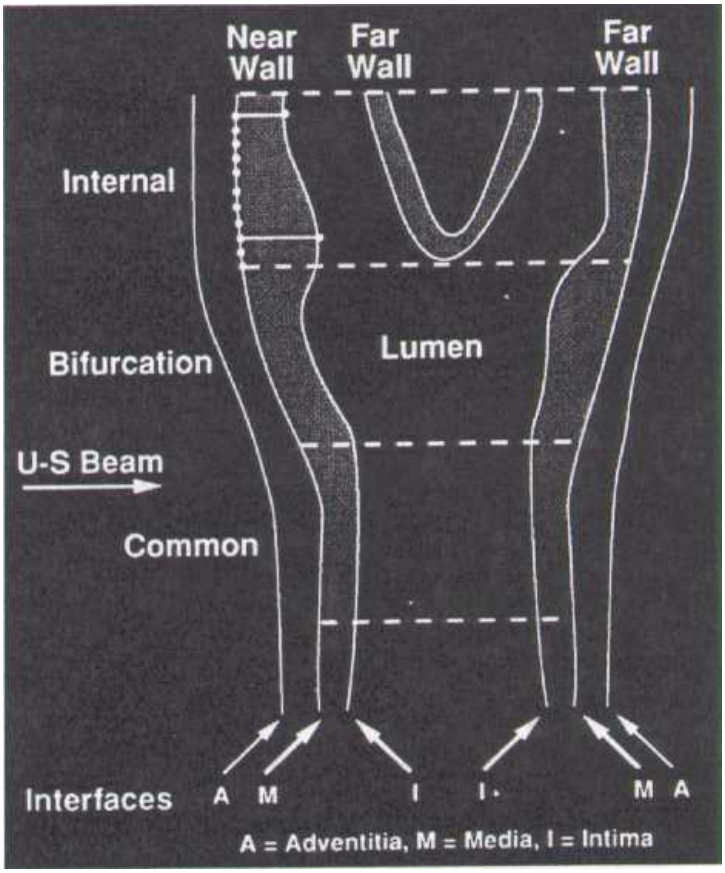
The weights are a measure of precision which varies by number of sites observed. Regression estimates, using *DA45 or SUM45_31 as dependent variables, will generally be more precise if weighted regression is used.

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

Imputed, black male

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

LBICDA45		*Derived Average Far Wall Thickness, Left Bifurcation*
N	*Value*	*Description*
949	Range	0.378 - 4.644 (median=0.895399 mean=0.9769241 std=0.4017048)

LBICWA45		*Weight For LBICWA45*
N	*Value*	*Description*
67	0.1666666667	
109	0.3333333333	
109	0.5	
86	0.6666666667	
53	0.8333333333	
525	1	

LINCDA45		*Derived Average Far Wall Thickness, Left Internal Carotid*
N	*Value*	*Description*
949	Range	0.243 - 3.126 (median=0.661667 mean=0.6922018 std=0.2214126)

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LINCWA45		*Weight For LINCWA45*
N	*Value*	*Description*
66	0.1666666667	
95	0.3333333333	
109	0.5	
91	0.6666666667	
45	0.8333333333	
543	1	

LOPCDA45		*Derived Average Far Wall Thickness, Left Common Carotid: Optimal Angle*
N	*Value*	*Description*
949	Range	0.378 - 2.619 (median=0.75375 mean=0.775808 std=0.201085)

LOPCWA45		*Weight For LOPCWA45*
N	*Value*	*Description*
40	0.1666666667	
35	0.3333333333	
15	0.5	
7	0.6666666667	
3	0.8333333333	
849	1	

RBICDA45		*Derived Average Far Wall Thickness, Right Bifurcation*
N	*Value*	*Description*
949	Range	0.3375 - 3.798 (median=0.936204 mean=1.0204908 std=0.4075764)

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RBICWA45		*Weight For RBICWA45*
N	*Value*	*Description*
71	0.1666666667	
113	0.3333333333	
132	0.5	
89	0.6666666667	
38	0.8333333333	
506	1	

RESPONS3		*Number Of Observed Sites*
N	*Value*	*Description*
72	1	
123	2	
175	3	
193	4	
208	5	
178	6	

RINCDA45		*Derived Average Far Wall Thickness, Right Internal Carotid*
N	*Value*	*Description*
949	Range	0.243 - 4.536 (median=0.698915 mean=0.7467799 std=0.2872187)

RINCWA45		*Weight For RINCWA45*
N	*Value*	*Description*
69	0.1666666667	
106	0.3333333333	
138	0.5	
107	0.6666666667	
68	0.8333333333	
461	1	

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ROPCDA45		*Derived Average Far Wall Thickness, Right Common Carotid: Optimal Angle*
N	*Value*	*Description*
949	Range	0.3685 - 2.51836 (median=0.7668 mean=0.78577 std=0.19852)

ROPCWA45		*Weight For 'ROPCWA45*
N	*Value*	*Description*
47	0.1666666667	
34	0.3333333333	
22	0.5	
6	0.6666666667	
1	0.8333333333	
839	1	

SUM3WT45		*Number of observed values / 6 = weight for Sum45_21, 2, or 3*
N	*Value*	*Description*
72	0.1666666667	
123	0.3333333333	
175	0.5	
193	0.6666666667	
208	0.8333333333	
178	1	

SUM45_31		*Mean Of The DA45 Variables*
N	*Value*	*Description*
949	Range	0.497978 - 2.4159 (median=0.78879 mean=0.832995 std=0.200290)

SUM45_32		*Weighted Mean Of The DA45 Variables*
N	*Value*	*Description*
949	Range	0.502323 - 2.315971 (median=0.791755 mean=0.8329952 std=0.1953207)

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SUM45_33		*Z-Score Summary Statistic For The DA45 Variables*
N	*Value*	*Description*
949	Range	0.469585 - 2.240845 (median=0.791014 mean=0.8329952 std=0.2067326)