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Clinical Chemistry Proficiency Test Program

Statistical Summary – May 2015 (Event 15-2)

This statistical report summarizes participant data for the five Clinical Chemistry proficiency survey specimens shipped on 4 May 2015. Test samples (Vials C21, C22, C23, C24, C25) were prepared by the quantitative transfer of constituents to pooled human serum. The material was subsequently sterile filtered, dispensed into aliquots, stored at -80°C, 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.

Please note that Troponin I and Troponin T, included in this proficiency test event as educational challenges, will be graded beginning with the January 2016 event.

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: C21	Specimen: C22	Specimen: C23	Specimen: C24	Specimen: C25	Number	[Code] Instrument or Reagent System
84.0 ± 2.88	237.4 ± 5.21	46.8 ± 2.37	104.2 ± 2.66	194.8 ± 4.66	n = 394	[---] All Methods & Instruments
						<Instruments>
81.3 ± 0.51	229.3 ± 0.51	45.3 ± 0.51	97.7 ± 0.51	188.7 ± 1.37	n = 3	[AXA] Abaxis Piccolo
85.7 ± 1.44	240.2 ± 2.80	45.8 ± 0.68	104.6 ± 1.32	196.2 ± 2.40	n = 25	[ABJ] Abbott Architect c System
82.9 ± 1.84	235.5 ± 5.52	45.4 ± 1.07	103.0 ± 2.33	194.2 ± 4.32	n = 73	[OLC] Beckman Coulter AU Chemistry System
81.3 ± 2.11	234.8 ± 2.98	45.2 ± 1.85	102.3 ± 1.94	193.6 ± 2.88	n = 16	[BCG] Beckman Coulter UniCel DxC 600
80.3 ± 0.94	235.2 ± 2.83	44.8 ± 1.24	102.2 ± 2.05	193.7 ± 2.80	n = 10	[BCH] Beckman Coulter UniCel DxC 800
101.7 ± 0.51	267.9 ± 2.05	61.8 ± 2.36	114.0 ± 0.90	226.4 ± 1.02	n = 3	[HEB] HemoCue B-Glucose
116.7 ± 4.22	281.1 ± 2.86	72.5 ± 5.43	129.2 ± 5.00	240.1 ± 4.38	n = 3	[HEC] HemoCue Glucose 201
82.3 ± 0.90	236.0 ± 3.47	44.5 ± 0.90	103.0 ± 0.91	190.2 ± 1.54	n = 8	[IAA] i-STAT
85.3 ± 1.15	239.4 ± 1.54	47.6 ± 1.37	106.7 ± 1.58	191.8 ± 1.65	n = 8	[JJE] Ortho Vitros 250/350/950
83.1 ± 4.38	232.9 ± 8.31	46.6 ± 2.56	103.4 ± 4.72	186.6 ± 7.94	n = 3	[JJH] Ortho Vitros 4600
84.1 ± 2.15	236.8 ± 2.89	46.8 ± 1.34	104.5 ± 1.68	189.2 ± 2.58	n = 11	[JJF] Ortho Vitros 5,1FS
83.3 ± 2.33	234.5 ± 3.46	46.5 ± 1.21	103.8 ± 2.28	187.7 ± 2.76	n = 20	[JJG] Ortho Vitros 5600
84.1 ± 2.86	238.3 ± 3.37	46.3 ± 0.51	103.8 ± 1.54	197.5 ± 2.74	n = 3	[ROK] Roche cobas c111
84.3 ± 1.21	239.3 ± 1.83	46.0 ± 0.00	105.0 ± 0.90	196.8 ± 0.73	n = 6	[ROJ] Roche cobas c311
83.5 ± 1.79	236.9 ± 4.49	46.5 ± 0.89	104.4 ± 1.90	195.8 ± 3.72	n = 33	[ROC] Roche cobas c501
82.4 ± 1.09	235.7 ± 2.45	45.8 ± 0.61	104.0 ± 1.23	194.6 ± 1.34	n = 10	[ROH] Roche cobas c701
84.0 ± 0.93	239.0 ± 3.32	46.2 ± 0.80	104.0 ± 0.00	197.4 ± 1.98	n = 5	[ROS] Roche Cobas INTEGRA 400
84.3 ± 1.37	236.1 ± 2.86	45.7 ± 0.51	102.5 ± 1.86	194.0 ± 1.80	n = 3	[ROT] Roche Cobas INTEGRA 800
83.4 ± 1.93	238.4 ± 4.69	45.9 ± 1.35	104.0 ± 2.20	197.1 ± 4.23	n = 16	[ROD] Roche MODULAR D/P
82.2 ± 1.72	235.0 ± 4.93	45.6 ± 0.79	102.6 ± 2.26	193.3 ± 3.56	n = 19	[BYE] Siemens ADVIA 1800
88.1 ± 2.33	241.8 ± 3.83	51.1 ± 1.72	106.9 ± 1.96	198.9 ± 2.84	n = 27	[DUE] Siemens Dimension EXL
87.2 ± 1.78	240.7 ± 3.87	50.8 ± 1.41	107.1 ± 2.05	198.3 ± 3.23	n = 12	[DUR] Siemens Dimension RxL
85.4 ± 2.45	236.7 ± 5.96	49.2 ± 1.47	104.4 ± 2.75	193.9 ± 4.39	n = 44	[DUT] Siemens Dimension Vista
88.3 ± 1.79	242.1 ± 4.34	51.2 ± 2.12	107.0 ± 2.35	198.6 ± 4.29	n = 13	[DUX] Siemens Dimension Xpand
						<Reagents>
81.3 ± 0.51	229.3 ± 0.51	45.3 ± 0.51	97.7 ± 0.51	188.7 ± 1.37	n = 3	[AX1] Abaxis
85.6 ± 1.60	240.1 ± 3.05	45.8 ± 0.75	104.6 ± 1.46	196.0 ± 2.60	n = 26	[AB1] Abbott
81.0 ± 1.84	235.1 ± 3.09	45.2 ± 1.69	102.4 ± 2.09	193.9 ± 2.92	n = 28	[BC1] Beckman Coulter
82.9 ± 1.87	235.3 ± 5.25	45.3 ± 0.97	103.0 ± 2.39	194.0 ± 4.23	n = 69	[OL1] Beckman Coulter AU Series
108.7 ± 8.73	274.4 ± 7.99	66.6 ± 6.84	121.0 ± 9.02	232.6 ± 8.08	n = 6	[HE1] HemoCue
82.5 ± 0.74	236.5 ± 2.67	44.6 ± 0.96	103.2 ± 0.66	190.0 ± 1.61	n = 7	[IA1] i-STAT
84.0 ± 2.30	236.3 ± 3.82	46.8 ± 1.49	104.8 ± 2.37	189.2 ± 3.21	n = 42	[JJ1] Ortho Clinical Diagnostics
84.1 ± 2.86	238.3 ± 3.37	46.3 ± 0.51	103.8 ± 1.54	197.5 ± 2.74	n = 3	[RO8] Roche cobas c111
83.4 ± 1.67	237.1 ± 3.94	46.3 ± 0.80	104.3 ± 1.72	195.7 ± 2.91	n = 52	[RO4] Roche cobas c311/c501/c502/c701/c702
83.4 ± 1.93	238.4 ± 4.69	45.9 ± 1.35	104.0 ± 2.20	197.1 ± 4.23	n = 16	[RO2] Roche Hitachi and Modular D/P
84.1 ± 1.13	237.9 ± 3.43	46.0 ± 0.75	103.5 ± 1.23	196.2 ± 2.56	n = 8	[RO1] Roche Integra and MIRA
82.6 ± 2.25	235.8 ± 5.35	45.8 ± 1.05	103.1 ± 2.62	194.0 ± 3.96	n = 23	[BY1] Siemens ADVIA/ADVIA Centaur
86.8 ± 2.64	239.7 ± 5.48	50.1 ± 1.92	105.9 ± 2.69	196.7 ± 4.63	n = 96	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

Urea Nitrogen (mg/dL)

Specimen: C21	Specimen: C22	Specimen: C23	Specimen: C24	Specimen: C25	Number	[Code] Instrument or Reagent System
23.1 ± 0.77	43.4 ± 1.60	9.9 ± 0.58	16.7 ± 0.91	35.7 ± 1.46	n = 376	[---] All Methods & Instruments
						<Instruments>
21.4 ± 1.02	42.4 ± 1.02	9.7 ± 0.51	15.7 ± 0.51	33.3 ± 0.51	n = 3	[AXA] Abaxis Piccolo
23.0 ± 0.00	43.9 ± 0.46	10.0 ± 0.00	16.4 ± 0.55	36.0 ± 0.59	n = 24	[ABJ] Abbott Architect c System
23.1 ± 0.72	43.4 ± 1.16	10.0 ± 0.00	16.9 ± 0.47	35.7 ± 1.11	n = 69	[OLC] Beckman Coulter AU Chemistry System
23.3 ± 0.58	43.6 ± 0.94	10.5 ± 0.56	17.3 ± 0.49	36.3 ± 0.88	n = 16	[BCG] Beckman Coulter UniCel DxC 600
20.3 ± 0.67	40.7 ± 1.31	8.3 ± 0.94	14.5 ± 0.89	33.3 ± 1.26	n = 10	[BCH] Beckman Coulter UniCel DxC 800
26.3 ± 0.74	49.1 ± 1.01	10.0 ± 0.00	19.0 ± 0.00	39.7 ± 0.74	n = 7	[IAA] i-STAT
23.2 ± 0.41	40.9 ± 0.60	9.0 ± 0.00	16.0 ± 0.00	34.0 ± 0.00	n = 9	[JJE] Ortho Vitros 250/350/950
22.3 ± 0.51	40.0 ± 0.90	9.0 ± 0.00	15.0 ± 0.00	32.7 ± 0.51	n = 3	[JJH] Ortho Vitros 4600
23.3 ± 0.53	41.6 ± 0.80	9.0 ± 0.00	16.0 ± 0.00	33.6 ± 0.67	n = 11	[JJF] Ortho Vitros 5,1FS
23.0 ± 0.00	41.0 ± 0.00	9.0 ± 0.00	15.6 ± 0.66	33.3 ± 0.51	n = 20	[JJG] Ortho Vitros 5600
23.0 ± 0.00	43.7 ± 0.51	10.0 ± 0.00	16.3 ± 0.51	36.0 ± 0.90	n = 3	[ROK] Roche cobas c111
23.6 ± 0.55	44.6 ± 1.09	10.0 ± 0.00	17.0 ± 0.00	36.8 ± 0.80	n = 5	[ROJ] Roche cobas c311
23.1 ± 0.67	43.7 ± 1.29	10.0 ± 0.00	16.7 ± 0.54	36.1 ± 1.10	n = 33	[ROC] Roche cobas c501
23.0 ± 0.64	42.6 ± 1.77	10.0 ± 0.00	16.4 ± 0.83	35.5 ± 1.36	n = 10	[ROH] Roche cobas c701
23.0 ± 0.00	44.0 ± 0.00	10.0 ± 0.00	16.6 ± 0.55	36.3 ± 0.94	n = 5	[ROS] Roche Cobas INTEGRA 400
23.3 ± 0.51	43.7 ± 1.37	10.0 ± 0.00	16.7 ± 0.51	36.0 ± 0.90	n = 3	[ROT] Roche Cobas INTEGRA 800
23.5 ± 0.54	44.4 ± 0.71	10.2 ± 0.47	17.6 ± 0.55	36.4 ± 0.67	n = 15	[ROD] Roche MODULAR D/P
23.5 ± 0.69	44.4 ± 1.12	10.4 ± 0.61	18.0 ± 0.00	36.5 ± 0.84	n = 19	[BYE] Siemens ADVIA 1800
24.0 ± 0.00	45.0 ± 0.00	10.7 ± 0.51	18.0 ± 0.00	37.7 ± 0.51	n = 3	[BYB] Siemens ADVIA 2400
23.4 ± 0.84	44.0 ± 0.93	10.0 ± 0.68	16.9 ± 0.60	36.1 ± 0.56	n = 27	[DUE] Siemens Dimension EXL
22.8 ± 1.22	43.3 ± 1.79	9.6 ± 0.79	16.5 ± 1.02	35.7 ± 1.22	n = 12	[DUR] Siemens Dimension RxL
22.9 ± 0.77	43.4 ± 1.43	10.0 ± 0.00	16.6 ± 0.70	35.8 ± 1.19	n = 44	[DUT] Siemens Dimension Vista
23.0 ± 0.55	43.0 ± 1.20	9.6 ± 0.65	16.3 ± 0.51	35.8 ± 1.28	n = 12	[DUX] Siemens Dimension Xpand
						<Reagents>
21.4 ± 1.02	42.4 ± 1.02	9.7 ± 0.51	15.7 ± 0.51	33.3 ± 0.51	n = 3	[AX1] Abaxis
23.0 ± 0.00	43.9 ± 0.46	10.0 ± 0.00	16.4 ± 0.55	36.0 ± 0.61	n = 25	[AB1] Abbott
22.4 ± 1.60	42.8 ± 1.73	9.8 ± 1.20	16.5 ± 1.52	35.1 ± 1.81	n = 29	[BC1] Beckman Coulter
23.1 ± 0.76	43.4 ± 1.18	10.0 ± 0.00	16.9 ± 0.48	35.7 ± 1.10	n = 64	[OL1] Beckman Coulter AU Series
26.2 ± 0.73	48.8 ± 0.73	10.0 ± 0.00	19.0 ± 0.00	39.8 ± 0.73	n = 6	[IA1] i-STAT
23.1 ± 0.52	41.0 ± 0.76	9.0 ± 0.00	15.7 ± 0.54	33.5 ± 0.62	n = 43	[JJ1] Ortho Clinical Diagnostics
23.0 ± 0.00	43.7 ± 0.51	10.0 ± 0.00	16.3 ± 0.51	36.0 ± 0.90	n = 3	[RO8] Roche cobas c111
23.1 ± 0.65	43.6 ± 1.37	10.0 ± 0.00	16.7 ± 0.61	36.0 ± 1.14	n = 51	[RO4] Roche cobas c311/c501/c502/c701/c702
23.5 ± 0.54	44.4 ± 0.71	10.2 ± 0.47	17.6 ± 0.55	36.4 ± 0.67	n = 15	[RO2] Roche Hitachi and Modular D/P
23.0 ± 0.00	43.9 ± 0.75	10.0 ± 0.00	16.7 ± 0.54	36.2 ± 0.94	n = 8	[RO1] Roche Integra and MIRA
23.6 ± 0.72	44.5 ± 1.06	10.5 ± 0.61	18.0 ± 0.00	36.6 ± 0.89	n = 24	[BY1] Siemens ADVIA/ADVIA Centaur
23.0 ± 0.86	43.6 ± 1.35	9.9 ± 0.53	16.6 ± 0.75	35.9 ± 1.08	n = 94	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

Creatinine (mg/dL)

Specimen: C21	Specimen: C22	Specimen: C23	Specimen: C24	Specimen: C25	Number	[Code] Instrument or Reagent System
2.24 ± 0.09	3.35 ± 0.25	1.07 ± 0.11	1.59 ± 0.11	2.73 ± 0.18	n = 385	[---] All Methods & Instruments
2.23 ± 0.08	3.33 ± 0.23	1.07 ± 0.12	1.57 ± 0.09	2.71 ± 0.15	n = 216	[---] All IDMS Traceable Methods
2.26 ± 0.09	3.40 ± 0.26	1.07 ± 0.11	1.62 ± 0.12	2.77 ± 0.18	n = 163	[---] All Non-IDMS Traceable Methods
2.25 ± 0.09	3.43 ± 0.24	1.07 ± 0.11	1.65 ± 0.11	2.79 ± 0.18	n = 127	[-G-] Alkaline picrate/Jaffe
2.21 ± 0.09	3.31 ± 0.20	1.08 ± 0.13	1.59 ± 0.09	2.70 ± 0.14	n = 155	[-H-] Alkaline picrate/Jaffe-IDMS calibration
2.27 ± 0.08	3.30 ± 0.29	1.04 ± 0.10	1.51 ± 0.08	2.72 ± 0.20	n = 36	[-I-] Enzymatic
2.27 ± 0.06	3.38 ± 0.31	1.06 ± 0.08	1.53 ± 0.08	2.74 ± 0.17	n = 61	[-J-] Enzymatic-IDMS-traceable calibration
2.23 ± 0.10	2.86 ± 0.26	0.98 ± 0.07	1.45 ± 0.06	2.41 ± 0.06	n = 6	[-Z-] Other
2.20 ± 0.09	3.16 ± 0.16	0.99 ± 0.14	1.48 ± 0.05	2.50 ± 0.09	n = 3	[AXA] Abaxis Piccolo
2.25 ± 0.05	3.58 ± 0.07	1.25 ± 0.05	1.72 ± 0.05	2.86 ± 0.05	n = 24	[ABJ] Abbott Architect c System
2.25 ± 0.06	3.27 ± 0.07	1.10 ± 0.03	1.58 ± 0.05	2.67 ± 0.06	n = 70	[OLC] Beckman Coulter AU Chemistry System
2.18 ± 0.09	3.21 ± 0.13	0.93 ± 0.06	1.55 ± 0.06	2.63 ± 0.06	n = 17	[BCG] Beckman Coulter UniCel DxC 600
2.25 ± 0.06	3.25 ± 0.09	1.01 ± 0.02	1.61 ± 0.01	2.68 ± 0.07	n = 10	[BCH] Beckman Coulter UniCel DxC 800
2.25 ± 0.08	2.80 ± 0.15	0.96 ± 0.06	1.44 ± 0.06	2.40 ± 0.09	n = 5	[EPO] Epocal epoc
2.27 ± 0.07	3.15 ± 0.15	0.92 ± 0.05	1.43 ± 0.07	2.88 ± 0.13	n = 7	[IAA] i-STAT
2.31 ± 0.06	3.62 ± 0.09	1.12 ± 0.05	1.60 ± 0.00	2.86 ± 0.05	n = 10	[JJE] Ortho Vitros 250/350/950
2.25 ± 0.05	3.58 ± 0.05	1.09 ± 0.02	1.55 ± 0.05	2.85 ± 0.05	n = 3	[JJH] Ortho Vitros 4600
2.30 ± 0.05	3.63 ± 0.07	1.11 ± 0.03	1.59 ± 0.04	2.86 ± 0.06	n = 11	[JJF] Ortho Vitros 5,1FS
2.29 ± 0.05	3.63 ± 0.09	1.10 ± 0.00	1.59 ± 0.03	2.86 ± 0.08	n = 20	[JJG] Ortho Vitros 5600
2.20 ± 0.08	3.11 ± 0.01	1.02 ± 0.02	1.52 ± 0.04	2.59 ± 0.02	n = 3	[ROK] Roche cobas c111
2.23 ± 0.07	3.25 ± 0.09	1.03 ± 0.14	1.56 ± 0.05	2.67 ± 0.05	n = 5	[ROJ] Roche cobas c311
2.18 ± 0.09	3.18 ± 0.08	0.96 ± 0.07	1.50 ± 0.05	2.62 ± 0.09	n = 35	[ROC] Roche cobas c501
2.28 ± 0.10	3.22 ± 0.15	1.12 ± 0.13	1.56 ± 0.08	2.66 ± 0.11	n = 10	[ROH] Roche cobas c701
2.19 ± 0.09	3.19 ± 0.08	0.99 ± 0.03	1.51 ± 0.09	2.63 ± 0.06	n = 5	[ROS] Roche Cobas INTEGRA 400
2.19 ± 0.02	3.07 ± 0.05	0.99 ± 0.01	1.41 ± 0.02	2.50 ± 0.01	n = 3	[ROT] Roche Cobas INTEGRA 800
2.27 ± 0.05	3.36 ± 0.18	1.21 ± 0.12	1.63 ± 0.11	2.76 ± 0.12	n = 15	[ROD] Roche MODULAR D/P
2.14 ± 0.06	3.12 ± 0.18	1.10 ± 0.04	1.54 ± 0.06	2.52 ± 0.15	n = 19	[BYE] Siemens ADVIA 1800
2.15 ± 0.06	3.01 ± 0.04	1.04 ± 0.06	1.49 ± 0.09	2.43 ± 0.05	n = 3	[BYB] Siemens ADVIA 2400
2.28 ± 0.09	3.58 ± 0.13	1.06 ± 0.10	1.71 ± 0.09	2.90 ± 0.12	n = 27	[DUE] Siemens Dimension EXL
2.28 ± 0.09	3.63 ± 0.18	1.07 ± 0.10	1.75 ± 0.12	2.95 ± 0.16	n = 12	[DUR] Siemens Dimension RxL
2.24 ± 0.11	3.55 ± 0.22	1.01 ± 0.11	1.62 ± 0.12	2.86 ± 0.18	n = 44	[DUT] Siemens Dimension Vista
2.24 ± 0.11	3.53 ± 0.10	1.04 ± 0.13	1.68 ± 0.13	2.84 ± 0.13	n = 12	[DUX] Siemens Dimension Xpand
2.20 ± 0.09	3.16 ± 0.16	0.99 ± 0.14	1.48 ± 0.05	2.50 ± 0.09	n = 3	[AX1] Abaxis
2.25 ± 0.05	3.58 ± 0.07	1.25 ± 0.05	1.72 ± 0.05	2.87 ± 0.05	n = 25	[AB1] Abbott
2.21 ± 0.08	3.23 ± 0.11	0.97 ± 0.07	1.58 ± 0.05	2.65 ± 0.07	n = 29	[BC1] Beckman Coulter
2.25 ± 0.06	3.27 ± 0.07	1.10 ± 0.03	1.58 ± 0.05	2.67 ± 0.06	n = 66	[OL1] Beckman Coulter AU Series
2.25 ± 0.08	2.80 ± 0.15	0.96 ± 0.06	1.44 ± 0.06	2.40 ± 0.09	n = 5	[EP1] Epocal epoc
2.28 ± 0.07	3.14 ± 0.16	0.90 ± 0.00	1.44 ± 0.08	2.88 ± 0.14	n = 6	[IA1] i-STAT
2.30 ± 0.05	3.63 ± 0.08	1.10 ± 0.00	1.59 ± 0.03	2.86 ± 0.06	n = 43	[JJ1] Ortho Clinical Diagnostics
2.20 ± 0.08	3.11 ± 0.01	1.02 ± 0.02	1.52 ± 0.04	2.59 ± 0.02	n = 3	[RO8] Roche cobas c111
2.20 ± 0.10	3.19 ± 0.09	1.00 ± 0.12	1.52 ± 0.07	2.63 ± 0.09	n = 53	[RO4] Roche cobas c311/c501/c502/c701/c702
2.27 ± 0.05	3.36 ± 0.18	1.21 ± 0.12	1.63 ± 0.11	2.76 ± 0.12	n = 15	[RO2] Roche Hitachi and Modular D/P
2.18 ± 0.03	3.14 ± 0.10	1.00 ± 0.01	1.46 ± 0.08	2.57 ± 0.08	n = 8	[RO1] Roche Integra and MIRA
2.14 ± 0.06	3.10 ± 0.16	1.10 ± 0.05	1.54 ± 0.07	2.51 ± 0.13	n = 24	[BY1] Siemens ADVIA/ADVIA Centaur
2.26 ± 0.11	3.57 ± 0.18	1.04 ± 0.11	1.67 ± 0.12	2.88 ± 0.16	n = 95	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

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

Specimen: C21	Specimen: C22	Specimen: C23	Specimen: C24	Specimen: C25	Number	[Code] Instrument or Reagent System
28.4 ± 1.92	17.7 ± 1.81	65.8 ± 9.88	42.2 ± 4.32	22.6 ± 2.05	n = 319	[---] All Methods & Instruments
27.9 ± 1.68	17.6 ± 1.65	64.1 ± 10.08	41.6 ± 3.22	22.4 ± 1.81	n = 181	[-A-] IDMS-traceable MDRD Study Equation
28.3 ± 1.54	17.1 ± 1.52	64.5 ± 8.03	40.7 ± 3.95	21.9 ± 1.76	n = 82	[-B-] Original MDRD Study Equation (4-variable)
30.1 ± 1.34	19.3 ± 1.50	71.6 ± 8.32	47.4 ± 4.07	24.5 ± 1.76	n = 49	[-F-] CKD-EPI Equation
34.7 ± 7.62	22.7 ± 5.79	65.1 ± 14.61	48.7 ± 10.12	27.7 ± 6.16	n = 5	[-D-] Cockcroft-Gault Equation

Target values and allowable ranges for Estimated Glomerular Filtration Rate:

Specimen: C21	Specimen: C22	Specimen: C23	Specimen: C24	Specimen: C25	Method
28 (20-35)	17 (13-22)	64 (48-81)	41 (30-52)	22 (16-28)	IDMS-traceable MDRD Study Equation
29 (21-36)	18 (13-23)	68 (51-86)	42 (31-53)	23 (17-29)	Original MDRD Study Equation
30 (22-38)	19 (14-24)	74 (55-92)	46 (34-58)	24 (18-30)	CKD-EPI Equation
32 (24-41)	22 (16-27)	68 (50-85)	46 (34-57)	27 (19-34)	Cockcroft-Gault Equation

Laboratories were asked to report Estimated Glomerular Filtration Rate (eGFR) for samples C21-C25 for a 22-year-old non-African American female weighing 52 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: C21	Specimen: C22	Specimen: C23	Specimen: C24	Specimen: C25	Number	[Code] Instrument or Reagent System
5.67 ± 0.19	3.30 ± 0.16	9.18 ± 0.34	7.16 ± 0.27	2.73 ± 0.15	n = 329	[---] All Methods & Instruments
						<Instruments>
5.67 ± 0.11	3.19 ± 0.06	9.31 ± 0.19	7.21 ± 0.13	2.65 ± 0.06	n = 22	[ABJ] Abbott Architect c System
5.74 ± 0.10	3.35 ± 0.08	9.36 ± 0.19	7.31 ± 0.14	2.83 ± 0.08	n = 67	[OLC] Beckman Coulter AU Chemistry System
5.70 ± 0.00	3.00 ± 0.00	8.82 ± 0.05	6.89 ± 0.04	2.53 ± 0.05	n = 12	[BCG] Beckman Coulter UniCel DxC 600
5.64 ± 0.11	3.00 ± 0.00	8.75 ± 0.17	6.83 ± 0.16	2.51 ± 0.06	n = 9	[BCH] Beckman Coulter UniCel DxC 800
5.65 ± 0.08	3.25 ± 0.08	8.98 ± 0.22	7.10 ± 0.16	2.60 ± 0.09	n = 6	[JJE] Ortho Vitros 250/350/950
5.46 ± 0.10	3.20 ± 0.09	8.83 ± 0.14	6.93 ± 0.14	2.53 ± 0.05	n = 3	[JJH] Ortho Vitros 4600
5.70 ± 0.11	3.28 ± 0.06	9.11 ± 0.19	7.11 ± 0.10	2.62 ± 0.05	n = 10	[JJF] Ortho Vitros 5,1FS
5.64 ± 0.10	3.25 ± 0.07	9.05 ± 0.14	7.10 ± 0.11	2.60 ± 0.07	n = 20	[JJG] Ortho Vitros 5600
5.80 ± 0.08	3.25 ± 0.06	9.44 ± 0.18	7.37 ± 0.16	2.70 ± 0.08	n = 4	[ROJ] Roche cobas c311
5.78 ± 0.14	3.25 ± 0.09	9.40 ± 0.21	7.35 ± 0.18	2.68 ± 0.07	n = 31	[ROC] Roche cobas c501
5.86 ± 0.10	3.27 ± 0.05	9.48 ± 0.15	7.43 ± 0.14	2.73 ± 0.05	n = 3	[ROG] Roche cobas c502
5.70 ± 0.08	3.20 ± 0.05	9.33 ± 0.16	7.31 ± 0.12	2.66 ± 0.06	n = 7	[ROH] Roche cobas c701
5.71 ± 0.12	3.21 ± 0.08	9.28 ± 0.12	7.22 ± 0.12	2.65 ± 0.06	n = 16	[ROD] Roche MODULAR D/P
5.78 ± 0.09	3.30 ± 0.00	9.33 ± 0.16	7.30 ± 0.12	2.69 ± 0.07	n = 19	[BYE] Siemens ADVIA 1800
5.60 ± 0.15	3.56 ± 0.11	9.17 ± 0.15	7.12 ± 0.17	2.91 ± 0.10	n = 25	[DUE] Siemens Dimension EXL
5.59 ± 0.18	3.56 ± 0.08	9.07 ± 0.31	7.12 ± 0.18	2.97 ± 0.12	n = 10	[DUR] Siemens Dimension RxL
5.22 ± 0.09	3.39 ± 0.10	8.62 ± 0.12	6.64 ± 0.14	2.83 ± 0.08	n = 42	[DUT] Siemens Dimension Vista
5.57 ± 0.11	3.51 ± 0.11	9.15 ± 0.16	7.17 ± 0.11	2.92 ± 0.10	n = 7	[DUX] Siemens Dimension Xpand
						<Reagents>
5.67 ± 0.11	3.19 ± 0.06	9.31 ± 0.19	7.21 ± 0.13	2.65 ± 0.06	n = 22	[AB1] Abbott
5.67 ± 0.08	3.00 ± 0.00	8.79 ± 0.10	6.87 ± 0.09	2.52 ± 0.05	n = 24	[BC1] Beckman Coulter
5.74 ± 0.10	3.35 ± 0.09	9.36 ± 0.19	7.31 ± 0.14	2.83 ± 0.08	n = 65	[OL1] Beckman Coulter AU Series
5.65 ± 0.12	3.26 ± 0.07	9.04 ± 0.18	7.09 ± 0.13	2.60 ± 0.07	n = 39	[JJ1] Ortho Clinical Diagnostics
5.78 ± 0.13	3.24 ± 0.08	9.40 ± 0.20	7.35 ± 0.17	2.68 ± 0.07	n = 47	[RO4] Roche cobas c311/c501/c502/c701/c70
5.71 ± 0.12	3.21 ± 0.08	9.28 ± 0.12	7.22 ± 0.12	2.65 ± 0.06	n = 16	[RO2] Roche Hitachi and Modular D/P
5.67 ± 0.08	3.25 ± 0.06	9.33 ± 0.08	7.25 ± 0.12	2.62 ± 0.04	n = 4	[RO1] Roche Integra and MIRA
5.77 ± 0.09	3.27 ± 0.08	9.34 ± 0.19	7.31 ± 0.13	2.68 ± 0.08	n = 23	[BY1] Siemens ADVIA/ADVIA Centaur
5.41 ± 0.25	3.47 ± 0.14	8.88 ± 0.35	6.89 ± 0.31	2.87 ± 0.11	n = 84	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

Bilirubin (mg/dL)

Specimen: C21	Specimen: C22	Specimen: C23	Specimen: C24	Specimen: C25	Number	[Code] Instrument or Reagent System
4.40 ± 0.24	2.19 ± 0.16	2.81 ± 0.18	0.92 ± 0.10	1.80 ± 0.12	n = 357	[---] All Methods & Instruments
						<Instruments>
4.56 ± 0.10	2.27 ± 0.05	2.87 ± 0.14	1.03 ± 0.05	1.87 ± 0.05	n = 3	[AXA] Abaxis Piccolo
4.68 ± 0.15	2.35 ± 0.13	2.99 ± 0.14	1.02 ± 0.09	1.95 ± 0.10	n = 24	[ABJ] Abbott Architect c System
4.36 ± 0.11	2.13 ± 0.09	2.69 ± 0.09	1.00 ± 0.04	1.79 ± 0.06	n = 70	[OLC] Beckman Coulter AU Chemistry System
4.65 ± 0.15	2.32 ± 0.12	3.08 ± 0.12	1.06 ± 0.13	1.93 ± 0.13	n = 15	[BCG] Beckman Coulter UniCel DxC 600
4.59 ± 0.11	2.24 ± 0.08	3.10 ± 0.10	1.10 ± 0.07	1.92 ± 0.07	n = 10	[BCH] Beckman Coulter UniCel DxC 800
4.49 ± 0.17	2.34 ± 0.15	2.96 ± 0.07	0.87 ± 0.07	1.92 ± 0.09	n = 9	[JJE] Ortho Vitros 250/350/950
4.47 ± 0.14	2.35 ± 0.19	2.90 ± 0.09	0.87 ± 0.05	1.87 ± 0.05	n = 3	[JJH] Ortho Vitros 4600
4.53 ± 0.21	2.34 ± 0.14	2.85 ± 0.16	0.80 ± 0.09	1.86 ± 0.09	n = 11	[JJF] Ortho Vitros 5,1FS
4.56 ± 0.15	2.40 ± 0.15	2.92 ± 0.12	0.90 ± 0.07	1.93 ± 0.10	n = 20	[JJG] Ortho Vitros 5600
4.15 ± 0.08	2.10 ± 0.00	2.66 ± 0.06	0.86 ± 0.06	1.70 ± 0.00	n = 5	[ROJ] Roche cobas c311
4.14 ± 0.10	2.08 ± 0.08	2.69 ± 0.10	0.85 ± 0.06	1.68 ± 0.06	n = 32	[ROC] Roche cobas c501
4.10 ± 0.16	2.01 ± 0.11	2.64 ± 0.12	0.82 ± 0.08	1.62 ± 0.09	n = 7	[ROH] Roche cobas c701
4.08 ± 0.14	2.03 ± 0.05	2.62 ± 0.12	0.83 ± 0.05	1.64 ± 0.08	n = 6	[ROS] Roche Cobas INTEGRA 400
3.97 ± 0.05	1.90 ± 0.00	2.47 ± 0.05	0.80 ± 0.00	1.60 ± 0.00	n = 3	[ROT] Roche Cobas INTEGRA 800
4.31 ± 0.13	2.06 ± 0.07	2.71 ± 0.07	0.81 ± 0.05	1.67 ± 0.06	n = 15	[ROD] Roche MODULAR D/P
4.78 ± 0.15	2.32 ± 0.10	3.05 ± 0.10	1.00 ± 0.00	1.89 ± 0.08	n = 19	[BYE] Siemens ADVIA 1800
4.34 ± 0.13	2.18 ± 0.07	2.79 ± 0.07	0.90 ± 0.00	1.79 ± 0.05	n = 26	[DUE] Siemens Dimension EXL
4.38 ± 0.13	2.18 ± 0.11	2.78 ± 0.12	0.87 ± 0.05	1.78 ± 0.08	n = 12	[DUR] Siemens Dimension RxL
4.33 ± 0.13	2.21 ± 0.08	2.83 ± 0.07	0.90 ± 0.00	1.80 ± 0.04	n = 43	[DUT] Siemens Dimension Vista
4.39 ± 0.12	2.19 ± 0.09	2.79 ± 0.10	0.90 ± 0.00	1.79 ± 0.05	n = 11	[DUX] Siemens Dimension Xpand
						<Reagents>
4.56 ± 0.10	2.27 ± 0.05	2.87 ± 0.14	1.03 ± 0.05	1.87 ± 0.05	n = 3	[AX1] Abaxis
4.68 ± 0.15	2.35 ± 0.13	2.99 ± 0.14	1.02 ± 0.09	1.95 ± 0.10	n = 24	[AB1] Abbott
4.61 ± 0.14	2.29 ± 0.12	3.08 ± 0.12	1.08 ± 0.11	1.92 ± 0.11	n = 27	[BC1] Beckman Coulter
4.36 ± 0.11	2.13 ± 0.09	2.69 ± 0.09	1.00 ± 0.00	1.79 ± 0.05	n = 67	[OL1] Beckman Coulter AU Series
4.53 ± 0.17	2.37 ± 0.15	2.92 ± 0.12	0.87 ± 0.09	1.90 ± 0.10	n = 43	[JJ1] Ortho Clinical Diagnostics
4.14 ± 0.11	2.07 ± 0.08	2.68 ± 0.09	0.85 ± 0.06	1.68 ± 0.06	n = 48	[RO4] Roche cobas c311/c501/c502/c701/c702
4.31 ± 0.13	2.06 ± 0.07	2.71 ± 0.07	0.81 ± 0.05	1.67 ± 0.06	n = 15	[RO2] Roche Hitachi and Modular D/P
4.03 ± 0.13	1.99 ± 0.08	2.56 ± 0.13	0.80 ± 0.00	1.62 ± 0.07	n = 9	[RO1] Roche Integra and MIRA
4.78 ± 0.17	2.32 ± 0.11	3.06 ± 0.11	1.00 ± 0.00	1.89 ± 0.08	n = 23	[BY1] Siemens ADVIA/ADVIA Centaur
4.35 ± 0.13	2.20 ± 0.08	2.81 ± 0.08	0.90 ± 0.00	1.80 ± 0.05	n = 92	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

Phosphorus (mg/dL)

Specimen: C21	Specimen: C22	Specimen: C23	Specimen: C24	Specimen: C25	Number	[Code] Instrument or Reagent System
3.62 ± 0.20	5.96 ± 0.25	3.09 ± 0.20	2.58 ± 0.17	4.94 ± 0.22	n = 334	[---] All Methods & Instruments
						<Instruments>
3.60 ± 0.06	5.93 ± 0.07	3.08 ± 0.06	2.58 ± 0.06	4.94 ± 0.08	n = 22	[ABJ] Abbott Architect c System
3.52 ± 0.12	5.79 ± 0.16	3.00 ± 0.11	2.51 ± 0.08	4.80 ± 0.13	n = 64	[OLC] Beckman Coulter AU Chemistry System
3.77 ± 0.15	6.06 ± 0.25	3.18 ± 0.18	2.63 ± 0.11	5.03 ± 0.21	n = 13	[BCG] Beckman Coulter UniCel DxC 600
3.84 ± 0.11	6.08 ± 0.09	3.29 ± 0.12	2.72 ± 0.13	5.06 ± 0.12	n = 10	[BCH] Beckman Coulter UniCel DxC 800
4.10 ± 0.11	6.58 ± 0.17	3.61 ± 0.10	3.15 ± 0.12	5.44 ± 0.10	n = 8	[JJE] Ortho Vitros 250/350/950
3.90 ± 0.09	6.30 ± 0.09	3.47 ± 0.14	2.97 ± 0.14	5.20 ± 0.09	n = 3	[JJH] Ortho Vitros 4600
4.04 ± 0.09	6.51 ± 0.17	3.61 ± 0.04	3.12 ± 0.08	5.36 ± 0.12	n = 11	[JJF] Ortho Vitros 5,1FS
4.02 ± 0.15	6.47 ± 0.21	3.60 ± 0.15	3.11 ± 0.11	5.34 ± 0.17	n = 20	[JJG] Ortho Vitros 5600
3.66 ± 0.10	6.03 ± 0.05	3.20 ± 0.00	2.67 ± 0.05	5.00 ± 0.00	n = 3	[ROJ] Roche cobas c311
3.63 ± 0.08	6.03 ± 0.14	3.13 ± 0.10	2.62 ± 0.09	5.01 ± 0.12	n = 33	[ROC] Roche cobas c501
3.62 ± 0.12	6.02 ± 0.16	3.11 ± 0.12	2.61 ± 0.09	4.98 ± 0.13	n = 8	[ROH] Roche cobas c701
3.67 ± 0.09	6.00 ± 0.08	3.13 ± 0.09	2.65 ± 0.06	5.00 ± 0.08	n = 4	[ROS] Roche Cobas INTEGRA 400
3.57 ± 0.13	5.95 ± 0.14	3.04 ± 0.12	2.58 ± 0.10	4.95 ± 0.13	n = 15	[ROD] Roche MODULAR D/P
3.67 ± 0.09	6.03 ± 0.13	3.12 ± 0.07	2.62 ± 0.08	5.00 ± 0.12	n = 19	[BYE] Siemens ADVIA 1800
3.70 ± 0.09	6.16 ± 0.10	3.15 ± 0.05	2.64 ± 0.08	5.09 ± 0.07	n = 3	[BYB] Siemens ADVIA 2400
3.57 ± 0.09	5.87 ± 0.09	3.03 ± 0.07	2.54 ± 0.08	4.86 ± 0.11	n = 23	[DUE] Siemens Dimension EXL
3.61 ± 0.16	5.92 ± 0.19	3.05 ± 0.12	2.58 ± 0.11	4.91 ± 0.15	n = 12	[DUR] Siemens Dimension RxL
3.42 ± 0.14	5.75 ± 0.17	2.90 ± 0.11	2.40 ± 0.11	4.74 ± 0.17	n = 43	[DUT] Siemens Dimension Vista
3.53 ± 0.05	5.90 ± 0.12	3.04 ± 0.09	2.57 ± 0.07	4.93 ± 0.13	n = 9	[DUX] Siemens Dimension Xpand
						<Reagents>
3.60 ± 0.06	5.93 ± 0.07	3.08 ± 0.06	2.58 ± 0.06	4.94 ± 0.08	n = 22	[AB1] Abbott
3.79 ± 0.16	6.05 ± 0.20	3.21 ± 0.17	2.65 ± 0.13	5.03 ± 0.18	n = 25	[BC1] Beckman Coulter
3.52 ± 0.11	5.79 ± 0.16	3.00 ± 0.11	2.51 ± 0.08	4.80 ± 0.13	n = 61	[OL1] Beckman Coulter AU Series
4.03 ± 0.13	6.48 ± 0.20	3.59 ± 0.12	3.12 ± 0.11	5.35 ± 0.16	n = 42	[JJ1] Ortho Clinical Diagnostics
3.62 ± 0.09	6.03 ± 0.14	3.13 ± 0.11	2.62 ± 0.09	5.00 ± 0.12	n = 47	[RO4] Roche cobas c311/c501/c502/c701/c702
3.57 ± 0.13	5.95 ± 0.14	3.04 ± 0.12	2.58 ± 0.10	4.95 ± 0.13	n = 15	[RO2] Roche Hitachi and Modular D/P
3.63 ± 0.10	5.98 ± 0.07	3.10 ± 0.09	2.63 ± 0.05	4.98 ± 0.07	n = 6	[RO1] Roche Integra and MIRA
3.66 ± 0.10	6.04 ± 0.14	3.12 ± 0.07	2.63 ± 0.08	5.00 ± 0.13	n = 24	[BY1] Siemens ADVIA/ADVIA Centaur
3.50 ± 0.15	5.83 ± 0.17	2.98 ± 0.12	2.49 ± 0.13	4.82 ± 0.17	n = 87	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

Calcium (mg/dL)

Specimen: C21	Specimen: C22	Specimen: C23	Specimen: C24	Specimen: C25	Number	[Code] Instrument or Reagent System
9.81 ± 0.24	13.06 ± 0.31	7.26 ± 0.25	8.87 ± 0.25	10.79 ± 0.26	n = 364	[---] All Methods & Instruments
						<Instruments>
9.26 ± 0.10	12.70 ± 0.00	6.90 ± 0.09	8.46 ± 0.10	10.77 ± 0.05	n = 3	[AXA] Abaxis Piccolo
9.97 ± 0.12	13.12 ± 0.19	7.49 ± 0.12	9.06 ± 0.10	10.89 ± 0.13	n = 24	[ABJ] Abbott Architect c System
9.88 ± 0.18	12.93 ± 0.23	7.41 ± 0.17	8.99 ± 0.17	10.72 ± 0.17	n = 70	[OLC] Beckman Coulter AU Chemistry System
9.60 ± 0.16	12.78 ± 0.23	7.18 ± 0.16	8.72 ± 0.18	10.58 ± 0.17	n = 16	[BCG] Beckman Coulter UniCel DxC 600
9.78 ± 0.07	13.00 ± 0.22	7.25 ± 0.09	8.81 ± 0.10	10.78 ± 0.11	n = 10	[BCH] Beckman Coulter UniCel DxC 800
9.79 ± 0.16	13.38 ± 0.21	7.33 ± 0.16	8.97 ± 0.18	11.21 ± 0.31	n = 8	[JJE] Ortho Vitros 250/350/950
9.62 ± 0.24	12.93 ± 0.31	7.14 ± 0.10	8.64 ± 0.10	10.79 ± 0.20	n = 3	[JJH] Ortho Vitros 4600
9.87 ± 0.15	13.26 ± 0.17	7.32 ± 0.10	8.92 ± 0.10	11.07 ± 0.16	n = 11	[JJF] Ortho Vitros 5,1FS
9.81 ± 0.12	13.21 ± 0.17	7.27 ± 0.11	8.86 ± 0.08	11.04 ± 0.12	n = 20	[JJG] Ortho Vitros 5600
9.83 ± 0.14	13.13 ± 0.05	7.20 ± 0.09	8.94 ± 0.10	10.83 ± 0.05	n = 3	[ROK] Roche cobas c111
10.08 ± 0.16	13.44 ± 0.21	7.40 ± 0.17	9.06 ± 0.11	11.05 ± 0.23	n = 5	[ROJ] Roche cobas c311
9.94 ± 0.27	13.29 ± 0.30	7.31 ± 0.17	8.94 ± 0.20	10.91 ± 0.24	n = 34	[ROC] Roche cobas c501
9.92 ± 0.16	13.19 ± 0.25	7.32 ± 0.19	8.95 ± 0.17	10.90 ± 0.21	n = 8	[ROH] Roche cobas c701
9.96 ± 0.14	13.39 ± 0.24	7.26 ± 0.11	9.02 ± 0.11	11.00 ± 0.15	n = 5	[ROS] Roche Cobas INTEGRA 400
9.87 ± 0.14	13.20 ± 0.09	7.25 ± 0.19	8.87 ± 0.05	10.83 ± 0.05	n = 3	[ROT] Roche Cobas INTEGRA 800
9.99 ± 0.18	13.34 ± 0.22	7.37 ± 0.12	8.98 ± 0.14	11.05 ± 0.23	n = 15	[ROD] Roche MODULAR D/P
9.87 ± 0.19	12.94 ± 0.25	7.36 ± 0.25	9.02 ± 0.15	10.79 ± 0.14	n = 19	[BYE] Siemens ADVIA 1800
9.61 ± 0.17	12.95 ± 0.23	6.90 ± 0.15	8.54 ± 0.20	10.63 ± 0.17	n = 26	[DUE] Siemens Dimension EXL
9.64 ± 0.21	13.01 ± 0.39	6.93 ± 0.19	8.59 ± 0.18	10.60 ± 0.25	n = 12	[DUR] Siemens Dimension RxL
9.63 ± 0.22	13.02 ± 0.27	7.08 ± 0.19	8.65 ± 0.23	10.66 ± 0.23	n = 43	[DUT] Siemens Dimension Vista
9.54 ± 0.25	12.95 ± 0.30	6.82 ± 0.17	8.45 ± 0.20	10.55 ± 0.17	n = 12	[DUX] Siemens Dimension Xpand
						<Reagents>
9.26 ± 0.10	12.70 ± 0.00	6.90 ± 0.09	8.46 ± 0.10	10.77 ± 0.05	n = 3	[AX1] Abaxis
9.97 ± 0.12	13.12 ± 0.19	7.49 ± 0.12	9.06 ± 0.10	10.89 ± 0.13	n = 24	[AB1] Abbott
9.68 ± 0.18	12.86 ± 0.25	7.23 ± 0.15	8.78 ± 0.16	10.66 ± 0.19	n = 28	[BC1] Beckman Coulter
9.88 ± 0.17	12.93 ± 0.22	7.41 ± 0.16	8.99 ± 0.16	10.72 ± 0.17	n = 66	[OL1] Beckman Coulter AU Series
9.82 ± 0.15	13.24 ± 0.20	7.28 ± 0.13	8.87 ± 0.13	11.05 ± 0.19	n = 42	[JJ1] Ortho Clinical Diagnostics
9.83 ± 0.14	13.13 ± 0.05	7.20 ± 0.09	8.94 ± 0.10	10.83 ± 0.05	n = 3	[RO8] Roche cobas c111
9.96 ± 0.23	13.29 ± 0.28	7.32 ± 0.18	8.97 ± 0.19	10.93 ± 0.23	n = 48	[RO4] Roche cobas c311/c501/c502/c701/c702
9.99 ± 0.18	13.34 ± 0.22	7.37 ± 0.12	8.98 ± 0.14	11.05 ± 0.23	n = 15	[RO2] Roche Hitachi and Modular D/P
9.92 ± 0.14	13.30 ± 0.22	7.26 ± 0.14	8.95 ± 0.12	10.92 ± 0.15	n = 8	[RO1] Roche Integra and MIRA
9.58 ± 0.04	11.92 ± 0.87	7.13 ± 0.09	8.65 ± 0.12	10.37 ± 0.25	n = 4	[GZ1] Sekisui Diagnostics
9.83 ± 0.21	12.90 ± 0.25	7.35 ± 0.24	8.99 ± 0.16	10.76 ± 0.15	n = 23	[BY1] Siemens ADVIA/ADVIA Centaur
9.61 ± 0.21	12.99 ± 0.29	6.97 ± 0.20	8.58 ± 0.22	10.63 ± 0.21	n = 93	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

Magnesium (mg/dL)

Specimen: C21	Specimen: C22	Specimen: C23	Specimen: C24	Specimen: C25	Number	[Code] Instrument or Reagent System
4.68 ± 0.16	2.92 ± 0.12	1.68 ± 0.08	3.34 ± 0.11	2.41 ± 0.11	n = 338	[---] All Methods & Instruments
						<Instruments>
4.51 ± 0.08	2.71 ± 0.09	1.64 ± 0.07	3.22 ± 0.07	2.20 ± 0.05	n = 24	[ABJ] Abbott Architect c System
4.68 ± 0.12	2.91 ± 0.07	1.70 ± 0.00	3.33 ± 0.09	2.40 ± 0.05	n = 66	[OLC] Beckman Coulter AU Chemistry System
4.46 ± 0.10	2.86 ± 0.08	1.67 ± 0.06	3.25 ± 0.10	2.36 ± 0.06	n = 15	[BCG] Beckman Coulter UniCel DxC 600
4.51 ± 0.16	2.87 ± 0.10	1.68 ± 0.05	3.28 ± 0.10	2.38 ± 0.07	n = 10	[BCH] Beckman Coulter UniCel DxC 800
4.67 ± 0.15	2.88 ± 0.08	1.63 ± 0.07	3.32 ± 0.07	2.40 ± 0.06	n = 6	[JJE] Ortho Vitros 250/350/950
4.67 ± 0.05	2.87 ± 0.05	1.67 ± 0.05	3.30 ± 0.00	2.40 ± 0.09	n = 3	[JJH] Ortho Vitros 4600
4.71 ± 0.09	2.88 ± 0.06	1.64 ± 0.06	3.32 ± 0.08	2.38 ± 0.04	n = 11	[JJF] Ortho Vitros 5,1FS
4.75 ± 0.14	2.89 ± 0.09	1.67 ± 0.09	3.36 ± 0.11	2.41 ± 0.10	n = 19	[JJG] Ortho Vitros 5600
4.68 ± 0.11	2.96 ± 0.08	1.71 ± 0.05	3.39 ± 0.10	2.42 ± 0.07	n = 31	[ROC] Roche cobas c501
4.63 ± 0.05	2.90 ± 0.00	1.70 ± 0.00	3.33 ± 0.05	2.40 ± 0.00	n = 3	[ROG] Roche cobas c502
4.47 ± 0.12	2.88 ± 0.07	1.70 ± 0.00	3.25 ± 0.06	2.35 ± 0.06	n = 6	[ROH] Roche cobas c701
4.63 ± 0.05	2.93 ± 0.05	1.80 ± 0.00	3.30 ± 0.09	2.40 ± 0.09	n = 3	[ROS] Roche Cobas INTEGRA 400
4.66 ± 0.16	2.95 ± 0.09	1.74 ± 0.05	3.34 ± 0.08	2.42 ± 0.06	n = 15	[ROD] Roche MODULAR D/P
4.68 ± 0.11	3.12 ± 0.08	1.81 ± 0.04	3.42 ± 0.06	2.60 ± 0.00	n = 19	[BYE] Siemens ADVIA 1800
4.80 ± 0.15	2.89 ± 0.10	1.63 ± 0.07	3.37 ± 0.08	2.39 ± 0.06	n = 23	[DUE] Siemens Dimension EXL
4.85 ± 0.11	2.95 ± 0.08	1.65 ± 0.08	3.39 ± 0.10	2.40 ± 0.09	n = 12	[DUR] Siemens Dimension RxL
4.81 ± 0.13	3.00 ± 0.11	1.65 ± 0.08	3.40 ± 0.10	2.49 ± 0.09	n = 43	[DUT] Siemens Dimension Vista
4.77 ± 0.14	2.88 ± 0.11	1.60 ± 0.10	3.29 ± 0.10	2.35 ± 0.09	n = 11	[DUX] Siemens Dimension Xpand
						<Reagents>
4.51 ± 0.08	2.71 ± 0.09	1.64 ± 0.07	3.22 ± 0.07	2.20 ± 0.05	n = 24	[AB1] Abbott
4.48 ± 0.13	2.86 ± 0.09	1.68 ± 0.06	3.26 ± 0.10	2.36 ± 0.07	n = 27	[BC1] Beckman Coulter
4.67 ± 0.12	2.91 ± 0.07	1.70 ± 0.00	3.32 ± 0.09	2.39 ± 0.05	n = 62	[OL1] Beckman Coulter AU Series
4.72 ± 0.12	2.88 ± 0.08	1.66 ± 0.07	3.33 ± 0.09	2.40 ± 0.08	n = 39	[JJ1] Ortho Clinical Diagnostics
4.64 ± 0.13	2.94 ± 0.09	1.70 ± 0.00	3.35 ± 0.11	2.40 ± 0.07	n = 44	[RO4] Roche cobas c311/c501/c502/c701/c702
4.66 ± 0.16	2.95 ± 0.09	1.74 ± 0.05	3.34 ± 0.08	2.42 ± 0.06	n = 15	[RO2] Roche Hitachi and Modular D/P
4.66 ± 0.06	2.94 ± 0.06	1.80 ± 0.00	3.32 ± 0.08	2.44 ± 0.11	n = 5	[RO1] Roche Integra and MIRA
4.69 ± 0.12	3.13 ± 0.09	1.81 ± 0.05	3.42 ± 0.06	2.59 ± 0.05	n = 23	[BY1] Siemens ADVIA/ADVIA Centaur
4.81 ± 0.14	2.95 ± 0.12	1.64 ± 0.08	3.38 ± 0.10	2.43 ± 0.10	n = 89	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

Iron (µg/dL)

Specimen: C21	Specimen: C22	Specimen: C23	Specimen: C24	Specimen: C25	Number	[Code] Instrument or Reagent System
91.7 ± 4.12	114.4 ± 8.09	108.6 ± 5.42	117.3 ± 6.02	93.8 ± 7.88	n = 264	[---] All Methods & Instruments
						<Instruments>
90.1 ± 2.40	106.3 ± 2.77	106.7 ± 1.95	115.9 ± 2.20	89.0 ± 2.22	n = 16	[ABJ] Abbott Architect c System
93.6 ± 2.06	118.5 ± 2.33	110.7 ± 2.66	120.6 ± 3.02	96.1 ± 2.03	n = 61	[OLC] Beckman Coulter AU Chemistry System
89.1 ± 3.07	108.0 ± 2.51	106.3 ± 3.20	112.7 ± 3.41	85.0 ± 3.22	n = 7	[BCG] Beckman Coulter UniCel DxC 600
90.1 ± 2.55	108.5 ± 3.11	106.0 ± 4.10	112.7 ± 2.95	84.8 ± 3.21	n = 9	[BCH] Beckman Coulter UniCel DxC 800
98.5 ± 1.86	126.5 ± 4.53	118.0 ± 0.00	130.6 ± 2.56	111.2 ± 5.00	n = 3	[JJH] Ortho Vitros 4600
105.0 ± 6.12	133.8 ± 6.77	126.1 ± 6.45	137.4 ± 5.71	114.3 ± 6.13	n = 9	[JJF] Ortho Vitros 5,1FS
99.3 ± 4.75	125.4 ± 5.18	119.1 ± 5.23	131.7 ± 8.13	108.4 ± 5.25	n = 20	[JJG] Ortho Vitros 5600
94.4 ± 2.59	120.6 ± 3.10	112.2 ± 2.86	120.3 ± 2.97	100.8 ± 2.72	n = 21	[ROC] Roche cobas c501
97.5 ± 1.22	123.0 ± 0.00	114.9 ± 1.88	124.3 ± 2.65	101.9 ± 1.13	n = 4	[ROG] Roche cobas c502
91.4 ± 1.37	116.4 ± 1.52	108.5 ± 1.62	116.5 ± 1.62	97.0 ± 0.93	n = 5	[ROH] Roche cobas c701
91.8 ± 1.95	116.5 ± 2.50	108.5 ± 2.21	116.6 ± 1.97	96.8 ± 1.76	n = 15	[ROD] Roche MODULAR D/P
90.1 ± 2.38	104.2 ± 1.51	105.4 ± 1.19	115.6 ± 2.16	87.8 ± 1.31	n = 18	[BYE] Siemens ADVIA 1800
87.5 ± 1.28	108.4 ± 1.18	103.1 ± 1.24	111.4 ± 1.55	87.7 ± 1.25	n = 13	[DUE] Siemens Dimension EXL
86.7 ± 1.32	108.6 ± 0.76	102.2 ± 1.71	110.2 ± 0.84	87.1 ± 0.98	n = 7	[DUR] Siemens Dimension RxL
89.1 ± 1.84	110.1 ± 2.21	104.5 ± 2.17	112.9 ± 2.01	88.7 ± 1.84	n = 38	[DUT] Siemens Dimension Vista
						<Reagents>
90.1 ± 1.89	106.3 ± 2.08	106.8 ± 1.69	116.0 ± 1.67	89.0 ± 1.62	n = 14	[AB3] Abbott-Iron/6K95
90.0 ± 2.82	108.3 ± 2.91	106.5 ± 3.95	113.0 ± 3.41	85.1 ± 3.43	n = 18	[BC1] Beckman Coulter
93.9 ± 1.93	118.8 ± 2.31	111.2 ± 2.22	121.2 ± 2.50	96.1 ± 2.15	n = 51	[OL1] Beckman Coulter AU Series
100.5 ± 5.55	127.7 ± 6.95	120.5 ± 6.15	133.1 ± 7.49	110.6 ± 6.03	n = 33	[JJ1] Ortho Clinical Diagnostics
94.1 ± 2.85	119.8 ± 3.53	111.5 ± 3.48	119.7 ± 3.65	99.9 ± 2.87	n = 34	[RO4] Roche cobas c311/c501/c502/c701/c702
91.8 ± 1.95	116.5 ± 2.50	108.5 ± 2.21	116.6 ± 1.97	96.8 ± 1.76	n = 15	[RO2] Roche Hitachi and Modular D/P
96.8 ± 9.60	118.5 ± 4.53	114.3 ± 1.37	123.7 ± 4.22	99.7 ± 3.16	n = 3	[RO1] Roche Integra and MIRA
92.4 ± 3.38	116.8 ± 1.58	107.7 ± 1.71	116.7 ± 1.11	95.8 ± 2.49	n = 9	[GZ1] Sekisui Diagnostics
90.4 ± 1.88	104.7 ± 1.81	105.6 ± 1.16	116.1 ± 1.78	88.0 ± 1.50	n = 21	[BY1] Siemens ADVIA/ADVIA Centaur
88.3 ± 1.91	109.4 ± 2.04	103.8 ± 2.10	112.1 ± 2.06	88.2 ± 1.68	n = 60	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

Sodium (mmol/L)

Specimen: C21	Specimen: C22	Specimen: C23	Specimen: C24	Specimen: C25	Number	[Code] Instrument or Reagent System
135.7 ± 1.62	151.4 ± 2.38	162.7 ± 3.06	153.4 ± 2.55	125.9 ± 1.69	n = 378	[---] All Methods & Instruments
						<Instruments>
133.5 ± 1.86	146.5 ± 1.86	160.3 ± 2.26	149.8 ± 1.54	123.0 ± 1.80	n = 3	[AXA] Abaxis Piccolo
135.7 ± 0.82	153.1 ± 1.28	165.1 ± 1.18	155.2 ± 0.92	125.2 ± 0.71	n = 24	[ABJ] Abbott Architect c System
134.4 ± 1.31	150.1 ± 1.18	160.8 ± 1.54	152.1 ± 1.46	124.5 ± 1.02	n = 70	[OLC] Beckman Coulter AU Chemistry System
135.2 ± 1.20	150.4 ± 1.55	162.0 ± 1.95	152.2 ± 1.47	125.6 ± 0.94	n = 16	[BCG] Beckman Coulter UniCel DxC 600
134.9 ± 0.87	150.2 ± 1.45	162.5 ± 1.51	152.3 ± 1.22	125.1 ± 1.41	n = 10	[BCH] Beckman Coulter UniCel DxC 800
134.7 ± 0.69	149.1 ± 0.85	160.3 ± 0.69	152.0 ± 0.00	123.9 ± 0.60	n = 8	[IAA] i-STAT
136.7 ± 1.99	155.5 ± 2.03	169.4 ± 3.14	159.8 ± 3.04	127.5 ± 2.30	n = 8	[JJE] Ortho Vitros 250/350/950
136.6 ± 1.32	156.6 ± 1.80	168.6 ± 1.80	158.7 ± 2.14	127.2 ± 1.34	n = 12	[JJF] Ortho Vitros 5,1FS
135.8 ± 1.48	155.6 ± 1.47	168.3 ± 1.25	158.5 ± 1.69	126.8 ± 1.58	n = 20	[JJG] Ortho Vitros 5600
134.8 ± 3.23	149.7 ± 1.37	162.5 ± 2.74	152.8 ± 1.54	124.7 ± 1.37	n = 3	[ROK] Roche cobas c111
136.6 ± 0.55	152.5 ± 0.83	164.5 ± 0.57	154.2 ± 0.41	126.5 ± 1.07	n = 5	[ROJ] Roche cobas c311
135.9 ± 1.57	152.2 ± 1.55	164.1 ± 1.57	154.3 ± 1.60	125.9 ± 1.71	n = 33	[ROC] Roche cobas c501
136.7 ± 1.52	152.9 ± 0.99	164.2 ± 1.03	154.9 ± 1.26	126.0 ± 1.31	n = 8	[ROH] Roche cobas c701
134.4 ± 1.52	150.5 ± 1.80	162.1 ± 1.38	152.4 ± 1.52	124.1 ± 1.30	n = 5	[ROS] Roche Cobas INTEGRA 400
133.5 ± 1.86	148.7 ± 1.37	160.3 ± 1.37	151.0 ± 0.90	123.3 ± 0.51	n = 3	[ROT] Roche Cobas INTEGRA 800
137.2 ± 1.00	153.1 ± 0.81	165.2 ± 1.28	155.2 ± 0.76	126.5 ± 0.86	n = 15	[ROD] Roche MODULAR D/P
137.2 ± 0.93	153.0 ± 1.30	164.1 ± 0.96	155.1 ± 0.84	127.3 ± 0.83	n = 19	[BYE] Siemens ADVIA 1800
136.3 ± 0.51	151.3 ± 0.51	162.6 ± 1.02	153.3 ± 0.51	126.7 ± 0.51	n = 3	[BYB] Siemens ADVIA 2400
136.4 ± 0.80	151.7 ± 0.94	162.2 ± 1.46	153.6 ± 1.00	126.7 ± 0.79	n = 26	[DUE] Siemens Dimension EXL
134.9 ± 1.07	149.3 ± 1.23	159.6 ± 1.95	150.7 ± 1.91	125.4 ± 1.67	n = 13	[DUR] Siemens Dimension RxL
136.0 ± 1.28	149.6 ± 1.29	159.9 ± 1.38	151.1 ± 1.28	127.1 ± 1.28	n = 44	[DUT] Siemens Dimension Vista
137.4 ± 1.23	152.4 ± 1.58	162.9 ± 2.00	154.1 ± 1.57	127.5 ± 0.62	n = 12	[DUX] Siemens Dimension Xpand
						<Reagents>
133.5 ± 1.86	146.5 ± 1.86	160.3 ± 2.26	149.8 ± 1.54	123.0 ± 1.80	n = 3	[AX1] Abaxis
135.7 ± 0.81	153.0 ± 1.39	165.0 ± 1.31	155.1 ± 1.03	125.1 ± 0.75	n = 25	[AB1] Abbott
135.0 ± 1.12	150.3 ± 1.53	162.0 ± 1.92	152.2 ± 1.37	125.4 ± 1.16	n = 29	[BC1] Beckman Coulter
134.4 ± 1.23	150.1 ± 1.15	160.8 ± 1.50	152.1 ± 1.44	124.5 ± 1.03	n = 67	[OL1] Beckman Coulter AU Series
134.5 ± 0.90	149.2 ± 1.14	160.3 ± 0.94	152.0 ± 0.00	123.9 ± 0.87	n = 8	[IA1] i-STAT
136.2 ± 1.57	155.8 ± 1.77	168.4 ± 1.75	158.7 ± 2.05	126.9 ± 1.68	n = 42	[JJ1] Ortho Clinical Diagnostics
134.8 ± 3.23	149.7 ± 1.37	162.5 ± 2.74	152.8 ± 1.54	124.7 ± 1.37	n = 3	[RO8] Roche cobas c111
136.2 ± 1.54	152.3 ± 1.50	164.2 ± 1.52	154.4 ± 1.60	126.0 ± 1.62	n = 49	[RO4] Roche cobas c311/c501/c502/c701/c702
137.2 ± 1.00	153.1 ± 0.81	165.2 ± 1.28	155.2 ± 0.76	126.5 ± 0.86	n = 15	[RO2] Roche Hitachi and Modular D/P
134.1 ± 1.71	149.8 ± 1.86	161.4 ± 1.65	151.8 ± 1.44	123.7 ± 1.07	n = 8	[RO1] Roche Integra and MIRA
137.0 ± 0.93	152.6 ± 1.42	163.8 ± 1.08	154.6 ± 1.16	127.2 ± 0.83	n = 24	[BY1] Siemens ADVIA/ADVIA Centaur
136.2 ± 1.31	150.4 ± 1.76	160.8 ± 2.04	152.1 ± 1.98	126.9 ± 1.21	n = 95	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

Potassium (mmol/L)

Specimen: C21	Specimen: C22	Specimen: C23	Specimen: C24	Specimen: C25	Number	[Code] Instrument or Reagent System
4.62 ± 0.11	3.50 ± 0.10	6.20 ± 0.15	4.71 ± 0.12	2.89 ± 0.09	n = 379	[---] All Methods & Instruments
						<Instruments>
4.56 ± 0.10	3.50 ± 0.00	6.27 ± 0.14	4.83 ± 0.05	2.67 ± 0.14	n = 3	[AXA] Abaxis Piccolo
4.60 ± 0.00	3.52 ± 0.05	6.20 ± 0.00	4.70 ± 0.00	2.90 ± 0.00	n = 24	[ABJ] Abbott Architect c System
4.58 ± 0.06	3.50 ± 0.00	6.13 ± 0.07	4.69 ± 0.05	2.89 ± 0.04	n = 70	[OLC] Beckman Coulter AU Chemistry System
4.58 ± 0.06	3.46 ± 0.06	6.20 ± 0.00	4.68 ± 0.06	2.81 ± 0.07	n = 16	[BCG] Beckman Coulter UniCel DxC 600
4.60 ± 0.00	3.48 ± 0.05	6.24 ± 0.08	4.70 ± 0.00	2.82 ± 0.05	n = 10	[BCH] Beckman Coulter UniCel DxC 800
4.50 ± 0.00	3.37 ± 0.05	6.00 ± 0.00	4.60 ± 0.00	2.80 ± 0.00	n = 8	[IAA] i-STAT
4.77 ± 0.07	3.62 ± 0.05	6.37 ± 0.07	4.93 ± 0.09	3.01 ± 0.06	n = 8	[JJE] Ortho Vitros 250/350/950
4.73 ± 0.14	3.60 ± 0.09	6.40 ± 0.09	4.90 ± 0.09	3.00 ± 0.09	n = 3	[JJH] Ortho Vitros 4600
4.74 ± 0.06	3.63 ± 0.05	6.39 ± 0.09	4.93 ± 0.06	3.00 ± 0.00	n = 11	[JJF] Ortho Vitros 5,1FS
4.76 ± 0.06	3.63 ± 0.05	6.40 ± 0.07	4.89 ± 0.05	3.00 ± 0.00	n = 20	[JJG] Ortho Vitros 5600
4.63 ± 0.14	3.47 ± 0.05	6.20 ± 0.09	4.73 ± 0.05	2.87 ± 0.05	n = 3	[ROK] Roche cobas c111
4.70 ± 0.00	3.60 ± 0.00	6.30 ± 0.00	4.80 ± 0.00	3.00 ± 0.00	n = 5	[ROJ] Roche cobas c311
4.69 ± 0.13	3.52 ± 0.14	6.27 ± 0.14	4.77 ± 0.13	2.89 ± 0.14	n = 33	[ROC] Roche cobas c501
4.70 ± 0.00	3.57 ± 0.09	6.30 ± 0.00	4.79 ± 0.08	2.91 ± 0.06	n = 8	[ROH] Roche cobas c701
4.64 ± 0.06	3.48 ± 0.08	6.20 ± 0.06	4.70 ± 0.06	2.85 ± 0.08	n = 5	[ROS] Roche Cobas INTEGRA 400
4.63 ± 0.05	3.47 ± 0.05	6.17 ± 0.05	4.70 ± 0.00	2.87 ± 0.05	n = 3	[ROT] Roche Cobas INTEGRA 800
4.76 ± 0.07	3.59 ± 0.08	6.31 ± 0.05	4.80 ± 0.07	3.01 ± 0.09	n = 15	[ROD] Roche MODULAR D/P
4.70 ± 0.00	3.58 ± 0.05	6.28 ± 0.07	4.80 ± 0.00	2.95 ± 0.06	n = 19	[BYE] Siemens ADVIA 1800
4.77 ± 0.05	3.67 ± 0.05	6.36 ± 0.10	4.83 ± 0.05	2.97 ± 0.05	n = 3	[BYB] Siemens ADVIA 2400
4.60 ± 0.00	3.40 ± 0.00	6.20 ± 0.00	4.70 ± 0.00	2.80 ± 0.00	n = 26	[DUE] Siemens Dimension EXL
4.58 ± 0.05	3.40 ± 0.00	6.11 ± 0.10	4.62 ± 0.07	2.79 ± 0.05	n = 13	[DUR] Siemens Dimension RxL
4.50 ± 0.00	3.43 ± 0.05	5.98 ± 0.05	4.60 ± 0.00	2.87 ± 0.05	n = 44	[DUT] Siemens Dimension Vista
4.63 ± 0.05	3.46 ± 0.06	6.20 ± 0.10	4.70 ± 0.00	2.83 ± 0.05	n = 12	[DUX] Siemens Dimension Xpand
						<Reagents>
4.56 ± 0.10	3.50 ± 0.00	6.27 ± 0.14	4.83 ± 0.05	2.67 ± 0.14	n = 3	[AX1] Abaxis
4.61 ± 0.04	3.52 ± 0.05	6.20 ± 0.00	4.71 ± 0.04	2.90 ± 0.00	n = 25	[AB1] Abbott
4.59 ± 0.04	3.47 ± 0.05	6.20 ± 0.07	4.69 ± 0.05	2.82 ± 0.06	n = 29	[BC1] Beckman Coulter
4.58 ± 0.06	3.50 ± 0.00	6.13 ± 0.07	4.68 ± 0.05	2.90 ± 0.00	n = 67	[OL1] Beckman Coulter AU Series
4.50 ± 0.00	3.38 ± 0.05	6.00 ± 0.00	4.60 ± 0.00	2.80 ± 0.00	n = 7	[IA1] i-STAT
4.53 ± 0.05	3.33 ± 0.05	6.16 ± 0.10	4.63 ± 0.05	2.73 ± 0.05	n = 3	[IL1] Instrumentation Lab
4.75 ± 0.07	3.63 ± 0.06	6.39 ± 0.08	4.91 ± 0.07	3.00 ± 0.00	n = 42	[JJ1] Ortho Clinical Diagnostics
4.63 ± 0.14	3.47 ± 0.05	6.20 ± 0.09	4.73 ± 0.05	2.87 ± 0.05	n = 3	[RO8] Roche cobas c111
4.69 ± 0.10	3.54 ± 0.12	6.28 ± 0.12	4.78 ± 0.11	2.92 ± 0.12	n = 49	[RO4] Roche cobas c311/c501/c502/c701/c702
4.76 ± 0.07	3.59 ± 0.08	6.31 ± 0.05	4.80 ± 0.07	3.01 ± 0.09	n = 15	[RO2] Roche Hitachi and Modular D/P
4.63 ± 0.05	3.47 ± 0.07	6.19 ± 0.06	4.70 ± 0.00	2.86 ± 0.07	n = 8	[RO1] Roche Integra and MIRA
4.70 ± 0.00	3.59 ± 0.06	6.29 ± 0.08	4.80 ± 0.00	2.96 ± 0.06	n = 24	[BY1] Siemens ADVIA/ADVIA Centaur
4.55 ± 0.08	3.42 ± 0.05	6.08 ± 0.13	4.63 ± 0.07	2.83 ± 0.06	n = 94	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

Chloride (mmol/L)

Specimen: C21	Specimen: C22	Specimen: C23	Specimen: C24	Specimen: C25	Number	[Code] Instrument or Reagent System
95.0 ± 1.83	106.1 ± 2.08	114.6 ± 2.82	107.5 ± 2.24	87.4 ± 1.90	n = 373	[---] All Methods & Instruments
						<Instruments>
95.7 ± 2.26	104.3 ± 1.37	113.0 ± 2.70	105.7 ± 1.37	86.6 ± 1.02	n = 3	[AXA] Abaxis Piccolo
96.0 ± 0.73	106.5 ± 0.79	115.3 ± 0.69	108.4 ± 0.66	88.0 ± 0.69	n = 23	[ABJ] Abbott Architect c System
94.3 ± 0.84	104.9 ± 0.84	112.4 ± 0.98	106.2 ± 0.88	87.2 ± 0.85	n = 69	[OLC] Beckman Coulter AU Chemistry System
95.2 ± 0.95	106.4 ± 1.15	115.0 ± 1.33	107.8 ± 1.50	87.7 ± 1.04	n = 16	[BCG] Beckman Coulter UniCel DxC 600
94.8 ± 0.73	106.1 ± 0.74	114.7 ± 0.94	107.6 ± 0.97	87.7 ± 0.67	n = 10	[BCH] Beckman Coulter UniCel DxC 800
94.6 ± 0.56	109.5 ± 0.74	120.0 ± 1.12	111.4 ± 0.93	89.0 ± 0.00	n = 7	[IAA] i-STAT
94.3 ± 1.15	105.9 ± 1.02	115.8 ± 1.65	108.2 ± 1.37	87.7 ± 1.05	n = 8	[JJE] Ortho Vitros 250/350/950
93.7 ± 2.26	106.0 ± 1.80	115.7 ± 2.26	108.0 ± 1.80	87.5 ± 1.86	n = 3	[JJH] Ortho Vitros 4600
93.8 ± 1.30	106.1 ± 2.09	115.4 ± 1.62	107.3 ± 1.63	87.2 ± 1.22	n = 11	[JJF] Ortho Vitros 5,1FS
94.2 ± 0.82	106.3 ± 1.04	115.9 ± 0.86	108.0 ± 1.09	87.4 ± 0.84	n = 20	[JJG] Ortho Vitros 5600
96.5 ± 2.74	107.3 ± 1.37	116.5 ± 1.86	110.3 ± 2.26	88.8 ± 1.54	n = 3	[ROK] Roche cobas c111
93.0 ± 0.64	104.0 ± 0.00	111.0 ± 0.00	104.8 ± 0.80	83.2 ± 0.80	n = 5	[ROJ] Roche cobas c311
92.7 ± 1.03	103.6 ± 1.07	111.3 ± 1.02	104.7 ± 1.20	83.6 ± 1.37	n = 33	[ROC] Roche cobas c501
92.6 ± 1.07	103.8 ± 1.02	110.9 ± 0.85	104.4 ± 1.06	82.7 ± 1.24	n = 8	[ROH] Roche cobas c701
94.8 ± 0.80	106.0 ± 1.00	114.6 ± 1.09	107.5 ± 1.61	87.1 ± 1.27	n = 5	[ROS] Roche Cobas INTEGRA 400
94.4 ± 1.02	106.0 ± 0.90	115.0 ± 0.90	107.6 ± 1.02	87.0 ± 0.00	n = 3	[ROT] Roche Cobas INTEGRA 800
93.9 ± 1.06	104.1 ± 1.07	111.6 ± 1.09	105.1 ± 0.85	84.5 ± 1.19	n = 15	[ROD] Roche MODULAR D/P
96.1 ± 0.93	106.7 ± 0.76	114.2 ± 1.19	107.4 ± 1.12	88.0 ± 0.77	n = 19	[BYE] Siemens ADVIA 1800
96.0 ± 0.00	106.7 ± 0.51	113.3 ± 0.51	107.0 ± 0.00	88.0 ± 0.90	n = 3	[BYB] Siemens ADVIA 2400
97.0 ± 0.92	107.8 ± 0.81	116.3 ± 1.16	109.0 ± 1.09	88.2 ± 0.87	n = 26	[DUE] Siemens Dimension EXL
96.3 ± 1.75	107.6 ± 1.90	116.5 ± 2.16	108.6 ± 1.84	86.8 ± 2.02	n = 13	[DUR] Siemens Dimension RxL
96.8 ± 0.91	108.4 ± 1.30	117.9 ± 1.23	110.0 ± 1.11	89.1 ± 0.95	n = 44	[DUT] Siemens Dimension Vista
97.1 ± 0.93	108.1 ± 1.13	116.3 ± 1.15	109.1 ± 0.93	88.6 ± 1.12	n = 12	[DUX] Siemens Dimension Xpand
						<Reagents>
95.7 ± 2.26	104.3 ± 1.37	113.0 ± 2.70	105.7 ± 1.37	86.6 ± 1.02	n = 3	[AX1] Abaxis
95.9 ± 0.72	106.5 ± 0.79	115.3 ± 0.66	108.4 ± 0.65	88.1 ± 0.73	n = 25	[AB1] Abbott
95.1 ± 0.99	106.2 ± 1.14	114.9 ± 1.30	107.7 ± 1.38	87.7 ± 0.94	n = 29	[BC1] Beckman Coulter
94.4 ± 0.83	104.8 ± 0.82	112.4 ± 0.93	106.2 ± 0.87	87.2 ± 0.83	n = 66	[OL1] Beckman Coulter AU Series
94.5 ± 0.57	109.3 ± 0.51	119.8 ± 0.73	111.0 ± 0.00	89.0 ± 0.00	n = 6	[IA1] i-STAT
94.1 ± 1.18	106.1 ± 1.46	115.8 ± 1.38	107.9 ± 1.40	87.4 ± 1.09	n = 41	[JJ1] Ortho Clinical Diagnostics
96.5 ± 2.74	107.3 ± 1.37	116.5 ± 1.86	110.3 ± 2.26	88.8 ± 1.54	n = 3	[RO8] Roche cobas c111
92.7 ± 1.01	103.7 ± 1.02	111.2 ± 0.94	104.6 ± 1.11	83.4 ± 1.35	n = 49	[RO4] Roche cobas c311/c501/c502/c701/c702
93.9 ± 1.06	104.1 ± 1.07	111.6 ± 1.09	105.1 ± 0.85	84.5 ± 1.19	n = 15	[RO2] Roche Hitachi and Modular D/P
94.7 ± 0.87	106.0 ± 0.97	114.8 ± 1.02	107.6 ± 1.39	87.0 ± 0.91	n = 8	[RO1] Roche Integra and MIRA
96.2 ± 0.83	106.7 ± 0.69	114.1 ± 1.10	107.4 ± 0.99	88.0 ± 0.85	n = 24	[BY1] Siemens ADVIA/ADVIA Centaur
96.9 ± 1.05	108.1 ± 1.23	117.1 ± 1.55	109.4 ± 1.32	88.6 ± 1.18	n = 95	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

Albumin (g/dL)

Specimen: C21	Specimen: C22	Specimen: C23	Specimen: C24	Specimen: C25	Number	[Code] Instrument or Reagent System
4.27 ± 0.13	4.52 ± 0.17	5.16 ± 0.16	5.23 ± 0.22	3.74 ± 0.18	n = 363	[---] All Methods & Instruments
						<Instruments>
4.23 ± 0.14	4.76 ± 0.10	5.03 ± 0.05	5.06 ± 0.10	3.96 ± 0.10	n = 3	[AXA] Abaxis Piccolo
4.25 ± 0.09	4.41 ± 0.12	5.05 ± 0.10	5.09 ± 0.07	3.68 ± 0.13	n = 24	[ABJ] Abbott Architect c System
4.30 ± 0.11	4.50 ± 0.11	5.12 ± 0.13	5.17 ± 0.12	3.75 ± 0.11	n = 72	[OLC] Beckman Coulter AU Chemistry System
4.22 ± 0.07	4.27 ± 0.06	5.03 ± 0.07	5.11 ± 0.08	3.49 ± 0.07	n = 15	[BCG] Beckman Coulter UniCel DxC 600
4.26 ± 0.08	4.36 ± 0.08	5.15 ± 0.11	5.26 ± 0.10	3.61 ± 0.07	n = 10	[BCH] Beckman Coulter UniCel DxC 800
4.06 ± 0.10	4.33 ± 0.15	5.05 ± 0.15	4.87 ± 0.15	3.56 ± 0.14	n = 8	[JJE] Ortho Vitros 250/350/950
4.17 ± 0.05	4.43 ± 0.05	5.10 ± 0.09	4.87 ± 0.05	3.53 ± 0.05	n = 3	[JJH] Ortho Vitros 4600
4.18 ± 0.13	4.40 ± 0.12	5.12 ± 0.17	4.90 ± 0.17	3.52 ± 0.09	n = 11	[JJF] Ortho Vitros 5,1FS
4.19 ± 0.13	4.41 ± 0.13	5.10 ± 0.17	4.91 ± 0.17	3.52 ± 0.09	n = 20	[JJG] Ortho Vitros 5600
4.38 ± 0.08	4.70 ± 0.06	5.30 ± 0.00	5.35 ± 0.08	3.94 ± 0.06	n = 5	[ROJ] Roche cobas c311
4.42 ± 0.09	4.73 ± 0.13	5.31 ± 0.12	5.38 ± 0.15	3.99 ± 0.14	n = 32	[ROC] Roche cobas c501
4.46 ± 0.12	4.76 ± 0.12	5.28 ± 0.13	5.45 ± 0.13	4.00 ± 0.00	n = 10	[ROH] Roche cobas c701
4.35 ± 0.08	4.60 ± 0.06	5.23 ± 0.11	5.31 ± 0.13	3.87 ± 0.11	n = 5	[ROS] Roche Cobas INTEGRA 400
4.30 ± 0.09	4.63 ± 0.05	5.13 ± 0.14	5.30 ± 0.09	3.87 ± 0.05	n = 3	[ROT] Roche Cobas INTEGRA 800
4.38 ± 0.08	4.69 ± 0.09	5.24 ± 0.07	5.30 ± 0.00	3.92 ± 0.09	n = 15	[ROD] Roche MODULAR D/P
4.27 ± 0.09	4.56 ± 0.08	5.02 ± 0.10	5.13 ± 0.09	3.79 ± 0.06	n = 19	[BYE] Siemens ADVIA 1800
4.24 ± 0.09	4.55 ± 0.08	5.27 ± 0.11	5.41 ± 0.12	3.72 ± 0.09	n = 26	[DUE] Siemens Dimension EXL
4.23 ± 0.08	4.54 ± 0.09	5.24 ± 0.11	5.39 ± 0.13	3.69 ± 0.07	n = 12	[DUR] Siemens Dimension RxL
4.21 ± 0.13	4.52 ± 0.15	5.24 ± 0.16	5.41 ± 0.17	3.72 ± 0.11	n = 43	[DUT] Siemens Dimension Vista
4.24 ± 0.06	4.50 ± 0.10	5.24 ± 0.07	5.38 ± 0.07	3.70 ± 0.06	n = 12	[DUX] Siemens Dimension Xpand
						<Reagents>
4.23 ± 0.14	4.76 ± 0.10	5.03 ± 0.05	5.06 ± 0.10	3.96 ± 0.10	n = 3	[AX1] Abaxis
4.25 ± 0.09	4.41 ± 0.12	5.05 ± 0.10	5.09 ± 0.07	3.68 ± 0.13	n = 24	[AB1] Abbott
4.24 ± 0.07	4.30 ± 0.09	5.06 ± 0.10	5.17 ± 0.11	3.54 ± 0.10	n = 26	[BC1] Beckman Coulter
4.30 ± 0.11	4.50 ± 0.11	5.11 ± 0.12	5.17 ± 0.12	3.76 ± 0.11	n = 67	[OL1] Beckman Coulter AU Series
4.16 ± 0.13	4.40 ± 0.13	5.09 ± 0.16	4.90 ± 0.16	3.53 ± 0.10	n = 42	[JJ1] Ortho Clinical Diagnostics
4.42 ± 0.10	4.73 ± 0.12	5.30 ± 0.11	5.39 ± 0.14	3.98 ± 0.11	n = 50	[RO4] Roche cobas c311/c501/c502/c701/c702
4.38 ± 0.08	4.69 ± 0.09	5.24 ± 0.07	5.30 ± 0.00	3.92 ± 0.09	n = 15	[RO2] Roche Hitachi and Modular D/P
4.33 ± 0.09	4.61 ± 0.06	5.19 ± 0.13	5.31 ± 0.11	3.87 ± 0.09	n = 8	[RO1] Roche Integra and MIRA
4.40 ± 0.09	4.50 ± 0.09	5.17 ± 0.05	5.28 ± 0.24	3.73 ± 0.05	n = 3	[GZ1] Sekisui Diagnostics
4.27 ± 0.09	4.55 ± 0.09	5.02 ± 0.11	5.12 ± 0.10	3.79 ± 0.07	n = 23	[BY1] Siemens ADVIA/ADVIA Centaur
4.23 ± 0.10	4.53 ± 0.11	5.25 ± 0.13	5.41 ± 0.14	3.71 ± 0.09	n = 91	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

Total Protein (g/dL)

Specimen: C21	Specimen: C22	Specimen: C23	Specimen: C24	Specimen: C25	Number	[Code] Instrument or Reagent System
6.80 ± 0.16	7.51 ± 0.20	7.68 ± 0.19	7.86 ± 0.20	6.23 ± 0.17	n = 359	[---] All Methods & Instruments
						<Instruments>
6.63 ± 0.05	7.53 ± 0.14	7.53 ± 0.05	7.70 ± 0.09	6.17 ± 0.05	n = 3	[AXA] Abaxis Piccolo
6.75 ± 0.07	7.51 ± 0.05	7.68 ± 0.06	7.83 ± 0.06	6.19 ± 0.05	n = 25	[ABJ] Abbott Architect c System
6.71 ± 0.12	7.39 ± 0.14	7.55 ± 0.14	7.74 ± 0.14	6.13 ± 0.13	n = 70	[OLC] Beckman Coulter AU Chemistry System
6.83 ± 0.06	7.44 ± 0.18	7.58 ± 0.20	7.73 ± 0.20	6.22 ± 0.12	n = 16	[BCG] Beckman Coulter UniCel DxC 600
6.65 ± 0.07	7.39 ± 0.15	7.53 ± 0.05	7.69 ± 0.15	6.14 ± 0.15	n = 10	[BCH] Beckman Coulter UniCel DxC 800
6.76 ± 0.09	7.34 ± 0.08	7.76 ± 0.13	7.90 ± 0.00	6.10 ± 0.11	n = 8	[JJE] Ortho Vitros 250/350/950
6.82 ± 0.15	7.32 ± 0.15	7.84 ± 0.10	7.85 ± 0.19	6.05 ± 0.19	n = 3	[JJH] Ortho Vitros 4600
6.76 ± 0.17	7.27 ± 0.18	7.71 ± 0.21	7.77 ± 0.18	6.01 ± 0.13	n = 11	[JJF] Ortho Vitros 5,1FS
6.82 ± 0.18	7.31 ± 0.19	7.74 ± 0.20	7.82 ± 0.18	6.04 ± 0.14	n = 20	[JJG] Ortho Vitros 5600
6.80 ± 0.06	7.56 ± 0.06	7.66 ± 0.06	7.85 ± 0.11	6.28 ± 0.08	n = 5	[ROJ] Roche cobas c311
6.75 ± 0.12	7.49 ± 0.11	7.60 ± 0.13	7.79 ± 0.13	6.22 ± 0.12	n = 32	[ROC] Roche cobas c501
6.71 ± 0.11	7.45 ± 0.14	7.55 ± 0.16	7.77 ± 0.14	6.18 ± 0.12	n = 8	[ROH] Roche cobas c701
6.65 ± 0.08	7.37 ± 0.16	7.50 ± 0.06	7.68 ± 0.08	6.12 ± 0.08	n = 5	[ROS] Roche Cobas INTEGRA 400
6.65 ± 0.19	7.39 ± 0.20	7.43 ± 0.23	7.54 ± 0.10	6.03 ± 0.23	n = 3	[ROT] Roche Cobas INTEGRA 800
6.77 ± 0.14	7.48 ± 0.16	7.64 ± 0.15	7.84 ± 0.18	6.23 ± 0.13	n = 15	[ROD] Roche MODULAR D/P
6.89 ± 0.14	7.56 ± 0.10	7.75 ± 0.13	7.91 ± 0.12	6.28 ± 0.10	n = 19	[BYE] Siemens ADVIA 1800
6.95 ± 0.12	7.72 ± 0.12	7.86 ± 0.13	8.09 ± 0.14	6.40 ± 0.10	n = 26	[DUE] Siemens Dimension EXL
6.94 ± 0.15	7.76 ± 0.13	7.90 ± 0.15	8.13 ± 0.16	6.44 ± 0.11	n = 12	[DUR] Siemens Dimension RxL
6.95 ± 0.08	7.69 ± 0.10	7.84 ± 0.10	8.05 ± 0.10	6.37 ± 0.07	n = 43	[DUT] Siemens Dimension Vista
6.89 ± 0.11	7.66 ± 0.09	7.78 ± 0.10	8.04 ± 0.12	6.38 ± 0.10	n = 12	[DUX] Siemens Dimension Xpand
						<Reagents>
6.63 ± 0.05	7.53 ± 0.14	7.53 ± 0.05	7.70 ± 0.09	6.17 ± 0.05	n = 3	[AX1] Abaxis
6.75 ± 0.07	7.51 ± 0.05	7.68 ± 0.06	7.83 ± 0.06	6.19 ± 0.05	n = 25	[AB1] Abbott
6.74 ± 0.13	7.42 ± 0.18	7.58 ± 0.17	7.73 ± 0.18	6.19 ± 0.13	n = 28	[BC1] Beckman Coulter
6.71 ± 0.12	7.40 ± 0.13	7.55 ± 0.13	7.75 ± 0.13	6.14 ± 0.12	n = 66	[OL1] Beckman Coulter AU Series
6.79 ± 0.16	7.30 ± 0.16	7.75 ± 0.19	7.83 ± 0.17	6.05 ± 0.14	n = 42	[JJ1] Ortho Clinical Diagnostics
6.74 ± 0.11	7.48 ± 0.12	7.59 ± 0.14	7.78 ± 0.14	6.22 ± 0.12	n = 47	[RO4] Roche cobas c311/c501/c502/c701/c702
6.77 ± 0.14	7.48 ± 0.16	7.64 ± 0.15	7.84 ± 0.18	6.23 ± 0.13	n = 15	[RO2] Roche Hitachi and Modular D/P
6.65 ± 0.12	7.38 ± 0.18	7.48 ± 0.14	7.63 ± 0.10	6.10 ± 0.15	n = 8	[RO1] Roche Integra and MIRA
6.88 ± 0.14	7.56 ± 0.10	7.75 ± 0.12	7.90 ± 0.11	6.28 ± 0.10	n = 23	[BY1] Siemens ADVIA/ADVIA Centaur
6.94 ± 0.11	7.70 ± 0.11	7.84 ± 0.12	8.06 ± 0.12	6.39 ± 0.09	n = 92	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

Cholesterol (mg/dL)

Specimen: C21	Specimen: C22	Specimen: C23	Specimen: C24	Specimen: C25	Number	[Code] Instrument or Reagent System
162.8 ± 7.60	165.1 ± 7.08	214.4 ± 7.41	185.9 ± 5.79	135.4 ± 6.10	n = 322	[---] All Methods & Instruments
						<Instruments>
166.2 ± 2.18	170.0 ± 1.65	220.4 ± 1.86	192.7 ± 1.96	139.4 ± 1.15	n = 19	[ABJ] Abbott Architect c System
159.9 ± 3.68	161.8 ± 3.76	211.3 ± 4.91	183.7 ± 3.93	132.6 ± 2.72	n = 74	[OLC] Beckman Coulter AU Chemistry System
170.9 ± 2.13	166.9 ± 2.78	217.6 ± 2.90	186.6 ± 3.06	135.2 ± 3.65	n = 11	[BCG] Beckman Coulter UniCel DxC 600
170.5 ± 1.03	165.1 ± 1.10	216.7 ± 3.07	186.3 ± 1.24	136.5 ± 1.44	n = 9	[BCH] Beckman Coulter UniCel DxC 800
155.0 ± 23.65	160.9 ± 24.75	223.3 ± 1.37	190.0 ± 0.90	145.3 ± 2.26	n = 3	[JJE] Ortho Vitros 250/350/950
169.3 ± 2.71	179.3 ± 3.44	223.2 ± 7.53	191.5 ± 3.94	145.6 ± 2.43	n = 9	[JJF] Ortho Vitros 5,1FS
170.0 ± 3.45	180.2 ± 4.14	223.7 ± 4.92	189.7 ± 4.18	144.9 ± 3.51	n = 20	[JJG] Ortho Vitros 5600
167.0 ± 4.08	170.5 ± 4.68	219.8 ± 5.33	190.4 ± 3.76	139.9 ± 3.76	n = 28	[ROC] Roche cobas c501
166.5 ± 2.99	167.8 ± 2.06	219.1 ± 3.62	190.3 ± 4.18	139.5 ± 2.22	n = 9	[ROH] Roche cobas c701
163.9 ± 2.45	168.2 ± 1.46	217.0 ± 0.75	188.1 ± 2.33	138.1 ± 1.13	n = 4	[ROS] Roche Cobas INTEGRA 400
165.0 ± 3.05	168.4 ± 3.61	218.6 ± 4.04	188.8 ± 2.70	139.7 ± 2.32	n = 16	[ROD] Roche MODULAR D/P
169.3 ± 2.57	166.5 ± 2.58	214.9 ± 2.99	183.9 ± 2.91	137.3 ± 2.22	n = 19	[BYE] Siemens ADVIA 1800
167.0 ± 1.80	164.8 ± 2.36	211.3 ± 3.37	180.1 ± 2.86	135.6 ± 1.02	n = 3	[BYB] Siemens ADVIA 2400
153.5 ± 3.84	159.8 ± 3.69	209.0 ± 4.58	182.7 ± 4.44	129.6 ± 2.94	n = 24	[DUE] Siemens Dimension EXL
153.9 ± 4.71	160.4 ± 3.53	208.9 ± 3.03	183.8 ± 4.23	131.8 ± 4.45	n = 8	[DUR] Siemens Dimension RxL
154.0 ± 4.75	158.8 ± 4.49	206.1 ± 4.73	180.1 ± 4.89	129.8 ± 3.74	n = 39	[DUT] Siemens Dimension Vista
152.7 ± 4.97	158.5 ± 5.57	205.5 ± 2.76	179.9 ± 3.57	128.1 ± 3.22	n = 8	[DUX] Siemens Dimension Xpand
						<Reagents>
166.2 ± 2.18	170.0 ± 1.65	220.4 ± 1.86	192.7 ± 1.96	139.4 ± 1.15	n = 19	[AB1] Abbott
170.7 ± 2.02	166.0 ± 2.52	217.3 ± 3.27	186.5 ± 2.84	136.0 ± 3.14	n = 23	[BC1] Beckman Coulter
159.9 ± 3.53	161.8 ± 3.58	211.4 ± 4.71	183.8 ± 3.75	132.7 ± 2.55	n = 68	[OL1] Beckman Coulter AU Series
169.6 ± 3.33	179.8 ± 4.35	223.7 ± 5.37	190.3 ± 3.89	145.1 ± 3.14	n = 33	[JJ1] Ortho Clinical Diagnostics
166.9 ± 3.72	170.0 ± 4.01	219.8 ± 4.87	190.6 ± 3.89	139.9 ± 3.51	n = 42	[RO4] Roche cobas c311/c501/c502/c701/c702
165.5 ± 2.89	168.8 ± 3.06	218.6 ± 3.77	189.0 ± 2.90	139.9 ± 1.86	n = 16	[RO2] Roche Hitachi and Modular D/P
163.0 ± 0.00	167.4 ± 1.94	216.8 ± 0.73	187.2 ± 2.80	137.7 ± 1.48	n = 6	[RO1] Roche Integra and MIRA
160.6 ± 2.56	162.4 ± 3.87	211.5 ± 4.53	183.5 ± 4.61	132.7 ± 1.37	n = 3	[GZ1] Sekisui Diagnostics
168.8 ± 3.15	166.1 ± 3.21	214.3 ± 3.84	183.3 ± 3.99	137.0 ± 2.64	n = 24	[BY1] Siemens ADVIA/ADVIA Centaur
153.7 ± 4.49	159.3 ± 4.33	207.3 ± 4.68	181.3 ± 4.78	129.7 ± 3.57	n = 79	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

HDL-Cholesterol (mg/dL)

Specimen: C21	Specimen: C22	Specimen: C23	Specimen: C24	Specimen: C25	Number	[Code] Instrument or Reagent System
38.9 ± 4.78	30.4 ± 3.69	50.4 ± 4.38	56.5 ± 5.46	25.1 ± 2.98	n = 308	[---] All Methods & Instruments
36.4 ± 4.08	31.4 ± 3.55	50.8 ± 4.51	56.8 ± 5.64	25.9 ± 2.95	n = 21	[---] All Precipitation Methods
39.1 ± 4.78	30.3 ± 3.68	50.4 ± 4.37	56.5 ± 5.45	25.1 ± 2.98	n = 287	[---] All Homogeneous (Direct) Methods
30.5 ± 1.71	25.5 ± 0.57	42.0 ± 1.14	41.0 ± 0.00	18.0 ± 1.14	n = 2	[AX1] Abaxis
45.9 ± 1.96	32.1 ± 1.39	54.1 ± 2.50	61.8 ± 2.53	26.5 ± 1.05	n = 17	[AB1] Abbott
42.8 ± 1.25	38.7 ± 1.23	57.8 ± 1.52	64.1 ± 1.16	31.4 ± 1.08	n = 20	[BC1] Beckman Coulter
45.3 ± 2.12	30.8 ± 1.63	53.4 ± 2.62	62.0 ± 2.71	25.2 ± 1.32	n = 54	[OL1] Beckman Coulter AU Series
38.3 ± 1.59	34.5 ± 1.55	51.7 ± 1.70	57.9 ± 1.88	26.5 ± 1.23	n = 26	[JJ1] Ortho Clinical Diagnostics
45.7 ± 1.51	30.7 ± 1.51	53.5 ± 2.83	61.5 ± 2.17	25.0 ± 1.65	n = 4	[GZ1] Sekisui Diagnostics
34.6 ± 0.90	28.0 ± 0.97	47.3 ± 1.09	52.2 ± 1.50	23.2 ± 0.81	n = 37	[RO4] Roche cobas c311/c501/c502/c701/c702
35.0 ± 1.12	28.0 ± 1.25	48.0 ± 1.99	53.2 ± 2.09	23.0 ± 0.83	n = 14	[RO2] Roche Hitachi and Modular D/P
35.5 ± 0.57	29.2 ± 0.73	48.3 ± 0.97	53.5 ± 1.24	24.2 ± 0.73	n = 6	[RO1] Roche Integra and MIRA
38.7 ± 1.14	22.8 ± 1.08	42.3 ± 1.47	48.6 ± 1.36	17.9 ± 1.12	n = 25	[BY1] Siemens ADVIA/ADVIA Centaur
37.3 ± 1.96	31.0 ± 1.78	50.2 ± 2.15	55.3 ± 2.32	26.4 ± 1.74	n = 66	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

LDL-Cholesterol (mg/dL)

Specimen: C21	Specimen: C22	Specimen: C23	Specimen: C24	Specimen: C25	Number	[Code] Instrument or Reagent System
104.8 ± 10.03	113.0 ± 12.03	133.4 ± 13.88	105.3 ± 12.93	92.3 ± 10.40	n = 298	[---] All Methods & Instruments
106.6 ± 8.89	116.5 ± 8.27	137.1 ± 8.79	110.5 ± 7.88	95.1 ± 7.53	n = 145	[-A-] Calculated Results Friedewald formula [LDL=TC-HDL-(Trigs÷5)]
103.0 ± 10.77	109.1 ± 13.94	128.2 ± 17.03	98.5 ± 14.45	89.1 ± 11.76	n = 152	[---] All Homogeneous (Direct) Methods
97.2 ± 4.67	104.1 ± 4.95	118.2 ± 4.91	89.3 ± 4.50	86.2 ± 4.03	n = 4	[AB1] Abbott
93.0 ± 4.11	101.4 ± 3.85	115.1 ± 5.95	88.1 ± 4.18	82.4 ± 3.42	n = 10	[BC1] Beckman Coulter
93.9 ± 5.35	97.6 ± 5.35	110.7 ± 7.10	84.3 ± 6.17	79.8 ± 4.62	n = 30	[OL1] Beckman Coulter AU Series
102.3 ± 2.21	107.1 ± 3.52	128.1 ± 3.27	97.7 ± 3.00	85.6 ± 1.88	n = 15	[JJ1] Ortho Clinical Diagnostics
117.7 ± 3.34	134.4 ± 2.85	154.3 ± 2.58	120.4 ± 3.11	111.3 ± 2.53	n = 18	[RO4] Roche cobas c311/c501/c502/c701/c702
117.9 ± 4.86	134.1 ± 6.15	152.2 ± 6.41	118.6 ± 4.57	111.0 ± 4.89	n = 11	[RO2] Roche Hitachi and Modular D/P
117.7 ± 1.37	128.2 ± 2.36	139.1 ± 6.58	104.4 ± 1.02	104.7 ± 0.51	n = 3	[RO1] Roche Integra 800
93.2 ± 3.37	95.9 ± 3.18	107.3 ± 4.20	79.7 ± 3.95	78.8 ± 3.06	n = 9	[GZ1] Sekisui Reagents/Beckman AU Series
110.4 ± 2.19	109.4 ± 1.36	131.9 ± 2.07	100.0 ± 1.08	88.4 ± 1.13	n = 13	[BY1] Siemens ADVIA/ADVIA Centaur
101.8 ± 5.34	108.8 ± 5.54	130.3 ± 7.57	101.1 ± 7.18	90.0 ± 5.09	n = 35	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

Triglycerides (mg/dL)

Specimen: C21	Specimen: C22	Specimen: C23	Specimen: C24	Specimen: C25	Number	[Code] Instrument or Reagent System
79.6 ± 5.80	92.7 ± 5.72	133.7 ± 7.11	91.0 ± 4.94	76.8 ± 4.54	n = 313	[---] All Methods & Instruments
						<Instruments>
86.9 ± 2.73	89.0 ± 2.26	130.9 ± 2.30	87.0 ± 1.75	74.8 ± 1.95	n = 19	[ABJ] Abbott Architect c System
74.1 ± 2.72	89.9 ± 3.27	130.4 ± 3.53	89.3 ± 2.58	74.3 ± 2.38	n = 70	[OLC] Beckman Coulter AU Chemistry System
80.9 ± 2.06	102.1 ± 2.52	143.6 ± 3.73	97.4 ± 1.68	82.3 ± 0.89	n = 11	[BCG] Beckman Coulter UniCel DxC 600
80.4 ± 1.70	100.5 ± 1.79	143.5 ± 0.70	97.2 ± 1.42	81.7 ± 1.66	n = 9	[BCH] Beckman Coulter UniCel DxC 800
74.1 ± 11.54	93.8 ± 18.39	143.6 ± 5.58	98.5 ± 4.53	83.3 ± 5.09	n = 3	[JJE] Ortho Vitros 250/350/950
77.4 ± 1.93	97.6 ± 2.04	140.4 ± 2.78	94.8 ± 2.91	78.9 ± 0.88	n = 9	[JJF] Ortho Vitros 5,1FS
76.9 ± 1.83	98.2 ± 2.84	139.3 ± 2.46	94.9 ± 2.13	78.5 ± 1.97	n = 20	[JJG] Ortho Vitros 5600
84.2 ± 2.30	93.4 ± 2.19	131.8 ± 2.51	91.7 ± 1.95	78.8 ± 2.16	n = 28	[ROC] Roche cobas c501
82.0 ± 1.13	91.1 ± 2.31	129.0 ± 2.43	90.1 ± 1.27	76.7 ± 1.85	n = 9	[ROH] Roche cobas c701
76.6 ± 1.80	86.6 ± 2.31	123.9 ± 2.72	86.2 ± 1.96	73.0 ± 1.50	n = 4	[ROS] Roche Cobas INTEGRA 400
81.2 ± 3.74	89.6 ± 3.45	128.6 ± 5.38	87.9 ± 2.39	74.4 ± 3.27	n = 16	[ROD] Roche MODULAR D/P
81.9 ± 2.40	92.6 ± 2.54	134.2 ± 2.87	90.8 ± 2.47	76.8 ± 2.20	n = 19	[BYE] Siemens ADVIA 1800
75.2 ± 1.86	87.2 ± 3.42	128.9 ± 2.85	85.2 ± 2.33	70.9 ± 2.53	n = 23	[DUE] Siemens Dimension EXL
75.0 ± 1.77	86.9 ± 1.97	129.6 ± 3.28	85.2 ± 2.39	70.9 ± 3.22	n = 8	[DUR] Siemens Dimension RxL
85.9 ± 2.33	97.5 ± 3.16	142.4 ± 2.77	96.7 ± 2.59	80.9 ± 2.49	n = 40	[DUT] Siemens Dimension Vista
73.6 ± 2.05	86.5 ± 2.33	127.6 ± 2.84	83.8 ± 1.55	69.9 ± 2.15	n = 5	[DUX] Siemens Dimension Xpand
						<Reagents>
86.9 ± 2.73	89.0 ± 2.26	130.9 ± 2.30	87.0 ± 1.75	74.8 ± 1.95	n = 19	[AB1] Abbott
80.6 ± 1.98	101.2 ± 2.23	143.6 ± 1.51	97.3 ± 1.81	82.3 ± 1.06	n = 22	[BC1] Beckman Coulter
74.3 ± 2.52	90.1 ± 3.04	130.5 ± 3.18	89.3 ± 2.41	74.4 ± 2.30	n = 64	[OL1] Beckman Coulter AU Series
77.1 ± 1.96	98.0 ± 2.59	139.8 ± 2.72	95.0 ± 2.45	78.8 ± 1.89	n = 33	[JJ1] Ortho Clinical Diagnostics
83.6 ± 2.31	92.9 ± 2.34	131.1 ± 2.93	91.2 ± 1.98	78.2 ± 2.16	n = 42	[RO4] Roche cobas c311/c501/c502/c701/c702
81.2 ± 3.74	89.6 ± 3.45	128.6 ± 5.38	87.9 ± 2.39	74.4 ± 3.27	n = 16	[RO2] Roche Hitachi and Modular D/P
76.9 ± 1.33	87.4 ± 2.55	124.3 ± 2.19	86.9 ± 1.40	73.5 ± 1.70	n = 6	[RO1] Roche Integra and MIRA
75.7 ± 7.58	92.0 ± 12.65	133.7 ± 14.77	90.8 ± 5.90	76.5 ± 9.09	n = 3	[GZ1] Sekisui Diagnostics
82.6 ± 2.77	93.4 ± 3.18	134.7 ± 3.39	91.3 ± 2.72	77.6 ± 2.74	n = 23	[BY1] Siemens ADVIA/ADVIA Centaur
80.6 ± 6.66	92.6 ± 6.74	136.1 ± 8.38	90.9 ± 7.01	76.3 ± 6.53	n = 76	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

Homocysteine (µmol/L)

Specimen: C21	Specimen: C22	Specimen: C23	Specimen: C24	Specimen: C25	Number	[Code] Instrument or Reagent System
11.38 ± 1.38	11.83 ± 1.38	19.84 ± 1.82	23.09 ± 1.92	9.60 ± 1.36	n = 116	[---] All Methods & Instruments
						<Instruments>
9.88 ± 0.65	11.36 ± 0.51	18.44 ± 0.72	21.37 ± 0.65	9.31 ± 0.42	n = 14	[ABH] Abbott Architect i System
12.56 ± 1.51	12.97 ± 1.47	21.14 ± 1.75	23.85 ± 1.84	10.96 ± 1.21	n = 23	[OLC] Beckman Coulter AU Chemistry System
12.02 ± 1.05	12.47 ± 0.51	20.57 ± 1.32	23.81 ± 1.44	10.46 ± 0.88	n = 3	[BCH] Beckman Coulter UniCel DxC 800
12.33 ± 0.55	13.99 ± 0.56	21.47 ± 0.49	23.59 ± 0.59	11.46 ± 0.35	n = 4	[JJG] Ortho Vitros 5600
11.47 ± 0.49	12.00 ± 0.84	19.76 ± 0.94	22.39 ± 0.73	10.17 ± 0.25	n = 4	[ROC] Roche cobas c501
11.20 ± 0.78	11.96 ± 0.81	20.12 ± 1.35	22.68 ± 1.42	9.93 ± 0.68	n = 4	[ROG] Roche cobas c502
12.50 ± 0.72	11.75 ± 0.36	20.73 ± 0.77	23.29 ± 0.57	10.73 ± 0.60	n = 3	[ROT] Roche Cobas INTEGRA 800
11.64 ± 0.59	11.39 ± 0.90	19.96 ± 1.43	24.61 ± 1.38	8.73 ± 0.63	n = 25	[COB] Siemens ADVIA Centaur
9.80 ± 0.67	9.87 ± 0.66	17.18 ± 1.11	19.77 ± 1.45	8.05 ± 0.41	n = 8	[DUT] Siemens Dimension Vista
10.74 ± 0.80	11.66 ± 1.46	19.44 ± 1.55	22.77 ± 1.55	8.85 ± 0.87	n = 14	[DPD] Siemens Immulite 2000
						<Reagents>
9.88 ± 0.65	11.36 ± 0.51	18.44 ± 0.72	21.37 ± 0.65	9.31 ± 0.42	n = 14	[AB1] Abbott
12.27 ± 0.77	12.48 ± 0.41	20.83 ± 1.14	22.53 ± 0.23	11.03 ± 1.34	n = 3	[AS1] Axis-Shield
11.12 ± 0.24	12.20 ± 0.36	19.33 ± 0.69	21.63 ± 0.95	10.10 ± 0.36	n = 3	[CR1] Carolina
12.71 ± 1.35	12.95 ± 1.44	21.19 ± 1.60	23.87 ± 1.79	11.08 ± 1.11	n = 24	[DZ1] Diazyme
12.30 ± 0.49	13.86 ± 0.54	21.45 ± 0.43	23.59 ± 0.51	11.48 ± 0.31	n = 5	[JJ1] Ortho Clinical Diagnostics
11.31 ± 0.66	12.18 ± 0.84	20.12 ± 1.28	22.72 ± 1.22	10.13 ± 0.60	n = 6	[RO4] Roche cobas c311/c501/c502/c701/c702
11.66 ± 1.91	11.75 ± 1.97	20.06 ± 3.02	24.11 ± 0.73	10.29 ± 1.82	n = 4	[GZ1] Sekisui Diagnostics
11.64 ± 0.59	11.39 ± 0.90	19.96 ± 1.43	24.61 ± 1.38	8.73 ± 0.63	n = 25	[BY1] Siemens ADVIA/ADVIA Centaur
9.50 ± 0.39	9.65 ± 0.61	17.00 ± 1.16	19.29 ± 1.17	7.84 ± 0.33	n = 5	[DA5] Siemens Dimension
10.53 ± 0.68	10.24 ± 0.56	17.46 ± 0.98	20.58 ± 1.41	8.40 ± 0.27	n = 3	[DA6] Siemens Dimension LOCI
10.70 ± 1.02	11.51 ± 1.51	19.41 ± 1.47	22.89 ± 1.55	8.76 ± 0.94	n = 15	[DP5] Siemens Immulite

Summary of Participant Performance (Mean and Standard Deviation)

Troponin I (µg/L)

Specimen: C21	Specimen: C22	Specimen: C23	Specimen: C24	Specimen: C25	Number	[Code] Instrument or Reagent System
3.105 ± 3.015	0.014 ± 0.011	0.408 ± 0.253	1.045 ± 0.561	7.023 ± 8.342	n = 229	[---] All Methods & Instruments
						<Instruments>
10.094 ± 0.401	0.009 ± 0.005	1.628 ± 0.092	4.041 ± 0.213	24.545 ± 0.925	n = 23	[ABH] Abbott Architect i System
1.152 ± 0.048	0.012 ± 0.009	0.197 ± 0.014	0.636 ± 0.043	1.820 ± 0.120	n = 22	[SAA] Beckman Coulter ACCESS
0.861 ± 0.056	0.008 ± 0.015	0.163 ± 0.014	0.496 ± 0.067	1.557 ± 0.034	n = 3	[BCV] Beckman Coulter UniCel DxI 600
0.840 ± 0.074	0.017 ± 0.013	0.160 ± 0.019	0.475 ± 0.026	1.543 ± 0.111	n = 11	[BCU] Beckman Coulter UniCel DxI 800
1.819 ± 0.313	0.050 ± 0.000	0.111 ± 0.029	0.121 ± 0.037	6.874 ± 1.555	n = 3	[BSA] BioSite Triage
4.941 ± 0.163	0.017 ± 0.016	0.692 ± 0.044	1.202 ± 0.098	14.469 ± 0.656	n = 8	[IAA] i-STAT
7.372 ± 0.459	0.010 ± 0.000	0.944 ± 0.066	1.665 ± 0.095	21.656 ± 0.906	n = 18	[JJG] Ortho Vitros 5600
7.750 ± 0.343	0.010 ± 0.000	0.949 ± 0.056	1.688 ± 0.062	22.201 ± 1.031	n = 5	[JJC] Ortho Vitros ECi/ECiQ
1.180 ± 0.036	< 0.300	< 0.300	0.423 ± 0.034	2.045 ± 0.171	n = 3	[ROA] Roche cobas e601
3.884 ± 0.361	0.009 ± 0.007	0.511 ± 0.062	1.615 ± 0.138	7.726 ± 0.564	n = 46	[COB] Siemens ADVIA Centaur
1.347 ± 0.060	0.047 ± 0.039	0.352 ± 0.027	0.828 ± 0.047	2.642 ± 0.173	n = 20	[DUE] Siemens Dimension EXL
1.048 ± 0.151	0.040 ± 0.000	0.212 ± 0.018	0.618 ± 0.095	1.889 ± 0.299	n = 7	[DUR] Siemens Dimension RxL
1.345 ± 0.055	0.016 ± 0.006	0.337 ± 0.020	0.793 ± 0.043	2.572 ± 0.123	n = 43	[DUT] Siemens Dimension Vista
1.101 ± 0.039	0.040 ± 0.000	0.211 ± 0.026	0.578 ± 0.026	1.812 ± 0.047	n = 5	[DUX] Siemens Dimension Xpand
9.434 ± 0.573	< 0.060	1.163 ± 0.146	2.140 ± 0.142	26.029 ± 0.279	n = 5	[TOM] Tosoh Bioscience
						<Reagents>
10.094 ± 0.402	0.009 ± 0.006	1.628 ± 0.093	4.041 ± 0.213	24.545 ± 0.925	n = 27	[AB1] Abbott
1.024 ± 0.174	0.013 ± 0.011	0.185 ± 0.024	0.574 ± 0.094	1.713 ± 0.182	n = 36	[BC1] Beckman Coulter
1.819 ± 0.313	0.050 ± 0.000	0.111 ± 0.029	0.121 ± 0.037	6.874 ± 1.555	n = 3	[BS1] Biosite Diagnostics
4.931 ± 0.211	0.024 ± 0.018	0.676 ± 0.033	1.157 ± 0.078	14.546 ± 0.999	n = 4	[IA1] i-STAT
7.461 ± 0.464	0.010 ± 0.000	0.946 ± 0.064	1.671 ± 0.089	21.766 ± 0.980	n = 23	[JJ1] Ortho Clinical Diagnostics
1.215 ± 0.062	< 0.300	< 0.300	0.422 ± 0.024	2.174 ± 0.196	n = 5	[RO3] Roche Elecsys/Modular E/e601/e411
3.872 ± 0.373	0.009 ± 0.007	0.511 ± 0.061	1.614 ± 0.136	7.704 ± 0.590	n = 47	[BY1] Siemens ADVIA/ADVIA Centaur
1.104 ± 0.134	0.035 ± 0.013	0.226 ± 0.046	0.618 ± 0.089	1.910 ± 0.283	n = 14	[DA5] Siemens Dimension
1.348 ± 0.055	0.016 ± 0.007	0.342 ± 0.022	0.806 ± 0.047	2.598 ± 0.137	n = 61	[DA6] Siemens Dimension LOCI
9.642 ± 0.733	< 0.060	1.145 ± 0.162	2.140 ± 0.189	26.874 ± 1.711	n = 3	[TO2] Tosoh ST AIA

Summary of Participant Performance (Mean and Standard Deviation)

Troponin T (µg/L)

Specimen: C21	Specimen: C22	Specimen: C23	Specimen: C24	Specimen: C25	Number	[Code] Instrument or Reagent System
0.168 ± 0.015	0.010 ± 0.000	0.050 ± 0.006	0.115 ± 0.011	0.279 ± 0.025	n = 43	[---] All Methods & Instruments
						<Instruments>
0.188 ± 0.007	0.010 ± 0.000	0.058 ± 0.009	0.130 ± 0.006	0.312 ± 0.025	n = 6	[ROF] Roche cobas e411
0.161 ± 0.012	0.010 ± 0.000	0.047 ± 0.005	0.111 ± 0.009	0.267 ± 0.026	n = 20	[ROA] Roche cobas e601
0.163 ± 0.005	0.010 ± 0.000	0.047 ± 0.005	0.113 ± 0.005	0.282 ± 0.015	n = 3	[ROB] Roche cobas e602
0.179 ± 0.013	0.010 ± 0.000	0.054 ± 0.006	0.120 ± 0.015	0.280 ± 0.015	n = 5	[BME] Roche Elecsys
0.162 ± 0.009	0.010 ± 0.000	0.050 ± 0.000	0.110 ± 0.005	0.281 ± 0.012	n = 7	[ROE] Roche MODULAR E
						<Reagents>
0.167 ± 0.016	0.010 ± 0.000	0.049 ± 0.006	0.114 ± 0.011	0.278 ± 0.025	n = 41	[RO3] Roche Elecsys/Modular E/e601/e411

Summary of Participant Performance (Mean and Standard Deviation)

Alanine Aminotransferase (U/L 37°C)

Specimen: C21	Specimen: C22	Specimen: C23	Specimen: C24	Specimen: C25	Number	[Code] Instrument or Reagent System
69.5 ± 7.16	142.9 ± 10.53	225.9 ± 14.43	48.0 ± 4.50	115.0 ± 10.07	n = 362	[---] All Methods & Instruments
						<Instruments>
65.5 ± 1.86	131.0 ± 2.70	201.6 ± 3.87	47.0 ± 0.90	102.1 ± 2.86	n = 3	[AXA] Abaxis Piccolo
68.2 ± 2.29	145.3 ± 4.12	233.9 ± 5.97	47.3 ± 1.93	116.6 ± 3.16	n = 24	[ABJ] Abbott Architect c System
59.4 ± 1.64	127.6 ± 3.79	200.3 ± 5.36	42.3 ± 1.37	101.8 ± 2.87	n = 72	[OLC] Beckman Coulter AU Chemistry System
71.0 ± 1.49	140.7 ± 2.44	223.2 ± 2.84	50.4 ± 1.54	113.2 ± 1.73	n = 16	[BCG] Beckman Coulter UniCel DxC 600
70.6 ± 1.30	141.2 ± 1.67	223.4 ± 2.76	51.0 ± 1.00	113.2 ± 1.66	n = 10	[BCH] Beckman Coulter UniCel DxC 800
75.4 ± 2.86	157.1 ± 1.45	233.2 ± 2.64	49.7 ± 2.39	134.2 ± 3.74	n = 8	[JJE] Ortho Vitros 250/350/950
77.7 ± 0.51	157.7 ± 3.07	230.7 ± 0.51	50.7 ± 0.51	134.3 ± 2.26	n = 3	[JJH] Ortho Vitros 4600
76.9 ± 4.14	158.5 ± 2.26	233.2 ± 4.69	52.4 ± 4.59	135.9 ± 4.86	n = 11	[JJF] Ortho Vitros 5,1FS
78.1 ± 3.13	158.2 ± 3.11	231.1 ± 5.40	53.5 ± 3.56	134.4 ± 3.85	n = 20	[JJG] Ortho Vitros 5600
65.9 ± 1.27	138.9 ± 1.38	221.4 ± 2.05	46.0 ± 0.00	111.5 ± 1.62	n = 5	[ROJ] Roche cobas c311
66.9 ± 1.44	141.8 ± 2.88	225.1 ± 4.43	46.6 ± 1.05	113.6 ± 2.52	n = 32	[ROC] Roche cobas c501
65.5 ± 2.38	138.7 ± 4.51	222.4 ± 6.03	44.9 ± 1.19	111.2 ± 3.19	n = 10	[ROH] Roche cobas c701
66.9 ± 2.76	142.2 ± 4.19	224.3 ± 6.84	46.4 ± 1.63	113.9 ± 3.75	n = 6	[ROS] Roche Cobas INTEGRA 400
66.2 ± 1.54	137.3 ± 4.06	218.7 ± 5.86	46.0 ± 0.90	111.0 ± 3.61	n = 3	[ROT] Roche Cobas INTEGRA 800
67.8 ± 1.22	140.6 ± 2.83	225.2 ± 5.94	46.8 ± 1.22	113.9 ± 2.33	n = 15	[ROD] Roche MODULAR D/P
71.8 ± 2.37	149.8 ± 5.50	238.5 ± 6.38	51.3 ± 1.93	120.5 ± 3.71	n = 19	[BYE] Siemens ADVIA 1800
75.9 ± 2.12	149.6 ± 3.04	237.4 ± 3.60	52.2 ± 2.48	120.4 ± 2.23	n = 26	[DUE] Siemens Dimension EXL
79.1 ± 4.70	150.2 ± 5.49	234.6 ± 3.66	54.1 ± 5.07	122.9 ± 5.52	n = 12	[DUR] Siemens Dimension RxL
73.5 ± 1.60	146.0 ± 2.85	232.5 ± 4.72	49.5 ± 1.43	117.3 ± 2.08	n = 43	[DUT] Siemens Dimension Vista
78.2 ± 2.49	151.4 ± 1.81	238.2 ± 3.59	54.6 ± 2.87	122.9 ± 2.25	n = 12	[DUX] Siemens Dimension Xpand
						<Reagents>
65.5 ± 1.86	131.0 ± 2.70	201.6 ± 3.87	47.0 ± 0.90	102.1 ± 2.86	n = 3	[AX1] Abaxis
68.2 ± 2.29	145.3 ± 4.12	233.9 ± 5.97	47.3 ± 1.93	116.6 ± 3.16	n = 24	[AB1] Abbott
70.7 ± 1.56	140.7 ± 2.68	223.2 ± 3.03	50.5 ± 1.82	112.9 ± 2.05	n = 32	[BC1] Beckman Coulter
59.4 ± 1.68	127.6 ± 3.62	200.3 ± 5.58	42.3 ± 1.38	101.9 ± 2.88	n = 64	[OL1] Beckman Coulter AU Series
77.3 ± 3.42	157.9 ± 2.58	232.0 ± 4.48	52.2 ± 3.81	134.7 ± 4.15	n = 41	[JJ1] Ortho Clinical Diagnostics
66.4 ± 1.82	140.7 ± 3.49	223.8 ± 4.98	46.1 ± 1.29	112.8 ± 2.83	n = 48	[RO4] Roche cobas c311/c501/c502/c701/c702
67.8 ± 1.22	140.6 ± 2.83	225.2 ± 5.94	46.8 ± 1.22	113.9 ± 2.33	n = 15	[RO2] Roche Hitachi and Modular D/P
66.5 ± 2.28	140.6 ± 4.71	222.4 ± 6.86	46.2 ± 1.42	112.9 ± 3.88	n = 9	[RO1] Roche Integra and MIRA
71.2 ± 2.34	148.4 ± 5.12	237.3 ± 6.11	50.7 ± 2.18	119.7 ± 3.66	n = 22	[BY1] Siemens ADVIA/ADVIA Centaur
75.5 ± 3.43	148.6 ± 4.00	235.1 ± 4.72	51.4 ± 3.83	119.5 ± 4.11	n = 47	[DA5] Siemens Dimension
74.9 ± 2.62	148.0 ± 3.64	235.3 ± 5.11	50.8 ± 2.61	119.3 ± 3.16	n = 46	[DA8] Siemens Dimension IFCC Standardized

Summary of Participant Performance (Mean and Standard Deviation)

Aspartate Aminotransferase (U/L 37°C)

Specimen: C21	Specimen: C22	Specimen: C23	Specimen: C24	Specimen: C25	Number	[Code] Instrument or Reagent System
114.9 ± 9.63	185.7 ± 12.43	508.8 ± 43.97	81.6 ± 7.15	153.2 ± 9.59	n = 360	[---] All Methods & Instruments
						<Instruments>
113.3 ± 3.16	184.0 ± 1.80	500.7 ± 3.37	85.3 ± 1.37	150.5 ± 1.86	n = 3	[AXA] Abaxis Piccolo
115.0 ± 3.28	185.6 ± 3.98	513.4 ± 13.65	81.5 ± 2.03	153.6 ± 3.35	n = 24	[ABJ] Abbott Architect c System
101.9 ± 4.12	164.6 ± 5.91	452.3 ± 17.98	73.4 ± 2.90	135.5 ± 4.88	n = 70	[OLC] Beckman Coulter AU Chemistry System
117.3 ± 3.94	183.2 ± 3.23	495.1 ± 16.57	89.1 ± 3.57	150.3 ± 2.64	n = 16	[BCG] Beckman Coulter UniCel DxC 600
114.7 ± 4.21	180.2 ± 4.44	488.4 ± 18.75	86.8 ± 2.98	148.8 ± 3.35	n = 10	[BCH] Beckman Coulter UniCel DxC 800
134.8 ± 2.80	201.3 ± 3.56	632.1 ± 31.82	94.9 ± 3.05	161.4 ± 4.77	n = 8	[JJE] Ortho Vitros 250/350/950
135.5 ± 1.86	202.5 ± 3.63	623.0 ± 3.61	94.7 ± 1.37	161.3 ± 5.09	n = 3	[JJH] Ortho Vitros 4600
137.8 ± 3.80	208.0 ± 2.23	632.9 ± 16.99	95.7 ± 2.75	165.0 ± 3.96	n = 11	[JJF] Ortho Vitros 5,1FS
134.1 ± 3.15	202.7 ± 3.62	630.0 ± 19.26	94.0 ± 2.15	161.6 ± 2.84	n = 20	[JJG] Ortho Vitros 5600
117.1 ± 1.27	190.8 ± 3.40	530.7 ± 7.23	84.4 ± 1.89	157.5 ± 2.50	n = 5	[ROJ] Roche cobas c311
117.3 ± 3.39	189.8 ± 4.08	528.0 ± 14.65	83.3 ± 2.15	155.8 ± 4.18	n = 32	[ROC] Roche cobas c501
117.1 ± 3.15	187.0 ± 4.43	523.7 ± 10.91	82.1 ± 3.18	155.8 ± 3.17	n = 9	[ROH] Roche cobas c701
116.5 ± 2.84	188.7 ± 2.83	520.5 ± 11.96	82.6 ± 1.63	156.0 ± 1.92	n = 6	[ROS] Roche Cobas INTEGRA 400
112.8 ± 1.54	182.5 ± 2.74	508.3 ± 9.53	80.6 ± 1.02	150.5 ± 2.74	n = 3	[ROT] Roche Cobas INTEGRA 800
115.0 ± 4.57	183.9 ± 4.38	505.4 ± 17.72	82.2 ± 3.25	152.0 ± 4.31	n = 15	[ROD] Roche MODULAR D/P
123.4 ± 2.95	198.5 ± 4.50	549.0 ± 10.79	89.6 ± 2.09	165.0 ± 3.53	n = 19	[BYE] Siemens ADVIA 1800
113.3 ± 3.31	185.6 ± 3.11	502.2 ± 11.24	78.2 ± 1.94	154.0 ± 2.68	n = 26	[DUE] Siemens Dimension EXL
115.8 ± 4.78	188.7 ± 5.23	515.0 ± 18.65	79.3 ± 1.91	157.2 ± 4.65	n = 12	[DUR] Siemens Dimension RxL
114.0 ± 3.64	187.5 ± 3.69	510.5 ± 12.96	78.2 ± 1.42	154.8 ± 3.26	n = 43	[DUT] Siemens Dimension Vista
115.9 ± 2.64	188.8 ± 4.35	507.7 ± 12.32	79.0 ± 2.73	158.2 ± 1.25	n = 12	[DUX] Siemens Dimension Xpand
						<Reagents>
113.3 ± 3.16	184.0 ± 1.80	500.7 ± 3.37	85.3 ± 1.37	150.5 ± 1.86	n = 3	[AX1] Abaxis
115.0 ± 3.28	185.6 ± 3.98	513.4 ± 13.65	81.5 ± 2.03	153.6 ± 3.35	n = 24	[AB1] Abbott
116.4 ± 4.24	182.0 ± 4.58	492.4 ± 18.95	88.1 ± 3.47	149.6 ± 3.70	n = 29	[BC1] Beckman Coulter
101.7 ± 3.93	164.2 ± 5.84	451.4 ± 17.38	73.2 ± 2.79	135.1 ± 4.72	n = 65	[OL1] Beckman Coulter AU Series
135.3 ± 3.61	203.8 ± 4.47	630.7 ± 19.31	94.6 ± 2.46	162.3 ± 4.00	n = 42	[JJ1] Ortho Clinical Diagnostics
117.2 ± 3.05	189.6 ± 4.29	527.8 ± 13.69	83.3 ± 2.37	155.9 ± 3.84	n = 50	[RO4] Roche cobas c311/c501/c502/c701/c702
115.0 ± 4.57	183.9 ± 4.38	505.4 ± 17.72	82.2 ± 3.25	152.0 ± 4.31	n = 15	[RO2] Roche Hitachi and Modular D/P
115.2 ± 3.07	186.8 ± 4.05	516.2 ± 12.61	81.9 ± 1.73	154.4 ± 3.29	n = 9	[RO1] Roche Integra and MIRA
123.4 ± 2.99	197.7 ± 4.94	548.7 ± 11.25	89.2 ± 2.38	164.4 ± 4.01	n = 23	[BY1] Siemens ADVIA/ADVIA Centaur
114.2 ± 3.66	187.2 ± 4.00	508.1 ± 14.06	78.4 ± 1.89	155.1 ± 3.52	n = 93	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

α-Amylase (U/L 37°C)

Specimen: C21	Specimen: C22	Specimen: C23	Specimen: C24	Specimen: C25	Number	[Code] Instrument or Reagent System
131.7 ± 18.35	271.0 ± 45.09	49.5 ± 7.53	572.9 ±117.55	225.3 ± 38.32	n = 312	[---] All Methods & Instruments
						<Instruments>
143.8 ± 3.39	301.4 ± 6.34	50.9 ± 1.37	641.9 ± 13.09	250.5 ± 5.12	n = 23	[ABJ] Abbott Architect c System
108.6 ± 6.45	228.9 ± 12.61	38.2 ± 2.31	490.1 ± 28.27	190.2 ± 11.34	n = 55	[OLC] Beckman Coulter AU Chemistry System
140.4 ± 1.09	288.0 ± 5.45	55.6 ± 0.93	601.5 ± 7.14	241.8 ± 3.68	n = 12	[BCG] Beckman Coulter UniCel DxC 600
140.4 ± 3.37	289.7 ± 6.69	55.7 ± 0.94	601.6 ± 13.28	240.2 ± 6.01	n = 10	[BCH] Beckman Coulter UniCel DxC 800
99.9 ± 2.17	189.4 ± 4.52	58.8 ± 4.91	338.9 ± 6.03	160.2 ± 3.13	n = 6	[JJE] Ortho Vitros 250/350/950
95.1 ± 2.86	188.5 ± 5.43	63.3 ± 5.97	340.2 ± 4.89	155.3 ± 5.09	n = 3	[JJH] Ortho Vitros 4600
98.2 ± 4.72	192.7 ± 6.43	62.2 ± 3.74	339.5 ± 16.22	158.8 ± 6.51	n = 10	[JJF] Ortho Vitros 5,1FS
98.4 ± 6.50	189.8 ± 8.95	60.5 ± 5.70	338.5 ± 11.30	158.3 ± 7.33	n = 20	[JJG] Ortho Vitros 5600
137.2 ± 1.46	267.5 ± 1.94	54.0 ± 0.75	556.3 ± 6.62	221.8 ± 2.11	n = 4	[ROJ] Roche cobas c311
135.0 ± 1.86	267.7 ± 3.41	53.5 ± 0.91	552.9 ± 8.22	220.3 ± 3.55	n = 28	[ROC] Roche cobas c501
133.7 ± 2.02	263.1 ± 4.34	53.3 ± 0.82	550.2 ± 8.75	218.1 ± 3.44	n = 4	[ROG] Roche cobas c502
134.5 ± 1.86	264.4 ± 3.87	52.7 ± 1.37	550.0 ± 7.27	217.9 ± 2.86	n = 3	[ROH] Roche cobas c701
134.1 ± 1.52	266.5 ± 2.38	52.2 ± 0.57	545.8 ± 6.61	217.8 ± 2.79	n = 4	[ROS] Roche Cobas INTEGRA 400
133.8 ± 1.54	260.1 ± 3.72	53.0 ± 0.00	547.3 ± 5.97	218.0 ± 1.80	n = 3	[ROT] Roche Cobas INTEGRA 800
133.5 ± 2.46	262.7 ± 4.51	53.2 ± 1.06	545.4 ± 9.70	218.1 ± 4.05	n = 15	[ROD] Roche MODULAR D/P
139.0 ± 2.29	279.3 ± 4.29	53.5 ± 0.97	580.6 ± 11.55	230.6 ± 4.66	n = 19	[BYE] Siemens ADVIA 1800
147.5 ± 2.02	320.6 ± 4.52	46.8 ± 0.59	718.3 ± 12.47	269.1 ± 3.75	n = 22	[DUE] Siemens Dimension EXL
147.7 ± 2.90	322.4 ± 5.54	46.8 ± 0.80	733.6 ± 25.66	268.3 ± 6.35	n = 10	[DUR] Siemens Dimension RxL
142.9 ± 3.34	312.0 ± 7.92	44.1 ± 0.78	684.4 ± 19.77	261.1 ± 6.56	n = 43	[DUT] Siemens Dimension Vista
148.2 ± 2.51	323.5 ± 4.17	47.3 ± 2.63	723.2 ± 11.69	271.2 ± 4.50	n = 7	[DUX] Siemens Dimension Xpand
						<Reagents>
143.8 ± 3.39	301.4 ± 6.34	50.9 ± 1.37	641.9 ± 13.09	250.5 ± 5.12	n = 23	[AB1] Abbott
140.5 ± 2.46	288.0 ± 6.24	55.9 ± 0.70	603.3 ± 10.21	241.2 ± 4.65	n = 11	[BC1] Beckman Coulter
108.5 ± 6.19	228.4 ± 11.52	38.2 ± 2.27	488.9 ± 26.31	189.8 ± 10.39	n = 52	[OL1] Beckman Coulter AU Series
139.5 ± 2.22	289.2 ± 4.62	55.2 ± 1.15	600.3 ± 9.71	240.7 ± 4.78	n = 12	[BC2] Beckman Coulter IFCC Standardized
98.4 ± 5.13	190.8 ± 7.79	60.9 ± 5.15	338.8 ± 11.65	158.7 ± 6.40	n = 40	[JJ1] Ortho Clinical Diagnostics
135.2 ± 2.07	267.2 ± 3.60	53.6 ± 0.91	553.1 ± 8.02	220.1 ± 3.41	n = 41	[RO4] Roche cobas c311/c501/c502/c701/c702
133.6 ± 2.40	263.1 ± 4.58	53.3 ± 1.05	546.3 ± 10.07	218.4 ± 3.97	n = 16	[RO2] Roche Hitachi and Modular D/P
134.0 ± 1.55	264.2 ± 4.38	52.6 ± 0.63	546.5 ± 6.42	217.9 ± 2.39	n = 7	[RO1] Roche Integra and MIRA
138.7 ± 2.60	278.8 ± 4.46	53.3 ± 1.08	579.2 ± 12.42	230.0 ± 4.84	n = 23	[BY1] Siemens ADVIA/ADVIA Centaur
145.4 ± 3.81	317.1 ± 8.15	45.4 ± 1.82	702.0 ± 28.45	265.3 ± 7.18	n = 82	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

Alkaline Phosphatase (U/L 37°C)

Specimen: C21	Specimen: C22	Specimen: C23	Specimen: C24	Specimen: C25	Number	[Code] Instrument or Reagent System
460.7 ± 48.35	262.1 ± 24.87	41.5 ± 5.61	128.1 ± 13.42	214.6 ± 21.00	n = 358	[---] All Methods & Instruments
						<Instruments>
383.9 ± 5.22	216.2 ± 3.23	36.2 ± 2.36	104.9 ± 2.05	179.8 ± 2.36	n = 3	[AXA] Abaxis Piccolo
468.1 ± 18.80	264.4 ± 10.69	41.4 ± 1.82	125.2 ± 4.88	216.3 ± 8.48	n = 24	[ABJ] Abbott Architect c System
422.1 ± 26.47	236.7 ± 14.32	36.1 ± 2.56	112.5 ± 6.91	194.9 ± 11.72	n = 70	[OLC] Beckman Coulter AU Chemistry System
415.8 ± 12.59	232.4 ± 8.67	35.4 ± 1.79	110.7 ± 3.60	191.4 ± 6.20	n = 15	[BCG] Beckman Coulter UniCel DxC 600
420.3 ± 12.19	237.9 ± 8.04	36.3 ± 1.34	112.7 ± 3.14	196.9 ± 5.98	n = 10	[BCH] Beckman Coulter UniCel DxC 800
421.2 ± 10.66	258.1 ± 8.84	56.1 ± 2.69	148.7 ± 4.04	208.3 ± 4.99	n = 8	[JJE] Ortho Vitros 250/350/950
408.0 ± 10.85	248.3 ± 12.29	56.0 ± 0.90	141.6 ± 6.23	197.7 ± 6.76	n = 3	[JJH] Ortho Vitros 4600
419.7 ± 16.37	254.2 ± 12.07	57.2 ± 3.50	146.7 ± 7.30	202.0 ± 9.57	n = 11	[JJF] Ortho Vitros 5,1FS
405.0 ± 16.00	248.0 ± 11.60	55.3 ± 2.79	142.1 ± 5.50	194.9 ± 8.15	n = 20	[JJG] Ortho Vitros 5600
451.6 ± 2.61	257.5 ± 1.80	40.0 ± 0.64	122.8 ± 0.80	212.4 ± 1.52	n = 5	[ROJ] Roche cobas c311
457.8 ± 9.22	261.1 ± 5.22	41.0 ± 0.95	125.3 ± 2.44	214.8 ± 3.95	n = 32	[ROC] Roche cobas c501
450.2 ± 8.76	253.7 ± 3.14	40.0 ± 0.82	122.9 ± 2.19	209.2 ± 3.21	n = 9	[ROH] Roche cobas c701
475.2 ± 11.70	263.7 ± 3.47	40.5 ± 0.50	126.2 ± 2.75	217.6 ± 5.06	n = 5	[ROS] Roche Cobas INTEGRA 400
482.9 ± 12.75	270.6 ± 7.08	39.7 ± 0.51	127.2 ± 3.23	221.2 ± 8.59	n = 3	[ROT] Roche Cobas INTEGRA 800
453.0 ± 10.64	258.9 ± 5.84	41.0 ± 1.44	125.1 ± 3.06	212.8 ± 4.78	n = 15	[ROD] Roche MODULAR D/P
507.3 ± 16.81	285.2 ± 9.04	43.4 ± 1.68	136.0 ± 5.30	234.1 ± 8.46	n = 19	[BYE] Siemens ADVIA 1800
508.2 ± 9.25	283.8 ± 5.72	42.9 ± 2.33	135.0 ± 2.46	234.0 ± 4.79	n = 26	[DUE] Siemens Dimension EXL
511.2 ± 9.74	291.6 ± 8.39	48.6 ± 7.73	141.5 ± 8.15	242.6 ± 11.94	n = 12	[DUR] Siemens Dimension RxL
524.6 ± 19.33	294.7 ± 9.88	44.9 ± 1.86	139.7 ± 4.54	241.0 ± 7.77	n = 43	[DUT] Siemens Dimension Vista
503.9 ± 5.10	284.0 ± 4.94	44.5 ± 2.99	135.0 ± 3.54	234.1 ± 3.33	n = 12	[DUX] Siemens Dimension Xpand
						<Reagents>
383.9 ± 5.22	216.2 ± 3.23	36.2 ± 2.36	104.9 ± 2.05	179.8 ± 2.36	n = 3	[AX1] Abaxis
468.1 ± 18.80	264.4 ± 10.69	41.4 ± 1.82	125.2 ± 4.88	216.3 ± 8.48	n = 24	[AB1] Abbott
414.6 ± 17.21	233.3 ± 10.24	35.6 ± 1.93	110.6 ± 4.73	191.7 ± 8.53	n = 30	[BC1] Beckman Coulter
423.7 ± 26.18	237.4 ± 14.29	36.3 ± 2.50	113.0 ± 6.84	195.8 ± 11.72	n = 63	[OL1] Beckman Coulter AU Series
412.4 ± 17.92	251.7 ± 12.40	56.0 ± 2.99	144.6 ± 6.55	199.9 ± 9.98	n = 42	[JJ1] Ortho Clinical Diagnostics
455.8 ± 9.71	259.1 ± 5.78	40.7 ± 1.05	124.5 ± 2.75	213.4 ± 4.40	n = 47	[RO4] Roche cobas c311/c501/c502/c701/c702
453.0 ± 10.64	258.9 ± 5.84	41.0 ± 1.44	125.1 ± 3.06	212.8 ± 4.78	n = 15	[RO2] Roche Hitachi and Modular D/P
476.6 ± 12.26	264.5 ± 6.07	40.2 ± 0.59	126.3 ± 2.86	218.1 ± 6.32	n = 9	[RO1] Roche Integra and MIRA
505.5 ± 18.31	283.9 ± 9.64	43.3 ± 1.94	135.2 ± 5.53	233.2 ± 9.59	n = 22	[BY1] Siemens ADVIA/ADVIA Centaur
510.5 ± 15.26	288.0 ± 9.53	44.3 ± 2.49	137.0 ± 4.82	236.3 ± 7.04	n = 49	[DA5] Siemens Dimension
518.1 ± 18.77	290.8 ± 10.02	44.4 ± 2.30	138.2 ± 4.77	238.8 ± 7.76	n = 44	[DA8] Siemens Dimension IFCC Standardized

Summary of Participant Performance (Mean and Standard Deviation)

γ-Glutamyltransferase (U/L 37°C)

Specimen: C21	Specimen: C22	Specimen: C23	Specimen: C24	Specimen: C25	Number	[Code] Instrument or Reagent System
106.2 ± 23.24	70.8 ± 15.30	27.1 ± 6.00	167.5 ± 37.52	59.4 ± 13.82	n = 289	[---] All Methods & Instruments
						<Instruments>
107.5 ± 6.92	72.2 ± 4.64	27.5 ± 1.92	172.4 ± 11.21	59.6 ± 4.56	n = 16	[ABJ] Abbott Architect c System
84.4 ± 4.31	56.8 ± 2.90	22.8 ± 1.55	131.5 ± 6.21	47.0 ± 2.47	n = 61	[OLC] Beckman Coulter AU Chemistry System
105.3 ± 3.49	68.6 ± 2.29	22.3 ± 1.19	171.1 ± 5.13	56.6 ± 1.77	n = 12	[BCG] Beckman Coulter UniCel DxC 600
104.4 ± 1.76	67.9 ± 1.65	21.3 ± 1.11	171.1 ± 3.00	56.6 ± 0.70	n = 9	[BCH] Beckman Coulter UniCel DxC 800
161.8 ± 21.12	106.6 ± 15.38	31.0 ± 0.75	281.2 ± 17.48	89.3 ± 1.52	n = 5	[JJE] Ortho Vitros 250/350/950
159.2 ± 4.89	105.5 ± 1.86	32.0 ± 0.90	264.0 ± 7.27	87.5 ± 1.86	n = 3	[JJH] Ortho Vitros 4600
156.6 ± 4.51	104.5 ± 3.59	32.9 ± 1.65	258.3 ± 6.98	86.6 ± 3.11	n = 9	[JJF] Ortho Vitros 5,1FS
156.8 ± 3.52	103.9 ± 2.87	32.1 ± 1.50	262.1 ± 8.47	86.6 ± 2.49	n = 20	[JJG] Ortho Vitros 5600
91.8 ± 2.12	61.5 ± 1.47	23.0 ± 1.04	146.7 ± 3.68	50.7 ± 1.31	n = 25	[ROC] Roche cobas c501
93.4 ± 1.89	62.6 ± 1.98	23.4 ± 1.09	148.9 ± 4.14	51.9 ± 1.27	n = 5	[ROG] Roche cobas c502
89.2 ± 3.10	59.8 ± 2.68	22.3 ± 0.82	141.4 ± 5.38	48.3 ± 1.51	n = 4	[ROH] Roche cobas c701
93.7 ± 1.37	61.4 ± 1.02	22.3 ± 0.51	149.3 ± 3.07	51.0 ± 0.90	n = 3	[ROS] Roche Cobas INTEGRA 400
93.6 ± 1.91	62.3 ± 1.46	23.2 ± 0.85	149.6 ± 2.00	51.6 ± 1.40	n = 15	[ROD] Roche MODULAR D/P
102.3 ± 3.25	68.9 ± 2.28	25.9 ± 1.84	161.3 ± 4.92	57.0 ± 2.05	n = 19	[BYE] Siemens ADVIA 1800
125.1 ± 2.44	84.6 ± 2.63	38.4 ± 1.63	194.1 ± 3.68	72.7 ± 2.08	n = 18	[DUE] Siemens Dimension EXL
123.0 ± 2.52	83.8 ± 1.31	36.8 ± 1.42	193.4 ± 3.66	71.2 ± 1.56	n = 7	[DUR] Siemens Dimension RxL
123.5 ± 2.27	81.9 ± 2.10	33.4 ± 1.75	195.2 ± 3.79	69.3 ± 2.11	n = 40	[DUT] Siemens Dimension Vista
125.7 ± 1.58	86.0 ± 1.76	38.7 ± 0.90	194.7 ± 4.29	74.8 ± 1.46	n = 4	[DUX] Siemens Dimension Xpand
						<Reagents>
107.5 ± 6.91	71.8 ± 4.44	27.4 ± 1.94	171.6 ± 11.28	59.1 ± 4.26	n = 15	[AB1] Abbott
104.8 ± 2.79	68.4 ± 1.94	21.9 ± 1.18	171.3 ± 3.94	56.8 ± 1.19	n = 23	[BC1] Beckman Coulter
84.4 ± 4.23	56.8 ± 2.83	22.8 ± 1.52	131.4 ± 6.16	47.0 ± 2.41	n = 58	[OL1] Beckman Coulter AU Series
157.6 ± 4.84	104.4 ± 3.17	32.2 ± 1.60	263.0 ± 9.99	87.0 ± 2.73	n = 37	[JJ1] Ortho Clinical Diagnostics
91.9 ± 2.40	61.5 ± 1.80	23.0 ± 1.01	146.5 ± 4.41	50.7 ± 1.54	n = 38	[RO4] Roche cobas c311/c501/c502/c701/c702
93.6 ± 1.91	62.3 ± 1.46	23.2 ± 0.85	149.6 ± 2.00	51.6 ± 1.40	n = 15	[RO2] Roche Hitachi and Modular D/P
92.5 ± 2.17	61.5 ± 0.83	22.2 ± 0.80	147.9 ± 2.83	51.2 ± 0.80	n = 5	[RO1] Roche Integra and MIRA
103.1 ± 3.84	69.2 ± 2.49	26.2 ± 2.02	162.4 ± 5.95	57.3 ± 2.02	n = 23	[BY1] Siemens ADVIA/ADVIA Centaur
124.0 ± 2.46	83.0 ± 2.52	35.2 ± 3.03	194.7 ± 3.82	70.7 ± 2.75	n = 69	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

Creatine Kinase (U/L 37°C)

Specimen: C21	Specimen: C22	Specimen: C23	Specimen: C24	Specimen: C25	Number	[Code] Instrument or Reagent System
167.8 ± 11.15	112.0 ± 11.56	190.2 ± 14.00	218.1 ± 17.24	338.2 ± 25.17	n = 325	[---] All Methods & Instruments
						<Instruments>
172.7 ± 5.86	119.9 ± 4.61	196.7 ± 6.83	229.7 ± 7.82	347.8 ± 9.04	n = 23	[ABJ] Abbott Architect c System
146.2 ± 7.30	95.5 ± 4.91	163.1 ± 9.17	194.0 ± 11.69	297.4 ± 14.51	n = 63	[OLC] Beckman Coulter AU Chemistry System
167.7 ± 4.31	120.2 ± 3.89	197.2 ± 8.02	208.2 ± 8.50	361.8 ± 10.43	n = 13	[BCG] Beckman Coulter UniCel DxC 600
169.3 ± 3.86	120.1 ± 4.39	197.3 ± 5.67	209.5 ± 6.31	361.5 ± 8.17	n = 10	[BCH] Beckman Coulter UniCel DxC 800
160.0 ± 15.69	96.9 ± 10.61	201.3 ± 21.54	229.4 ± 24.05	358.6 ± 30.80	n = 5	[JJE] Ortho Vitros 250/350/950
163.2 ± 3.23	101.5 ± 1.86	199.7 ± 3.37	222.5 ± 5.43	351.6 ± 6.23	n = 3	[JJH] Ortho Vitros 4600
167.7 ± 5.85	102.8 ± 2.64	196.7 ± 8.07	221.8 ± 10.06	352.1 ± 12.57	n = 10	[JJF] Ortho Vitros 5,1FS
163.2 ± 9.59	102.8 ± 5.34	199.5 ± 11.99	222.1 ± 13.65	353.7 ± 15.46	n = 20	[JJG] Ortho Vitros 5600
179.1 ± 2.33	117.2 ± 1.27	217.2 ± 37.01	243.2 ± 3.87	369.9 ± 5.47	n = 4	[ROJ] Roche cobas c311
176.6 ± 5.15	115.7 ± 3.57	200.7 ± 6.02	241.6 ± 7.65	365.1 ± 10.18	n = 31	[ROC] Roche cobas c501
173.5 ± 0.83	113.9 ± 1.83	197.7 ± 1.38	237.2 ± 1.55	359.9 ± 2.16	n = 5	[ROG] Roche cobas c502
177.0 ± 4.59	121.5 ± 5.86	195.6 ± 6.34	226.1 ± 10.04	344.1 ± 12.05	n = 5	[ROH] Roche cobas c701
178.7 ± 2.26	123.5 ± 1.86	201.0 ± 7.21	237.6 ± 8.81	364.4 ± 6.45	n = 3	[ROS] Roche Cobas INTEGRA 400
175.4 ± 2.58	122.2 ± 1.82	194.9 ± 3.92	224.5 ± 5.53	340.9 ± 5.87	n = 15	[ROD] Roche MODULAR D/P
168.2 ± 3.32	102.3 ± 2.86	184.6 ± 4.72	220.0 ± 8.77	328.3 ± 5.55	n = 19	[BYE] Siemens ADVIA 1800
172.3 ± 3.80	119.1 ± 1.94	192.7 ± 3.90	221.2 ± 5.59	336.9 ± 5.06	n = 22	[DUE] Siemens Dimension EXL
171.4 ± 4.70	119.1 ± 3.20	190.7 ± 3.67	217.4 ± 6.63	336.1 ± 5.32	n = 12	[DUR] Siemens Dimension RxL
170.3 ± 4.27	118.3 ± 2.83	190.2 ± 3.72	217.6 ± 6.14	331.0 ± 5.36	n = 43	[DUT] Siemens Dimension Vista
169.5 ± 3.46	117.2 ± 1.80	189.3 ± 1.19	216.8 ± 3.97	331.8 ± 4.69	n = 7	[DUX] Siemens Dimension Xpand
						<Reagents>
172.7 ± 5.86	119.9 ± 4.61	196.7 ± 6.83	229.7 ± 7.82	347.8 ± 9.04	n = 23	[AB1] Abbott
168.8 ± 4.08	120.3 ± 3.97	197.4 ± 7.15	207.4 ± 8.36	362.3 ± 8.35	n = 27	[BC1] Beckman Coulter
146.1 ± 7.33	95.3 ± 4.86	162.8 ± 9.13	193.8 ± 11.57	297.2 ± 14.99	n = 58	[OL1] Beckman Coulter AU Series
164.0 ± 9.73	102.2 ± 5.51	199.1 ± 11.61	222.9 ± 13.76	353.8 ± 16.15	n = 38	[JJ1] Ortho Clinical Diagnostics
176.3 ± 4.64	116.2 ± 3.84	199.7 ± 5.92	239.6 ± 8.59	362.6 ± 11.54	n = 47	[RO4] Roche cobas c311/c501/c502/c701/c702
175.4 ± 2.58	122.2 ± 1.82	194.9 ± 3.92	224.5 ± 5.53	340.9 ± 5.87	n = 15	[RO2] Roche Hitachi and Modular D/P
174.8 ± 5.88	117.8 ± 8.30	196.6 ± 7.05	237.2 ± 8.28	363.4 ± 6.74	n = 5	[RO1] Roche Integra and MIRA
167.7 ± 4.09	102.3 ± 3.01	184.0 ± 5.63	219.2 ± 9.63	327.8 ± 6.63	n = 23	[BY1] Siemens ADVIA/ADVIA Centaur
170.9 ± 4.33	118.6 ± 2.61	190.8 ± 3.99	218.3 ± 6.45	333.5 ± 6.12	n = 80	[DA5] Siemens Dimension
170.9 ± 2.71	118.1 ± 2.33	189.9 ± 2.33	217.6 ± 2.91	330.9 ± 2.86	n = 4	[DA6] Siemens Dimension LOCI

Summary of Participant Performance (Mean and Standard Deviation)

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

Specimen: C21	Specimen: C22	Specimen: C23	Specimen: C24	Specimen: C25	Number	[Code] Instrument or Reagent System
1.19 ± 0.35	0.79 ± 0.29	11.65 ± 2.16	32.85 ± 5.48	22.57 ± 3.67	n = 190	[-A-] All Methods – Results reported as ng/mL
1.15 ± 0.13	0.73 ± 0.09	11.01 ± 0.75	30.29 ± 2.65	21.80 ± 1.97	n = 22	[AB1] Abbott
1.38 ± 0.10	0.87 ± 0.08	12.24 ± 0.82	35.74 ± 1.90	24.14 ± 2.34	n = 14	[SAA] Beckman Coulter ACCESS
1.45 ± 0.08	0.96 ± 0.06	12.94 ± 0.75	36.75 ± 2.14	25.42 ± 2.36	n = 14	[BCU] Beckman Coulter UniCel
< 1.00	< 1.00	8.10 ± 0.11	17.75 ± 0.17	14.30 ± 0.91	n = 2	[BS1] Biosite
0.94 ± 0.11	0.55 ± 0.12	8.94 ± 0.52	24.02 ± 1.41	16.55 ± 1.28	n = 22	[JJ1] Ortho Clinical Diagnostics
1.66 ± 0.09	1.12 ± 0.07	14.47 ± 0.83	38.51 ± 2.12	25.12 ± 1.20	n = 29	[RO3] Roche Elecsys/Modular E/e601/e411
1.08 ± 0.28	0.49 ± 0.29	13.03 ± 0.86	35.72 ± 2.09	25.49 ± 1.56	n = 32	[BY1] Siemens ADVIA/ADVIA Centaur
0.90 ± 0.21	0.64 ± 0.25	9.96 ± 0.42	31.32 ± 2.17	21.14 ± 1.36	n = 26	[DA5] Siemens Dimension
1.05 ± 0.19	0.85 ± 0.14	10.21 ± 0.54	28.04 ± 0.98	19.42 ± 0.72	n = 24	[DA6] Siemens Dimension LOCI
1.45 ± 0.06	1.20 ± 0.34	14.55 ± 0.63	38.90 ± 1.03	27.25 ± 1.08	n = 2	[TO1] Tosoh
4.28 ± 4.15	1.72 ± 1.22	13.70 ± 3.11	33.23 ± 2.40	24.11 ± 1.95	n = 7	[-B-] All Methods – Results reported as U/L
0.00 ± 0.00	0.00 ± 0.00	4.50 ± 3.04	10.51 ± 5.62	7.12 ± 1.70	n = 5	[-P-] All Methods – Results reported as %
0.00 ± 0.00	0.00 ± 0.00	2.52 ± 2.74	7.04 ± 5.48	6.74 ± 2.26	n = 3	[HLS] Helena SPIFE

Summary of Participant Performance (Mean and Standard Deviation)

Lactate Dehydrogenase (U/L 37°C)

Specimen: C21	Specimen: C22	Specimen: C23	Specimen: C24	Specimen: C25	Number	[Code] Instrument or Reagent System
141.0 ± 12.22	95.3 ± 8.86	537.4 ± 50.74	255.4 ± 24.58	200.2 ± 15.96	n = 265	[-A-] All Methods - Lactate to Pyruvate
352.9 ± 20.05	265.1 ± 13.08	1406.9 ± 42.34	637.3 ± 19.57	500.3 ± 16.46	n = 38	[-B-] All Methods - Pyruvate to Lactate
						<Instruments>
145.7 ± 6.34	99.3 ± 4.73	560.6 ± 11.54	263.0 ± 6.76	210.6 ± 6.74	n = 22	[ABJ] Abbott Architect c System
128.8 ± 7.10	85.2 ± 4.02	484.3 ± 25.15	227.7 ± 11.00	182.2 ± 9.41	n = 61	[OLC] Beckman Coulter AU Chemistry System
121.6 ± 3.12	82.6 ± 1.60	448.3 ± 9.12	215.8 ± 3.12	174.3 ± 4.29	n = 14	[BCG] Beckman Coulter UniCel DxC 600
122.2 ± 2.31	84.3 ± 2.81	455.7 ± 8.63	216.5 ± 5.12	175.6 ± 4.63	n = 10	[BCH] Beckman Coulter UniCel DxC 800
351.4 ± 11.45	264.8 ± 7.62	1432.8 ± 16.54	644.8 ± 10.21	511.2 ± 10.64	n = 6	[JJE] Ortho Vitros 250/350/950
351.9 ± 3.72	258.2 ± 14.95	1391.0 ± 23.76	625.0 ± 6.42	504.7 ± 11.45	n = 3	[JJH] Ortho Vitros 4600
354.6 ± 27.69	273.1 ± 20.53	1394.3 ± 41.59	630.9 ± 21.06	494.1 ± 20.02	n = 10	[JJF] Ortho Vitros 5,1FS
349.2 ± 24.34	264.4 ± 10.59	1403.9 ± 49.63	638.7 ± 23.43	496.4 ± 17.24	n = 20	[JJG] Ortho Vitros 5600
148.4 ± 2.91	100.0 ± 2.28	565.0 ± 8.35	269.2 ± 3.82	209.3 ± 3.01	n = 4	[ROJ] Roche cobas c311
147.3 ± 3.33	99.9 ± 2.48	561.7 ± 12.97	269.9 ± 5.44	207.2 ± 4.51	n = 27	[ROC] Roche cobas c501
146.0 ± 1.65	101.0 ± 1.50	561.2 ± 4.80	270.0 ± 3.53	208.2 ± 2.58	n = 4	[ROG] Roche cobas c502
143.4 ± 2.05	97.0 ± 1.54	548.1 ± 10.54	266.8 ± 2.97	204.6 ± 2.84	n = 5	[ROH] Roche cobas c701
146.8 ± 4.04	99.2 ± 2.05	561.7 ± 11.66	268.4 ± 5.15	208.1 ± 4.34	n = 16	[ROD] Roche MODULAR D/P
145.3 ± 3.75	98.3 ± 3.04	528.2 ± 17.00	257.3 ± 7.57	204.3 ± 4.58	n = 19	[BYE] Siemens ADVIA 1800
145.8 ± 3.64	98.2 ± 4.11	575.7 ± 16.82	270.7 ± 8.65	208.8 ± 5.17	n = 18	[DUE] Siemens Dimension EXL
146.0 ± 10.14	98.2 ± 6.80	573.9 ± 19.86	269.5 ± 0.57	207.3 ± 8.95	n = 6	[DUR] Siemens Dimension RxL
150.0 ± 5.25	102.3 ± 4.23	576.9 ± 15.82	273.4 ± 6.46	210.4 ± 6.41	n = 43	[DUT] Siemens Dimension Vista
141.5 ± 4.10	95.0 ± 3.41	561.0 ± 13.50	262.7 ± 6.89	203.3 ± 4.55	n = 5	[DUX] Siemens Dimension Xpand
						<Reagents>
145.7 ± 6.34	99.3 ± 4.73	560.6 ± 11.54	263.0 ± 6.76	210.6 ± 6.74	n = 22	[AB1] Abbott
121.8 ± 3.50	83.1 ± 2.28	451.2 ± 10.77	215.9 ± 4.81	175.0 ± 4.43	n = 26	[BC1] Beckman Coulter
128.6 ± 7.15	85.2 ± 4.12	484.0 ± 25.25	227.8 ± 11.03	182.2 ± 9.37	n = 57	[OL1] Beckman Coulter AU Series
350.4 ± 23.23	265.5 ± 13.32	1404.8 ± 43.09	636.6 ± 20.44	499.3 ± 18.11	n = 39	[JJ1] Ortho Clinical Diagnostics
146.7 ± 3.42	99.7 ± 2.45	560.4 ± 12.36	269.2 ± 4.93	207.3 ± 4.11	n = 42	[RO4] Roche cobas c311/c501/c502/c701/c702
146.8 ± 4.04	99.2 ± 2.05	561.7 ± 11.66	268.4 ± 5.15	208.1 ± 4.34	n = 16	[RO2] Roche Hitachi and Modular D/P
153.0 ± 1.65	102.8 ± 1.46	572.2 ± 7.16	275.9 ± 3.69	213.5 ± 2.83	n = 4	[RO1] Roche Integra and MIRA
144.9 ± 4.39	98.3 ± 3.39	528.0 ± 17.35	257.2 ± 7.55	204.1 ± 5.65	n = 23	[BY1] Siemens ADVIA/ADVIA Centaur
148.2 ± 6.36	100.5 ± 5.13	575.1 ± 17.24	271.5 ± 7.88	209.2 ± 6.49	n = 70	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

LDH Isoenzyme 1 (%)

Specimen: C21	Specimen: C22	Specimen: C23	Specimen: C24	Specimen: C25	Number	[Code] Instrument or Reagent System
27.0 ± 2.11	38.2 ± 1.48	31.9 ± 1.37	52.3 ± 1.06	18.2 ± 1.21	n = 8	[-P-] % - Electrophoresis
						<Instruments>
29.0 ± 0.90	37.8 ± 1.54	33.0 ± 0.90	50.5 ± 2.74	18.6 ± 1.02	n = 3	[HLS] Helena SPIFE
25.7 ± 1.37	38.4 ± 1.36	31.3 ± 1.15	52.4 ± 0.88	17.6 ± 0.47	n = 5	[SEE] Sebia Electrophoresis
						<Reagents>
29.0 ± 0.90	37.8 ± 1.54	33.0 ± 0.90	50.5 ± 2.74	18.6 ± 1.02	n = 3	[HL1] Helena Laboratories
25.7 ± 1.37	38.4 ± 1.36	31.3 ± 1.15	52.4 ± 0.88	17.6 ± 0.47	n = 5	[SE1] Sebia