Metabolic B12 Deficiency, Homocysteine, Age And Stroke Subtypes In Outpatients With Stroke/TIA

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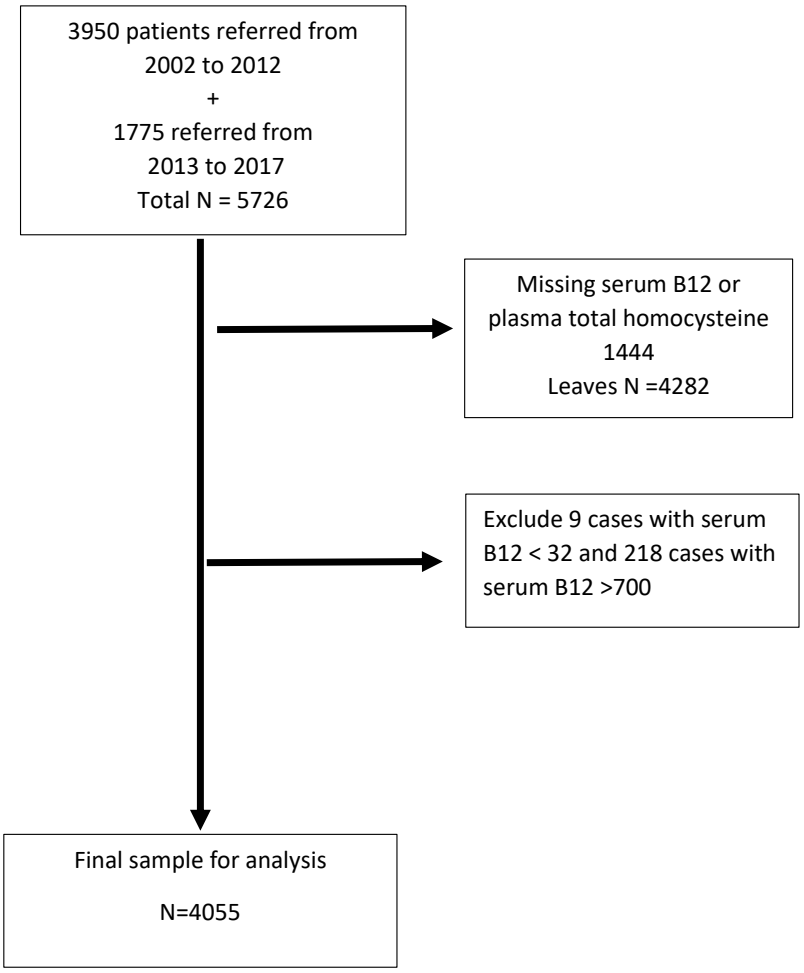
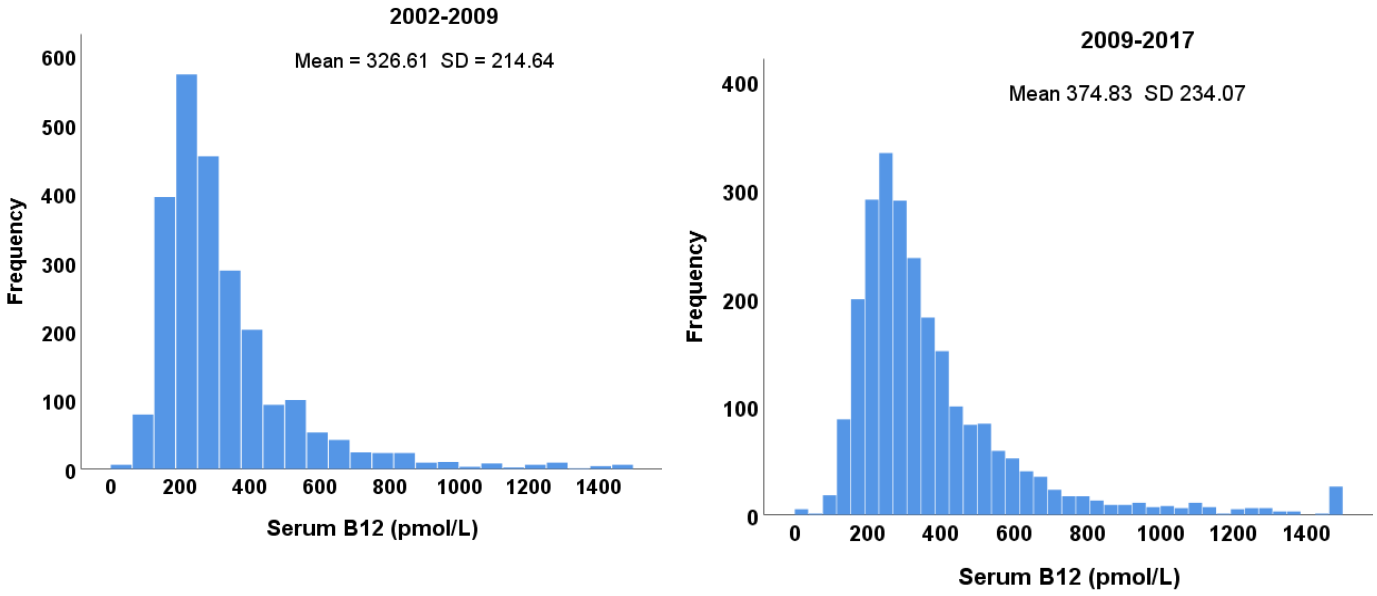
Supplementary Material

Consort diagram



eFigure 1. Distributions of serum B12 before and after 2009

From 2009 onward there were many more patients with unphysiologically high serum B12, indicating the use of B12 supplements.



Results for all patients, including those with serum B12 >700

eTable 1. Age groups, Hyperhomocysteinemia and Metabolic B12 Deficiency

	Age group					p
	<50	50-60	60-70	70-80	>=80	Chi-Square
tHcy ≥14	7.2%	11.2%	16.3%	22.0%	34.1%	0.0001
Metabolic B12 deficiency	3.8%	5.0%	8.5%	10.8%	14.5%	0.0001

eTable 2. Stroke subtypes, Hyperhomocysteinemia and Metabolic B12 Deficiency

	Large Artery Disease	Cardioembolic	Small Vessel Disease	Other rare or unusual etiologies	Undetermined	p
tHcy ≥14	22.9%	18.1%	16.5%	10.7%	13.4%	0.0001
Metabolic B12 deficiency	12.6%	8.9%	8.2%	5.3%	7.8%	0.002

Post Hoc Tests for Table 3

Homogeneous Subsets

Age

Tukey B[a,b]

Subtype	N	Subset for alpha = 0.05			
		1	2	3	4
Other rare or unusual etiologies	202	53.32			
Cardioembolic	1290		62.23		
Undetermined	515		64.02	64.02	
Small Vessel Disease	329			65.94	
Large Artery Disease	1074				70.08

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 429.625.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

Systolic pressure

Tukey B[a,b]

Subtype	N	Subset for alpha = 0.05	
		1	2
Cardioembolic	256	135.3984	
Other rare or unusual etiologies	30	140.6667	
Undetermined	86	142.6977	
Large Artery Disease	228	143.8202	
Small Vessel Disease	69		157.5217

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 73.805.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

Diastolic pressure

Tukey B[a,b]

Subtype	N	Subset for alpha = 0.05	
		1	2
Cardioembolic	256	79.1563	
Large Artery Disease	228	80.2588	
Undetermined	86	81.1512	
Other rare or unusual etiologies	30	81.7667	81.7667
Small Vessel Disease	69		86.4783

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 73.805.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

Total cholesterol

Tukey B[a,b]

Subtype	N	Subset for alpha = 0.05	
		1	2
Large Artery Disease	604	4.7065	
Cardioembolic	745	4.7445	4.7445
Small Vessel Disease	197	4.9277	4.9277
Undetermined	249	4.9613	4.9613
Other rare or unusual etiologies	87		5.0437

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 212.005.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

Triglycerides

Tukey B[a,b]

Subtype	N	Subset for alpha = 0.05
		1
Cardioembolic	745	1.6903
Undetermined	249	1.8494
Other rare or unusual etiologies	87	1.8679
Large Artery Disease	604	1.9404
Small Vessel Disease	198	2.0272

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 212.236.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

HDL cholesterol

Tukey B[a,b]

Subtype	N	Subset for alpha = 0.05 1
Large Artery Disease	602	1.2794
Other rare or unusual etiologies	87	1.2867
Small Vessel Disease	197	1.3439
Cardioembolic	745	1.3467
Undetermined	249	1.3734

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 211.955.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

LDL cholesterol

Tukey B[a,b]

Subtype	N	Subset for alpha = 0.05 1	2
Large Artery Disease	582	2.5967	
Cardioembolic	735	2.6446	2.6446
Small Vessel Disease	191	2.7064	2.7064
Undetermined	244	2.7931	2.7931
Other rare or unusual etiologies	86		2.8935

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 207.981.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

Smoking (pack-years)

Tukey B[a,b]

Subtype	N	Subset for alpha = 0.05 1	2
Other rare or unusual etiologies	27	11.056	
Undetermined	75	16.157	16.157
Cardioembolic	188	17.617	17.617
Small Vessel Disease	60		21.033
Large Artery Disease	199		25.292

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 64.615.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

Serum B12

Tukey B[a,b]

Subtype	N	Subset for alpha = 0.05	
		1	
Other rare or unusual etiologies	202		291.95
Small Vessel Disease	329		294.10
Large Artery Disease	1074		298.44
Cardioembolic	1290		300.47
Undetermined	515		302.71

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 429.625.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

Total Homocysteine

Tukey B[a,b]

Subtype	N	Subset for alpha = 0.05		
		1	2	3
Other rare or unusual etiologies	184	9.203		
Undetermined	489		10.280	
Cardioembolic	1214		10.913	
Small Vessel Disease	313		11.044	
Large Artery Disease	1017			11.957

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 400.587.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

Plasma Creatinine (µmol/L)

Tukey B[a,b]

Subtype	N	Subset for alpha = 0.05		
		1	2	3
Other rare or unusual etiologies	105	79.12		
Cardioembolic	913	82.72	82.72	
Undetermined	377	83.92	83.92	
Small Vessel Disease	229		88.00	88.00
Large Artery Disease	698			94.29

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 262.177.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

eGFR MDRD

Tukey B[a,b]

Subtype	N	Subset for alpha = 0.05		
		1	2	3
Large Artery Disease	698	68.0377		
Small Vessel Disease	229		73.7030	
Cardioembolic	913		76.7792	76.7792
Undetermined	377		76.8400	76.8400
Other rare or unusual etiologies	105			80.0483

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 262.177.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.