Howard A. Zucker, M.D., J.D.
Acting Commissioner of Health

Sue Kelly
Executive Deputy Commissioner

Clinical Chemistry Proficiency Test Program

Statistical Summary – May 2014 (Event 14-2)

This statistical report summarizes participant data for the five Clinical Chemistry proficiency survey specimens shipped 5 May 2014. Test samples (Vials C06, C07, C08, C09, C10) were prepared by the quantitative transfer of constituents to pooled human serum. The material was subsequently sterile filtered, dispensed into aliquots, stored at -80ºC, and distributed to participants for analysis.

Results for individual instrument and reagent systems where the number of laboratories using those systems is three or greater are provided. Mean and Standard Deviation (± 1 SD) values are calculated by a robust statistical technique that does not assume a Gaussian distribution.

Disclaimer:
Note: The use of brand and/or trade names in this report does not constitute an endorsement of the products on the part of the Wadsworth Center or the New York State Department of Health

Should you have any questions regarding this report, please contact the Clinical Chemistry Section at (518) 474-5582.

Summary of Participant Performance (Mean and Standard Deviation)

Glucose (mg/dL)

Specimen: C06	Specimen: C07	Specimen: C08	Specimen: C09	Specimen: C10	Number	[Code] Instrument or Reagent System
66.9 ± 2.06	229.7 ± 4.68	89.8 ± 2.67	44.6 ± 2.34	185.1 ± 4.80	n = 384	[---] All Methods & Instruments
						<Instruments>
71.4 ± 0.55	228.0 ± 0.75	94.0 ± 1.00	50.4 ± 0.55	185.8 ± 1.66	n = 5	[AXA] Abaxis Piccolo
65.7 ± 1.05	230.4 ± 3.40	88.8 ± 1.04	43.0 ± 0.75	184.3 ± 2.78	n = 22	[ABJ] Abbott Architect c System
68.7 ± 1.37	232.2 ± 1.54	90.9 ± 2.05	47.7 ± 0.51	186.3 ± 3.16	n = 3	[AWA] Alfa Wassermann ACE Alera
66.2 ± 1.52	230.1 ± 4.36	88.6 ± 1.76	43.4 ± 0.95	186.3 ± 3.97	n = 65	[OLC] Beckman Coulter AU Chemistry System
65.1 ± 2.50	228.5 ± 3.69	88.4 ± 2.66	44.6 ± 2.43	184.6 ± 3.86	n = 16	[BCG] Beckman Coulter UniCel DxC 600
65.3 ± 2.42	231.0 ± 3.67	89.8 ± 2.14	43.3 ± 1.68	186.5 ± 3.06	n = 6	[BCH] Beckman Coulter UniCel DxC 800
65.5 ± 0.74	227.9 ± 2.55	86.0 ± 1.12	43.8 ± 0.66	181.1 ± 1.64	n = 7	[IAA] i-STAT
67.1 ± 1.65	225.2 ± 4.23	90.7 ± 2.83	43.4 ± 0.56	178.6 ± 4.87	n = 8	[JJE] Ortho Vitros 250/350/950
67.6 ± 1.02	224.9 ± 2.86	90.7 ± 0.51	44.3 ± 0.51	178.2 ± 2.36	n = 3	[JJH] Ortho Vitros 4600
66.9 ± 1.90	225.5 ± 4.61	90.0 ± 2.60	43.3 ± 1.00	177.6 ± 3.08	n = 14	[JJF] Ortho Vitros 5,1FS
67.0 ± 1.50	225.9 ± 3.99	89.7 ± 1.92	43.3 ± 1.21	178.5 ± 3.62	n = 20	[JJG] Ortho Vitros 5600
67.0 ± 0.90	232.4 ± 3.87	89.7 ± 1.37	44.4 ± 1.02	189.3 ± 3.07	n = 3	[ROK] Roche cobas c111
66.8 ± 0.80	230.1 ± 1.83	89.4 ± 1.09	43.8 ± 0.80	186.5 ± 2.33	n = 5	[ROJ] Roche cobas c311
66.4 ± 1.11	229.7 ± 3.77	88.9 ± 1.72	44.1 ± 0.88	186.1 ± 3.61	n = 31	[ROC] Roche cobas c501
65.5 ± 2.02	227.5 ± 6.93	88.3 ± 2.36	43.1 ± 1.23	184.6 ± 3.49	n = 7	[ROH] Roche cobas c701
67.0 ± 0.64	231.7 ± 2.18	89.4 ± 1.52	44.0 ± 0.64	187.5 ± 1.80	n = 5	[ROS] Roche Cobas INTEGRA 400
67.7 ± 1.58	230.7 ± 3.77	90.0 ± 1.76	44.0 ± 1.14	186.0 ± 2.88	n = 4	[ROT] Roche Cobas INTEGRA 800
67.0 ± 1.36	231.1 ± 5.00	89.2 ± 1.84	43.8 ± 1.13	186.8 ± 4.35	n = 25	[ROD] Roche MODULAR D/P
65.8 ± 1.58	227.6 ± 5.74	88.7 ± 2.12	43.9 ± 1.31	184.3 ± 4.56	n = 21	[BYE] Siemens ADVIA 1800
69.1 ± 1.60	232.3 ± 4.07	93.3 ± 1.96	48.0 ± 1.51	187.1 ± 3.12	n = 24	[DUE] Siemens Dimension EXL
70.9 ± 1.58	232.9 ± 3.99	94.6 ± 1.84	49.2 ± 1.18	189.2 ± 4.19	n = 14	[DUR] Siemens Dimension RxL
67.7 ± 1.65	229.4 ± 4.79	91.4 ± 1.70	46.9 ± 1.25	184.4 ± 4.96	n = 42	[DUT] Siemens Dimension Vista
69.0 ± 1.34	231.0 ± 3.31	92.9 ± 1.52	48.1 ± 1.37	186.3 ± 3.27	n = 14	[DUX] Siemens Dimension Xpand
						<Reagents>
71.4 ± 0.55	228.0 ± 0.75	94.0 ± 1.00	50.4 ± 0.55	185.8 ± 1.66	n = 5	[AX1] Abaxis
65.8 ± 1.01	230.3 ± 3.36	88.7 ± 1.18	43.0 ± 0.73	184.1 ± 2.82	n = 23	[AB1] Abbott
68.7 ± 1.37	232.2 ± 1.54	90.9 ± 2.05	47.7 ± 0.51	186.3 ± 3.16	n = 3	[AW1] Alfa Wassermann
65.3 ± 2.34	228.8 ± 3.98	88.7 ± 2.45	44.1 ± 2.20	184.7 ± 3.97	n = 25	[BC1] Beckman Coulter
66.2 ± 1.52	230.2 ± 4.10	88.6 ± 1.75	43.4 ± 0.96	186.4 ± 3.71	n = 62	[OL1] Beckman Coulter AU Series
87.0 ± 12.05	258.2 ± 12.05	116.4 ± 12.96	67.2 ± 9.85	214.5 ± 11.20	n = 4	[HE1] HemoCue
65.4 ± 0.79	227.9 ± 2.84	85.9 ± 1.33	44.0 ± 0.55	181.1 ± 1.82	n = 6	[IA1] i-STAT
67.0 ± 1.63	225.6 ± 4.17	90.1 ± 2.27	43.4 ± 1.05	178.2 ± 3.59	n = 45	[JJ1] Ortho Clinical Diagnostics
67.0 ± 0.90	232.4 ± 3.87	89.7 ± 1.37	44.4 ± 1.02	189.3 ± 3.07	n = 3	[RO8] Roche cobas c111
66.4 ± 1.25	229.6 ± 3.78	88.8 ± 1.65	43.9 ± 0.96	185.8 ± 3.44	n = 45	[RO4] Roche cobas c311/c501/c502/c701/c702
67.0 ± 1.36	231.1 ± 5.00	89.2 ± 1.84	43.8 ± 1.13	186.8 ± 4.35	n = 25	[RO2] Roche Hitachi and Modular D/P
67.1 ± 1.00	231.4 ± 2.99	89.6 ± 1.66	44.0 ± 0.90	187.0 ± 2.39	n = 9	[RO1] Roche Integra and MIRA
65.9 ± 1.59	227.9 ± 5.33	88.7 ± 1.98	43.9 ± 1.21	184.4 ± 4.31	n = 24	[BY1] Siemens ADVIA/ADVIA Centaur
68.7 ± 1.97	231.0 ± 4.54	92.6 ± 2.14	47.7 ± 1.58	186.2 ± 4.48	n = 94	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

Urea Nitrogen (mg/dL)

Specimen: C06	Specimen: C07	Specimen: C08	Specimen: C09	Specimen: C10	Number	[Code] Instrument or Reagent System
21.3 ± 0.98	40.0 ± 1.51	14.0 ± 0.80	17.6 ± 0.88	32.8 ± 1.34	n = 369	[---] All Methods & Instruments
						<Instruments>
20.0 ± 0.00	38.0 ± 1.00	13.0 ± 0.00	16.6 ± 0.55	30.0 ± 0.64	n = 5	[AXA] Abaxis Piccolo
21.2 ± 0.59	39.9 ± 0.77	14.0 ± 0.00	17.6 ± 0.62	32.8 ± 0.60	n = 21	[ABJ] Abbott Architect c System
21.6 ± 1.02	39.5 ± 1.86	14.0 ± 0.00	17.7 ± 0.51	33.3 ± 0.51	n = 3	[AWA] Alfa Wassermann ACE Alera
21.3 ± 0.75	39.9 ± 1.29	14.0 ± 0.48	17.6 ± 0.69	32.8 ± 1.00	n = 62	[OLC] Beckman Coulter AU Chemistry System
21.3 ± 0.59	39.9 ± 0.79	14.5 ± 0.57	18.0 ± 0.00	32.8 ± 0.68	n = 15	[BCG] Beckman Coulter UniCel DxC 600
19.7 ± 1.48	38.2 ± 1.67	12.0 ± 0.70	15.8 ± 1.86	31.5 ± 1.75	n = 7	[BCH] Beckman Coulter UniCel DxC 800
23.2 ± 0.66	43.0 ± 0.00	15.2 ± 0.66	20.0 ± 0.00	34.2 ± 0.47	n = 7	[IAA] i-STAT
20.0 ± 0.00	39.0 ± 0.00	13.0 ± 0.00	17.0 ± 0.00	31.9 ± 0.55	n = 9	[JJE] Ortho Vitros 250/350/950
20.3 ± 0.51	38.7 ± 0.51	13.0 ± 0.00	16.7 ± 0.51	31.0 ± 0.90	n = 3	[JJH] Ortho Vitros 4600
20.2 ± 0.56	38.6 ± 0.73	13.0 ± 0.00	16.7 ± 0.53	31.2 ± 0.74	n = 14	[JJF] Ortho Vitros 5,1FS
20.1 ± 0.49	38.6 ± 0.73	13.0 ± 0.00	16.7 ± 0.52	31.0 ± 0.57	n = 20	[JJG] Ortho Vitros 5600
20.3 ± 0.51	39.0 ± 0.90	13.3 ± 0.51	16.7 ± 0.51	32.0 ± 0.90	n = 3	[ROK] Roche cobas c111
22.0 ± 0.00	40.6 ± 0.55	14.0 ± 0.00	18.0 ± 0.00	33.4 ± 0.55	n = 5	[ROJ] Roche cobas c311
20.9 ± 0.65	39.4 ± 1.22	13.8 ± 0.48	17.4 ± 0.57	32.5 ± 1.12	n = 30	[ROC] Roche cobas c501
20.6 ± 0.94	38.3 ± 1.77	13.8 ± 0.47	17.0 ± 0.82	32.0 ± 1.23	n = 7	[ROH] Roche cobas c701
21.2 ± 0.41	39.3 ± 0.82	13.5 ± 0.57	17.2 ± 0.41	32.2 ± 0.41	n = 4	[ROS] Roche Cobas INTEGRA 400
20.8 ± 0.41	39.3 ± 0.90	13.5 ± 0.57	17.0 ± 0.75	32.0 ± 0.75	n = 4	[ROT] Roche Cobas INTEGRA 800
21.9 ± 0.78	40.7 ± 1.12	14.5 ± 0.65	18.0 ± 0.48	33.5 ± 1.12	n = 24	[ROD] Roche MODULAR D/P
22.0 ± 0.00	40.7 ± 0.76	14.6 ± 0.56	18.2 ± 0.47	33.9 ± 0.47	n = 21	[BYE] Siemens ADVIA 1800
21.7 ± 0.61	40.9 ± 1.29	14.3 ± 0.69	18.1 ± 0.82	33.7 ± 0.88	n = 24	[DUE] Siemens Dimension EXL
22.2 ± 0.82	41.4 ± 1.13	14.7 ± 0.50	18.5 ± 0.67	33.5 ± 0.67	n = 14	[DUR] Siemens Dimension RxL
21.4 ± 0.73	40.5 ± 1.31	14.0 ± 0.51	17.7 ± 0.71	33.3 ± 1.23	n = 42	[DUT] Siemens Dimension Vista
21.8 ± 0.69	40.9 ± 1.41	14.1 ± 0.78	18.2 ± 0.83	33.6 ± 1.18	n = 13	[DUX] Siemens Dimension Xpand
						<Reagents>
20.0 ± 0.00	38.0 ± 1.00	13.0 ± 0.00	16.6 ± 0.55	30.0 ± 0.64	n = 5	[AX1] Abaxis
21.2 ± 0.62	39.9 ± 0.84	14.0 ± 0.00	17.6 ± 0.67	32.8 ± 0.70	n = 22	[AB1] Abbott
21.6 ± 1.02	39.5 ± 1.86	14.0 ± 0.00	17.7 ± 0.51	33.3 ± 0.51	n = 3	[AW1] Alfa Wassermann
21.0 ± 1.09	39.4 ± 1.46	13.8 ± 1.28	17.7 ± 0.77	32.4 ± 1.26	n = 26	[BC1] Beckman Coulter
21.4 ± 0.75	40.0 ± 1.27	14.1 ± 0.45	17.6 ± 0.70	32.9 ± 0.98	n = 58	[OL1] Beckman Coulter AU Series
23.0 ± 0.55	42.9 ± 0.59	15.2 ± 0.73	20.0 ± 0.00	34.0 ± 0.00	n = 6	[IA1] i-STAT
20.1 ± 0.50	38.7 ± 0.69	13.0 ± 0.00	16.7 ± 0.51	31.2 ± 0.74	n = 46	[JJ1] Ortho Clinical Diagnostics
20.3 ± 0.51	39.0 ± 0.90	13.3 ± 0.51	16.7 ± 0.51	32.0 ± 0.90	n = 3	[RO8] Roche cobas c111
21.0 ± 0.80	39.4 ± 1.42	13.8 ± 0.45	17.4 ± 0.66	32.5 ± 1.18	n = 44	[RO4] Roche cobas c311/c501/c502/c701/c702
21.9 ± 0.78	40.7 ± 1.12	14.5 ± 0.65	18.0 ± 0.48	33.5 ± 1.12	n = 24	[RO2] Roche Hitachi and Modular D/P
21.0 ± 0.00	39.3 ± 0.87	13.5 ± 0.57	17.1 ± 0.60	32.1 ± 0.60	n = 8	[RO1] Roche Integra and MIRA
22.0 ± 0.48	40.7 ± 0.86	14.6 ± 0.56	18.3 ± 0.51	33.9 ± 0.57	n = 24	[BY1] Siemens ADVIA/ADVIA Centaur
21.6 ± 0.79	40.8 ± 1.35	14.2 ± 0.69	18.0 ± 0.84	33.5 ± 1.08	n = 92	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

Creatinine (mg/dL)

Specimen: C06	Specimen: C07	Specimen: C08	Specimen: C09	Specimen: C10	Number	[Code] Instrument or Reagent System
1.19 ± 0.08	3.13 ± 0.13	1.11 ± 0.12	1.89 ± 0.12	2.55 ± 0.10	n = 373	[---] All Methods & Instruments
1.19 ± 0.08	3.11 ± 0.14	1.10 ± 0.12	1.87 ± 0.11	2.54 ± 0.12	n = 211	[---] All IDMS Traceable Methods
1.20 ± 0.09	3.15 ± 0.12	1.11 ± 0.11	1.92 ± 0.14	2.56 ± 0.09	n = 161	[---] All Non-IDMS Traceable Methods
1.20 ± 0.08	3.14 ± 0.11	1.12 ± 0.11	1.95 ± 0.12	2.56 ± 0.09	n = 125	[-G-] Alkaline picrate/Jaffe
1.17 ± 0.08	3.08 ± 0.13	1.11 ± 0.13	1.88 ± 0.10	2.52 ± 0.12	n = 149	[-H-] Alkaline picrate/Jaffe - IDMS calibration
1.20 ± 0.10	3.15 ± 0.13	1.08 ± 0.11	1.78 ± 0.14	2.57 ± 0.10	n = 36	[-I-] Enzymatic
1.23 ± 0.07	3.17 ± 0.12	1.09 ± 0.10	1.84 ± 0.13	2.58 ± 0.09	n = 62	[-J-] Enzymatic - IDMS-traceable calibration
1.19 ± 0.13	3.07 ± 0.16	0.98 ± 0.16	1.66 ± 0.06	2.49 ± 0.15	n = 5	[AXA] Abaxis Piccolo
1.26 ± 0.04	3.46 ± 0.07	1.26 ± 0.05	1.93 ± 0.06	2.77 ± 0.05	n = 21	[ABJ] Abbott Architect c System
1.19 ± 0.01	3.10 ± 0.01	1.07 ± 0.03	1.97 ± 0.04	2.58 ± 0.04	n = 3	[AWA] Alfa Wassermann ACE Alera
1.18 ± 0.03	3.09 ± 0.07	1.13 ± 0.04	1.88 ± 0.05	2.53 ± 0.06	n = 63	[OLC] Beckman Coulter AU Chemistry System
1.10 ± 0.04	3.00 ± 0.05	0.96 ± 0.05	1.77 ± 0.06	2.45 ± 0.06	n = 17	[BCG] Beckman Coulter UniCel DxC 600
1.15 ± 0.06	3.13 ± 0.05	1.06 ± 0.04	1.82 ± 0.05	2.55 ± 0.07	n = 6	[BCH] Beckman Coulter UniCel DxC 800
1.20 ± 0.00	3.11 ± 0.11	1.10 ± 0.00	1.76 ± 0.08	2.98 ± 0.17	n = 6	[IAA] i-STAT
1.25 ± 0.05	3.29 ± 0.04	1.13 ± 0.06	1.91 ± 0.09	2.64 ± 0.07	n = 10	[JJE] Ortho Vitros 250/350/950
1.30 ± 0.01	3.26 ± 0.05	1.21 ± 0.02	1.98 ± 0.03	2.62 ± 0.05	n = 3	[JJH] Ortho Vitros 4600
1.28 ± 0.05	3.24 ± 0.09	1.17 ± 0.05	1.92 ± 0.04	2.61 ± 0.08	n = 14	[JJF] Ortho Vitros 5,1FS
1.28 ± 0.06	3.20 ± 0.11	1.18 ± 0.05	1.92 ± 0.06	2.57 ± 0.09	n = 20	[JJG] Ortho Vitros 5600
1.18 ± 0.05	3.02 ± 0.09	1.02 ± 0.04	1.79 ± 0.14	2.57 ± 0.07	n = 3	[ROK] Roche cobas c111
1.20 ± 0.00	3.09 ± 0.12	1.04 ± 0.11	1.84 ± 0.09	2.55 ± 0.09	n = 5	[ROJ] Roche cobas c311
1.14 ± 0.06	3.04 ± 0.12	0.98 ± 0.08	1.80 ± 0.10	2.51 ± 0.11	n = 32	[ROC] Roche cobas c501
1.20 ± 0.06	3.04 ± 0.10	1.08 ± 0.10	1.80 ± 0.11	2.52 ± 0.14	n = 7	[ROH] Roche cobas c701
1.14 ± 0.11	2.98 ± 0.15	1.06 ± 0.11	1.82 ± 0.14	2.46 ± 0.13	n = 5	[ROS] Roche Cobas INTEGRA 400
1.13 ± 0.05	3.03 ± 0.10	0.99 ± 0.02	1.70 ± 0.06	2.48 ± 0.03	n = 4	[ROT] Roche Cobas INTEGRA 800
1.22 ± 0.06	3.20 ± 0.10	1.21 ± 0.11	1.95 ± 0.13	2.60 ± 0.08	n = 24	[ROD] Roche MODULAR D/P
1.17 ± 0.05	3.14 ± 0.08	1.17 ± 0.07	1.87 ± 0.12	2.52 ± 0.07	n = 21	[BYE] Siemens ADVIA 1800
1.25 ± 0.08	3.18 ± 0.08	1.14 ± 0.07	2.00 ± 0.08	2.58 ± 0.06	n = 24	[DUE] Siemens Dimension EXL
1.23 ± 0.13	3.15 ± 0.10	1.11 ± 0.16	1.99 ± 0.16	2.54 ± 0.10	n = 14	[DUR] Siemens Dimension RxL
1.12 ± 0.11	3.08 ± 0.11	1.01 ± 0.10	1.93 ± 0.18	2.50 ± 0.10	n = 42	[DUT] Siemens Dimension Vista
1.19 ± 0.08	3.11 ± 0.06	1.07 ± 0.09	1.96 ± 0.10	2.51 ± 0.06	n = 13	[DUX] Siemens Dimension Xpand
1.19 ± 0.13	3.07 ± 0.16	0.98 ± 0.16	1.66 ± 0.06	2.49 ± 0.15	n = 5	[AX1] Abaxis
1.26 ± 0.04	3.46 ± 0.07	1.25 ± 0.06	1.93 ± 0.06	2.77 ± 0.06	n = 22	[AB1] Abbott
1.19 ± 0.01	3.10 ± 0.01	1.07 ± 0.03	1.97 ± 0.04	2.58 ± 0.04	n = 3	[AW1] Alfa Wassermann
1.11 ± 0.05	3.04 ± 0.08	1.00 ± 0.08	1.79 ± 0.06	2.49 ± 0.08	n = 26	[BC1] Beckman Coulter
1.18 ± 0.03	3.09 ± 0.07	1.13 ± 0.04	1.88 ± 0.05	2.53 ± 0.06	n = 58	[OL1] Beckman Coulter AU Series
1.20 ± 0.00	3.14 ± 0.11	1.10 ± 0.00	1.74 ± 0.06	3.01 ± 0.18	n = 5	[IA1] i-STAT
1.28 ± 0.05	3.24 ± 0.10	1.17 ± 0.05	1.93 ± 0.06	2.60 ± 0.09	n = 46	[JJ1] Ortho Clinical Diagnostics
1.18 ± 0.05	3.02 ± 0.09	1.02 ± 0.04	1.79 ± 0.14	2.57 ± 0.07	n = 3	[RO8] Roche cobas c111
1.16 ± 0.07	3.05 ± 0.11	1.00 ± 0.10	1.81 ± 0.10	2.52 ± 0.11	n = 46	[RO4] Roche cobas c311/c501/c502/c701/c702
1.22 ± 0.06	3.20 ± 0.10	1.21 ± 0.11	1.95 ± 0.13	2.60 ± 0.08	n = 24	[RO2] Roche Hitachi and Modular D/P
1.13 ± 0.08	3.01 ± 0.12	1.02 ± 0.09	1.75 ± 0.12	2.49 ± 0.05	n = 9	[RO1] Roche Integra and MIRA
1.17 ± 0.05	3.15 ± 0.08	1.18 ± 0.07	1.86 ± 0.11	2.53 ± 0.08	n = 24	[BY1] Siemens ADVIA/ADVIA Centaur
1.18 ± 0.12	3.12 ± 0.10	1.07 ± 0.12	1.96 ± 0.15	2.53 ± 0.09	n = 93	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

Estimated Glomerular Filtration Rate (mL/min/1.73 m^2)

Specimen: C06	Specimen: C07	Specimen: C08	Specimen: C09	Specimen: C10	Number	[Code] Method
74.2 ± 8.90	23.6 ± 1.61	81.2 ± 12.35	42.7 ± 4.15	30.2 ± 2.11	n = 301	[---] All Methods
70.6 ± 7.95	23.2 ± 1.35	77.3 ± 12.47	42.0 ± 3.43	29.5 ± 1.70	n = 174	[-A-] IDMS-traceable MDRD Study Equation
73.5 ± 7.34	24.0 ± 1.37	80.6 ± 10.78	42.0 ± 4.17	30.7 ± 1.83	n = 83	[-B-] Original MDRD Study Equation (4-variable)
82.0 ± 4.49	25.2 ± 1.26	88.0 ± 8.49	46.7 ± 3.40	32.2 ± 1.48	n = 35	[-F-] CKD-EPI Equation
77.1 ± 6.40	29.8 ± 5.12	89.0 ± 2.97	50.8 ± 4.83	36.6 ± 6.83	n = 5	[-D-] Cockcroft-Gault Equation

Target values and allowable ranges for Estimated Glomerular Filtration Rate (eGFR):

Specimen: C06	Specimen: C07	Specimen: C08	Specimen: C09	Specimen: C10	Method
71 (53-89)	23 (17-30)	78 (58-97)	42 (31-53)	30 (22-37)	IDMS-traceable MDRD Study Equation
75 (56-94)	25 (18-31)	82 (61-102)	43 (32-55)	31 (23-39)	Original MDRD Study Equation
80 (60-101)	25 (18-32)	88 (66-111)	47 (34-59)	32 (24-41)	CKD-EPI Equation
92 (69-115)	35 (26-44)	99 (74-124)	58 (43-73)	43 (32-54)	Cockcroft-Gault Equation

Laboratories were asked to report Estimated Glomerular Filtration Rate (eGFR) for samples C06-C10 for a 32-year-old non-African American man weighing 73 kg.

Target values for eGFR calculated by the MDRD Study Equations were derived from participant mean values for serum creatinine for both conventional and isotope dilution mass spectroscopy (IDMS) calibration methods and application of the appropriate 4-variable MDRD Study equation.

Target values for eGFR calculated by the CKD-EPI equation were derived from participant mean values for IDMS-traceable serum creatinine methods and application of the CKD-EPI equation.

Target values for eGFR calculated by the Cockcroft-Gault equation were derived from all-method mean values for serum creatinine and application of the Cockcroft-Gault formula.

Allowable ranges are ± 25% of the target eGFR for all samples/equations.

Note: the NKDEP recommends reporting estimated GFR values greater than or equal to 60 mL/min/1.73 m^2 as "> 60 mL/min/1.73 m2" and not as an exact number. However, ranges exceeding 60 mL/min are provided as a relative indicator of acceptability for laboratories that report numeric results above that threshold. Note that some laboratories reported results as > 60 mL/min/1.73 m2. These data were removed from the calculations of mean and standard deviation since their inclusion would have skewed results.

Summary of Participant Performance (Mean and Standard Deviation)

Uric Acid (mg/dL)

Specimen: C06	Specimen: C07	Specimen: C08	Specimen: C09	Specimen: C10	Number	[Code] Instrument or Reagent System
5.65 ± 0.19	3.32 ± 0.13	7.25 ± 0.28	8.59 ± 0.32	2.73 ± 0.13	n = 330	[---] All Methods & Instruments
						<Instruments>
5.79 ± 0.08	3.30 ± 0.00	7.62 ± 0.09	9.03 ± 0.11	2.70 ± 0.00	n = 21	[ABJ] Abbott Architect c System
5.85 ± 0.12	3.50 ± 0.08	7.40 ± 0.13	8.76 ± 0.17	2.94 ± 0.08	n = 61	[OLC] Beckman Coulter AU Chemistry System
5.47 ± 0.05	3.30 ± 0.00	7.00 ± 0.10	7.96 ± 0.11	2.72 ± 0.05	n = 13	[BCG] Beckman Coulter UniCel DxC 600
5.44 ± 0.06	3.28 ± 0.08	6.97 ± 0.11	7.90 ± 0.06	2.74 ± 0.06	n = 5	[BCH] Beckman Coulter UniCel DxC 800
5.56 ± 0.08	3.30 ± 0.09	7.19 ± 0.14	8.47 ± 0.19	2.63 ± 0.07	n = 6	[JJE] Ortho Vitros 250/350/950
5.60 ± 0.00	3.30 ± 0.00	7.20 ± 0.00	8.50 ± 0.09	2.63 ± 0.05	n = 3	[JJH] Ortho Vitros 4600
5.57 ± 0.13	3.27 ± 0.09	7.10 ± 0.17	8.37 ± 0.20	2.61 ± 0.10	n = 14	[JJF] Ortho Vitros 5,1FS
5.53 ± 0.12	3.26 ± 0.07	7.12 ± 0.19	8.38 ± 0.19	2.61 ± 0.08	n = 20	[JJG] Ortho Vitros 5600
5.83 ± 0.09	3.38 ± 0.04	7.55 ± 0.06	8.88 ± 0.04	2.78 ± 0.04	n = 4	[ROJ] Roche cobas c311
5.71 ± 0.14	3.32 ± 0.09	7.35 ± 0.21	8.68 ± 0.24	2.70 ± 0.08	n = 29	[ROC] Roche cobas c501
5.70 ± 0.15	3.32 ± 0.08	7.33 ± 0.16	8.72 ± 0.21	2.68 ± 0.08	n = 5	[ROH] Roche cobas c701
5.60 ± 0.00	3.20 ± 0.00	7.20 ± 0.09	8.57 ± 0.05	2.63 ± 0.05	n = 3	[ROT] Roche Cobas INTEGRA 800
5.63 ± 0.08	3.28 ± 0.07	7.32 ± 0.14	8.65 ± 0.17	2.67 ± 0.05	n = 23	[ROD] Roche MODULAR D/P
5.70 ± 0.09	3.34 ± 0.07	7.37 ± 0.10	8.70 ± 0.11	2.76 ± 0.09	n = 21	[BYE] Siemens ADVIA 1800
5.69 ± 0.09	3.33 ± 0.07	7.20 ± 0.12	8.66 ± 0.16	2.76 ± 0.07	n = 24	[DUE] Siemens Dimension EXL
5.67 ± 0.13	3.35 ± 0.09	7.21 ± 0.14	8.68 ± 0.12	2.76 ± 0.07	n = 12	[DUR] Siemens Dimension RxL
5.35 ± 0.14	3.17 ± 0.07	6.75 ± 0.12	8.21 ± 0.17	2.63 ± 0.08	n = 41	[DUT] Siemens Dimension Vista
5.70 ± 0.12	3.30 ± 0.15	7.25 ± 0.17	8.70 ± 0.19	2.76 ± 0.09	n = 9	[DUX] Siemens Dimension Xpand
						<Reagents>
5.79 ± 0.08	3.30 ± 0.00	7.62 ± 0.09	9.03 ± 0.11	2.70 ± 0.00	n = 21	[AB1] Abbott
5.46 ± 0.06	3.31 ± 0.06	6.99 ± 0.12	7.93 ± 0.10	2.74 ± 0.07	n = 22	[BC1] Beckman Coulter
5.85 ± 0.12	3.51 ± 0.08	7.41 ± 0.13	8.77 ± 0.16	2.94 ± 0.08	n = 59	[OL1] Beckman Coulter AU Series
5.55 ± 0.11	3.27 ± 0.08	7.14 ± 0.17	8.40 ± 0.19	2.61 ± 0.08	n = 43	[JJ1] Ortho Clinical Diagnostics
5.71 ± 0.15	3.32 ± 0.09	7.36 ± 0.21	8.71 ± 0.22	2.70 ± 0.08	n = 41	[RO4] Roche cobas c311/c501/c502/c701/c702
5.63 ± 0.08	3.28 ± 0.07	7.32 ± 0.14	8.65 ± 0.17	2.67 ± 0.05	n = 23	[RO2] Roche Hitachi and Modular D/P
5.60 ± 0.00	3.20 ± 0.00	7.20 ± 0.06	8.56 ± 0.06	2.64 ± 0.06	n = 5	[RO1] Roche Integra and MIRA
5.71 ± 0.09	3.35 ± 0.07	7.39 ± 0.10	8.71 ± 0.11	2.76 ± 0.08	n = 24	[BY1] Siemens ADVIA/ADVIA Centaur
5.53 ± 0.22	3.25 ± 0.12	6.99 ± 0.29	8.45 ± 0.31	2.70 ± 0.10	n = 86	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

Bilirubin (mg/dL)

Specimen: C06	Specimen: C07	Specimen: C08	Specimen: C09	Specimen: C10	Number	[Code] Instrument or Reagent System
0.85 ± 0.14	2.20 ± 0.18	4.17 ± 0.26	0.86 ± 0.12	1.81 ± 0.16	n = 354	[---] All Methods & Instruments
						<Instruments>
1.00 ± 0.06	2.30 ± 0.06	4.26 ± 0.11	0.96 ± 0.06	1.88 ± 0.08	n = 5	[AXA] Abaxis Piccolo
0.97 ± 0.11	2.46 ± 0.13	4.50 ± 0.17	0.95 ± 0.09	2.04 ± 0.11	n = 21	[ABJ] Abbott Architect c System
1.00 ± 0.09	2.42 ± 0.24	4.80 ± 0.00	1.13 ± 0.05	2.07 ± 0.14	n = 3	[AWA] Alfa Wassermann ACE Alera
0.96 ± 0.07	2.24 ± 0.08	3.98 ± 0.11	0.90 ± 0.00	1.87 ± 0.07	n = 63	[OLC] Beckman Coulter AU Chemistry System
1.04 ± 0.10	2.37 ± 0.13	4.58 ± 0.16	1.03 ± 0.13	1.95 ± 0.11	n = 16	[BCG] Beckman Coulter UniCel DxC 600
1.07 ± 0.10	2.38 ± 0.07	4.55 ± 0.14	1.03 ± 0.07	1.99 ± 0.11	n = 6	[BCH] Beckman Coulter UniCel DxC 800
0.88 ± 0.07	2.26 ± 0.07	4.19 ± 0.10	0.93 ± 0.05	1.86 ± 0.06	n = 9	[JJE] Ortho Vitros 250/350/950
1.00 ± 0.09	2.43 ± 0.14	4.35 ± 0.19	1.03 ± 0.05	2.00 ± 0.09	n = 3	[JJH] Ortho Vitros 4600
0.85 ± 0.07	2.28 ± 0.14	4.16 ± 0.18	0.90 ± 0.00	1.87 ± 0.09	n = 14	[JJF] Ortho Vitros 5,1FS
0.86 ± 0.10	2.35 ± 0.12	4.31 ± 0.18	0.93 ± 0.11	1.89 ± 0.10	n = 20	[JJG] Ortho Vitros 5600
0.66 ± 0.06	1.90 ± 0.10	3.84 ± 0.13	0.64 ± 0.06	1.55 ± 0.08	n = 5	[ROJ] Roche cobas c311
0.69 ± 0.06	1.97 ± 0.09	3.93 ± 0.14	0.69 ± 0.05	1.58 ± 0.08	n = 30	[ROC] Roche cobas c501
0.70 ± 0.06	1.94 ± 0.06	3.87 ± 0.11	0.64 ± 0.06	1.54 ± 0.06	n = 5	[ROH] Roche cobas c701
0.68 ± 0.08	1.95 ± 0.08	3.84 ± 0.11	0.66 ± 0.06	1.55 ± 0.08	n = 5	[ROS] Roche Cobas INTEGRA 400
0.70 ± 0.08	2.00 ± 0.11	3.88 ± 0.20	0.70 ± 0.08	1.57 ± 0.09	n = 4	[ROT] Roche Cobas INTEGRA 800
0.72 ± 0.05	2.08 ± 0.09	4.09 ± 0.15	0.72 ± 0.05	1.71 ± 0.08	n = 23	[ROD] Roche MODULAR D/P
0.90 ± 0.00	2.30 ± 0.07	4.47 ± 0.12	0.80 ± 0.00	1.90 ± 0.00	n = 21	[BYE] Siemens ADVIA 1800
0.80 ± 0.00	2.14 ± 0.09	4.20 ± 0.11	0.86 ± 0.06	1.76 ± 0.07	n = 24	[DUE] Siemens Dimension EXL
0.77 ± 0.05	2.13 ± 0.12	4.23 ± 0.16	0.86 ± 0.06	1.75 ± 0.10	n = 14	[DUR] Siemens Dimension RxL
0.80 ± 0.06	2.14 ± 0.08	4.18 ± 0.11	0.88 ± 0.06	1.74 ± 0.08	n = 42	[DUT] Siemens Dimension Vista
0.81 ± 0.07	2.17 ± 0.10	4.22 ± 0.11	0.87 ± 0.06	1.76 ± 0.10	n = 12	[DUX] Siemens Dimension Xpand
						<Reagents>
1.00 ± 0.06	2.30 ± 0.06	4.26 ± 0.11	0.96 ± 0.06	1.88 ± 0.08	n = 5	[AX1] Abaxis
0.97 ± 0.11	2.46 ± 0.13	4.50 ± 0.17	0.95 ± 0.09	2.04 ± 0.11	n = 21	[AB1] Abbott
1.00 ± 0.09	2.42 ± 0.24	4.80 ± 0.00	1.13 ± 0.05	2.07 ± 0.14	n = 3	[AW1] Alfa Wassermann
1.05 ± 0.09	2.37 ± 0.12	4.56 ± 0.17	1.02 ± 0.12	1.95 ± 0.11	n = 25	[BC1] Beckman Coulter
0.95 ± 0.07	2.25 ± 0.07	3.99 ± 0.11	0.90 ± 0.00	1.87 ± 0.06	n = 60	[OL1] Beckman Coulter AU Series
0.87 ± 0.09	2.31 ± 0.13	4.24 ± 0.18	0.93 ± 0.09	1.88 ± 0.09	n = 46	[JJ1] Ortho Clinical Diagnostics
0.69 ± 0.06	1.95 ± 0.09	3.91 ± 0.14	0.68 ± 0.06	1.57 ± 0.08	n = 42	[RO4] Roche cobas c311/c501/c502/c701/c702
0.72 ± 0.05	2.08 ± 0.09	4.09 ± 0.15	0.72 ± 0.05	1.71 ± 0.08	n = 23	[RO2] Roche Hitachi and Modular D/P
0.69 ± 0.08	1.97 ± 0.10	3.84 ± 0.14	0.68 ± 0.07	1.56 ± 0.09	n = 9	[RO1] Roche Integra and MIRA
0.90 ± 0.00	2.30 ± 0.07	4.48 ± 0.11	0.80 ± 0.00	1.89 ± 0.04	n = 24	[BY1] Siemens ADVIA/ADVIA Centaur
0.79 ± 0.05	2.14 ± 0.09	4.20 ± 0.12	0.87 ± 0.06	1.75 ± 0.08	n = 92	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

Phosphorus (mg/dL)

Specimen: C06	Specimen: C07	Specimen: C08	Specimen: C09	Specimen: C10	Number	[Code] Instrument or Reagent System
3.25 ± 0.17	5.43 ± 0.18	2.68 ± 0.18	3.80 ± 0.20	4.48 ± 0.17	n = 327	[---] All Methods & Instruments
						<Instruments>
3.19 ± 0.06	5.36 ± 0.10	2.62 ± 0.07	3.72 ± 0.11	4.41 ± 0.10	n = 20	[ABJ] Abbott Architect c System
3.17 ± 0.08	5.30 ± 0.16	2.62 ± 0.09	3.71 ± 0.13	4.38 ± 0.13	n = 59	[OLC] Beckman Coulter AU Chemistry System
3.32 ± 0.10	5.56 ± 0.13	2.78 ± 0.10	3.91 ± 0.14	4.57 ± 0.14	n = 14	[BCG] Beckman Coulter UniCel DxC 600
3.45 ± 0.10	5.65 ± 0.12	2.78 ± 0.07	3.85 ± 0.10	4.68 ± 0.07	n = 6	[BCH] Beckman Coulter UniCel DxC 800
3.76 ± 0.11	5.85 ± 0.09	3.21 ± 0.09	4.33 ± 0.09	4.93 ± 0.11	n = 8	[JJE] Ortho Vitros 250/350/950
3.60 ± 0.00	5.67 ± 0.05	3.10 ± 0.00	4.17 ± 0.05	4.70 ± 0.00	n = 3	[JJH] Ortho Vitros 4600
3.66 ± 0.09	5.66 ± 0.16	3.13 ± 0.09	4.20 ± 0.12	4.73 ± 0.13	n = 14	[JJF] Ortho Vitros 5,1FS
3.62 ± 0.11	5.62 ± 0.14	3.11 ± 0.09	4.19 ± 0.13	4.71 ± 0.10	n = 20	[JJG] Ortho Vitros 5600
3.37 ± 0.05	5.57 ± 0.05	2.80 ± 0.00	3.96 ± 0.10	4.63 ± 0.05	n = 3	[ROJ] Roche cobas c311
3.30 ± 0.09	5.47 ± 0.11	2.72 ± 0.08	3.87 ± 0.12	4.55 ± 0.09	n = 30	[ROC] Roche cobas c501
3.11 ± 0.11	5.26 ± 0.18	2.59 ± 0.11	3.66 ± 0.08	4.37 ± 0.12	n = 6	[ROH] Roche cobas c701
3.30 ± 0.00	5.46 ± 0.10	2.67 ± 0.05	3.80 ± 0.00	4.50 ± 0.09	n = 3	[ROS] Roche Cobas INTEGRA 400
3.33 ± 0.05	5.47 ± 0.05	2.70 ± 0.00	3.83 ± 0.05	4.43 ± 0.05	n = 3	[ROT] Roche Cobas INTEGRA 800
3.26 ± 0.13	5.45 ± 0.13	2.69 ± 0.12	3.81 ± 0.17	4.47 ± 0.14	n = 22	[ROD] Roche MODULAR D/P
3.25 ± 0.07	5.46 ± 0.11	2.73 ± 0.09	3.80 ± 0.10	4.50 ± 0.10	n = 21	[BYE] Siemens ADVIA 1800
3.24 ± 0.08	5.42 ± 0.09	2.61 ± 0.06	3.72 ± 0.06	4.46 ± 0.06	n = 22	[DUE] Siemens Dimension EXL
3.25 ± 0.06	5.44 ± 0.11	2.67 ± 0.07	3.80 ± 0.10	4.47 ± 0.07	n = 13	[DUR] Siemens Dimension RxL
3.11 ± 0.11	5.33 ± 0.11	2.51 ± 0.11	3.62 ± 0.12	4.35 ± 0.11	n = 41	[DUT] Siemens Dimension Vista
3.26 ± 0.10	5.37 ± 0.10	2.58 ± 0.07	3.70 ± 0.10	4.40 ± 0.06	n = 10	[DUX] Siemens Dimension Xpand
						<Reagents>
3.19 ± 0.06	5.36 ± 0.10	2.62 ± 0.07	3.72 ± 0.11	4.41 ± 0.10	n = 20	[AB1] Abbott
3.34 ± 0.14	5.57 ± 0.18	2.77 ± 0.10	3.88 ± 0.15	4.60 ± 0.16	n = 23	[BC1] Beckman Coulter
3.17 ± 0.08	5.31 ± 0.15	2.62 ± 0.09	3.71 ± 0.13	4.39 ± 0.13	n = 56	[OL1] Beckman Coulter AU Series
3.65 ± 0.11	5.68 ± 0.16	3.13 ± 0.10	4.22 ± 0.13	4.75 ± 0.14	n = 45	[JJ1] Ortho Clinical Diagnostics
3.28 ± 0.11	5.46 ± 0.13	2.72 ± 0.08	3.85 ± 0.14	4.53 ± 0.12	n = 41	[RO4] Roche cobas c311/c501/c502/c701/c702
3.26 ± 0.13	5.45 ± 0.13	2.69 ± 0.12	3.81 ± 0.17	4.47 ± 0.14	n = 22	[RO2] Roche Hitachi and Modular D/P
3.30 ± 0.00	5.46 ± 0.08	2.70 ± 0.00	3.80 ± 0.00	4.46 ± 0.08	n = 6	[RO1] Roche Integra and MIRA
3.24 ± 0.07	5.44 ± 0.13	2.72 ± 0.09	3.79 ± 0.09	4.49 ± 0.10	n = 24	[BY1] Siemens ADVIA/ADVIA Centaur
3.19 ± 0.12	5.37 ± 0.11	2.57 ± 0.11	3.69 ± 0.12	4.41 ± 0.11	n = 86	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

Calcium (mg/dL)

Specimen: C06	Specimen: C07	Specimen: C08	Specimen: C09	Specimen: C10	Number	[Code] Instrument or Reagent System
9.77 ± 0.23	13.74 ± 0.31	9.17 ± 0.24	7.19 ± 0.17	11.37 ± 0.25	n = 362	[---] All Methods & Instruments
						<Instruments>
9.75 ± 0.11	13.19 ± 0.23	8.78 ± 0.19	7.24 ± 0.27	11.28 ± 0.19	n = 5	[AXA] Abaxis Piccolo
9.79 ± 0.16	13.86 ± 0.17	9.16 ± 0.11	7.24 ± 0.11	11.40 ± 0.15	n = 21	[ABJ] Abbott Architect c System
9.95 ± 0.19	13.50 ± 0.55	9.18 ± 0.15	7.40 ± 0.09	11.37 ± 0.14	n = 3	[AWA] Alfa Wassermann ACE Alera
9.76 ± 0.14	13.59 ± 0.23	9.32 ± 0.15	7.27 ± 0.13	11.25 ± 0.16	n = 63	[OLC] Beckman Coulter AU Chemistry System
9.65 ± 0.16	13.51 ± 0.22	9.04 ± 0.10	7.14 ± 0.10	11.24 ± 0.14	n = 16	[BCG] Beckman Coulter UniCel DxC 600
9.72 ± 0.10	13.70 ± 0.18	9.17 ± 0.10	7.22 ± 0.10	11.50 ± 0.00	n = 6	[BCH] Beckman Coulter UniCel DxC 800
9.97 ± 0.12	13.78 ± 0.20	9.47 ± 0.14	7.23 ± 0.14	11.77 ± 0.21	n = 8	[JJE] Ortho Vitros 250/350/950
9.90 ± 0.09	13.64 ± 0.10	9.37 ± 0.14	7.17 ± 0.05	11.60 ± 0.09	n = 3	[JJH] Ortho Vitros 4600
9.95 ± 0.13	13.67 ± 0.21	9.39 ± 0.17	7.16 ± 0.19	11.57 ± 0.17	n = 14	[JJF] Ortho Vitros 5,1FS
9.91 ± 0.19	13.60 ± 0.22	9.37 ± 0.18	7.17 ± 0.17	11.57 ± 0.18	n = 20	[JJG] Ortho Vitros 5600
9.85 ± 0.27	13.89 ± 0.37	9.15 ± 0.27	7.17 ± 0.23	11.50 ± 0.36	n = 3	[ROK] Roche cobas c111
9.93 ± 0.11	14.06 ± 0.11	9.26 ± 0.06	7.30 ± 0.06	11.66 ± 0.11	n = 5	[ROJ] Roche cobas c311
9.86 ± 0.19	13.94 ± 0.24	9.19 ± 0.14	7.23 ± 0.15	11.47 ± 0.18	n = 30	[ROC] Roche cobas c501
9.78 ± 0.19	13.87 ± 0.14	9.07 ± 0.31	7.14 ± 0.08	11.44 ± 0.14	n = 6	[ROH] Roche cobas c701
9.86 ± 0.06	13.96 ± 0.06	9.16 ± 0.06	7.20 ± 0.00	11.50 ± 0.10	n = 5	[ROS] Roche Cobas INTEGRA 400
9.80 ± 0.15	13.74 ± 0.15	9.07 ± 0.14	7.22 ± 0.17	11.37 ± 0.16	n = 5	[ROT] Roche Cobas INTEGRA 800
9.98 ± 0.23	14.06 ± 0.35	9.31 ± 0.23	7.24 ± 0.16	11.52 ± 0.22	n = 23	[ROD] Roche MODULAR D/P
9.74 ± 0.22	13.71 ± 0.34	9.24 ± 0.18	7.21 ± 0.18	11.34 ± 0.26	n = 21	[BYE] Siemens ADVIA 1800
9.61 ± 0.24	13.81 ± 0.26	9.00 ± 0.18	7.11 ± 0.22	11.31 ± 0.21	n = 24	[DUE] Siemens Dimension EXL
9.74 ± 0.21	13.77 ± 0.33	9.01 ± 0.27	7.13 ± 0.18	11.34 ± 0.35	n = 14	[DUR] Siemens Dimension RxL
9.56 ± 0.25	13.77 ± 0.32	8.93 ± 0.22	7.08 ± 0.16	11.26 ± 0.26	n = 42	[DUT] Siemens Dimension Vista
9.55 ± 0.10	13.66 ± 0.17	8.93 ± 0.09	7.10 ± 0.12	11.23 ± 0.15	n = 13	[DUX] Siemens Dimension Xpand
						<Reagents>
9.75 ± 0.11	13.19 ± 0.23	8.78 ± 0.19	7.24 ± 0.27	11.28 ± 0.19	n = 5	[AX1] Abaxis
9.79 ± 0.16	13.86 ± 0.17	9.16 ± 0.11	7.24 ± 0.11	11.40 ± 0.15	n = 21	[AB1] Abbott
9.95 ± 0.19	13.50 ± 0.55	9.18 ± 0.15	7.40 ± 0.09	11.37 ± 0.14	n = 3	[AW1] Alfa Wassermann
9.67 ± 0.14	13.55 ± 0.23	9.09 ± 0.14	7.17 ± 0.11	11.27 ± 0.17	n = 26	[BC1] Beckman Coulter
9.76 ± 0.14	13.60 ± 0.23	9.32 ± 0.15	7.27 ± 0.13	11.25 ± 0.17	n = 60	[OL1] Beckman Coulter AU Series
9.93 ± 0.15	13.66 ± 0.21	9.40 ± 0.17	7.18 ± 0.16	11.61 ± 0.19	n = 45	[JJ1] Ortho Clinical Diagnostics
9.85 ± 0.27	13.89 ± 0.37	9.15 ± 0.27	7.17 ± 0.23	11.50 ± 0.36	n = 3	[RO8] Roche cobas c111
9.86 ± 0.18	13.94 ± 0.19	9.19 ± 0.14	7.23 ± 0.13	11.49 ± 0.18	n = 41	[RO4] Roche cobas c311/c501/c502/c701/c702
9.98 ± 0.23	14.06 ± 0.35	9.31 ± 0.23	7.24 ± 0.16	11.52 ± 0.22	n = 23	[RO2] Roche Hitachi and Modular D/P
9.85 ± 0.12	13.86 ± 0.17	9.13 ± 0.12	7.20 ± 0.11	11.47 ± 0.14	n = 9	[RO1] Roche Integra and MIRA
9.67 ± 0.24	13.31 ± 0.47	9.01 ± 0.23	7.10 ± 0.18	11.18 ± 0.31	n = 4	[GZ1] Sekisui Diagnostics (Genzyme)
9.73 ± 0.23	13.70 ± 0.35	9.23 ± 0.18	7.22 ± 0.18	11.34 ± 0.25	n = 24	[BY1] Siemens ADVIA/ADVIA Centaur
9.59 ± 0.25	13.76 ± 0.29	8.96 ± 0.21	7.10 ± 0.17	11.28 ± 0.26	n = 93	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

Magnesium (mg/dL)

Specimen: C06	Specimen: C07	Specimen: C08	Specimen: C09	Specimen: C10	Number	[Code] Instrument or Reagent System
1.67 ± 0.09	2.92 ± 0.11	4.30 ± 0.14	1.17 ± 0.10	2.41 ± 0.11	n = 333	[---] All Methods & Instruments
						<Instruments>
1.60 ± 0.12	2.81 ± 0.13	4.19 ± 0.17	1.04 ± 0.13	2.27 ± 0.14	n = 20	[ABJ] Abbott Architect c System
1.69 ± 0.04	2.90 ± 0.08	4.27 ± 0.11	1.20 ± 0.00	2.38 ± 0.07	n = 60	[OLC] Beckman Coulter AU Chemistry System
1.70 ± 0.08	2.88 ± 0.07	4.20 ± 0.09	1.23 ± 0.05	2.38 ± 0.06	n = 16	[BCG] Beckman Coulter UniCel DxC 600
1.67 ± 0.05	2.85 ± 0.06	4.21 ± 0.06	1.20 ± 0.00	2.35 ± 0.06	n = 6	[BCH] Beckman Coulter UniCel DxC 800
1.74 ± 0.08	2.96 ± 0.08	4.40 ± 0.06	1.17 ± 0.05	2.50 ± 0.09	n = 6	[JJE] Ortho Vitros 250/350/950
1.67 ± 0.05	2.87 ± 0.05	4.34 ± 0.10	1.10 ± 0.00	2.47 ± 0.05	n = 3	[JJH] Ortho Vitros 4600
1.68 ± 0.08	2.94 ± 0.06	4.41 ± 0.11	1.15 ± 0.06	2.44 ± 0.06	n = 14	[JJF] Ortho Vitros 5,1FS
1.68 ± 0.04	2.94 ± 0.07	4.34 ± 0.08	1.10 ± 0.00	2.44 ± 0.08	n = 19	[JJG] Ortho Vitros 5600
1.69 ± 0.05	2.95 ± 0.07	4.24 ± 0.11	1.21 ± 0.06	2.42 ± 0.07	n = 28	[ROC] Roche cobas c501
1.66 ± 0.06	2.92 ± 0.08	3.94 ± 0.31	1.20 ± 0.00	2.35 ± 0.08	n = 5	[ROH] Roche cobas c701
1.70 ± 0.00	2.83 ± 0.05	4.16 ± 0.10	1.20 ± 0.00	2.40 ± 0.00	n = 3	[ROT] Roche Cobas INTEGRA 800
1.70 ± 0.00	2.98 ± 0.07	4.31 ± 0.11	1.21 ± 0.05	2.45 ± 0.06	n = 22	[ROD] Roche MODULAR D/P
1.81 ± 0.06	3.13 ± 0.08	4.37 ± 0.15	1.34 ± 0.06	2.58 ± 0.06	n = 21	[BYE] Siemens ADVIA 1800
1.65 ± 0.06	2.97 ± 0.08	4.46 ± 0.11	1.16 ± 0.07	2.45 ± 0.07	n = 22	[DUE] Siemens Dimension EXL
1.66 ± 0.08	2.94 ± 0.11	4.49 ± 0.13	1.14 ± 0.07	2.40 ± 0.00	n = 14	[DUR] Siemens Dimension RxL
1.52 ± 0.09	2.84 ± 0.11	4.26 ± 0.10	1.05 ± 0.09	2.30 ± 0.10	n = 42	[DUT] Siemens Dimension Vista
1.64 ± 0.08	2.93 ± 0.10	4.40 ± 0.11	1.15 ± 0.09	2.45 ± 0.08	n = 13	[DUX] Siemens Dimension Xpand
						<Reagents>
1.60 ± 0.12	2.81 ± 0.13	4.19 ± 0.17	1.04 ± 0.13	2.27 ± 0.14	n = 20	[AB1] Abbott
1.69 ± 0.07	2.86 ± 0.07	4.19 ± 0.09	1.21 ± 0.05	2.36 ± 0.06	n = 25	[BC1] Beckman Coulter
1.69 ± 0.04	2.91 ± 0.08	4.27 ± 0.11	1.21 ± 0.04	2.38 ± 0.07	n = 56	[OL1] Beckman Coulter AU Series
1.68 ± 0.07	2.94 ± 0.07	4.37 ± 0.10	1.12 ± 0.06	2.45 ± 0.07	n = 42	[JJ1] Ortho Clinical Diagnostics
1.69 ± 0.05	2.95 ± 0.07	4.23 ± 0.10	1.21 ± 0.05	2.42 ± 0.07	n = 38	[RO4] Roche cobas c311/c501/c502/c701/c702
1.70 ± 0.00	2.98 ± 0.07	4.31 ± 0.11	1.21 ± 0.05	2.45 ± 0.06	n = 22	[RO2] Roche Hitachi and Modular D/P
1.70 ± 0.00	2.84 ± 0.06	4.18 ± 0.08	1.20 ± 0.00	2.40 ± 0.00	n = 5	[RO1] Roche Integra and MIRA
1.81 ± 0.06	3.12 ± 0.08	4.36 ± 0.14	1.34 ± 0.06	2.58 ± 0.07	n = 24	[BY1] Siemens ADVIA/ADVIA Centaur
1.59 ± 0.10	2.90 ± 0.12	4.36 ± 0.15	1.10 ± 0.10	2.38 ± 0.11	n = 91	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

Iron (µg/dL)

Specimen: C06	Specimen: C07	Specimen: C08	Specimen: C09	Specimen: C10	Number	[Code] Instrument or Reagent System
87.1 ± 3.67	97.5 ± 4.33	102.5 ± 7.03	108.0 ± 7.77	79.7 ± 5.66	n = 263	[---] All Methods & Instruments
						<Instruments>
86.3 ± 1.22	96.0 ± 1.40	100.5 ± 1.30	98.8 ± 1.45	80.6 ± 1.50	n = 16	[ABJ] Abbott Architect c System
89.1 ± 2.79	100.0 ± 3.11	105.0 ± 3.02	112.3 ± 3.34	80.2 ± 2.38	n = 53	[OLC] Beckman Coulter AU Chemistry System
84.6 ± 3.38	96.1 ± 3.81	95.1 ± 5.16	104.0 ± 3.86	70.7 ± 4.85	n = 9	[BCG] Beckman Coulter UniCel DxC 600
84.0 ± 1.91	94.5 ± 2.33	93.6 ± 4.07	103.0 ± 3.41	69.5 ± 3.47	n = 5	[BCH] Beckman Coulter UniCel DxC 800
89.7 ± 1.37	99.4 ± 1.02	121.9 ± 3.72	114.1 ± 2.05	91.7 ± 0.51	n = 3	[JJH] Ortho Vitros 4600
92.7 ± 4.36	103.0 ± 5.37	123.3 ± 5.22	118.8 ± 4.89	92.4 ± 3.93	n = 12	[JJF] Ortho Vitros 5,1FS
92.4 ± 6.40	104.4 ± 5.79	124.3 ± 5.70	119.3 ± 5.65	93.5 ± 7.07	n = 20	[JJG] Ortho Vitros 5600
88.9 ± 2.98	100.5 ± 3.42	107.4 ± 3.21	112.9 ± 3.88	83.9 ± 3.04	n = 18	[ROC] Roche cobas c501
89.1 ± 3.44	98.0 ± 7.16	104.1 ± 4.93	111.5 ± 2.17	82.5 ± 2.17	n = 4	[ROG] Roche cobas c502
87.4 ± 1.02	97.7 ± 1.37	105.7 ± 1.37	110.2 ± 1.54	81.4 ± 1.02	n = 3	[ROH] Roche cobas c701
86.3 ± 2.24	96.5 ± 2.56	103.2 ± 2.37	108.5 ± 2.59	80.0 ± 1.98	n = 22	[ROD] Roche MODULAR D/P
86.2 ± 2.25	96.6 ± 2.65	99.1 ± 3.10	95.6 ± 4.01	81.0 ± 2.29	n = 20	[BYE] Siemens ADVIA 1800
83.5 ± 1.68	93.1 ± 2.00	96.9 ± 2.12	103.9 ± 1.70	74.5 ± 1.46	n = 13	[DUE] Siemens Dimension EXL
84.0 ± 3.00	92.0 ± 0.82	96.6 ± 2.16	102.8 ± 1.95	74.0 ± 2.46	n = 8	[DUR] Siemens Dimension RxL
85.6 ± 2.20	95.0 ± 1.61	98.5 ± 1.63	105.3 ± 1.83	75.4 ± 1.59	n = 38	[DUT] Siemens Dimension Vista
						<Reagents>
86.3 ± 1.06	96.2 ± 0.57	100.4 ± 1.18	98.7 ± 1.21	80.7 ± 1.26	n = 14	[AB3] Abbott-Iron/6K95
84.9 ± 3.05	96.0 ± 3.26	96.5 ± 5.96	104.3 ± 4.13	72.0 ± 5.51	n = 17	[BC1] Beckman Coulter
89.8 ± 2.57	100.8 ± 2.81	105.7 ± 3.13	113.0 ± 3.43	80.5 ± 2.53	n = 42	[OL1] Beckman Coulter AU Series
92.0 ± 5.25	103.5 ± 5.54	123.9 ± 5.40	118.6 ± 5.26	92.8 ± 5.44	n = 36	[JJ1] Ortho Clinical Diagnostics
88.4 ± 2.64	99.4 ± 3.81	106.6 ± 2.84	111.8 ± 3.47	83.0 ± 2.82	n = 28	[RO4] Roche cobas c311/c501/c502/c701/c702
86.3 ± 2.24	96.5 ± 2.56	103.2 ± 2.37	108.5 ± 2.59	80.0 ± 1.98	n = 22	[RO2] Roche Hitachi and Modular D/P
91.6 ± 7.23	98.8 ± 3.09	109.2 ± 6.42	113.3 ± 3.17	81.6 ± 1.64	n = 4	[RO1] Roche Integra and MIRA
86.4 ± 2.64	96.8 ± 2.47	103.1 ± 0.58	110.1 ± 1.25	80.1 ± 2.38	n = 9	[GZ1] Sekisui Diagnostics (Genzyme)
85.8 ± 2.20	96.4 ± 2.36	98.9 ± 2.78	95.5 ± 3.67	80.5 ± 2.13	n = 22	[BY1] Siemens ADVIA/ADVIA Centaur
84.9 ± 2.45	94.3 ± 2.18	97.9 ± 2.04	104.7 ± 2.06	75.0 ± 1.76	n = 61	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

Sodium (mmol/L)

Specimen: C06	Specimen: C07	Specimen: C08	Specimen: C09	Specimen: C10	Number	[Code] Instrument or Reagent System
145.8 ± 1.66	156.5 ± 2.01	156.0 ± 2.44	136.2 ± 1.78	129.4 ± 1.64	n = 372	[---] All Methods & Instruments
						<Instruments>
142.7 ± 1.81	148.9 ± 1.38	152.0 ± 1.54	132.7 ± 1.81	124.3 ± 1.99	n = 5	[AXA] Abaxis Piccolo
146.5 ± 1.13	156.7 ± 1.24	156.4 ± 1.47	136.3 ± 1.13	128.4 ± 0.88	n = 21	[ABJ] Abbott Architect c System
145.3 ± 0.51	157.0 ± 0.00	158.7 ± 0.51	135.3 ± 0.51	126.7 ± 0.51	n = 3	[AWA] Alfa Wassermann ACE Alera
145.0 ± 1.30	155.9 ± 1.48	154.9 ± 1.31	135.6 ± 1.13	128.8 ± 1.26	n = 63	[OLC] Beckman Coulter AU Chemistry System
145.5 ± 1.79	155.2 ± 1.54	155.8 ± 1.58	136.3 ± 1.32	129.2 ± 1.08	n = 17	[BCG] Beckman Coulter UniCel DxC 600
145.5 ± 1.24	155.5 ± 1.24	156.2 ± 1.59	136.9 ± 1.33	129.2 ± 1.00	n = 6	[BCH] Beckman Coulter UniCel DxC 800
143.3 ± 0.69	155.0 ± 0.00	154.2 ± 0.41	134.4 ± 0.68	128.3 ± 0.69	n = 8	[IAA] i-STAT
148.2 ± 1.69	159.7 ± 1.03	163.3 ± 1.52	141.5 ± 1.58	131.0 ± 1.72	n = 8	[JJE] Ortho Vitros 250/350/950
147.1 ± 1.39	159.3 ± 0.99	161.7 ± 1.20	139.5 ± 1.56	129.6 ± 0.98	n = 15	[JJF] Ortho Vitros 5,1FS
146.3 ± 1.62	158.7 ± 2.03	160.9 ± 1.71	139.0 ± 1.31	128.8 ± 1.38	n = 20	[JJG] Ortho Vitros 5600
144.3 ± 0.51	155.0 ± 1.80	154.4 ± 1.02	135.3 ± 0.51	128.7 ± 0.51	n = 3	[ROK] Roche cobas c111
145.8 ± 1.07	156.7 ± 1.38	156.6 ± 1.09	136.0 ± 1.28	129.2 ± 0.80	n = 5	[ROJ] Roche cobas c311
145.1 ± 1.30	156.4 ± 1.27	155.8 ± 1.12	135.6 ± 0.97	128.5 ± 1.23	n = 30	[ROC] Roche cobas c501
146.0 ± 1.60	155.8 ± 3.80	155.7 ± 2.19	135.7 ± 1.26	129.2 ± 1.22	n = 6	[ROH] Roche cobas c701
145.0 ± 0.75	154.5 ± 0.57	154.5 ± 0.57	133.7 ± 0.90	127.2 ± 0.41	n = 4	[ROS] Roche Cobas INTEGRA 400
144.0 ± 1.76	153.5 ± 1.71	153.5 ± 2.32	133.5 ± 1.22	126.8 ± 1.46	n = 4	[ROT] Roche Cobas INTEGRA 800
146.9 ± 1.37	157.3 ± 1.78	156.9 ± 1.89	136.4 ± 1.07	129.0 ± 1.58	n = 23	[ROD] Roche MODULAR D/P
147.2 ± 0.87	158.0 ± 0.87	157.5 ± 0.95	138.0 ± 0.00	130.7 ± 0.72	n = 21	[BYE] Siemens ADVIA 1800
146.3 ± 1.07	157.2 ± 1.22	155.8 ± 1.35	136.1 ± 0.94	130.2 ± 0.65	n = 25	[DUE] Siemens Dimension EXL
145.2 ± 1.34	154.6 ± 1.95	154.9 ± 1.74	135.6 ± 1.17	129.9 ± 1.88	n = 13	[DUR] Siemens Dimension RxL
145.2 ± 1.15	155.3 ± 1.20	154.2 ± 1.11	135.3 ± 1.19	131.2 ± 1.23	n = 42	[DUT] Siemens Dimension Vista
146.4 ± 1.39	157.1 ± 1.56	156.4 ± 1.32	136.7 ± 1.20	130.8 ± 1.30	n = 13	[DUX] Siemens Dimension Xpand
						<Reagents>
142.7 ± 1.81	148.9 ± 1.38	152.0 ± 1.54	132.7 ± 1.81	124.3 ± 1.99	n = 5	[AX1] Abaxis
146.3 ± 1.36	156.5 ± 1.31	156.1 ± 1.59	136.2 ± 1.23	128.4 ± 0.84	n = 23	[AB1] Abbott
145.3 ± 0.51	157.0 ± 0.00	158.7 ± 0.51	135.3 ± 0.51	126.7 ± 0.51	n = 3	[AW1] Alfa Wassermann
145.4 ± 1.59	155.4 ± 1.42	155.8 ± 1.58	136.4 ± 1.57	129.1 ± 1.06	n = 26	[BC1] Beckman Coulter
145.1 ± 1.31	155.9 ± 1.51	155.0 ± 1.33	135.7 ± 1.05	128.8 ± 1.25	n = 60	[OL1] Beckman Coulter AU Series
143.2 ± 0.73	154.7 ± 0.72	154.3 ± 0.51	134.3 ± 0.72	128.4 ± 0.79	n = 6	[IA1] i-STAT
145.1 ± 2.05	158.3 ± 0.51	158.7 ± 0.51	136.7 ± 0.51	129.7 ± 0.51	n = 3	[IL1] Instrumentation Lab
146.9 ± 1.68	159.2 ± 1.38	161.7 ± 1.72	139.6 ± 1.71	129.4 ± 1.42	n = 45	[JJ1] Ortho Clinical Diagnostics
144.3 ± 0.51	155.0 ± 1.80	154.4 ± 1.02	135.3 ± 0.51	128.7 ± 0.51	n = 3	[RO8] Roche cobas c111
145.4 ± 1.42	156.6 ± 1.45	156.1 ± 1.20	135.6 ± 1.03	128.8 ± 1.24	n = 42	[RO4] Roche cobas c311/c501/c502/c701/c702
146.9 ± 1.37	157.3 ± 1.78	156.9 ± 1.89	136.4 ± 1.07	129.0 ± 1.58	n = 23	[RO2] Roche Hitachi and Modular D/P
144.8 ± 1.35	154.3 ± 1.18	154.4 ± 1.47	133.9 ± 1.27	127.3 ± 0.97	n = 9	[RO1] Roche Integra and MIRA
147.3 ± 0.84	157.9 ± 0.84	157.5 ± 0.96	138.0 ± 0.00	130.7 ± 0.69	n = 24	[BY1] Siemens ADVIA/ADVIA Centaur
145.7 ± 1.34	156.0 ± 1.70	155.0 ± 1.61	135.7 ± 1.31	130.7 ± 1.30	n = 92	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

Potassium (mmol/L)

Specimen: C06	Specimen: C07	Specimen: C08	Specimen: C09	Specimen: C10	Number	[Code] Instrument or Reagent System
4.60 ± 0.09	3.59 ± 0.09	5.12 ± 0.11	3.87 ± 0.09	2.95 ± 0.08	n = 373	[---] All Methods & Instruments
						<Instruments>
4.76 ± 0.11	3.74 ± 0.06	5.44 ± 0.11	3.88 ± 0.11	2.84 ± 0.11	n = 5	[AXA] Abaxis Piccolo
4.56 ± 0.10	3.53 ± 0.09	5.07 ± 0.10	3.84 ± 0.09	2.91 ± 0.05	n = 21	[ABJ] Abbott Architect c System
4.73 ± 0.05	3.64 ± 0.10	5.30 ± 0.09	4.00 ± 0.00	2.97 ± 0.05	n = 3	[AWA] Alfa Wassermann ACE Alera
4.60 ± 0.00	3.62 ± 0.05	5.11 ± 0.05	3.90 ± 0.00	3.00 ± 0.00	n = 63	[OLC] Beckman Coulter AU Chemistry System
4.61 ± 0.05	3.57 ± 0.07	5.15 ± 0.07	3.89 ± 0.05	2.90 ± 0.00	n = 17	[BCG] Beckman Coulter UniCel DxC 600
4.60 ± 0.00	3.55 ± 0.06	5.15 ± 0.06	3.90 ± 0.00	2.90 ± 0.00	n = 6	[BCH] Beckman Coulter UniCel DxC 800
4.50 ± 0.00	3.50 ± 0.00	5.00 ± 0.00	3.80 ± 0.00	2.90 ± 0.00	n = 8	[IAA] i-STAT
4.77 ± 0.05	3.70 ± 0.00	5.37 ± 0.07	4.10 ± 0.00	3.07 ± 0.07	n = 8	[JJE] Ortho Vitros 250/350/950
4.67 ± 0.05	3.63 ± 0.05	5.36 ± 0.10	4.03 ± 0.05	3.00 ± 0.00	n = 3	[JJH] Ortho Vitros 4600
4.69 ± 0.07	3.68 ± 0.05	5.26 ± 0.09	4.02 ± 0.06	3.00 ± 0.05	n = 14	[JJF] Ortho Vitros 5,1FS
4.69 ± 0.08	3.65 ± 0.06	5.29 ± 0.09	4.04 ± 0.07	3.02 ± 0.06	n = 20	[JJG] Ortho Vitros 5600
4.60 ± 0.00	3.60 ± 0.00	5.10 ± 0.00	3.90 ± 0.00	2.97 ± 0.05	n = 3	[ROK] Roche cobas c111
4.55 ± 0.11	3.55 ± 0.11	5.08 ± 0.11	3.85 ± 0.11	2.88 ± 0.11	n = 5	[ROJ] Roche cobas c311
4.51 ± 0.06	3.50 ± 0.00	5.05 ± 0.07	3.79 ± 0.06	2.85 ± 0.07	n = 29	[ROC] Roche cobas c501
4.64 ± 0.08	3.55 ± 0.14	5.12 ± 0.10	3.87 ± 0.10	3.01 ± 0.06	n = 6	[ROH] Roche cobas c701
4.60 ± 0.00	3.58 ± 0.04	5.15 ± 0.06	3.90 ± 0.00	2.95 ± 0.06	n = 4	[ROS] Roche Cobas INTEGRA 400
4.54 ± 0.06	3.54 ± 0.06	5.05 ± 0.08	3.84 ± 0.06	2.90 ± 0.06	n = 5	[ROT] Roche Cobas INTEGRA 800
4.54 ± 0.07	3.50 ± 0.00	5.06 ± 0.09	3.81 ± 0.06	2.90 ± 0.10	n = 23	[ROD] Roche MODULAR D/P
4.70 ± 0.00	3.70 ± 0.00	5.22 ± 0.05	3.98 ± 0.05	3.03 ± 0.05	n = 21	[BYE] Siemens ADVIA 1800
4.60 ± 0.00	3.55 ± 0.07	5.11 ± 0.04	3.83 ± 0.06	2.90 ± 0.00	n = 24	[DUE] Siemens Dimension EXL
4.60 ± 0.05	3.55 ± 0.06	5.09 ± 0.06	3.83 ± 0.05	2.90 ± 0.00	n = 14	[DUR] Siemens Dimension RxL
4.50 ± 0.00	3.60 ± 0.00	5.01 ± 0.05	3.80 ± 0.00	2.95 ± 0.06	n = 42	[DUT] Siemens Dimension Vista
4.62 ± 0.06	3.58 ± 0.05	5.12 ± 0.06	3.85 ± 0.06	2.90 ± 0.00	n = 13	[DUX] Siemens Dimension Xpand
						<Reagents>
4.76 ± 0.11	3.74 ± 0.06	5.44 ± 0.11	3.88 ± 0.11	2.84 ± 0.11	n = 5	[AX1] Abaxis
4.55 ± 0.10	3.53 ± 0.08	5.06 ± 0.09	3.83 ± 0.09	2.91 ± 0.05	n = 23	[AB1] Abbott
4.73 ± 0.05	3.64 ± 0.10	5.30 ± 0.09	4.00 ± 0.00	2.97 ± 0.05	n = 3	[AW1] Alfa Wassermann
4.60 ± 0.00	3.57 ± 0.06	5.15 ± 0.06	3.89 ± 0.04	2.90 ± 0.00	n = 26	[BC1] Beckman Coulter
4.60 ± 0.00	3.62 ± 0.05	5.11 ± 0.05	3.90 ± 0.00	3.00 ± 0.00	n = 60	[OL1] Beckman Coulter AU Series
4.50 ± 0.00	3.47 ± 0.07	5.00 ± 0.00	3.80 ± 0.00	2.90 ± 0.00	n = 6	[IA1] i-STAT
4.50 ± 0.09	3.43 ± 0.05	5.03 ± 0.05	3.83 ± 0.05	2.87 ± 0.05	n = 3	[IL1] Instrumentation Lab
4.70 ± 0.07	3.67 ± 0.06	5.30 ± 0.10	4.05 ± 0.07	3.02 ± 0.06	n = 45	[JJ1] Ortho Clinical Diagnostics
4.60 ± 0.00	3.60 ± 0.00	5.10 ± 0.00	3.90 ± 0.00	2.97 ± 0.05	n = 3	[RO8] Roche cobas c111
4.54 ± 0.08	3.51 ± 0.06	5.07 ± 0.09	3.81 ± 0.07	2.87 ± 0.10	n = 43	[RO4] Roche cobas c311/c501/c502/c701/c702
4.54 ± 0.07	3.50 ± 0.00	5.06 ± 0.09	3.81 ± 0.06	2.90 ± 0.10	n = 23	[RO2] Roche Hitachi and Modular D/P
4.58 ± 0.04	3.57 ± 0.05	5.11 ± 0.09	3.88 ± 0.04	2.93 ± 0.05	n = 8	[RO1] Roche Integra and MIRA
4.69 ± 0.04	3.70 ± 0.00	5.23 ± 0.05	3.98 ± 0.04	3.03 ± 0.05	n = 24	[BY1] Siemens ADVIA/ADVIA Centaur
4.57 ± 0.07	3.57 ± 0.05	5.07 ± 0.07	3.82 ± 0.04	2.92 ± 0.05	n = 93	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

Chloride (mmol/L)

Specimen: C06	Specimen: C07	Specimen: C08	Specimen: C09	Specimen: C10	Number	[Code] Instrument or Reagent System
102.0 ± 2.04	112.0 ± 1.76	113.5 ± 2.17	95.3 ± 1.86	91.9 ± 1.65	n = 368	[---] All Methods & Instruments
						<Instruments>
99.6 ± 1.09	109.7 ± 1.61	113.4 ± 1.09	94.5 ± 0.83	90.8 ± 1.55	n = 5	[AXA] Abaxis Piccolo
102.2 ± 0.74	111.8 ± 0.64	113.7 ± 0.71	95.5 ± 0.57	92.3 ± 0.58	n = 20	[ABJ] Abbott Architect c System
104.0 ± 0.90	113.7 ± 0.51	117.0 ± 0.90	97.7 ± 0.51	92.7 ± 1.37	n = 3	[AWA] Alfa Wassermann ACE Alera
101.0 ± 0.96	111.2 ± 1.00	112.4 ± 1.06	94.5 ± 0.95	91.8 ± 0.97	n = 63	[OLC] Beckman Coulter AU Chemistry System
102.1 ± 1.03	112.0 ± 1.08	114.4 ± 1.03	96.2 ± 1.13	92.9 ± 0.99	n = 17	[BCG] Beckman Coulter UniCel DxC 600
102.3 ± 1.48	111.8 ± 1.54	114.2 ± 1.59	95.9 ± 1.68	92.8 ± 1.45	n = 6	[BCH] Beckman Coulter UniCel DxC 800
103.9 ± 1.01	113.8 ± 0.66	120.5 ± 0.74	98.6 ± 0.94	92.3 ± 0.74	n = 7	[IAA] i-STAT
102.3 ± 1.24	111.9 ± 1.01	114.7 ± 1.24	95.8 ± 1.81	92.2 ± 1.14	n = 8	[JJE] Ortho Vitros 250/350/950
102.0 ± 0.00	111.3 ± 0.51	114.3 ± 0.51	95.3 ± 0.51	92.3 ± 0.51	n = 3	[JJH] Ortho Vitros 4600
102.1 ± 0.96	111.6 ± 1.23	114.6 ± 1.48	95.7 ± 0.80	91.9 ± 0.94	n = 14	[JJF] Ortho Vitros 5,1FS
101.5 ± 1.34	111.3 ± 1.61	114.1 ± 1.37	95.4 ± 1.33	91.5 ± 1.32	n = 20	[JJG] Ortho Vitros 5600
103.3 ± 0.51	112.3 ± 1.37	114.0 ± 0.90	96.0 ± 0.90	92.6 ± 1.02	n = 3	[ROK] Roche cobas c111
99.0 ± 0.64	110.0 ± 1.00	110.2 ± 0.80	92.0 ± 0.93	88.2 ± 0.80	n = 5	[ROJ] Roche cobas c311
98.5 ± 1.27	110.0 ± 0.64	110.1 ± 1.31	91.7 ± 0.92	88.2 ± 1.24	n = 30	[ROC] Roche cobas c501
99.5 ± 1.86	110.7 ± 3.69	110.6 ± 2.30	92.4 ± 1.61	89.3 ± 1.21	n = 6	[ROH] Roche cobas c701
101.8 ± 0.41	110.8 ± 0.41	113.2 ± 0.41	94.1 ± 1.13	90.7 ± 0.90	n = 4	[ROS] Roche Cobas INTEGRA 400
101.5 ± 1.22	110.7 ± 0.90	113.0 ± 1.76	94.1 ± 1.13	90.5 ± 1.22	n = 4	[ROT] Roche Cobas INTEGRA 800
100.4 ± 0.97	111.1 ± 1.07	111.4 ± 1.19	93.7 ± 0.90	89.8 ± 1.30	n = 23	[ROD] Roche MODULAR D/P
102.6 ± 0.99	112.4 ± 1.12	113.9 ± 1.32	95.6 ± 1.10	92.1 ± 1.00	n = 21	[BYE] Siemens ADVIA 1800
103.6 ± 0.71	113.5 ± 0.78	114.2 ± 0.65	96.0 ± 0.64	92.6 ± 0.65	n = 24	[DUE] Siemens Dimension EXL
105.0 ± 1.04	114.0 ± 1.65	114.9 ± 1.12	95.8 ± 1.11	92.1 ± 1.18	n = 14	[DUR] Siemens Dimension RxL
103.8 ± 1.20	114.0 ± 1.02	115.8 ± 1.23	97.2 ± 1.18	93.0 ± 1.10	n = 42	[DUT] Siemens Dimension Vista
103.8 ± 1.06	113.2 ± 1.31	114.1 ± 1.38	96.1 ± 0.62	92.9 ± 1.01	n = 13	[DUX] Siemens Dimension Xpand
						<Reagents>
99.6 ± 1.09	109.7 ± 1.61	113.4 ± 1.09	94.5 ± 0.83	90.8 ± 1.55	n = 5	[AX1] Abaxis
102.2 ± 0.79	111.8 ± 0.63	113.7 ± 0.72	95.5 ± 0.57	92.3 ± 0.58	n = 22	[AB1] Abbott
104.0 ± 0.90	113.7 ± 0.51	117.0 ± 0.90	97.7 ± 0.51	92.7 ± 1.37	n = 3	[AW1] Alfa Wassermann
102.1 ± 1.19	111.9 ± 1.23	114.2 ± 1.27	96.0 ± 1.43	92.7 ± 1.11	n = 26	[BC1] Beckman Coulter
101.0 ± 0.99	111.2 ± 1.01	112.4 ± 1.08	94.6 ± 0.97	91.8 ± 1.00	n = 60	[OL1] Beckman Coulter AU Series
103.7 ± 0.97	113.7 ± 0.51	120.4 ± 0.79	98.4 ± 0.79	92.2 ± 0.73	n = 6	[IA1] i-STAT
101.9 ± 1.18	111.5 ± 1.32	114.4 ± 1.33	95.6 ± 1.16	91.8 ± 1.13	n = 45	[JJ1] Ortho Clinical Diagnostics
103.3 ± 0.51	112.3 ± 1.37	114.0 ± 0.90	96.0 ± 0.90	92.6 ± 1.02	n = 3	[RO8] Roche cobas c111
98.7 ± 1.24	110.0 ± 0.90	110.2 ± 1.33	91.7 ± 0.90	88.4 ± 1.21	n = 41	[RO4] Roche cobas c311/c501/c502/c701/c702
100.4 ± 0.97	111.1 ± 1.07	111.4 ± 1.19	93.7 ± 0.90	89.8 ± 1.30	n = 23	[RO2] Roche Hitachi and Modular D/P
101.5 ± 1.07	110.7 ± 1.02	112.9 ± 1.42	93.9 ± 1.12	90.5 ± 1.20	n = 10	[RO1] Roche Integra and MIRA
102.7 ± 1.06	112.4 ± 1.00	113.9 ± 1.19	95.7 ± 1.01	92.2 ± 0.92	n = 24	[BY1] Siemens ADVIA/ADVIA Centaur
103.9 ± 1.13	113.7 ± 1.13	115.0 ± 1.38	96.5 ± 1.12	92.8 ± 1.01	n = 93	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

Albumin (g/dL)

Specimen: C06	Specimen: C07	Specimen: C08	Specimen: C09	Specimen: C10	Number	[Code] Instrument or Reagent System
3.77 ± 0.15	4.15 ± 0.18	5.21 ± 0.18	4.33 ± 0.16	3.43 ± 0.17	n = 358	[---] All Methods & Instruments
						<Instruments>
3.88 ± 0.04	4.28 ± 0.04	5.20 ± 0.08	4.70 ± 0.08	3.55 ± 0.06	n = 4	[AXA] Abaxis Piccolo
3.62 ± 0.11	3.95 ± 0.11	5.03 ± 0.09	4.12 ± 0.11	3.28 ± 0.09	n = 21	[ABJ] Abbott Architect c System
3.73 ± 0.05	4.07 ± 0.05	5.03 ± 0.05	4.23 ± 0.05	3.47 ± 0.05	n = 3	[AWA] Alfa Wassermann ACE Alera
3.76 ± 0.08	4.13 ± 0.10	5.15 ± 0.11	4.30 ± 0.09	3.43 ± 0.08	n = 64	[OLC] Beckman Coulter AU Chemistry System
3.65 ± 0.06	4.01 ± 0.09	5.15 ± 0.08	4.13 ± 0.12	3.32 ± 0.06	n = 16	[BCG] Beckman Coulter UniCel DxC 600
3.60 ± 0.00	4.00 ± 0.09	5.14 ± 0.08	4.15 ± 0.06	3.32 ± 0.07	n = 6	[BCH] Beckman Coulter UniCel DxC 800
3.53 ± 0.09	3.77 ± 0.09	4.97 ± 0.12	4.16 ± 0.11	3.06 ± 0.07	n = 8	[JJE] Ortho Vitros 250/350/950
3.50 ± 0.09	3.73 ± 0.05	4.86 ± 0.10	4.06 ± 0.10	3.00 ± 0.09	n = 3	[JJH] Ortho Vitros 4600
3.60 ± 0.13	3.84 ± 0.13	5.01 ± 0.16	4.22 ± 0.16	3.06 ± 0.09	n = 13	[JJF] Ortho Vitros 5,1FS
3.62 ± 0.11	3.86 ± 0.12	5.00 ± 0.15	4.19 ± 0.10	3.07 ± 0.10	n = 20	[JJG] Ortho Vitros 5600
3.95 ± 0.08	4.26 ± 0.06	5.26 ± 0.11	4.50 ± 0.06	3.56 ± 0.06	n = 5	[ROJ] Roche cobas c311
3.95 ± 0.12	4.30 ± 0.13	5.28 ± 0.11	4.51 ± 0.12	3.62 ± 0.11	n = 29	[ROC] Roche cobas c501
3.90 ± 0.05	4.25 ± 0.06	5.32 ± 0.11	4.50 ± 0.08	3.55 ± 0.07	n = 7	[ROH] Roche cobas c701
3.82 ± 0.04	4.20 ± 0.08	5.22 ± 0.04	4.45 ± 0.06	3.55 ± 0.06	n = 4	[ROS] Roche Cobas INTEGRA 400
3.82 ± 0.13	4.20 ± 0.17	5.15 ± 0.12	4.39 ± 0.11	3.53 ± 0.09	n = 4	[ROT] Roche Cobas INTEGRA 800
3.95 ± 0.08	4.25 ± 0.10	5.26 ± 0.11	4.45 ± 0.11	3.54 ± 0.11	n = 24	[ROD] Roche MODULAR D/P
3.85 ± 0.10	4.23 ± 0.11	5.11 ± 0.12	4.38 ± 0.08	3.52 ± 0.08	n = 21	[BYE] Siemens ADVIA 1800
3.80 ± 0.00	4.22 ± 0.10	5.42 ± 0.09	4.37 ± 0.07	3.45 ± 0.07	n = 24	[DUE] Siemens Dimension EXL
3.76 ± 0.08	4.18 ± 0.07	5.34 ± 0.08	4.35 ± 0.08	3.44 ± 0.06	n = 14	[DUR] Siemens Dimension RxL
3.81 ± 0.07	4.25 ± 0.07	5.38 ± 0.08	4.36 ± 0.07	3.50 ± 0.07	n = 42	[DUT] Siemens Dimension Vista
3.75 ± 0.09	4.17 ± 0.06	5.35 ± 0.07	4.30 ± 0.07	3.41 ± 0.05	n = 13	[DUX] Siemens Dimension Xpand
						<Reagents>
3.88 ± 0.04	4.28 ± 0.04	5.20 ± 0.08	4.70 ± 0.08	3.55 ± 0.06	n = 4	[AX1] Abaxis
3.62 ± 0.11	3.95 ± 0.11	5.03 ± 0.09	4.12 ± 0.11	3.28 ± 0.09	n = 21	[AB1] Abbott
3.73 ± 0.05	4.07 ± 0.05	5.03 ± 0.05	4.23 ± 0.05	3.47 ± 0.05	n = 3	[AW1] Alfa Wassermann
3.64 ± 0.06	4.00 ± 0.08	5.14 ± 0.08	4.14 ± 0.10	3.33 ± 0.07	n = 24	[BC1] Beckman Coulter
3.76 ± 0.08	4.13 ± 0.09	5.16 ± 0.11	4.31 ± 0.09	3.43 ± 0.08	n = 60	[OL1] Beckman Coulter AU Series
3.59 ± 0.12	3.83 ± 0.12	4.99 ± 0.15	4.19 ± 0.13	3.07 ± 0.09	n = 45	[JJ1] Ortho Clinical Diagnostics
3.94 ± 0.11	4.28 ± 0.11	5.28 ± 0.12	4.51 ± 0.11	3.59 ± 0.11	n = 43	[RO4] Roche cobas c311/c501/c502/c701/c702
3.95 ± 0.08	4.25 ± 0.10	5.25 ± 0.11	4.45 ± 0.11	3.54 ± 0.11	n = 23	[RO2] Roche Hitachi and Modular D/P
3.83 ± 0.07	4.22 ± 0.10	5.20 ± 0.09	4.43 ± 0.07	3.54 ± 0.07	n = 8	[RO1] Roche Integra and MIRA
3.84 ± 0.10	4.14 ± 0.10	5.35 ± 0.36	4.34 ± 0.10	3.50 ± 0.09	n = 3	[GZ1] Sekisui Diagnostics (Genzyme)
3.85 ± 0.10	4.23 ± 0.10	5.12 ± 0.11	4.39 ± 0.07	3.52 ± 0.07	n = 24	[BY1] Siemens ADVIA/ADVIA Centaur
3.79 ± 0.08	4.22 ± 0.09	5.38 ± 0.09	4.35 ± 0.07	3.47 ± 0.08	n = 92	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

Total Protein (g/dL)

Specimen: C06	Specimen: C07	Specimen: C08	Specimen: C09	Specimen: C10	Number	[Code] Instrument or Reagent System
6.25 ± 0.18	6.75 ± 0.19	7.63 ± 0.22	7.21 ± 0.19	5.58 ± 0.17	n = 354	[---] All Methods & Instruments
						<Instruments>
6.30 ± 0.08	6.75 ± 0.06	7.60 ± 0.08	7.32 ± 0.04	5.65 ± 0.12	n = 4	[AXA] Abaxis Piccolo
6.20 ± 0.00	6.69 ± 0.04	7.57 ± 0.05	7.15 ± 0.07	5.50 ± 0.00	n = 22	[ABJ] Abbott Architect c System
6.27 ± 0.14	6.66 ± 0.10	7.60 ± 0.09	7.17 ± 0.14	5.60 ± 0.09	n = 3	[AWA] Alfa Wassermann ACE Alera
6.16 ± 0.14	6.63 ± 0.14	7.45 ± 0.16	7.06 ± 0.14	5.47 ± 0.12	n = 63	[OLC] Beckman Coulter AU Chemistry System
6.18 ± 0.12	6.72 ± 0.08	7.62 ± 0.15	7.19 ± 0.16	5.54 ± 0.08	n = 15	[BCG] Beckman Coulter UniCel DxC 600
5.92 ± 0.09	6.61 ± 0.18	7.48 ± 0.17	6.98 ± 0.10	5.41 ± 0.11	n = 6	[BCH] Beckman Coulter UniCel DxC 800
6.09 ± 0.09	6.58 ± 0.14	7.73 ± 0.12	7.14 ± 0.11	5.50 ± 0.09	n = 8	[JJE] Ortho Vitros 250/350/950
6.23 ± 0.14	6.65 ± 0.19	7.85 ± 0.19	7.20 ± 0.27	5.55 ± 0.19	n = 3	[JJH] Ortho Vitros 4600
6.14 ± 0.12	6.57 ± 0.10	7.70 ± 0.10	7.07 ± 0.11	5.44 ± 0.11	n = 14	[JJF] Ortho Vitros 5,1FS
6.19 ± 0.10	6.65 ± 0.12	7.83 ± 0.14	7.18 ± 0.16	5.50 ± 0.07	n = 20	[JJG] Ortho Vitros 5600
6.22 ± 0.08	6.70 ± 0.06	7.55 ± 0.08	7.20 ± 0.09	5.60 ± 0.10	n = 5	[ROJ] Roche cobas c311
6.24 ± 0.12	6.70 ± 0.14	7.51 ± 0.15	7.17 ± 0.14	5.57 ± 0.10	n = 29	[ROC] Roche cobas c501
6.18 ± 0.14	6.66 ± 0.31	7.53 ± 0.30	7.19 ± 0.20	5.53 ± 0.12	n = 6	[ROH] Roche cobas c701
6.05 ± 0.12	6.63 ± 0.16	7.40 ± 0.11	7.05 ± 0.06	5.43 ± 0.09	n = 4	[ROS] Roche Cobas INTEGRA 400
6.05 ± 0.19	6.53 ± 0.27	7.26 ± 0.30	6.93 ± 0.25	5.33 ± 0.15	n = 4	[ROT] Roche Cobas INTEGRA 800
6.26 ± 0.16	6.77 ± 0.12	7.53 ± 0.16	7.21 ± 0.10	5.60 ± 0.10	n = 23	[ROD] Roche MODULAR D/P
6.33 ± 0.09	6.86 ± 0.09	7.75 ± 0.12	7.26 ± 0.09	5.66 ± 0.10	n = 21	[BYE] Siemens ADVIA 1800
6.42 ± 0.08	6.95 ± 0.09	7.84 ± 0.13	7.44 ± 0.11	5.77 ± 0.08	n = 24	[DUE] Siemens Dimension EXL
6.44 ± 0.12	6.96 ± 0.14	7.84 ± 0.16	7.46 ± 0.12	5.79 ± 0.10	n = 14	[DUR] Siemens Dimension RxL
6.43 ± 0.12	6.94 ± 0.13	7.78 ± 0.16	7.37 ± 0.11	5.73 ± 0.10	n = 42	[DUT] Siemens Dimension Vista
6.42 ± 0.11	6.94 ± 0.13	7.78 ± 0.11	7.40 ± 0.11	5.74 ± 0.11	n = 13	[DUX] Siemens Dimension Xpand
						<Reagents>
6.30 ± 0.08	6.75 ± 0.06	7.60 ± 0.08	7.32 ± 0.04	5.65 ± 0.12	n = 4	[AX1] Abaxis
6.20 ± 0.00	6.69 ± 0.04	7.57 ± 0.05	7.15 ± 0.07	5.50 ± 0.00	n = 22	[AB1] Abbott
6.27 ± 0.14	6.66 ± 0.10	7.60 ± 0.09	7.17 ± 0.14	5.60 ± 0.09	n = 3	[AW1] Alfa Wassermann
6.10 ± 0.19	6.68 ± 0.12	7.57 ± 0.19	7.10 ± 0.17	5.49 ± 0.14	n = 25	[BC1] Beckman Coulter
6.16 ± 0.14	6.63 ± 0.14	7.45 ± 0.16	7.07 ± 0.14	5.47 ± 0.12	n = 60	[OL1] Beckman Coulter AU Series
6.16 ± 0.12	6.61 ± 0.13	7.76 ± 0.15	7.13 ± 0.15	5.48 ± 0.10	n = 45	[JJ1] Ortho Clinical Diagnostics
6.22 ± 0.12	6.70 ± 0.13	7.52 ± 0.15	7.17 ± 0.14	5.57 ± 0.11	n = 41	[RO4] Roche cobas c311/c501/c502/c701/c702
6.26 ± 0.16	6.77 ± 0.12	7.53 ± 0.16	7.21 ± 0.10	5.60 ± 0.10	n = 23	[RO2] Roche Hitachi and Modular D/P
6.05 ± 0.16	6.59 ± 0.22	7.35 ± 0.22	7.00 ± 0.18	5.38 ± 0.14	n = 8	[RO1] Roche Integra and MIRA
6.34 ± 0.10	6.87 ± 0.10	7.76 ± 0.11	7.26 ± 0.09	5.66 ± 0.09	n = 24	[BY1] Siemens ADVIA/ADVIA Centaur
6.43 ± 0.11	6.95 ± 0.12	7.81 ± 0.15	7.41 ± 0.12	5.75 ± 0.10	n = 92	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

Cholesterol (mg/dL)

Specimen: C06	Specimen: C07	Specimen: C08	Specimen: C09	Specimen: C10	Number	[Code] Instrument or Reagent System
225.0 ± 6.22	153.5 ± 4.74	144.5 ± 8.16	174.4 ± 7.28	125.7 ± 4.04	n = 322	[---] All Methods & Instruments
						<Instruments>
227.5 ± 2.74	158.8 ± 3.23	152.8 ± 3.23	180.5 ± 1.86	129.7 ± 1.37	n = 3	[AXA] Abaxis Piccolo
235.5 ± 2.25	159.8 ± 1.03	149.4 ± 1.33	182.8 ± 1.38	131.8 ± 1.24	n = 19	[ABJ] Abbott Architect c System
224.4 ± 4.98	150.5 ± 3.54	140.7 ± 3.49	171.7 ± 4.20	123.4 ± 3.03	n = 68	[OLC] Beckman Coulter AU Chemistry System
223.2 ± 2.35	152.9 ± 1.60	146.8 ± 1.51	170.2 ± 1.72	125.2 ± 0.91	n = 12	[BCG] Beckman Coulter UniCel DxC 600
225.0 ± 3.24	153.6 ± 2.05	146.1 ± 1.27	171.4 ± 2.05	125.6 ± 1.09	n = 5	[BCH] Beckman Coulter UniCel DxC 800
215.9 ± 4.38	153.0 ± 0.90	156.2 ± 2.36	183.1 ± 3.72	126.8 ± 1.54	n = 3	[JJE] Ortho Vitros 250/350/950
219.7 ± 4.64	156.2 ± 2.61	157.5 ± 2.26	184.0 ± 4.04	126.9 ± 1.89	n = 13	[JJF] Ortho Vitros 5,1FS
220.4 ± 3.92	156.4 ± 3.60	158.2 ± 4.08	187.0 ± 4.15	127.2 ± 3.30	n = 20	[JJG] Ortho Vitros 5600
230.1 ± 5.00	157.1 ± 3.79	148.9 ± 3.85	180.3 ± 4.74	130.0 ± 3.28	n = 26	[ROC] Roche cobas c501
227.2 ± 3.26	155.9 ± 2.75	148.2 ± 2.34	178.2 ± 4.14	127.3 ± 2.15	n = 7	[ROH] Roche cobas c701
228.2 ± 3.52	155.9 ± 1.87	146.4 ± 2.30	178.3 ± 2.85	127.2 ± 2.46	n = 5	[ROS] Roche Cobas INTEGRA 400
225.8 ± 1.54	154.8 ± 2.36	145.2 ± 1.54	176.0 ± 2.70	127.3 ± 1.37	n = 3	[ROT] Roche Cobas INTEGRA 800
229.0 ± 5.08	154.7 ± 3.07	146.5 ± 3.40	177.6 ± 4.30	127.2 ± 2.77	n = 25	[ROD] Roche MODULAR D/P
220.0 ± 4.00	154.2 ± 3.85	150.2 ± 3.69	171.9 ± 3.18	126.6 ± 2.82	n = 21	[BYE] Siemens ADVIA 1800
223.9 ± 4.78	149.9 ± 3.33	134.3 ± 3.18	167.7 ± 3.23	122.4 ± 3.05	n = 21	[DUE] Siemens Dimension EXL
227.8 ± 4.99	152.4 ± 4.42	136.4 ± 4.45	170.7 ± 3.88	124.8 ± 3.46	n = 10	[DUR] Siemens Dimension RxL
222.0 ± 5.19	149.6 ± 4.12	136.7 ± 3.40	168.1 ± 3.94	122.5 ± 3.57	n = 37	[DUT] Siemens Dimension Vista
226.3 ± 4.40	150.3 ± 3.22	133.6 ± 3.10	169.0 ± 5.04	122.8 ± 3.09	n = 9	[DUX] Siemens Dimension Xpand
						<Reagents>
227.5 ± 2.74	158.8 ± 3.23	152.8 ± 3.23	180.5 ± 1.86	129.7 ± 1.37	n = 3	[AX1] Abaxis
235.5 ± 2.25	159.8 ± 1.03	149.4 ± 1.33	182.8 ± 1.38	131.8 ± 1.24	n = 19	[AB1] Abbott
223.5 ± 3.19	152.8 ± 2.05	146.4 ± 1.86	170.2 ± 2.65	125.4 ± 1.23	n = 21	[BC1] Beckman Coulter
224.7 ± 5.03	150.6 ± 3.57	140.8 ± 3.56	172.0 ± 4.07	123.5 ± 2.97	n = 63	[OL1] Beckman Coulter AU Series
219.9 ± 4.39	156.1 ± 3.29	157.8 ± 3.33	185.7 ± 4.44	127.1 ± 2.60	n = 37	[JJ1] Ortho Clinical Diagnostics
229.5 ± 4.81	156.9 ± 3.61	148.7 ± 3.58	179.8 ± 4.64	129.2 ± 3.29	n = 35	[RO4] Roche cobas c311/c501/c502/c701/c702
229.0 ± 5.08	154.7 ± 3.04	146.5 ± 3.52	177.6 ± 4.15	127.1 ± 2.75	n = 25	[RO2] Roche Hitachi and Modular D/P
227.2 ± 3.17	155.6 ± 2.14	145.9 ± 2.13	177.4 ± 3.01	127.3 ± 2.00	n = 8	[RO1] Roche Integra and MIRA
220.7 ± 4.16	154.6 ± 3.77	150.6 ± 3.53	172.3 ± 3.19	126.9 ± 2.91	n = 24	[BY1] Siemens ADVIA/ADVIA Centaur
223.8 ± 5.40	150.1 ± 3.92	135.6 ± 3.67	168.4 ± 3.97	122.8 ± 3.49	n = 77	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

HDL-Cholesterol (mg/dL)

Specimen: C06	Specimen: C07	Specimen: C08	Specimen: C09	Specimen: C10	Number	[Code] Instrument or Reagent System
65.3 ± 5.79	40.5 ± 4.73	34.7 ± 3.46	32.0 ± 3.67	33.2 ± 3.89	n = 306	[---] All Methods
65.6 ± 6.08	39.4 ± 3.91	35.0 ± 2.83	34.4 ± 3.86	31.2 ± 2.85	n = 22	[---] All Precipitation Methods
65.3 ± 5.77	40.6 ± 4.78	34.7 ± 3.49	31.8 ± 3.53	33.3 ± 3.91	n = 284	[---] All Homogeneous (Direct) Methods
46.0 ± 3.58	26.9 ± 2.05	26.0 ± 0.90	26.0 ± 0.90	19.9 ± 2.86	n = 3	[AX1] Abaxis
70.5 ± 1.92	46.2 ± 1.89	38.9 ± 1.41	32.4 ± 1.26	38.1 ± 1.76	n = 17	[AB1] Abbott
76.4 ± 2.90	47.2 ± 1.68	39.5 ± 1.25	40.2 ± 1.88	38.2 ± 1.38	n = 18	[BC1] Beckman Coulter
70.3 ± 3.50	46.4 ± 2.64	37.6 ± 2.09	30.9 ± 1.53	37.6 ± 2.18	n = 42	[OL1] Beckman Coulter AU Series
68.2 ± 2.67	39.1 ± 1.79	34.7 ± 1.33	36.0 ± 1.54	30.3 ± 1.39	n = 28	[JJ1] Ortho Clinical Diagnostics
60.1 ± 1.65	37.0 ± 1.07	32.3 ± 1.04	30.3 ± 1.37	30.9 ± 0.92	n = 32	[RO4] Roche cobas c311/c501/c502/c701/c702
64.5 ± 2.56	38.9 ± 1.49	33.7 ± 1.24	31.9 ± 1.32	32.3 ± 1.33	n = 23	[RO2] Roche Hitachi and Modular D/P
63.6 ± 1.61	39.2 ± 0.47	33.7 ± 0.94	32.4 ± 1.34	32.5 ± 0.71	n = 8	[RO1] Roche Integra and MIRA
72.4 ± 1.95	47.9 ± 1.85	38.6 ± 1.07	31.6 ± 0.78	38.9 ± 1.29	n = 5	[GZ1] Sekisui Diagnostics (Genzyme)
58.0 ± 1.33	35.0 ± 1.00	28.1 ± 0.70	23.5 ± 0.81	27.7 ± 0.76	n = 25	[BY1] Siemens ADVIA/ADVIA Centaur
62.9 ± 2.55	39.3 ± 2.03	34.2 ± 2.22	31.9 ± 2.31	33.1 ± 1.97	n = 66	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

LDL-Cholesterol (mg/dL)

Specimen: C06	Specimen: C07	Specimen: C08	Specimen: C09	Specimen: C10	Number	[Code] Instrument or Reagent System
129.9 ± 16.01	93.3 ± 12.95	91.7 ± 11.10	119.4 ± 13.18	75.2 ± 11.13	n = 294	[---] All Methods & Instruments
138.1 ± 8.67	99.1 ± 6.68	93.8 ± 9.28	124.9 ± 7.77	80.2 ± 5.86	n = 146	[-A-] Calculated Results Friedewald formula [LDL=TC-HDL-(Trigs÷5)
118.6 ± 16.19	84.8 ± 14.13	89.0 ± 12.16	112.0 ± 13.84	68.0 ± 12.05	n = 145	[---] All Homogeneous (Direct) Methods
105.6 ± 5.58	75.5 ± 4.53	82.1 ± 3.72	103.1 ± 3.72	60.8 ± 3.23	n = 3	[AB1] Abbott
105.8 ± 6.67	74.6 ± 3.62	83.4 ± 1.31	104.9 ± 4.11	59.9 ± 2.96	n = 11	[BC1] Beckman Coulter
101.7 ± 8.68	71.7 ± 6.35	78.8 ± 5.53	101.5 ± 7.62	57.6 ± 5.23	n = 25	[OL1] Beckman Coulter AU Series
119.0 ± 3.86	81.2 ± 3.76	86.9 ± 3.11	110.2 ± 3.30	63.3 ± 2.30	n = 14	[JJ1] Ortho Clinical Diagnostics
142.6 ± 4.70	106.2 ± 4.37	110.2 ± 4.57	137.5 ± 4.96	87.2 ± 3.48	n = 14	[RO4] Roche cobas c311/c501/c502/c701/c702
142.0 ± 4.82	106.0 ± 4.03	111.3 ± 3.60	138.4 ± 3.04	86.3 ± 2.43	n = 13	[RO2] Roche Hitachi and Modular D/P
129.0 ± 1.65	89.5 ± 2.83	104.2 ± 2.80	125.6 ± 6.11	76.7 ± 2.65	n = 4	[RO1] Roche Integra and MIRA
97.1 ± 3.96	67.7 ± 1.67	75.5 ± 1.20	97.6 ± 3.38	54.9 ± 2.86	n = 10	[GZ1] Sekisui Diagnostics (Genzyme)
115.4 ± 3.43	79.4 ± 2.34	84.9 ± 2.73	105.5 ± 2.57	62.6 ± 2.33	n = 13	[BY1] Siemens ADVIA/ADVIA Centaur
122.9 ± 5.70	90.0 ± 5.52	91.1 ± 3.85	114.0 ± 4.17	72.9 ± 4.06	n = 34	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

Triglycerides (mg/dL)

Specimen: C06	Specimen: C07	Specimen: C08	Specimen: C09	Specimen: C10	Number	[Code] Instrument or Reagent System
110.1 ± 5.59	71.8 ± 4.41	83.1 ± 5.44	95.9 ± 6.73	64.0 ± 4.05	n = 314	[---] All Methods & Instruments
						<Instruments>
127.3 ± 2.26	83.1 ± 2.86	92.0 ± 0.90	111.3 ± 0.51	73.4 ± 1.02	n = 3	[AXA] Abaxis Piccolo
107.4 ± 1.68	72.8 ± 1.28	87.1 ± 1.50	92.1 ± 1.57	64.7 ± 1.05	n = 19	[ABJ] Abbott Architect c System
109.0 ± 3.06	69.1 ± 2.32	78.8 ± 2.48	94.8 ± 3.48	61.7 ± 2.22	n = 63	[OLC] Beckman Coulter AU Chemistry System
119.0 ± 1.93	75.6 ± 1.96	85.3 ± 2.98	109.1 ± 2.57	66.2 ± 2.30	n = 12	[BCG] Beckman Coulter UniCel DxC 600
115.6 ± 1.89	75.4 ± 2.05	86.8 ± 1.78	108.9 ± 2.05	66.6 ± 1.52	n = 5	[BCH] Beckman Coulter UniCel DxC 800
122.8 ± 2.36	79.8 ± 2.36	96.1 ± 2.86	114.7 ± 3.07	72.0 ± 1.80	n = 3	[JJE] Ortho Vitros 250/350/950
112.0 ± 3.57	71.7 ± 1.90	85.9 ± 2.98	103.4 ± 3.12	63.8 ± 1.97	n = 13	[JJF] Ortho Vitros 5,1FS
111.6 ± 2.83	72.0 ± 2.37	86.6 ± 2.90	103.2 ± 3.05	64.1 ± 2.18	n = 20	[JJG] Ortho Vitros 5600
112.1 ± 3.95	75.4 ± 1.84	84.8 ± 2.17	97.0 ± 2.58	67.4 ± 1.94	n = 25	[ROC] Roche cobas c501
109.9 ± 3.05	72.6 ± 2.88	82.5 ± 3.17	93.6 ± 2.63	66.0 ± 1.23	n = 7	[ROH] Roche cobas c701
110.0 ± 4.54	71.4 ± 4.08	79.8 ± 3.60	94.9 ± 3.65	64.9 ± 2.08	n = 5	[ROS] Roche Cobas INTEGRA 400
108.3 ± 1.37	70.3 ± 0.51	78.3 ± 0.51	94.0 ± 1.80	63.3 ± 0.51	n = 3	[ROT] Roche Cobas INTEGRA 800
110.4 ± 2.79	72.6 ± 2.63	83.1 ± 3.32	93.4 ± 3.47	64.7 ± 2.40	n = 25	[ROD] Roche MODULAR D/P
108.2 ± 2.74	71.8 ± 2.13	83.9 ± 2.36	93.5 ± 2.78	63.6 ± 2.18	n = 21	[BYE] Siemens ADVIA 1800
100.3 ± 4.03	62.7 ± 3.26	74.4 ± 3.42	85.4 ± 3.38	54.1 ± 3.36	n = 21	[DUE] Siemens Dimension EXL
102.0 ± 1.56	64.2 ± 2.50	76.5 ± 2.12	87.9 ± 2.03	56.3 ± 2.63	n = 10	[DUR] Siemens Dimension RxL
114.1 ± 3.01	74.6 ± 2.51	87.6 ± 2.63	98.7 ± 2.57	66.8 ± 2.14	n = 39	[DUT] Siemens Dimension Vista
98.6 ± 6.40	61.7 ± 6.48	75.5 ± 6.39	87.3 ± 5.21	56.6 ± 4.85	n = 6	[DUX] Siemens Dimension Xpand
						<Reagents>
127.3 ± 2.26	83.1 ± 2.86	92.0 ± 0.90	111.3 ± 0.51	73.4 ± 1.02	n = 3	[AX1] Abaxis
107.4 ± 1.68	72.8 ± 1.28	87.1 ± 1.50	92.1 ± 1.57	64.7 ± 1.05	n = 19	[AB1] Abbott
117.8 ± 3.05	75.2 ± 2.46	84.9 ± 3.52	109.0 ± 2.47	65.8 ± 2.62	n = 20	[BC1] Beckman Coulter
108.8 ± 2.97	69.1 ± 2.37	78.8 ± 2.33	94.8 ± 3.35	61.7 ± 2.20	n = 58	[OL1] Beckman Coulter AU Series
111.9 ± 3.74	72.0 ± 2.56	86.6 ± 3.45	103.5 ± 3.63	64.1 ± 2.43	n = 37	[JJ1] Ortho Clinical Diagnostics
111.6 ± 3.67	74.9 ± 2.16	84.3 ± 2.73	96.3 ± 3.35	67.0 ± 1.85	n = 35	[RO4] Roche cobas c311/c501/c502/c701/c702
110.4 ± 2.79	72.6 ± 2.63	83.1 ± 3.32	93.4 ± 3.47	64.7 ± 2.40	n = 25	[RO2] Roche Hitachi and Modular D/P
109.3 ± 3.58	70.7 ± 2.70	79.2 ± 2.67	94.7 ± 2.83	64.2 ± 1.85	n = 8	[RO1] Roche Integra and MIRA
108.4 ± 2.66	72.0 ± 2.04	84.2 ± 2.57	93.7 ± 2.69	63.8 ± 2.07	n = 24	[BY1] Siemens ADVIA/ADVIA Centaur
107.9 ± 8.61	69.4 ± 7.30	82.0 ± 7.56	93.0 ± 7.57	61.6 ± 7.08	n = 76	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

Homocysteine (µmol/L)

Specimen: C06	Specimen: C07	Specimen: C08	Specimen: C09	Specimen: C10	Number	[Code] Instrument or Reagent System
10.10 ± 1.15	22.89 ± 2.07	13.18 ± 1.58	11.32 ± 1.24	18.83 ± 1.81	n = 117	[---] All Methods & Instruments
						<Instruments>
8.96 ± 0.48	20.70 ± 1.00	12.41 ± 0.58	11.02 ± 0.61	17.13 ± 0.78	n = 15	[ABH] Abbott Architect i System
10.76 ± 0.63	23.64 ± 1.26	14.76 ± 0.82	12.47 ± 0.67	20.29 ± 1.15	n = 21	[OLC] Beckman Coulter AU Chemistry System
10.81 ± 0.24	22.90 ± 0.49	14.34 ± 0.32	12.70 ± 0.40	18.88 ± 0.64	n = 4	[JJG] Ortho Vitros 5600
10.22 ± 0.76	21.77 ± 1.13	13.09 ± 0.83	11.66 ± 1.02	18.32 ± 1.16	n = 5	[ROC] Roche cobas c501
10.60 ± 0.09	22.89 ± 0.66	13.74 ± 0.10	12.33 ± 0.14	18.87 ± 0.41	n = 3	[ROG] Roche cobas c502
11.03 ± 0.31	24.56 ± 0.47	15.48 ± 0.24	11.65 ± 0.19	21.47 ± 0.42	n = 3	[ROT] Roche Cobas INTEGRA 800
10.32 ± 0.94	21.87 ± 2.11	13.57 ± 1.85	11.49 ± 1.16	18.54 ± 2.34	n = 3	[ROD] Roche MODULAR D/P
10.97 ± 0.52	22.57 ± 0.30	14.51 ± 0.23	12.38 ± 0.31	19.07 ± 0.28	n = 3	[BYE] Siemens ADVIA 1800
10.25 ± 0.89	24.51 ± 1.14	12.29 ± 0.64	10.33 ± 0.62	19.12 ± 1.01	n = 24	[COB] Siemens ADVIA Centaur
8.82 ± 0.63	20.95 ± 1.23	11.64 ± 0.81	10.00 ± 0.76	17.05 ± 0.89	n = 9	[DUT] Siemens Dimension Vista
9.61 ± 1.20	22.45 ± 1.81	12.40 ± 0.98	10.94 ± 1.00	18.12 ± 2.02	n = 13	[DPD] Siemens Immulite 2000
						<Reagents>
8.96 ± 0.48	20.70 ± 1.00	12.41 ± 0.58	11.02 ± 0.61	17.13 ± 0.78	n = 15	[AB1] Abbott
11.40 ± 1.28	23.45 ± 2.83	14.94 ± 1.71	12.90 ± 2.32	19.86 ± 2.07	n = 3	[AS1] Axis-Shield
11.05 ± 1.88	24.20 ± 3.33	15.11 ± 2.12	13.08 ± 2.22	19.98 ± 2.91	n = 4	[CR1] Carolina
10.77 ± 0.66	23.31 ± 1.48	14.58 ± 1.06	12.32 ± 0.77	19.91 ± 1.41	n = 31	[DZ1] Diazyme
10.84 ± 0.21	22.98 ± 0.45	14.40 ± 0.26	12.71 ± 0.35	18.99 ± 0.51	n = 5	[JJ1] Ortho Clinical Diagnostics
11.08 ± 0.60	25.16 ± 1.71	15.68 ± 1.52	11.99 ± 1.00	21.44 ± 2.07	n = 4	[GZ1] Sekisui Diagnostics (Genzyme)
10.25 ± 0.89	24.51 ± 1.14	12.29 ± 0.64	10.33 ± 0.62	19.12 ± 1.01	n = 24	[BY1] Siemens ADVIA/ADVIA Centaur
8.81 ± 0.53	21.62 ± 0.98	11.73 ± 0.55	10.22 ± 0.60	17.36 ± 0.72	n = 5	[DA5] Siemens Dimension
8.83 ± 0.73	20.10 ± 0.95	11.70 ± 1.26	9.65 ± 0.86	16.60 ± 0.96	n = 4	[DA6] Siemens Dimension LOCI
9.56 ± 1.15	22.27 ± 1.85	12.44 ± 0.87	11.05 ± 1.03	18.22 ± 1.96	n = 14	[DP5] Siemens Immulite

Summary of Participant Performance (Mean and Standard Deviation)

Troponin I (µg/L)

Specimen: C06	Specimen: C07	Specimen: C08	Specimen: C09	Specimen: C10	Number	[Code] Instrument or Reagent System
0.014 ± 0.012	0.013 ± 0.012	0.290 ± 0.061	0.956 ± 0.590	0.806 ± 0.197	n = 224	[---] All Methods & Instruments
						<Instruments>
0.008 ± 0.005	0.008 ± 0.005	1.794 ± 0.084	4.064 ± 0.194	4.185 ± 0.150	n = 21	[ABH] Abbott Architect i System
0.013 ± 0.011	0.011 ± 0.009	0.228 ± 0.024	0.434 ± 0.027	0.650 ± 0.030	n = 22	[SAA] Beckman Coulter ACCESS
0.008 ± 0.013	0.008 ± 0.013	0.210 ± 0.008	0.358 ± 0.013	0.553 ± 0.025	n = 4	[BCV] Beckman Coulter UniCel DxI 600
0.014 ± 0.020	0.016 ± 0.018	0.209 ± 0.024	0.363 ± 0.021	0.532 ± 0.028	n = 6	[BCU] Beckman Coulter UniCel DxI 800
< 0.050	< 0.050	0.050 ± 0.000	0.193 ± 0.009	0.053 ± 0.008	n = 4	[BSA] BioSite Triage
0.017 ± 0.021	0.017 ± 0.027	0.676 ± 0.072	1.255 ± 0.110	1.276 ± 0.136	n = 8	[IAA] i-STAT
< 0.010	< 0.010	1.043 ± 0.043	2.111 ± 0.090	2.237 ± 0.077	n = 18	[JJG] Ortho Vitros 5600
< 0.010	< 0.010	1.028 ± 0.046	2.155 ± 0.037	2.394 ± 0.045	n = 6	[JJC] Ortho Vitros ECi/ECiQ
0.010 ± 0.006	0.010 ± 0.006	0.315 ± 0.038	1.275 ± 0.095	0.910 ± 0.082	n = 46	[COB] Siemens ADVIA Centaur
0.024 ± 0.026	0.024 ± 0.026	0.278 ± 0.032	1.196 ± 0.102	0.818 ± 0.069	n = 3	[BYP] Siemens ADVIA Centaur CP
0.057 ± 0.040	0.057 ± 0.040	0.327 ± 0.024	0.777 ± 0.049	0.876 ± 0.045	n = 18	[DUE] Siemens Dimension EXL
0.040 ± 0.000	0.040 ± 0.000	0.200 ± 0.051	0.482 ± 0.056	0.519 ± 0.061	n = 8	[DUR] Siemens Dimension RxL
0.016 ± 0.006	0.016 ± 0.006	0.321 ± 0.027	0.753 ± 0.056	0.848 ± 0.053	n = 40	[DUT] Siemens Dimension Vista
0.020 ± 0.023	0.020 ± 0.023	0.213 ± 0.025	0.529 ± 0.050	0.557 ± 0.065	n = 6	[DUX] Siemens Dimension Xpand
< 0.060	< 0.060	1.910 ± 0.126	2.984 ± 0.204	4.196 ± 0.324	n = 4	[TOM] Tosoh Bioscience
						<Reagents>
0.008 ± 0.006	0.007 ± 0.006	1.788 ± 0.087	4.048 ± 0.208	4.176 ± 0.174	n = 26	[AB1] Abbott
0.012 ± 0.012	0.011 ± 0.010	0.221 ± 0.023	0.414 ± 0.044	0.621 ± 0.063	n = 32	[BC1] Beckman Coulter
< 0.050	< 0.050	0.050 ± 0.000	0.193 ± 0.009	0.053 ± 0.008	n = 4	[BS1] Biosite Diagnostics
0.022 ± 0.021	0.019 ± 0.024	0.659 ± 0.044	1.219 ± 0.088	1.248 ± 0.122	n = 4	[IA1] i-STAT
< 0.010	< 0.010	1.039 ± 0.044	2.118 ± 0.090	2.274 ± 0.101	n = 24	[JJ1] Ortho Clinical Diagnostics
< 0.300	< 0.300	< 0.300	0.422 ± 0.026	0.333 ± 0.041	n = 4	[RO3] Roche Elecsys/Modular E/e601/e411
0.010 ± 0.006	0.010 ± 0.006	0.313 ± 0.039	1.271 ± 0.098	0.904 ± 0.084	n = 49	[BY1] Siemens ADVIA/ADVIA Centaur
0.032 ± 0.017	0.030 ± 0.021	0.207 ± 0.042	0.503 ± 0.058	0.535 ± 0.065	n = 14	[DA5] Siemens Dimension
0.017 ± 0.007	0.017 ± 0.007	0.323 ± 0.026	0.761 ± 0.055	0.858 ± 0.052	n = 58	[DA6] Siemens Dimension LOCI
< 0.060	< 0.060	1.866 ± 0.120	2.896 ± 0.084	4.057 ± 0.259	n = 3	[TO2] Tosoh ST AIA

Summary of Participant Performance (Mean and Standard Deviation)

Troponin T (µg/L)

Specimen: C06	Specimen: C07	Specimen: C08	Specimen: C09	Specimen: C10	Number	[Code] Instrument or Reagent System
0.010 ± 0.000	0.010 ± 0.000	0.227 ± 0.019	0.117 ± 0.012	0.477 ± 0.036	n = 44	[---] All Methods & Instruments
						<Instruments>
0.010 ± 0.000	0.010 ± 0.000	0.227 ± 0.023	0.118 ± 0.018	0.460 ± 0.039	n = 6	[ROF] Roche cobas e411
0.010 ± 0.000	0.010 ± 0.000	0.221 ± 0.016	0.111 ± 0.009	0.465 ± 0.032	n = 20	[ROA] Roche cobas e601
0.010 ± 0.000	0.010 ± 0.000	0.224 ± 0.016	0.122 ± 0.007	0.482 ± 0.035	n = 7	[BME] Roche Elecsys
0.010 ± 0.000	0.010 ± 0.000	0.242 ± 0.017	0.123 ± 0.011	0.507 ± 0.022	n = 8	[ROE] Roche MODULAR E
						<Reagents>
0.010 ± 0.000	0.010 ± 0.000	0.226 ± 0.018	0.115 ± 0.012	0.476 ± 0.034	n = 41	[RO3] Roche Elecsys/Modular E/e601/e411

Summary of Participant Performance (Mean and Standard Deviation)

Alanine Aminotransferase (U/L 37°C)

Specimen: C06	Specimen: C07	Specimen: C08	Specimen: C09	Specimen: C10	Number	[Code] Instrument or Reagent System
130.9 ± 9.91	257.2 ± 18.73	81.5 ± 7.03	370.2 ± 27.56	208.4 ± 16.59	n = 356	[---] All Methods & Instruments
						<Instruments>
119.4 ± 3.40	227.1 ± 4.20	77.7 ± 5.84	321.5 ± 3.74	181.5 ± 4.17	n = 5	[AXA] Abaxis Piccolo
132.8 ± 3.19	261.3 ± 5.87	82.0 ± 2.05	376.7 ± 8.75	211.4 ± 4.54	n = 21	[ABJ] Abbott Architect c System
111.3 ± 3.07	221.7 ± 4.22	65.9 ± 2.86	321.2 ± 4.11	180.4 ± 3.87	n = 3	[AWA] Alfa Wassermann ACE Alera
115.7 ± 2.81	226.2 ± 5.69	71.7 ± 1.95	328.6 ± 8.80	182.9 ± 4.97	n = 64	[OLC] Beckman Coulter AU Chemistry System
131.2 ± 2.46	254.8 ± 4.45	82.3 ± 1.31	361.6 ± 6.13	206.2 ± 3.30	n = 16	[BCG] Beckman Coulter UniCel DxC 600
131.0 ± 2.39	252.6 ± 4.42	82.6 ± 1.63	360.7 ± 4.85	205.4 ± 3.46	n = 6	[BCH] Beckman Coulter UniCel DxC 800
140.5 ± 4.26	275.8 ± 4.93	86.5 ± 1.58	415.2 ± 9.75	231.1 ± 3.85	n = 8	[JJE] Ortho Vitros 250/350/950
141.6 ± 6.23	277.4 ± 5.58	86.6 ± 2.56	410.3 ± 5.86	226.3 ± 5.86	n = 3	[JJH] Ortho Vitros 4600
141.7 ± 6.55	274.2 ± 9.61	87.1 ± 5.94	406.3 ± 11.61	227.4 ± 7.49	n = 14	[JJF] Ortho Vitros 5,1FS
141.4 ± 3.96	276.0 ± 5.76	87.2 ± 3.21	409.1 ± 7.80	229.1 ± 3.24	n = 20	[JJG] Ortho Vitros 5600
125.8 ± 1.91	247.0 ± 0.75	77.5 ± 1.62	358.5 ± 4.60	201.1 ± 2.88	n = 5	[ROJ] Roche cobas c311
127.7 ± 2.99	252.1 ± 6.46	78.0 ± 2.28	366.0 ± 9.92	203.2 ± 5.11	n = 30	[ROC] Roche cobas c501
127.2 ± 2.80	251.2 ± 7.70	76.8 ± 2.68	364.5 ± 12.32	201.9 ± 2.21	n = 6	[ROH] Roche cobas c701
124.8 ± 1.27	248.9 ± 2.34	77.3 ± 3.25	359.0 ± 4.05	200.9 ± 2.34	n = 5	[ROS] Roche Cobas INTEGRA 400
125.7 ± 0.82	246.3 ± 2.65	77.0 ± 0.75	356.3 ± 4.62	198.9 ± 2.45	n = 4	[ROT] Roche Cobas INTEGRA 800
128.3 ± 3.98	251.3 ± 8.33	78.9 ± 3.17	360.9 ± 11.55	203.2 ± 7.39	n = 24	[ROD] Roche MODULAR D/P
137.9 ± 2.96	271.3 ± 4.90	85.7 ± 2.06	387.9 ± 7.43	219.5 ± 3.67	n = 21	[BYE] Siemens ADVIA 1800
139.1 ± 3.56	273.3 ± 5.79	87.8 ± 2.33	390.5 ± 7.43	222.3 ± 4.22	n = 24	[DUE] Siemens Dimension EXL
142.0 ± 3.35	270.8 ± 6.64	93.2 ± 4.06	385.4 ± 8.70	223.3 ± 3.72	n = 14	[DUR] Siemens Dimension RxL
133.1 ± 3.07	262.0 ± 4.53	84.2 ± 2.02	373.2 ± 7.87	211.8 ± 3.60	n = 42	[DUT] Siemens Dimension Vista
140.3 ± 3.10	271.7 ± 6.06	90.5 ± 4.23	387.5 ± 7.11	220.9 ± 4.62	n = 13	[DUX] Siemens Dimension Xpand
						<Reagents>
119.4 ± 3.40	227.1 ± 4.20	77.7 ± 5.84	321.5 ± 3.74	181.5 ± 4.17	n = 5	[AX1] Abaxis
132.8 ± 3.19	261.3 ± 5.87	82.0 ± 2.05	376.7 ± 8.75	211.4 ± 4.54	n = 21	[AB1] Abbott
111.3 ± 3.07	221.7 ± 4.22	65.9 ± 2.86	321.2 ± 4.11	180.4 ± 3.87	n = 3	[AW1] Alfa Wassermann
131.1 ± 2.43	253.8 ± 4.92	82.2 ± 1.60	360.7 ± 6.25	205.6 ± 3.48	n = 26	[BC1] Beckman Coulter
115.8 ± 2.71	226.4 ± 5.50	71.8 ± 1.88	328.8 ± 8.63	183.0 ± 4.81	n = 59	[OL1] Beckman Coulter AU Series
141.2 ± 5.13	275.6 ± 6.89	86.9 ± 3.61	409.5 ± 9.77	228.8 ± 5.17	n = 45	[JJ1] Ortho Clinical Diagnostics
127.3 ± 3.07	251.1 ± 6.52	77.7 ± 2.38	364.5 ± 10.24	202.7 ± 4.83	n = 43	[RO4] Roche cobas c311/c501/c502/c701/c702
128.3 ± 3.98	251.3 ± 8.33	78.9 ± 3.17	360.9 ± 11.55	203.2 ± 7.39	n = 24	[RO2] Roche Hitachi and Modular D/P
125.2 ± 1.20	247.7 ± 2.75	76.8 ± 1.86	357.7 ± 4.53	200.1 ± 2.72	n = 9	[RO1] Roche Integra and MIRA
137.5 ± 3.44	270.6 ± 5.55	85.4 ± 2.36	386.9 ± 8.53	219.0 ± 4.40	n = 24	[BY1] Siemens ADVIA/ADVIA Centaur
136.9 ± 5.13	267.3 ± 7.72	86.9 ± 4.29	381.5 ± 11.14	217.5 ± 6.85	n = 92	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

Aspartate Aminotransferase (U/L 37°C)

Specimen: C06	Specimen: C07	Specimen: C08	Specimen: C09	Specimen: C10	Number	[Code] Instrument or Reagent System
132.5 ± 9.52	179.5 ± 13.37	68.2 ± 5.26	479.8 ± 39.58	147.6 ± 9.91	n = 355	[---] All Methods & Instruments
						<Instruments>
135.4 ± 4.86	181.0 ± 7.08	73.2 ± 3.31	477.9 ± 22.40	152.2 ± 5.16	n = 5	[AXA] Abaxis Piccolo
133.4 ± 2.41	179.2 ± 3.32	69.4 ± 1.54	484.1 ± 7.49	147.8 ± 2.93	n = 21	[ABJ] Abbott Architect c System
122.3 ± 2.26	166.0 ± 2.70	61.3 ± 1.37	447.2 ± 1.54	136.5 ± 1.86	n = 3	[AWA] Alfa Wassermann ACE Alera
119.1 ± 4.09	160.1 ± 5.79	62.0 ± 2.37	426.1 ± 12.74	131.8 ± 4.87	n = 63	[OLC] Beckman Coulter AU Chemistry System
132.0 ± 2.61	179.7 ± 3.41	69.2 ± 2.44	460.9 ± 12.78	146.4 ± 3.85	n = 16	[BCG] Beckman Coulter UniCel DxC 600
132.0 ± 2.11	176.7 ± 1.15	69.7 ± 0.97	465.4 ± 5.23	145.4 ± 1.61	n = 6	[BCH] Beckman Coulter UniCel DxC 800
151.5 ± 4.19	204.3 ± 3.56	78.0 ± 2.30	580.4 ± 16.74	165.2 ± 5.95	n = 8	[JJE] Ortho Vitros 250/350/950
149.8 ± 1.54	206.3 ± 0.51	79.0 ± 0.00	570.4 ± 18.97	163.6 ± 1.02	n = 3	[JJH] Ortho Vitros 4600
150.3 ± 5.92	205.9 ± 9.37	77.9 ± 2.55	585.3 ± 24.91	162.7 ± 5.83	n = 14	[JJF] Ortho Vitros 5,1FS
149.9 ± 3.83	204.8 ± 5.91	77.1 ± 2.34	581.4 ± 21.24	162.0 ± 4.68	n = 20	[JJG] Ortho Vitros 5600
133.4 ± 2.21	180.1 ± 2.89	68.4 ± 1.52	486.2 ± 8.81	148.5 ± 2.33	n = 5	[ROJ] Roche cobas c311
134.4 ± 3.97	181.8 ± 6.48	69.0 ± 2.27	493.0 ± 15.68	149.5 ± 4.94	n = 30	[ROC] Roche cobas c501
132.8 ± 3.36	176.9 ± 4.02	66.9 ± 2.97	483.7 ± 8.94	147.2 ± 4.98	n = 6	[ROH] Roche cobas c701
134.2 ± 0.80	182.2 ± 0.41	68.6 ± 1.37	489.3 ± 3.25	149.5 ± 0.83	n = 5	[ROS] Roche Cobas INTEGRA 400
134.1 ± 2.04	181.1 ± 2.04	68.5 ± 1.23	486.0 ± 4.04	149.4 ± 1.80	n = 4	[ROT] Roche Cobas INTEGRA 800
131.8 ± 2.93	176.2 ± 4.23	68.1 ± 1.86	469.2 ± 10.75	145.0 ± 2.84	n = 24	[ROD] Roche MODULAR D/P
143.2 ± 3.27	193.0 ± 4.08	74.8 ± 2.50	511.9 ± 10.08	158.9 ± 3.66	n = 21	[BYE] Siemens ADVIA 1800
127.9 ± 3.55	174.8 ± 4.64	65.1 ± 2.52	475.3 ± 12.09	144.4 ± 3.33	n = 24	[DUE] Siemens Dimension EXL
133.2 ± 4.09	180.5 ± 5.32	67.6 ± 2.92	485.3 ± 10.83	150.3 ± 4.38	n = 14	[DUR] Siemens Dimension RxL
132.7 ± 2.95	180.5 ± 3.42	66.4 ± 2.08	487.5 ± 8.18	148.0 ± 3.28	n = 42	[DUT] Siemens Dimension Vista
133.2 ± 3.53	180.3 ± 4.64	67.6 ± 2.11	481.0 ± 11.66	148.8 ± 3.78	n = 13	[DUX] Siemens Dimension Xpand
						<Reagents>
135.4 ± 4.86	181.0 ± 7.08	73.2 ± 3.31	477.9 ± 22.40	152.2 ± 5.16	n = 5	[AX1] Abaxis
133.4 ± 2.41	179.2 ± 3.32	69.4 ± 1.54	484.1 ± 7.49	147.8 ± 2.93	n = 21	[AB1] Abbott
122.3 ± 2.26	166.0 ± 2.70	61.3 ± 1.37	447.2 ± 1.54	136.5 ± 1.86	n = 3	[AW1] Alfa Wassermann
131.8 ± 2.75	178.6 ± 3.49	69.2 ± 2.15	460.7 ± 13.96	145.8 ± 3.07	n = 26	[BC1] Beckman Coulter
119.2 ± 3.90	160.2 ± 5.64	62.1 ± 2.27	426.5 ± 12.51	131.9 ± 4.74	n = 58	[OL1] Beckman Coulter AU Series
150.4 ± 4.40	205.1 ± 6.09	77.7 ± 2.38	581.7 ± 21.61	162.9 ± 5.18	n = 45	[JJ1] Ortho Clinical Diagnostics
134.0 ± 3.52	181.0 ± 5.89	68.6 ± 2.35	490.3 ± 13.73	149.1 ± 4.54	n = 43	[RO4] Roche cobas c311/c501/c502/c701/c702
131.8 ± 2.93	176.2 ± 4.23	68.1 ± 1.86	469.2 ± 10.75	145.0 ± 2.84	n = 24	[RO2] Roche Hitachi and Modular D/P
133.9 ± 0.97	181.5 ± 1.73	68.5 ± 1.33	487.9 ± 4.03	149.4 ± 1.29	n = 9	[RO1] Roche Integra and MIRA
142.7 ± 3.77	192.3 ± 4.95	74.3 ± 2.82	509.9 ± 11.96	158.3 ± 4.39	n = 24	[BY1] Siemens ADVIA/ADVIA Centaur
131.7 ± 4.16	179.1 ± 5.07	66.4 ± 2.51	483.5 ± 11.56	147.6 ± 4.10	n = 93	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

α-Amylase (U/L 37°C)

Specimen: C06	Specimen: C07	Specimen: C08	Specimen: C09	Specimen: C10	Number	[Code] Instrument or Reagent System
107.0 ± 13.81	222.6 ± 37.32	345.3 ± 62.31	54.2 ± 8.38	184.3 ± 31.48	n = 311	[---] All Methods & Instruments
						<Instruments>
98.5 ± 1.86	207.7 ± 4.06	322.3 ± 5.09	48.3 ± 1.37	170.0 ± 0.00	n = 3	[AXA] Abaxis Piccolo
116.2 ± 3.45	245.5 ± 7.18	390.0 ± 11.24	55.4 ± 1.73	203.6 ± 5.95	n = 19	[ABJ] Abbott Architect c System
88.3 ± 4.90	187.3 ± 11.03	295.1 ± 16.62	41.0 ± 2.35	155.3 ± 8.87	n = 53	[OLC] Beckman Coulter AU Chemistry System
119.7 ± 1.74	244.7 ± 3.59	378.4 ± 5.75	63.4 ± 1.18	202.0 ± 3.53	n = 13	[BCG] Beckman Coulter UniCel DxC 600
120.1 ± 1.82	244.9 ± 1.79	377.8 ± 4.90	63.7 ± 1.21	204.2 ± 2.54	n = 6	[BCH] Beckman Coulter UniCel DxC 800
88.2 ± 3.84	149.9 ± 8.12	218.0 ± 2.78	65.3 ± 3.19	129.3 ± 5.39	n = 6	[JJE] Ortho Vitros 250/350/950
85.4 ± 4.72	152.0 ± 2.70	228.2 ± 4.10	62.3 ± 1.37	123.7 ± 3.37	n = 3	[JJH] Ortho Vitros 4600
87.2 ± 7.22	149.3 ± 9.30	220.6 ± 12.17	62.3 ± 5.92	124.6 ± 9.15	n = 13	[JJF] Ortho Vitros 5,1FS
86.2 ± 4.88	152.1 ± 7.67	222.7 ± 10.13	63.2 ± 4.10	124.8 ± 6.01	n = 20	[JJG] Ortho Vitros 5600
111.2 ± 0.41	226.3 ± 1.58	341.7 ± 3.15	60.2 ± 0.41	185.8 ± 2.58	n = 4	[ROJ] Roche cobas c311
110.5 ± 1.62	223.9 ± 3.21	342.1 ± 4.85	59.5 ± 0.78	184.7 ± 2.20	n = 27	[ROC] Roche cobas c501
110.7 ± 2.26	223.5 ± 3.63	342.0 ± 8.16	59.3 ± 1.37	184.7 ± 4.06	n = 3	[ROH] Roche cobas c701
109.7 ± 2.18	223.7 ± 3.97	340.8 ± 5.20	59.5 ± 1.11	184.7 ± 3.03	n = 3	[ROS] Roche Cobas INTEGRA 400
108.5 ± 0.57	220.2 ± 2.11	336.0 ± 4.89	58.7 ± 0.90	182.0 ± 2.45	n = 4	[ROT] Roche Cobas INTEGRA 800
108.4 ± 1.53	219.4 ± 4.29	335.3 ± 7.01	58.6 ± 1.07	181.1 ± 3.19	n = 21	[ROD] Roche MODULAR D/P
109.6 ± 2.08	224.9 ± 4.67	344.4 ± 6.67	58.2 ± 0.87	185.9 ± 3.33	n = 21	[BYE] Siemens ADVIA 1800
117.2 ± 2.10	256.3 ± 3.86	407.4 ± 7.52	49.9 ± 0.87	214.3 ± 3.22	n = 20	[DUE] Siemens Dimension EXL
118.5 ± 3.61	257.0 ± 5.35	411.2 ± 7.77	49.9 ± 1.55	214.3 ± 4.37	n = 12	[DUR] Siemens Dimension RxL
116.3 ± 2.05	255.6 ± 3.82	403.0 ± 5.55	48.8 ± 1.15	214.0 ± 3.61	n = 42	[DUT] Siemens Dimension Vista
117.6 ± 2.01	260.2 ± 3.78	407.1 ± 6.93	50.2 ± 0.65	216.6 ± 3.41	n = 9	[DUX] Siemens Dimension Xpand
						<Reagents>
98.5 ± 1.86	207.7 ± 4.06	322.3 ± 5.09	48.3 ± 1.37	170.0 ± 0.00	n = 3	[AX1] Abaxis
116.2 ± 3.45	245.5 ± 7.18	390.0 ± 11.24	55.4 ± 1.73	203.6 ± 5.95	n = 19	[AB1] Abbott
120.2 ± 1.20	245.8 ± 1.75	381.3 ± 3.26	63.5 ± 0.91	203.0 ± 3.44	n = 9	[BC1] Beckman Coulter
88.0 ± 4.68	186.7 ± 10.52	294.2 ± 15.81	40.8 ± 2.34	154.9 ± 8.45	n = 49	[OL1] Beckman Coulter AU Series
119.1 ± 2.08	243.3 ± 3.57	374.6 ± 5.97	63.0 ± 1.57	202.1 ± 3.17	n = 12	[BC2] Beckman Coulter IFCC Standardized
86.9 ± 5.61	151.2 ± 8.39	221.6 ± 10.06	63.4 ± 4.29	125.3 ± 6.83	n = 43	[JJ1] Ortho Clinical Diagnostics
110.7 ± 1.51	224.2 ± 3.05	341.7 ± 4.79	59.5 ± 0.89	184.7 ± 2.35	n = 37	[RO4] Roche cobas c311/c501/c502/c701/c702
108.4 ± 1.54	219.7 ± 4.41	335.7 ± 7.01	58.6 ± 1.04	181.3 ± 3.41	n = 22	[RO2] Roche Hitachi and Modular D/P
108.8 ± 1.45	221.4 ± 3.34	337.9 ± 5.55	59.0 ± 1.10	183.0 ± 2.88	n = 7	[RO1] Roche Integra and MIRA
109.4 ± 2.26	224.6 ± 4.91	344.5 ± 7.08	58.2 ± 0.96	185.3 ± 3.71	n = 24	[BY1] Siemens ADVIA/ADVIA Centaur
116.9 ± 2.40	256.4 ± 4.41	405.8 ± 7.62	49.4 ± 1.27	214.4 ± 3.67	n = 83	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

Alkaline Phosphatase (U/L 37°C)

Specimen: C06	Specimen: C07	Specimen: C08	Specimen: C09	Specimen: C10	Number	[Code] Instrument or Reagent System
194.1 ± 17.50	285.3 ± 26.79	285.7 ± 26.78	50.6 ± 7.53	232.3 ± 22.66	n = 356	[---] All Methods & Instruments
						<Instruments>
159.4 ± 3.58	236.1 ± 7.37	231.9 ± 4.88	43.9 ± 2.61	193.4 ± 6.50	n = 5	[AXA] Abaxis Piccolo
200.8 ± 4.80	297.5 ± 7.36	294.0 ± 7.15	51.6 ± 1.69	243.4 ± 7.01	n = 21	[ABJ] Abbott Architect c System
190.7 ± 6.73	278.7 ± 13.89	279.5 ± 9.94	48.7 ± 2.26	231.1 ± 7.44	n = 3	[AWA] Alfa Wassermann ACE Alera
176.6 ± 12.04	260.5 ± 16.41	256.8 ± 16.68	43.9 ± 3.14	214.0 ± 13.13	n = 63	[OLC] Beckman Coulter AU Chemistry System
175.0 ± 4.45	260.7 ± 7.11	255.8 ± 6.69	44.3 ± 1.51	212.6 ± 6.92	n = 16	[BCG] Beckman Coulter UniCel DxC 600
180.5 ± 3.03	266.3 ± 3.87	262.6 ± 3.57	45.0 ± 1.56	218.6 ± 2.75	n = 6	[BCH] Beckman Coulter UniCel DxC 800
198.4 ± 9.77	280.8 ± 5.36	304.5 ± 5.49	66.3 ± 4.19	222.2 ± 13.44	n = 8	[JJE] Ortho Vitros 250/350/950
190.0 ± 5.41	269.9 ± 6.58	288.6 ± 6.14	64.0 ± 0.90	215.7 ± 5.86	n = 3	[JJH] Ortho Vitros 4600
192.8 ± 6.52	273.6 ± 10.20	298.6 ± 9.65	65.2 ± 2.91	216.2 ± 7.93	n = 14	[JJF] Ortho Vitros 5,1FS
192.8 ± 6.77	272.8 ± 9.56	296.1 ± 10.76	65.3 ± 2.83	215.7 ± 7.32	n = 20	[JJG] Ortho Vitros 5600
188.9 ± 4.34	279.1 ± 7.13	273.6 ± 7.67	48.4 ± 1.33	229.3 ± 5.17	n = 5	[ROJ] Roche cobas c311
188.9 ± 6.30	279.0 ± 8.12	274.8 ± 8.36	48.8 ± 1.57	229.2 ± 6.16	n = 30	[ROC] Roche cobas c501
186.8 ± 3.19	274.7 ± 5.59	272.2 ± 4.93	47.7 ± 0.97	224.4 ± 4.04	n = 6	[ROH] Roche cobas c701
193.8 ± 1.96	285.5 ± 3.03	282.1 ± 3.00	48.7 ± 0.90	235.5 ± 3.03	n = 4	[ROS] Roche Cobas INTEGRA 400
196.7 ± 9.11	292.0 ± 12.81	287.3 ± 11.38	48.4 ± 2.31	238.2 ± 9.27	n = 4	[ROT] Roche Cobas INTEGRA 800
185.5 ± 7.03	272.4 ± 10.75	268.1 ± 10.64	47.4 ± 1.75	223.0 ± 8.58	n = 22	[ROD] Roche MODULAR D/P
205.6 ± 7.43	305.8 ± 10.08	303.1 ± 8.50	51.2 ± 2.61	249.6 ± 8.37	n = 20	[BYE] Siemens ADVIA 1800
206.6 ± 6.45	304.1 ± 7.44	301.6 ± 8.43	49.8 ± 2.36	232.5 ± 32.67	n = 3	[BYB] Siemens ADVIA 2400
214.0 ± 12.62	315.5 ± 15.64	311.5 ± 16.72	55.7 ± 7.91	258.3 ± 11.40	n = 24	[DUE] Siemens Dimension EXL
222.7 ± 19.93	328.0 ± 26.13	325.0 ± 24.23	63.3 ± 12.02	272.2 ± 19.47	n = 14	[DUR] Siemens Dimension RxL
212.4 ± 4.88	314.2 ± 8.62	309.6 ± 10.65	52.4 ± 2.25	257.6 ± 9.00	n = 42	[DUT] Siemens Dimension Vista
213.6 ± 9.61	317.7 ± 13.94	311.0 ± 11.16	57.2 ± 5.07	257.2 ± 12.58	n = 13	[DUX] Siemens Dimension Xpand
						<Reagents>
159.4 ± 3.58	236.1 ± 7.37	231.9 ± 4.88	43.9 ± 2.61	193.4 ± 6.50	n = 5	[AX1] Abaxis
200.8 ± 4.80	297.5 ± 7.36	294.0 ± 7.15	51.6 ± 1.69	243.4 ± 7.01	n = 21	[AB1] Abbott
190.7 ± 6.73	278.7 ± 13.89	279.5 ± 9.94	48.7 ± 2.26	231.1 ± 7.44	n = 3	[AW1] Alfa Wassermann
175.6 ± 5.65	260.8 ± 8.23	256.3 ± 8.17	44.2 ± 1.74	213.7 ± 7.25	n = 26	[BC1] Beckman Coulter
177.0 ± 11.88	260.8 ± 16.46	257.2 ± 16.64	43.9 ± 3.11	214.2 ± 13.02	n = 59	[OL1] Beckman Coulter AU Series
193.3 ± 7.47	274.2 ± 9.67	297.8 ± 10.30	65.2 ± 3.00	216.6 ± 8.91	n = 45	[JJ1] Ortho Clinical Diagnostics
188.4 ± 5.35	278.3 ± 7.64	274.2 ± 8.12	48.6 ± 1.46	228.3 ± 5.85	n = 43	[RO4] Roche cobas c311/c501/c502/c701/c702
185.1 ± 7.02	271.8 ± 10.60	267.6 ± 10.43	47.4 ± 1.74	222.7 ± 8.39	n = 23	[RO2] Roche Hitachi and Modular D/P
194.0 ± 4.77	287.0 ± 7.49	282.4 ± 5.66	48.7 ± 1.37	235.5 ± 6.24	n = 9	[RO1] Roche Integra and MIRA
205.3 ± 7.46	304.8 ± 10.29	302.1 ± 9.50	50.9 ± 2.58	249.0 ± 8.75	n = 24	[BY1] Siemens ADVIA/ADVIA Centaur
212.8 ± 8.63	315.0 ± 12.55	310.9 ± 13.36	54.7 ± 5.92	259.0 ± 11.97	n = 93	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

γ-Glutamyltransferase (U/L 37°C)

Specimen: C06	Specimen: C07	Specimen: C08	Specimen: C09	Specimen: C10	Number	[Code] Instrument or Reagent System
99.8 ± 23.41	50.7 ± 11.86	157.6 ± 37.85	25.6 ± 4.99	42.4 ± 10.37	n = 291	[---] All Methods & Instruments
						<Instruments>
100.8 ± 6.00	50.6 ± 3.38	157.5 ± 9.89	26.3 ± 1.49	41.2 ± 2.50	n = 17	[ABJ] Abbott Architect c System
77.9 ± 4.02	39.7 ± 2.26	121.8 ± 5.64	21.5 ± 1.30	32.9 ± 1.84	n = 55	[OLC] Beckman Coulter AU Chemistry System
101.2 ± 2.97	48.3 ± 2.14	160.8 ± 5.14	21.7 ± 1.16	40.6 ± 1.03	n = 13	[BCG] Beckman Coulter UniCel DxC 600
98.8 ± 1.91	47.7 ± 1.38	156.8 ± 1.91	21.0 ± 0.93	40.2 ± 1.07	n = 5	[BCH] Beckman Coulter UniCel DxC 800
160.4 ± 11.42	73.2 ± 1.28	256.3 ± 17.88	30.3 ± 2.15	61.2 ± 2.37	n = 5	[JJE] Ortho Vitros 250/350/950
155.7 ± 3.16	75.0 ± 1.80	248.5 ± 8.12	31.3 ± 0.51	61.3 ± 0.51	n = 3	[JJH] Ortho Vitros 4600
157.2 ± 2.78	73.9 ± 1.24	251.0 ± 4.14	29.9 ± 1.29	60.7 ± 1.25	n = 13	[JJF] Ortho Vitros 5,1FS
156.1 ± 3.95	73.8 ± 1.59	246.6 ± 8.44	30.5 ± 0.90	60.3 ± 1.85	n = 20	[JJG] Ortho Vitros 5600
86.6 ± 1.93	43.4 ± 1.31	135.5 ± 2.96	22.5 ± 0.88	35.8 ± 0.95	n = 23	[ROC] Roche cobas c501
82.9 ± 3.80	41.9 ± 1.88	131.1 ± 5.47	22.2 ± 1.27	34.5 ± 1.22	n = 4	[ROH] Roche cobas c701
84.6 ± 1.02	42.0 ± 0.90	134.4 ± 1.02	21.7 ± 1.37	34.3 ± 0.51	n = 3	[ROS] Roche Cobas INTEGRA 400
85.8 ± 2.36	41.6 ± 1.02	135.3 ± 1.37	22.0 ± 0.90	35.3 ± 1.37	n = 3	[ROT] Roche Cobas INTEGRA 800
88.2 ± 1.55	44.2 ± 1.24	138.2 ± 2.24	23.0 ± 0.80	36.3 ± 0.96	n = 23	[ROD] Roche MODULAR D/P
93.4 ± 2.80	46.5 ± 2.22	147.0 ± 4.19	24.0 ± 2.28	38.1 ± 2.25	n = 21	[BYE] Siemens ADVIA 1800
116.3 ± 2.49	61.3 ± 1.66	181.1 ± 3.76	34.7 ± 1.56	53.2 ± 1.86	n = 19	[DUE] Siemens Dimension EXL
115.7 ± 2.60	60.5 ± 1.75	180.2 ± 2.73	33.9 ± 1.99	53.2 ± 1.80	n = 8	[DUR] Siemens Dimension RxL
114.2 ± 2.56	57.5 ± 1.92	183.2 ± 3.33	29.3 ± 1.76	49.1 ± 2.17	n = 39	[DUT] Siemens Dimension Vista
115.6 ± 3.06	62.4 ± 2.84	181.9 ± 3.62	34.9 ± 1.83	52.9 ± 2.15	n = 5	[DUX] Siemens Dimension Xpand
						<Reagents>
100.2 ± 5.69	50.3 ± 3.23	156.7 ± 9.52	26.1 ± 1.32	40.9 ± 2.32	n = 16	[AB1] Abbott
100.3 ± 3.27	47.7 ± 2.87	159.2 ± 5.11	21.4 ± 1.21	40.4 ± 1.24	n = 21	[BC1] Beckman Coulter
77.9 ± 4.09	39.8 ± 2.32	121.7 ± 5.78	21.5 ± 1.33	32.9 ± 1.92	n = 51	[OL1] Beckman Coulter AU Series
156.6 ± 3.73	73.8 ± 1.49	249.0 ± 7.64	30.4 ± 1.11	60.6 ± 1.59	n = 41	[JJ1] Ortho Clinical Diagnostics
86.1 ± 2.82	43.2 ± 1.45	135.1 ± 4.04	22.4 ± 1.00	35.5 ± 1.10	n = 32	[RO4] Roche cobas c311/c501/c502/c701/c702
88.2 ± 1.55	44.2 ± 1.24	138.2 ± 2.24	23.0 ± 0.80	36.3 ± 0.96	n = 23	[RO2] Roche Hitachi and Modular D/P
84.9 ± 1.51	41.8 ± 1.00	134.8 ± 1.22	21.9 ± 1.13	34.6 ± 0.94	n = 6	[RO1] Roche Integra and MIRA
93.4 ± 3.26	46.6 ± 2.39	147.2 ± 5.01	24.1 ± 2.26	38.1 ± 2.13	n = 24	[BY1] Siemens ADVIA/ADVIA Centaur
115.0 ± 2.76	59.1 ± 2.79	182.2 ± 3.61	31.7 ± 3.41	50.9 ± 3.05	n = 71	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

Creatine Kinase (U/L 37°C)

Specimen: C06	Specimen: C07	Specimen: C08	Specimen: C09	Specimen: C10	Number	[Code] Instrument or Reagent System
219.0 ± 15.12	90.0 ± 6.50	403.9 ± 25.75	113.5 ± 10.25	297.1 ± 17.41	n = 323	[---] All Methods & Instruments
						<Instruments>
228.7 ± 7.64	93.7 ± 2.59	414.2 ± 11.25	117.7 ± 3.14	304.4 ± 8.59	n = 21	[ABJ] Abbott Architect c System
199.4 ± 11.30	79.5 ± 3.72	357.2 ± 14.45	96.5 ± 4.83	267.7 ± 11.65	n = 59	[OLC] Beckman Coulter AU Chemistry System
236.3 ± 7.63	93.1 ± 1.79	417.5 ± 10.34	119.9 ± 3.87	309.4 ± 8.52	n = 13	[BCG] Beckman Coulter UniCel DxC 600
238.2 ± 3.92	92.4 ± 1.63	415.9 ± 8.91	121.7 ± 3.64	309.0 ± 5.21	n = 6	[BCH] Beckman Coulter UniCel DxC 800
215.1 ± 17.53	81.3 ± 7.60	425.4 ± 27.71	107.9 ± 7.94	286.0 ± 22.03	n = 5	[JJE] Ortho Vitros 250/350/950
221.7 ± 10.56	82.3 ± 4.22	428.9 ± 6.08	110.1 ± 2.86	301.5 ± 2.74	n = 3	[JJH] Ortho Vitros 4600
222.3 ± 10.38	85.1 ± 4.48	430.8 ± 15.90	111.5 ± 3.97	296.2 ± 14.39	n = 12	[JJF] Ortho Vitros 5,1FS
220.7 ± 9.70	85.0 ± 4.01	421.1 ± 14.58	110.9 ± 4.30	295.2 ± 8.55	n = 20	[JJG] Ortho Vitros 5600
223.0 ± 15.76	94.0 ± 0.00	423.0 ± 3.76	112.3 ± 1.58	318.6 ± 1.80	n = 4	[ROJ] Roche cobas c311
236.1 ± 12.32	94.6 ± 2.52	432.5 ± 10.44	115.5 ± 3.10	323.0 ± 6.78	n = 30	[ROC] Roche cobas c501
216.2 ± 0.80	92.8 ± 0.80	396.2 ± 3.23	120.1 ± 2.60	293.8 ± 4.16	n = 5	[ROH] Roche cobas c701
237.9 ± 5.72	92.8 ± 6.79	431.6 ± 5.58	115.2 ± 4.10	322.7 ± 2.26	n = 3	[ROT] Roche Cobas INTEGRA 800
220.4 ± 5.94	94.9 ± 2.53	408.6 ± 9.16	123.4 ± 2.45	301.4 ± 6.04	n = 22	[ROD] Roche MODULAR D/P
223.4 ± 4.85	88.3 ± 1.71	399.4 ± 6.11	101.3 ± 2.71	298.7 ± 5.45	n = 21	[BYE] Siemens ADVIA 1800
218.1 ± 5.53	92.1 ± 2.47	398.9 ± 9.12	119.4 ± 3.40	295.3 ± 6.31	n = 21	[DUE] Siemens Dimension EXL
215.4 ± 8.17	91.9 ± 3.45	403.6 ± 5.50	120.6 ± 3.88	299.4 ± 4.85	n = 14	[DUR] Siemens Dimension RxL
217.9 ± 6.35	93.5 ± 2.33	399.6 ± 5.94	119.7 ± 3.17	295.9 ± 5.72	n = 42	[DUT] Siemens Dimension Vista
216.8 ± 13.57	91.9 ± 3.00	401.3 ± 7.73	119.6 ± 3.79	297.3 ± 4.75	n = 9	[DUX] Siemens Dimension Xpand
						<Reagents>
228.7 ± 7.64	93.7 ± 2.59	414.2 ± 11.25	117.7 ± 3.14	304.4 ± 8.59	n = 21	[AB1] Abbott
236.8 ± 6.60	92.9 ± 2.17	416.0 ± 11.00	120.2 ± 4.34	308.6 ± 8.46	n = 24	[BC1] Beckman Coulter
200.5 ± 10.87	79.6 ± 3.67	358.1 ± 14.45	96.6 ± 4.67	268.6 ± 11.71	n = 53	[OL1] Beckman Coulter AU Series
221.0 ± 11.03	84.5 ± 4.84	425.2 ± 17.01	110.8 ± 4.63	295.6 ± 12.09	n = 40	[JJ1] Ortho Clinical Diagnostics
231.4 ± 15.78	94.3 ± 2.01	426.9 ± 16.74	115.8 ± 3.47	319.9 ± 11.15	n = 42	[RO4] Roche cobas c311/c501/c502/c701/c702
220.4 ± 5.94	94.9 ± 2.53	408.6 ± 9.16	123.4 ± 2.45	301.4 ± 6.04	n = 22	[RO2] Roche Hitachi and Modular D/P
231.8 ± 9.03	93.8 ± 6.03	428.7 ± 10.00	115.3 ± 3.59	319.2 ± 7.44	n = 5	[RO1] Roche Integra and MIRA
223.0 ± 5.74	88.2 ± 2.00	399.2 ± 7.00	101.2 ± 3.13	298.4 ± 6.18	n = 24	[BY1] Siemens ADVIA/ADVIA Centaur
218.0 ± 6.49	92.8 ± 2.77	400.5 ± 7.26	119.9 ± 3.39	296.6 ± 5.90	n = 82	[DA5] Siemens Dimension
208.6 ± 10.70	92.2 ± 2.11	396.6 ± 6.41	116.9 ± 3.00	294.9 ± 3.97	n = 4	[DA6] Siemens Dimension LOCI

Summary of Participant Performance (Mean and Standard Deviation)

Creatine Kinase-MB (ng/ml, U/L 37°C, %)

Specimen: C06	Specimen: C07	Specimen: C08	Specimen: C09	Specimen: C10	Number	[Code] Instrument or Reagent System
0.84 ± 0.32	1.01 ± 0.37	56.19 ± 9.56	0.77 ± 0.32	49.03 ± 8.52	n = 193	[-A-] All Methods – Results reported as ng/mL
1.21 ± 1.26	1.33 ± 1.15	56.79 ± 4.34	1.14 ± 1.24	48.53 ± 3.38	n = 21	[AB1] Abbott
1.00 ± 0.00	1.17 ± 0.06	65.37 ± 2.23	0.94 ± 0.07	56.31 ± 3.21	n = 15	[SAA] Beckman Coulter ACCESS
1.04 ± 0.06	1.21 ± 0.06	66.93 ± 2.98	0.93 ± 0.05	57.80 ± 2.34	n = 13	[BC1] Beckman Coulter UniCel
< 1.00	< 1.00	33.35 ± 0.17	< 1.00	21.20 ± 1.60	n = 2	[BS1] Biosite
0.66 ± 0.08	0.76 ± 0.08	37.32 ± 1.65	0.56 ± 0.08	32.15 ± 1.54	n = 23	[JJ1] Ortho Clinical Diagnostics
1.26 ± 0.07	1.54 ± 0.13	63.01 ± 2.22	1.15 ± 0.08	56.90 ± 2.09	n = 29	[RO3] Roche Elecsys/Modular E/e601/e411
0.45 ± 0.22	0.65 ± 0.22	54.91 ± 2.67	0.37 ± 0.20	48.89 ± 2.78	n = 32	[BY1] Siemens ADVIA/ADVIA Centaur
0.67 ± 0.24	0.81 ± 0.31	56.97 ± 4.95	0.62 ± 0.23	48.33 ± 3.80	n = 27	[DA5] Siemens Dimension
0.88 ± 0.19	1.07 ± 0.21	48.38 ± 1.80	0.82 ± 0.22	42.15 ± 1.61	n = 25	[DA6] Siemens Dimension LOCI
1.05 ± 0.06	1.30 ± 0.23	67.25 ± 2.45	1.05 ± 0.06	54.85 ± 1.43	n = 2	[TO1] Tosoh
3.00 ± 1.86	4.56 ± 2.68	51.41 ± 8.64	3.02 ± 1.84	47.42 ± 5.92	n = 6	[---] All Methods – Results reported as U/L
0.00 ± 0.00	0.00 ± 0.00	10.84 ± 5.43	0.00 ± 0.00	13.18 ± 6.30	n = 4	[-P-] All Methods – Results reported as %
0.00 ± 0.00	0.00 ± 0.00	9.85 ± 6.08	0.00 ± 0.00	11.84 ± 6.95	n = 3	[HL1] Helena Laboratories

Summary of Participant Performance (Mean and Standard Deviation)

Lactate Dehydrogenase (U/L 37°C)

Specimen: C06	Specimen: C07	Specimen: C08	Specimen: C09	Specimen: C10	Number	[Code] Instrument or Reagent System
94.7 ± 8.59	112.4 ± 10.64	294.6 ± 28.68	94.4 ± 8.58	284.6 ± 28.48	n = 260	[-A-] All Methods - Lactate to Pyruvate
240.9 ± 10.97	291.7 ± 13.04	735.4 ± 18.80	247.0 ± 16.08	696.8 ± 20.87	n = 42	[-B-] All Methods - Pyruvate to Lactate
						<Instruments>
98.9 ± 4.41	116.6 ± 5.20	299.9 ± 6.16	96.4 ± 4.00	287.1 ± 6.50	n = 20	[ABJ] Abbott Architect c System
84.4 ± 4.34	99.9 ± 5.31	257.4 ± 12.91	83.1 ± 4.14	250.1 ± 12.66	n = 56	[OLC] Beckman Coulter AU Chemistry System
80.2 ± 2.82	95.1 ± 3.90	241.8 ± 6.40	81.4 ± 3.12	235.2 ± 5.52	n = 14	[BCG] Beckman Coulter UniCel DxC 600
80.7 ± 2.83	96.2 ± 1.85	245.3 ± 4.64	83.2 ± 1.59	233.5 ± 5.44	n = 6	[BCH] Beckman Coulter UniCel DxC 800
246.6 ± 3.51	294.9 ± 9.30	744.3 ± 11.62	255.5 ± 12.91	712.3 ± 12.28	n = 6	[JJE] Ortho Vitros 250/350/950
248.6 ± 6.66	291.8 ± 5.90	734.4 ± 13.40	257.6 ± 9.68	700.4 ± 19.60	n = 3	[JJH] Ortho Vitros 4600
235.5 ± 14.96	292.3 ± 21.40	738.7 ± 21.52	244.5 ± 13.51	695.4 ± 25.33	n = 14	[JJF] Ortho Vitros 5,1FS
240.4 ± 9.68	288.4 ± 9.31	730.4 ± 15.60	243.4 ± 15.26	692.4 ± 16.25	n = 20	[JJG] Ortho Vitros 5600
98.8 ± 2.11	117.2 ± 1.46	310.4 ± 5.91	99.1 ± 2.33	300.9 ± 6.04	n = 4	[ROJ] Roche cobas c311
97.5 ± 3.24	115.7 ± 4.24	306.8 ± 7.98	97.5 ± 3.39	296.6 ± 6.55	n = 27	[ROC] Roche cobas c501
96.3 ± 2.47	116.4 ± 5.15	299.0 ± 8.86	95.0 ± 2.88	287.8 ± 8.45	n = 4	[ROH] Roche cobas c701
102.8 ± 1.54	119.0 ± 0.90	312.9 ± 5.22	100.3 ± 1.37	304.9 ± 4.38	n = 3	[ROT] Roche Cobas INTEGRA 800
97.1 ± 1.71	115.7 ± 2.54	304.7 ± 5.16	97.2 ± 2.00	295.4 ± 7.08	n = 22	[ROD] Roche MODULAR D/P
98.6 ± 3.05	116.7 ± 2.97	301.9 ± 8.79	99.0 ± 2.40	292.3 ± 7.83	n = 21	[BYE] Siemens ADVIA 1800
97.3 ± 4.42	117.3 ± 5.86	312.6 ± 8.68	98.0 ± 5.23	307.2 ± 12.33	n = 18	[DUE] Siemens Dimension EXL
100.1 ± 5.17	119.5 ± 5.94	317.4 ± 6.57	101.3 ± 3.23	309.2 ± 5.02	n = 7	[DUR] Siemens Dimension RxL
101.3 ± 4.61	120.5 ± 5.60	315.8 ± 8.52	101.0 ± 4.10	304.8 ± 9.03	n = 42	[DUT] Siemens Dimension Vista
98.1 ± 3.42	117.5 ± 4.58	311.6 ± 6.98	96.4 ± 3.85	304.8 ± 10.22	n = 6	[DUX] Siemens Dimension Xpand
						<Reagents>
98.9 ± 4.41	116.6 ± 5.20	299.9 ± 6.16	96.4 ± 4.00	287.1 ± 6.50	n = 20	[AB1] Abbott
80.5 ± 2.78	96.0 ± 3.14	243.7 ± 6.12	81.7 ± 2.62	235.5 ± 5.70	n = 23	[BC1] Beckman Coulter
84.7 ± 4.25	100.2 ± 5.22	257.8 ± 12.70	83.1 ± 3.87	250.8 ± 12.08	n = 51	[OL1] Beckman Coulter AU Series
240.8 ± 11.03	291.4 ± 12.66	735.2 ± 17.86	246.7 ± 15.15	696.6 ± 20.33	n = 43	[JJ1] Ortho Clinical Diagnostics
97.3 ± 3.04	115.7 ± 4.03	305.9 ± 8.67	97.1 ± 3.31	295.6 ± 7.88	n = 38	[RO4] Roche cobas c311/c501/c502/c701/c702
97.1 ± 1.71	115.7 ± 2.54	304.7 ± 5.16	97.2 ± 2.00	295.4 ± 7.08	n = 22	[RO2] Roche Hitachi and Modular D/P
102.9 ± 1.87	119.7 ± 1.38	313.3 ± 5.01	100.9 ± 1.27	305.6 ± 3.92	n = 5	[RO1] Roche Integra and MIRA
98.1 ± 3.29	116.1 ± 3.48	300.3 ± 9.70	98.5 ± 2.67	291.0 ± 9.10	n = 24	[BY1] Siemens ADVIA/ADVIA Centaur
100.0 ± 4.90	119.5 ± 5.77	315.0 ± 8.33	100.2 ± 4.73	306.1 ± 9.69	n = 71	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

LDH Isoenzyme 1 (%)

Specimen: C06	Specimen: C07	Specimen: C08	Specimen: C09	Specimen: C10	Number	[Code] Instrument or Reagent System
31.0 ± 3.63	31.4 ± 2.75	66.0 ± 1.38	38.0 ± 2.79	66.2 ± 1.56	n = 8	[-P-] All Methods – Results reported as %
						<Instruments>
33.6 ± 1.80	33.5 ± 1.94	65.0 ± 1.76	37.8 ± 3.59	65.0 ± 1.50	n = 4	[HLS] Helena SPIFE
28.1 ± 2.76	29.5 ± 1.71	66.5 ± 0.57	38.5 ± 1.98	67.0 ± 0.83	n = 4	[SEE] Sebia Electrophoresis
						<Reagents>
33.6 ± 1.80	33.5 ± 1.94	65.0 ± 1.76	37.8 ± 3.59	65.0 ± 1.50	n = 4	[HL1] Helena Laboratories
28.1 ± 2.76	29.5 ± 1.71	66.5 ± 0.57	38.5 ± 1.98	67.0 ± 0.83	n = 4	[SE1] Sebia