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Clinical Chemistry Proficiency Test Program

Statistical Summary - September 2013 (Event 13-3)

This statistical report summarizes participant data for the five Clinical Chemistry proficiency survey specimens shipped 9 September 2013. Test samples (Vials C91, C92, C93, C94, C95) 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.

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: C91	Specimen: C92	Specimen: C93	Specimen: C94	Specimen: C95	Number	[Code] Instrument or Reagent System
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270.1 ± 6.20	79.4 ± 2.35	49.6 ± 1.68	187.0 ± 4.08	124.8 ± 3.04	n = 389	[---] All Methods & Instruments
<Instruments>						
268.7 ± 4.10	81.3 ± 1.51	54.1 ± 1.13	188.0 ± 1.14	127.2 ± 1.46	n = 4	[AXA] Abaxis Piccolo
274.2 ± 2.70	78.1 ± 0.92	48.7 ± 0.57	187.7 ± 2.02	124.6 ± 1.83	n = 22	[ABJ] Abbott Architect c System
274.5 ± 2.74	81.6 ± 1.02	52.0 ± 0.00	189.7 ± 2.26	127.8 ± 3.23	n = 3	[AWA] Alfa Wassermann ACE Alera
268.3 ± 4.67	78.3 ± 1.81	49.7 ± 1.18	187.0 ± 3.19	125.0 ± 2.61	n = 66	[OLC] Beckman Coulter AU Chemistry System
267.3 ± 4.02	78.4 ± 2.07	48.8 ± 2.41	184.8 ± 3.26	123.3 ± 3.17	n = 18	[BCG] Beckman Coulter UniCel DxC 600
267.6 ± 3.62	77.2 ± 2.43	48.4 ± 1.30	186.2 ± 5.03	123.2 ± 2.83	n = 7	[BCH] Beckman Coulter UniCel DxC 800
281.6 ± 2.56	109.3 ± 7.74	82.5 ± 5.40	203.8 ± 2.36	155.4 ± 7.08	n = 3	[HEC] HemoCue Glucose 201
263.4 ± 4.93	79.6 ± 1.33	49.0 ± 0.00	179.8 ± 2.88	121.8 ± 1.55	n = 5	[IAA] i-STAT
275.8 ± 6.75	81.7 ± 1.05	49.1 ± 1.70	188.4 ± 3.77	124.6 ± 2.63	n = 8	[JJE] Ortho Vitros 250/350/950
269.7 ± 7.67	78.8 ± 3.23	47.5 ± 2.74	183.7 ± 5.86	120.0 ± 4.60	n = 3	[JJH] Ortho Vitros 4600
270.0 ± 3.73	80.1 ± 1.69	47.8 ± 1.73	184.8 ± 3.47	122.1 ± 2.59	n = 17	[JJF] Ortho Vitros 5,1FS
271.7 ± 6.18	80.7 ± 1.69	48.1 ± 1.86	185.5 ± 4.14	122.3 ± 2.58	n = 20	[JJG] Ortho Vitros 5600
274.2 ± 2.36	80.0 ± 0.90	50.0 ± 0.00	189.7 ± 1.37	127.0 ± 0.90	n = 3	[ROK] Roche cobas c111
272.2 ± 2.11	79.8 ± 0.41	50.5 ± 0.57	190.3 ± 1.58	126.7 ± 0.90	n = 4	[ROJ] Roche cobas c311
269.5 ± 4.89	78.7 ± 1.39	49.8 ± 0.99	186.6 ± 2.73	124.9 ± 2.27	n = 22	[ROC] Roche cobas c501
270.3 ± 1.96	80.0 ± 0.04	49.7 ± 0.57	186.3 ± 1.76	125.2 ± 1.51	n = 5	[ROH] Roche cobas c701
272.6 ± 4.23	79.7 ± 0.97	50.7 ± 0.51	189.9 ± 3.42	127.4 ± 1.82	n = 6	[ROS] Roche Cobas INTEGRA 400
272.8 ± 2.36	78.7 ± 0.51	49.7 ± 0.51	187.5 ± 4.53	125.5 ± 1.86	n = 3	[ROT] Roche Cobas INTEGRA 800
269.3 ± 5.83	78.8 ± 1.38	49.8 ± 1.28	187.1 ± 3.32	125.2 ± 2.29	n = 31	[ROD] Roche MODULAR D/P
266.8 ± 5.31	77.9 ± 1.58	49.3 ± 0.96	185.3 ± 3.48	123.9 ± 2.31	n = 21	[BYE] Siemens ADVIA 1800
266.4 ± 7.34	77.7 ± 3.16	49.7 ± 1.37	185.4 ± 5.58	123.9 ± 3.72	n = 3	[BYB] Siemens ADVIA 2400
273.5 ± 5.54	81.8 ± 1.62	50.5 ± 1.56	188.6 ± 2.95	126.2 ± 2.29	n = 23	[DUE] Siemens Dimension EXL
276.0 ± 6.85	82.9 ± 1.94	51.4 ± 1.50	190.3 ± 4.11	127.2 ± 2.37	n = 18	[DUR] Siemens Dimension RxL
267.7 ± 7.74	79.7 ± 2.14	49.5 ± 1.82	185.6 ± 5.39	123.7 ± 3.58	n = 41	[DUT] Siemens Dimension Vista
272.5 ± 6.27	82.1 ± 1.41	50.8 ± 1.44	188.9 ± 3.40	126.4 ± 1.95	n = 16	[DUX] Siemens Dimension Xpand
<Reagents>						
268.7 ± 4.10	81.3 ± 1.51	54.1 ± 1.13	188.0 ± 1.14	127.2 ± 1.46	n = 4	[AX1] Abaxis
274.2 ± 2.70	78.1 ± 0.92	48.7 ± 0.57	187.7 ± 2.02	124.6 ± 1.83	n = 22	[AB1] Abbott
274.5 ± 2.74	81.6 ± 1.02	52.0 ± 0.00	189.7 ± 2.26	127.8 ± 3.23	n = 3	[AW1] Alfa Wassermann
267.6 ± 4.18	78.0 ± 2.30	48.8 ± 2.14	185.6 ± 3.93	123.6 ± 3.08	n = 28	[BC1] Beckman Coulter
268.5 ± 4.80	78.2 ± 1.67	49.6 ± 1.06	187.0 ± 3.25	125.0 ± 2.58	n = 61	[OL1] Beckman Coulter AU Series
268.9 ± 2.05	80.3 ± 0.51	50.9 ± 0.77	188.5 ± 2.74	127.5 ± 1.86	n = 3	[CR1] Carolina
277.5 ± 6.42	102.0 ± 11.03	77.5 ± 8.01	198.5 ± 8.17	147.1 ± 13.10	n = 5	[HE1] HemoCue
263.4 ± 4.93	79.6 ± 1.33	49.0 ± 0.00	179.8 ± 2.88	121.8 ± 1.55	n = 5	[IA1] i-STAT
271.6 ± 5.94	80.6 ± 1.96	48.2 ± 1.95	185.7 ± 4.28	122.6 ± 3.09	n = 49	[JJ1] Ortho Clinical Diagnostics
274.2 ± 2.36	80.0 ± 0.90	50.0 ± 0.00	189.7 ± 1.37	127.0 ± 0.90	n = 3	[R08] Roche cobas c111
270.1 ± 4.21	79.1 ± 1.26	49.9 ± 0.92	187.2 ± 2.89	125.3 ± 2.12	n = 32	[R04] Roche cobas c311/c501/c502/c701/c702
269.3 ± 5.83	78.8 ± 1.38	49.8 ± 1.28	187.1 ± 3.32	125.2 ± 2.29	n = 31	[R02] Roche Hitachi and Modular D/P
272.8 ± 3.52	79.3 ± 1.00	50.4 ± 0.70	189.3 ± 3.85	126.7 ± 2.14	n = 9	[R01] Roche Integra and MIRA
267.2 ± 5.81	78.0 ± 1.88	49.4 ± 1.09	185.6 ± 4.02	124.1 ± 2.55	n = 25	[BY1] Siemens ADVIA/ADVIA Centaur
271.5 ± 7.77	81.2 ± 2.32	50.4 ± 1.81	187.9 ± 4.64	125.5 ± 3.20	n = 98	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

Urea Nitrogen (mg/dL)

Specimen: C91	Specimen: C92	Specimen: C93	Specimen: C94	Specimen: C95	Number	[Code] Instrument or Reagent System
26.6 ± 1.49	17.4 ± 0.96	62.0 ± 2.21	11.1 ± 0.56	34.1 ± 1.41	n = 371	[---] All Methods & Instruments
<Instruments>						
25.0 ± 0.75	16.2 ± 0.41	60.5 ± 1.22	10.8 ± 0.41	31.5 ± 0.57	n = 4	[AXA] Abaxis Piccolo
26.7 ± 0.73	17.5 ± 0.67	63.1 ± 1.84	11.1 ± 0.45	34.4 ± 1.16	n = 21	[ABJ] Abbott Architect c System
27.4 ± 1.02	18.3 ± 0.51	65.2 ± 2.36	11.0 ± 0.90	35.4 ± 1.02	n = 3	[AWA] Alfa Wassermann ACE Alera
27.0 ± 0.87	17.8 ± 0.73	62.4 ± 2.00	11.2 ± 0.54	34.6 ± 1.23	n = 62	[OLC] Beckman Coulter AU Chemistry System
27.7 ± 0.68	18.0 ± 0.00	62.2 ± 1.44	11.8 ± 0.57	34.8 ± 0.84	n = 18	[BCG] Beckman Coulter UniCel DxC 600
24.5 ± 0.58	15.0 ± 0.00	59.9 ± 1.01	8.3 ± 1.56	31.1 ± 1.11	n = 7	[BCH] Beckman Coulter UniCel DxC 800
30.0 ± 1.00	19.0 ± 0.00	63.8 ± 0.80	11.8 ± 0.80	36.2 ± 0.80	n = 5	[IAA] i-STAT
23.5 ± 1.02	16.7 ± 0.51	60.5 ± 1.55	11.0 ± 0.00	32.8 ± 0.94	n = 9	[JJE] Ortho Vitros 250/350/950
23.3 ± 0.51	16.3 ± 0.51	59.2 ± 2.36	11.0 ± 0.00	32.4 ± 1.02	n = 3	[JJH] Ortho Vitros 4600
23.1 ± 0.65	16.0 ± 0.00	59.3 ± 0.94	11.0 ± 0.00	32.2 ± 0.55	n = 17	[JJF] Ortho Vitros 5,1FS
23.3 ± 0.87	16.2 ± 0.68	59.2 ± 1.64	10.8 ± 0.41	32.7 ± 0.88	n = 20	[JJG] Ortho Vitros 5600
25.6 ± 1.02	16.3 ± 0.51	58.8 ± 2.36	10.7 ± 0.51	32.6 ± 1.02	n = 3	[ROK] Roche cobas c111
27.0 ± 0.00	17.8 ± 0.41	62.8 ± 0.41	11.0 ± 0.00	34.8 ± 0.41	n = 4	[ROJ] Roche cobas c311
26.3 ± 0.58	17.2 ± 0.47	61.1 ± 0.88	11.0 ± 0.00	33.7 ± 0.74	n = 21	[ROC] Roche cobas c501
26.3 ± 0.44	17.0 ± 0.04	60.8 ± 0.85	11.0 ± 0.00	33.6 ± 0.55	n = 5	[ROH] Roche cobas c701
26.5 ± 0.57	17.5 ± 0.57	62.1 ± 1.13	10.8 ± 0.41	34.2 ± 0.41	n = 4	[ROS] Roche Cobas INTEGRA 400
25.9 ± 0.99	16.9 ± 0.26	62.6 ± 2.60	10.8 ± 0.31	33.6 ± 0.67	n = 3	[ROT] Roche Cobas INTEGRA 800
26.8 ± 0.84	17.8 ± 0.57	61.4 ± 1.42	11.4 ± 0.55	34.1 ± 0.82	n = 30	[ROD] Roche MODULAR D/P
27.2 ± 0.68	18.1 ± 0.47	64.0 ± 1.09	11.5 ± 0.62	34.9 ± 0.84	n = 21	[BYE] Siemens ADVIA 1800
27.7 ± 0.51	18.7 ± 0.51	64.0 ± 0.90	11.3 ± 0.51	34.7 ± 0.51	n = 3	[BYB] Siemens ADVIA 2400
26.8 ± 0.95	17.4 ± 0.74	63.1 ± 1.58	10.7 ± 0.53	34.4 ± 1.14	n = 23	[DUE] Siemens Dimension EXL
27.3 ± 1.03	18.0 ± 0.67	63.2 ± 2.56	11.2 ± 0.65	34.7 ± 1.16	n = 18	[DUR] Siemens Dimension RxL
26.8 ± 1.01	17.4 ± 0.89	62.6 ± 2.27	11.0 ± 0.42	34.6 ± 1.19	n = 41	[DUT] Siemens Dimension Vista
26.9 ± 0.84	17.4 ± 0.55	62.5 ± 1.18	11.0 ± 0.00	34.4 ± 0.72	n = 15	[DUX] Siemens Dimension Xpand
<Reagents>						
25.0 ± 0.75	16.2 ± 0.41	60.5 ± 1.22	10.8 ± 0.41	31.5 ± 0.57	n = 4	[AX1] Abaxis
26.7 ± 0.73	17.5 ± 0.67	63.1 ± 1.84	11.1 ± 0.45	34.4 ± 1.16	n = 21	[AB1] Abbott
27.4 ± 1.02	18.3 ± 0.51	65.2 ± 2.36	11.0 ± 0.90	35.4 ± 1.02	n = 3	[AW1] Alfa Wassermann
26.5 ± 1.97	17.2 ± 1.48	61.6 ± 1.76	10.7 ± 1.98	33.6 ± 2.31	n = 29	[BC1] Beckman Coulter
27.0 ± 0.90	17.9 ± 0.72	62.5 ± 2.02	11.3 ± 0.56	34.6 ± 1.20	n = 58	[OL1] Beckman Coulter AU Series
30.0 ± 1.00	19.0 ± 0.00	63.8 ± 0.80	11.8 ± 0.80	36.2 ± 0.80	n = 5	[IA1] i-STAT
23.2 ± 0.82	16.2 ± 0.58	59.5 ± 1.48	11.0 ± 0.00	32.5 ± 0.87	n = 50	[JJ1] Ortho Clinical Diagnostics
25.6 ± 1.02	16.3 ± 0.51	58.8 ± 2.36	10.7 ± 0.51	32.6 ± 1.02	n = 3	[R08] Roche cobas c111
26.5 ± 0.59	17.3 ± 0.53	61.4 ± 1.09	11.0 ± 0.00	33.9 ± 0.82	n = 31	[R04] Roche cobas c311/c501/c502/c701/c702
26.8 ± 0.84	17.8 ± 0.57	61.4 ± 1.42	11.4 ± 0.55	34.1 ± 0.82	n = 30	[R02] Roche Hitachi and Modular D/P
26.3 ± 0.77	17.2 ± 0.55	62.4 ± 1.84	10.9 ± 0.34	34.0 ± 0.51	n = 7	[R01] Roche Integra and MIRA
27.3 ± 0.69	18.2 ± 0.51	64.0 ± 1.06	11.5 ± 0.61	35.0 ± 0.82	n = 25	[BY1] Siemens ADVIA/ADVIA Centaur
26.9 ± 0.99	17.5 ± 0.80	62.8 ± 2.01	11.0 ± 0.50	34.5 ± 1.11	n = 96	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

Creatinine (mg/dL)

Specimen: C91	Specimen: C92	Specimen: C93	Specimen: C94	Specimen: C95	Number	[Code]	Instrument or Reagent System
2.18 ± 0.19	1.72 ± 0.11	4.68 ± 0.16	1.03 ± 0.10	2.69 ± 0.11	n = 376	[---]	All Methods & Instruments
2.19 ± 0.21	1.70 ± 0.11	4.68 ± 0.16	1.03 ± 0.11	2.69 ± 0.11	n = 205	[---]	All IDMS Traceable Methods
2.18 ± 0.16	1.74 ± 0.12	4.68 ± 0.16	1.04 ± 0.10	2.69 ± 0.11	n = 168	[---]	All Non-IDMS Traceable Methods
2.18 ± 0.14	1.76 ± 0.11	4.65 ± 0.15	1.05 ± 0.09	2.68 ± 0.09	n = 134	[-G-]	Alkaline picrate/Jaffe
2.18 ± 0.21	1.71 ± 0.11	4.64 ± 0.14	1.02 ± 0.13	2.66 ± 0.10	n = 143	[-H-]	Alkaline picrate/Jaffe-IDMS calibration
2.13 ± 0.24	1.65 ± 0.15	4.79 ± 0.19	1.02 ± 0.10	2.75 ± 0.18	n = 34	[-I-]	Enzymatic
2.20 ± 0.22	1.69 ± 0.11	4.79 ± 0.17	1.04 ± 0.07	2.76 ± 0.13	n = 62	[-J-]	Enzymatic-IDMS-traceable calibration
2.08 ± 0.24	1.60 ± 0.09	4.85 ± 0.19	1.00 ± 0.09	2.70 ± 0.09	n = 3	[-Z-]	Other
2.06 ± 0.18	1.52 ± 0.04	4.82 ± 0.12	0.99 ± 0.12	2.74 ± 0.14	n = 4	[AXA]	Abaxis Piccolo
2.57 ± 0.07	1.90 ± 0.03	4.76 ± 0.08	1.18 ± 0.04	2.79 ± 0.05	n = 21	[ABJ]	Abbott Architect c System
2.11 ± 0.02	1.69 ± 0.08	4.78 ± 0.24	1.01 ± 0.01	2.68 ± 0.05	n = 3	[AWA]	Alfa Wassermann ACE Alera
2.16 ± 0.05	1.68 ± 0.05	4.65 ± 0.11	1.02 ± 0.03	2.66 ± 0.06	n = 64	[OLC]	Beckman Coulter AU Chemistry System
1.95 ± 0.07	1.66 ± 0.05	4.64 ± 0.12	0.88 ± 0.08	2.60 ± 0.09	n = 19	[BCG]	Beckman Coulter UniCel DxC 600
2.09 ± 0.07	1.75 ± 0.08	4.80 ± 0.09	1.00 ± 0.01	2.69 ± 0.04	n = 7	[BCH]	Beckman Coulter UniCel DxC 800
2.10 ± 0.08	1.80 ± 0.08	5.17 ± 0.15	1.12 ± 0.04	3.20 ± 0.08	n = 4	[IAA]	i-STAT
2.33 ± 0.17	1.75 ± 0.08	4.94 ± 0.10	1.05 ± 0.06	2.87 ± 0.07	n = 10	[JJE]	Ortho Vitros 250/350/950
2.35 ± 0.09	1.74 ± 0.08	4.76 ± 0.19	1.12 ± 0.04	2.82 ± 0.12	n = 3	[JJH]	Ortho Vitros 4600
2.36 ± 0.08	1.76 ± 0.06	4.79 ± 0.20	1.08 ± 0.05	2.85 ± 0.14	n = 17	[JJF]	Ortho Vitros 5,1FS
2.36 ± 0.06	1.74 ± 0.06	4.79 ± 0.11	1.06 ± 0.05	2.82 ± 0.10	n = 20	[JJG]	Ortho Vitros 5600
1.90 ± 0.07	1.55 ± 0.03	4.62 ± 0.09	0.91 ± 0.03	2.59 ± 0.05	n = 3	[ROK]	Roche cobas c111
1.97 ± 0.09	1.59 ± 0.02	4.86 ± 0.19	0.94 ± 0.07	2.70 ± 0.08	n = 4	[ROJ]	Roche cobas c311
1.96 ± 0.08	1.60 ± 0.05	4.76 ± 0.13	0.92 ± 0.10	2.67 ± 0.07	n = 23	[ROC]	Roche cobas c501
2.13 ± 0.11	1.70 ± 0.05	4.75 ± 0.25	1.05 ± 0.07	2.67 ± 0.10	n = 5	[ROH]	Roche cobas c701
2.00 ± 0.01	1.65 ± 0.08	4.70 ± 0.01	1.00 ± 0.01	2.66 ± 0.06	n = 5	[ROS]	Roche Cobas INTEGRA 400
2.03 ± 0.05	1.60 ± 0.00	4.83 ± 0.05	1.00 ± 0.00	2.73 ± 0.05	n = 3	[ROT]	Roche Cobas INTEGRA 800
2.23 ± 0.19	1.73 ± 0.12	4.68 ± 0.15	1.09 ± 0.08	2.70 ± 0.08	n = 30	[ROD]	Roche MODULAR D/P
2.36 ± 0.15	1.73 ± 0.10	4.51 ± 0.11	1.11 ± 0.07	2.64 ± 0.08	n = 21	[BYE]	Siemens ADVIA 1800
2.39 ± 0.07	1.75 ± 0.07	4.48 ± 0.06	1.14 ± 0.06	2.61 ± 0.06	n = 3	[BYB]	Siemens ADVIA 2400
2.18 ± 0.10	1.78 ± 0.10	4.63 ± 0.13	1.07 ± 0.09	2.69 ± 0.09	n = 23	[DUE]	Siemens Dimension EXL
2.19 ± 0.15	1.80 ± 0.13	4.60 ± 0.17	1.05 ± 0.12	2.69 ± 0.13	n = 18	[DUR]	Siemens Dimension RxL
2.11 ± 0.13	1.70 ± 0.12	4.62 ± 0.17	0.97 ± 0.11	2.64 ± 0.12	n = 41	[DUT]	Siemens Dimension Vista
2.16 ± 0.14	1.80 ± 0.09	4.61 ± 0.10	1.05 ± 0.11	2.67 ± 0.08	n = 15	[DUX]	Siemens Dimension Xpand
2.06 ± 0.18	1.52 ± 0.04	4.82 ± 0.12	0.99 ± 0.12	2.74 ± 0.14	n = 4	[AX1]	Abaxis
2.57 ± 0.07	1.90 ± 0.03	4.76 ± 0.08	1.18 ± 0.04	2.79 ± 0.05	n = 22	[AB1]	Abbott
2.11 ± 0.02	1.69 ± 0.08	4.78 ± 0.24	1.01 ± 0.01	2.68 ± 0.05	n = 3	[AW1]	Alfa Wassermann
2.00 ± 0.11	1.69 ± 0.07	4.69 ± 0.13	0.92 ± 0.09	2.64 ± 0.09	n = 29	[BC1]	Beckman Coulter
2.16 ± 0.05	1.68 ± 0.04	4.65 ± 0.10	1.02 ± 0.03	2.66 ± 0.06	n = 59	[OL1]	Beckman Coulter AU Series
2.13 ± 0.05	1.83 ± 0.05	5.15 ± 0.19	1.10 ± 0.00	3.20 ± 0.09	n = 3	[IA1]	i-STAT
2.36 ± 0.08	1.75 ± 0.06	4.80 ± 0.17	1.07 ± 0.05	2.84 ± 0.12	n = 50	[JJ1]	Ortho Clinical Diagnostics
1.90 ± 0.07	1.55 ± 0.03	4.62 ± 0.09	0.91 ± 0.03	2.59 ± 0.05	n = 3	[R08]	Roche cobas c111
1.99 ± 0.10	1.61 ± 0.06	4.77 ± 0.16	0.95 ± 0.10	2.67 ± 0.08	n = 33	[R04]	Roche cobas c311/c501/c502/c701/c702
2.23 ± 0.19	1.73 ± 0.12	4.68 ± 0.15	1.09 ± 0.08	2.70 ± 0.08	n = 30	[R02]	Roche Hitachi and Modular D/P
2.00 ± 0.00	1.60 ± 0.00	4.75 ± 0.08	1.00 ± 0.00	2.69 ± 0.06	n = 8	[R01]	Roche Integra and MIRA
2.38 ± 0.14	1.74 ± 0.10	4.51 ± 0.12	1.12 ± 0.07	2.64 ± 0.08	n = 25	[BY1]	Siemens ADVIA/ADVIA Centaur
2.15 ± 0.13	1.75 ± 0.13	4.62 ± 0.15	1.02 ± 0.11	2.67 ± 0.11	n = 97	[DA5]	Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

Estimated Glomerular Filtration Rate (mL/min/1.73 m²)

Specimen: C91	Specimen: C92	Specimen: C93	Specimen: C94	Specimen: C95	Number	[Code] Instrument or Reagent System
27.9 ± 3.52	36.9 ± 3.43	11.5 ± 0.70	64.0 ± 8.91	21.7 ± 1.52	n = 293	[---] All Methods & Instruments
27.0 ± 3.26	36.2 ± 2.86	11.3 ± 0.59	61.1 ± 6.70	21.2 ± 1.27	n = 166	[-A-] IDMS-traceable MDRD Study Equation
28.2 ± 3.08	36.3 ± 3.06	11.7 ± 0.67	63.3 ± 7.20	21.9 ± 1.15	n = 88	[-B-] Original MDRD Study Equation (4-variable)
31.8 ± 2.28	41.5 ± 1.96	13.9 ± 2.12	65.6 ± 12.81	25.7 ± 3.56	n = 7	[-D-] Cockcroft-Gault Equation
31.1 ± 2.98	41.4 ± 2.70	12.0 ± 0.68	74.1 ± 8.03	23.6 ± 1.40	n = 28	[-F-] CKD-EPI Equation
28.6 ± 4.11	37.8 ± 2.82	11.5 ± 1.05	73.5 ± 10.90	21.8 ± 2.27	n = 3	[-Z-] Other

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

Specimen: C91	Specimen: C92	Specimen: C93	Specimen: C94	Specimen: C95	Method
27 (20-34)	36 (27-46)	11 (8-14)	64 (48-81)	21 (15-27)	IDMS-traceable MDRD Study Equation
29 (21-36)	37 (28-47)	12 (8-15)	68 (50-85)	23 (17-29)	Original MDRD Study Equation
30 (22-38)	41 (30-51)	12 (8-15)	74 (55-93)	23 (17-30)	CKD-EPI Equation
34 (25-43)	43 (32-54)	16 (11-20)	71 (53-89)	27 (20-35)	Cockcroft-Gault Equation

Laboratories were asked to report Estimated Glomerular Filtration Rate (eGFR) for samples C91-C95 for a 27-year-old non-African American woman weighing 55 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 m² 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. Participant results for specimen C94 reported as > 60 mL/min/1.73 m² were considered acceptable performance.

Summary of Participant Performance (Mean and Standard Deviation)

Uric Acid (mg/dL)

Specimen: C91	Specimen: C92	Specimen: C93	Specimen: C94	Specimen: C95	Number	[Code] Instrument or Reagent System
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6.78 ± 0.31	9.10 ± 0.40	2.68 ± 0.15	4.72 ± 0.20	3.79 ± 0.18	n = 334	[---] All Methods & Instruments
<Instruments>						
6.94 ± 0.10	9.48 ± 0.16	2.70 ± 0.00	4.76 ± 0.09	3.79 ± 0.08	n = 21	[ABJ] Abbott Architect c System
7.21 ± 0.14	9.47 ± 0.16	2.97 ± 0.08	5.03 ± 0.10	4.09 ± 0.08	n = 61	[OLC] Beckman Coulter AU Chemistry System
6.35 ± 0.10	8.74 ± 0.11	2.62 ± 0.05	4.60 ± 0.04	3.71 ± 0.06	n = 16	[BCG] Beckman Coulter UniCel DxC 600
6.40 ± 0.05	8.78 ± 0.09	2.62 ± 0.07	4.64 ± 0.06	3.74 ± 0.06	n = 7	[BCH] Beckman Coulter UniCel DxC 800
6.55 ± 0.17	8.97 ± 0.22	2.61 ± 0.06	4.69 ± 0.11	3.79 ± 0.11	n = 6	[JJE] Ortho Vitros 250/350/950
6.57 ± 0.14	8.83 ± 0.14	2.57 ± 0.05	4.60 ± 0.09	3.70 ± 0.09	n = 3	[JJH] Ortho Vitros 4600
6.59 ± 0.07	8.92 ± 0.09	2.56 ± 0.06	4.65 ± 0.07	3.72 ± 0.07	n = 16	[JJF] Ortho Vitros 5,1FS
6.57 ± 0.15	8.91 ± 0.16	2.55 ± 0.08	4.63 ± 0.13	3.71 ± 0.09	n = 20	[JJG] Ortho Vitros 5600
7.07 ± 0.05	9.60 ± 0.09	2.77 ± 0.05	4.90 ± 0.00	3.90 ± 0.00	n = 3	[ROJ] Roche cobas c311
6.90 ± 0.12	9.34 ± 0.14	2.70 ± 0.06	4.80 ± 0.09	3.86 ± 0.08	n = 20	[ROC] Roche cobas c501
6.79 ± 0.20	9.13 ± 0.15	2.65 ± 0.06	4.67 ± 0.09	3.80 ± 0.08	n = 4	[ROH] Roche cobas c701
6.77 ± 0.05	9.13 ± 0.14	2.67 ± 0.05	4.67 ± 0.05	3.73 ± 0.05	n = 3	[ROT] Roche Cobas INTEGRA 800
6.75 ± 0.14	9.24 ± 0.17	2.63 ± 0.07	4.67 ± 0.10	3.76 ± 0.09	n = 28	[ROD] Roche MODULAR D/P
6.76 ± 0.13	9.23 ± 0.14	2.70 ± 0.00	4.74 ± 0.08	3.82 ± 0.07	n = 21	[BYE] Siemens ADVIA 1800
6.83 ± 0.14	9.30 ± 0.18	2.66 ± 0.10	4.73 ± 0.14	3.80 ± 0.09	n = 3	[BYB] Siemens ADVIA 2400
6.93 ± 0.16	8.99 ± 0.19	2.67 ± 0.07	4.74 ± 0.09	3.79 ± 0.10	n = 22	[DUE] Siemens Dimension EXL
6.86 ± 0.14	8.94 ± 0.12	2.70 ± 0.13	4.70 ± 0.11	3.78 ± 0.10	n = 16	[DUR] Siemens Dimension RxL
6.44 ± 0.12	8.33 ± 0.17	2.57 ± 0.06	4.41 ± 0.09	3.57 ± 0.10	n = 40	[DUT] Siemens Dimension Vista
6.77 ± 0.15	8.90 ± 0.22	2.67 ± 0.07	4.67 ± 0.11	3.80 ± 0.07	n = 10	[DUX] Siemens Dimension Xpand
<Reagents>						
6.94 ± 0.10	9.48 ± 0.16	2.70 ± 0.00	4.76 ± 0.09	3.79 ± 0.08	n = 21	[AB1] Abbott
6.38 ± 0.09	8.76 ± 0.11	2.62 ± 0.07	4.62 ± 0.06	3.72 ± 0.06	n = 27	[BC1] Beckman Coulter
7.22 ± 0.14	9.48 ± 0.17	2.97 ± 0.08	5.03 ± 0.09	4.09 ± 0.08	n = 59	[OL1] Beckman Coulter AU Series
6.58 ± 0.13	8.92 ± 0.14	2.56 ± 0.07	4.65 ± 0.11	3.72 ± 0.09	n = 45	[JJ1] Ortho Clinical Diagnostics
6.92 ± 0.12	9.35 ± 0.17	2.70 ± 0.06	4.80 ± 0.10	3.86 ± 0.07	n = 29	[R04] Roche cobas c311/c501/c502/c701/c702
6.75 ± 0.14	9.24 ± 0.17	2.63 ± 0.07	4.67 ± 0.10	3.76 ± 0.09	n = 28	[R02] Roche Hitachi and Modular D/P
6.76 ± 0.06	9.16 ± 0.11	2.64 ± 0.06	4.66 ± 0.06	3.70 ± 0.00	n = 5	[R01] Roche Integra and MIRA
6.76 ± 0.13	9.23 ± 0.15	2.70 ± 0.06	4.73 ± 0.09	3.81 ± 0.08	n = 25	[BY1] Siemens ADVIA/ADVIA Centaur
6.67 ± 0.28	8.68 ± 0.39	2.62 ± 0.09	4.58 ± 0.19	3.68 ± 0.16	n = 88	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

Bilirubin (mg/dL)

Specimen: C91	Specimen: C92	Specimen: C93	Specimen: C94	Specimen: C95	Number	[Code] Instrument or Reagent System
4.52 ± 0.33	2.70 ± 0.20	0.62 ± 0.11	1.84 ± 0.17	1.30 ± 0.15	n = 359	[---] All Methods & Instruments
<Instruments>						
4.59 ± 0.11	2.77 ± 0.08	0.75 ± 0.06	1.95 ± 0.06	1.42 ± 0.04	n = 4	[AXA] Abaxis Piccolo
4.79 ± 0.12	3.03 ± 0.07	0.71 ± 0.04	2.10 ± 0.07	1.56 ± 0.06	n = 21	[ABJ] Abbott Architect c System
5.46 ± 0.10	3.36 ± 0.10	0.80 ± 0.00	2.27 ± 0.05	1.66 ± 0.10	n = 3	[AWA] Alfa Wassermann ACE Alera
4.17 ± 0.16	2.63 ± 0.08	0.70 ± 0.00	1.89 ± 0.06	1.38 ± 0.05	n = 63	[OLC] Beckman Coulter AU Chemistry System
4.68 ± 0.18	2.93 ± 0.13	0.71 ± 0.07	1.97 ± 0.15	1.41 ± 0.11	n = 18	[BCG] Beckman Coulter UniCel DxC 600
4.96 ± 0.19	3.06 ± 0.13	0.76 ± 0.13	2.03 ± 0.11	1.44 ± 0.09	n = 7	[BCH] Beckman Coulter UniCel DxC 800
4.80 ± 0.09	2.66 ± 0.12	0.66 ± 0.09	1.97 ± 0.08	1.40 ± 0.08	n = 9	[JJE] Ortho Vitros 250/350/950
4.78 ± 0.24	2.61 ± 0.20	0.63 ± 0.14	1.98 ± 0.15	1.38 ± 0.15	n = 3	[JJH] Ortho Vitros 4600
4.77 ± 0.22	2.59 ± 0.12	0.60 ± 0.06	1.92 ± 0.11	1.33 ± 0.10	n = 17	[JJF] Ortho Vitros 5,1FS
4.74 ± 0.13	2.56 ± 0.11	0.59 ± 0.06	1.90 ± 0.09	1.34 ± 0.09	n = 20	[JJG] Ortho Vitros 5600
4.37 ± 0.09	2.50 ± 0.08	0.45 ± 0.06	1.62 ± 0.04	1.10 ± 0.00	n = 4	[ROJ] Roche cobas c311
4.39 ± 0.17	2.49 ± 0.11	0.48 ± 0.04	1.64 ± 0.08	1.08 ± 0.07	n = 20	[ROC] Roche cobas c501
4.09 ± 0.27	2.34 ± 0.16	0.38 ± 0.04	1.47 ± 0.08	0.97 ± 0.08	n = 4	[ROH] Roche cobas c701
4.18 ± 0.24	2.39 ± 0.18	0.40 ± 0.10	1.50 ± 0.10	1.03 ± 0.11	n = 5	[ROS] Roche Cobas INTEGRA 400
4.05 ± 0.37	2.37 ± 0.15	0.46 ± 0.08	1.50 ± 0.09	1.03 ± 0.08	n = 3	[ROT] Roche Cobas INTEGRA 800
4.39 ± 0.22	2.58 ± 0.12	0.48 ± 0.06	1.66 ± 0.08	1.13 ± 0.07	n = 29	[ROD] Roche MODULAR D/P
5.04 ± 0.15	2.99 ± 0.12	0.66 ± 0.06	1.99 ± 0.07	1.39 ± 0.05	n = 21	[BYE] Siemens ADVIA 1800
5.16 ± 0.10	3.00 ± 0.09	0.67 ± 0.05	2.03 ± 0.05	1.40 ± 0.00	n = 3	[BYB] Siemens ADVIA 2400
4.54 ± 0.15	2.74 ± 0.09	0.59 ± 0.04	1.78 ± 0.07	1.23 ± 0.07	n = 23	[DUE] Siemens Dimension EXL
4.47 ± 0.17	2.69 ± 0.10	0.55 ± 0.06	1.73 ± 0.09	1.19 ± 0.05	n = 18	[DUR] Siemens Dimension RxL
4.50 ± 0.13	2.74 ± 0.08	0.60 ± 0.00	1.80 ± 0.06	1.25 ± 0.07	n = 41	[DUT] Siemens Dimension Vista
4.54 ± 0.13	2.73 ± 0.09	0.55 ± 0.07	1.76 ± 0.07	1.22 ± 0.08	n = 15	[DUX] Siemens Dimension Xpand
<Reagents>						
4.59 ± 0.11	2.77 ± 0.08	0.75 ± 0.06	1.95 ± 0.06	1.42 ± 0.04	n = 4	[AX1] Abaxis
4.79 ± 0.12	3.03 ± 0.07	0.71 ± 0.04	2.10 ± 0.07	1.56 ± 0.06	n = 21	[AB1] Abbott
5.46 ± 0.10	3.36 ± 0.10	0.80 ± 0.00	2.27 ± 0.05	1.66 ± 0.10	n = 3	[AW1] Alfa Wassermann
4.74 ± 0.25	2.96 ± 0.17	0.72 ± 0.11	1.98 ± 0.16	1.42 ± 0.10	n = 28	[BC1] Beckman Coulter
4.17 ± 0.15	2.63 ± 0.08	0.70 ± 0.00	1.89 ± 0.06	1.38 ± 0.05	n = 60	[OL1] Beckman Coulter AU Series
4.77 ± 0.18	2.59 ± 0.13	0.61 ± 0.08	1.92 ± 0.11	1.35 ± 0.10	n = 50	[JJ1] Ortho Clinical Diagnostics
4.36 ± 0.17	2.48 ± 0.11	0.46 ± 0.06	1.62 ± 0.09	1.08 ± 0.07	n = 29	[R04] Roche cobas c311/c501/c502/c701/c702
4.39 ± 0.22	2.58 ± 0.12	0.48 ± 0.06	1.66 ± 0.08	1.13 ± 0.07	n = 29	[R02] Roche Hitachi and Modular D/P
4.13 ± 0.30	2.38 ± 0.17	0.42 ± 0.10	1.50 ± 0.10	1.03 ± 0.10	n = 8	[R01] Roche Integra and MIRA
5.06 ± 0.15	3.00 ± 0.11	0.66 ± 0.06	1.99 ± 0.07	1.40 ± 0.00	n = 25	[BY1] Siemens ADVIA/ADVIA Centaur
4.51 ± 0.14	2.73 ± 0.09	0.58 ± 0.06	1.78 ± 0.07	1.23 ± 0.07	n = 97	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

Phosphorus (mg/dL)

Specimen: C91	Specimen: C92	Specimen: C93	Specimen: C94	Specimen: C95	Number	[Code] Instrument or Reagent System
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2.32 ± 0.23	5.38 ± 0.23	4.11 ± 0.18	3.07 ± 0.20	3.55 ± 0.19	n = 331	[---] All Methods & Instruments
<Instruments>						
2.30 ± 0.10	5.38 ± 0.07	4.15 ± 0.08	3.08 ± 0.07	3.58 ± 0.09	n = 20	[ABJ] Abbott Architect c System
2.25 ± 0.08	5.21 ± 0.11	4.00 ± 0.11	2.96 ± 0.08	3.44 ± 0.10	n = 59	[OLC] Beckman Coulter AU Chemistry System
2.54 ± 0.17	5.56 ± 0.16	4.36 ± 0.12	3.24 ± 0.16	3.76 ± 0.11	n = 17	[BCG] Beckman Coulter UniCel DxC 600
2.50 ± 0.00	5.63 ± 0.07	4.24 ± 0.09	3.34 ± 0.06	3.72 ± 0.05	n = 7	[BCH] Beckman Coulter UniCel DxC 800
2.82 ± 0.11	5.83 ± 0.17	4.47 ± 0.14	3.52 ± 0.12	3.96 ± 0.14	n = 8	[JJE] Ortho Vitros 250/350/950
2.78 ± 0.24	5.75 ± 0.27	4.33 ± 0.23	3.43 ± 0.14	3.87 ± 0.14	n = 3	[JJH] Ortho Vitros 4600
2.83 ± 0.09	5.74 ± 0.12	4.35 ± 0.09	3.49 ± 0.10	3.85 ± 0.09	n = 16	[JJF] Ortho Vitros 5,1FS
2.81 ± 0.09	5.75 ± 0.11	4.34 ± 0.10	3.49 ± 0.07	3.89 ± 0.07	n = 20	[JJG] Ortho Vitros 5600
2.32 ± 0.06	5.50 ± 0.10	4.17 ± 0.08	3.10 ± 0.07	3.60 ± 0.06	n = 22	[ROC] Roche cobas c501
2.37 ± 0.08	5.34 ± 0.18	4.07 ± 0.09	3.03 ± 0.09	3.43 ± 0.08	n = 4	[ROH] Roche cobas c701
2.36 ± 0.10	5.37 ± 0.05	4.14 ± 0.10	3.07 ± 0.05	3.57 ± 0.05	n = 3	[ROS] Roche Cobas INTEGRA 400
2.41 ± 0.20	5.45 ± 0.19	4.20 ± 0.09	3.12 ± 0.15	3.60 ± 0.09	n = 3	[ROT] Roche Cobas INTEGRA 800
2.30 ± 0.10	5.40 ± 0.12	4.12 ± 0.12	3.03 ± 0.09	3.56 ± 0.11	n = 27	[ROD] Roche MODULAR D/P
2.32 ± 0.07	5.39 ± 0.07	4.12 ± 0.09	3.04 ± 0.07	3.51 ± 0.06	n = 21	[BYE] Siemens ADVIA 1800
2.27 ± 0.05	5.40 ± 0.09	4.07 ± 0.05	3.03 ± 0.05	3.50 ± 0.00	n = 3	[BYB] Siemens ADVIA 2400
2.23 ± 0.09	5.33 ± 0.07	4.07 ± 0.08	3.02 ± 0.08	3.52 ± 0.08	n = 21	[DUE] Siemens Dimension EXL
2.23 ± 0.10	5.26 ± 0.12	4.03 ± 0.11	3.04 ± 0.10	3.48 ± 0.13	n = 17	[DUR] Siemens Dimension RxL
2.06 ± 0.09	5.12 ± 0.12	3.89 ± 0.09	2.86 ± 0.08	3.34 ± 0.08	n = 40	[DUT] Siemens Dimension Vista
2.20 ± 0.09	5.22 ± 0.08	4.02 ± 0.09	3.01 ± 0.08	3.46 ± 0.09	n = 11	[DUX] Siemens Dimension Xpand
<Reagents>						
2.30 ± 0.10	5.38 ± 0.07	4.15 ± 0.08	3.08 ± 0.07	3.58 ± 0.09	n = 20	[AB1] Abbott
2.52 ± 0.17	5.58 ± 0.15	4.32 ± 0.14	3.28 ± 0.15	3.74 ± 0.11	n = 27	[BC1] Beckman Coulter
2.25 ± 0.08	5.21 ± 0.10	4.00 ± 0.10	2.96 ± 0.08	3.45 ± 0.09	n = 56	[OL1] Beckman Coulter AU Series
2.82 ± 0.10	5.76 ± 0.13	4.36 ± 0.12	3.49 ± 0.10	3.88 ± 0.10	n = 47	[JJ1] Ortho Clinical Diagnostics
2.33 ± 0.07	5.49 ± 0.12	4.15 ± 0.08	3.10 ± 0.08	3.58 ± 0.08	n = 29	[R04] Roche cobas c311/c501/c502/c701/c702
2.30 ± 0.10	5.40 ± 0.12	4.12 ± 0.12	3.03 ± 0.09	3.56 ± 0.11	n = 27	[R02] Roche Hitachi and Modular D/P
2.37 ± 0.14	5.40 ± 0.14	4.17 ± 0.10	3.09 ± 0.11	3.58 ± 0.07	n = 6	[R01] Roche Integra and MIRA
2.31 ± 0.07	5.39 ± 0.07	4.10 ± 0.09	3.04 ± 0.08	3.51 ± 0.05	n = 25	[BY1] Siemens ADVIA/ADVIA Centaur
2.15 ± 0.13	5.21 ± 0.14	3.98 ± 0.13	2.95 ± 0.12	3.42 ± 0.12	n = 89	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

Calcium (mg/dL)

Specimen: C91	Specimen: C92	Specimen: C93	Specimen: C94	Specimen: C95	Number	[Code] Instrument or Reagent System
7.11 ± 0.22	13.22 ± 0.42	7.51 ± 0.17	9.94 ± 0.24	8.86 ± 0.21	n = 366	[---] All Methods & Instruments
<Instruments>						
7.07 ± 0.08	11.95 ± 0.06	7.55 ± 0.12	9.87 ± 0.09	8.85 ± 0.06	n = 4	[AXA] Abaxis Piccolo
7.41 ± 0.08	13.58 ± 0.17	7.66 ± 0.09	10.21 ± 0.12	9.06 ± 0.10	n = 21	[ABJ] Abbott Architect c System
7.10 ± 0.09	12.78 ± 0.24	7.69 ± 0.37	9.91 ± 0.44	8.92 ± 0.24	n = 3	[AWA] Alfa Wassermann ACE Alera
7.25 ± 0.13	13.30 ± 0.25	7.52 ± 0.13	9.99 ± 0.15	8.90 ± 0.15	n = 63	[OLC] Beckman Coulter AU Chemistry System
6.90 ± 0.10	13.04 ± 0.19	7.48 ± 0.09	9.73 ± 0.14	8.72 ± 0.12	n = 19	[BCG] Beckman Coulter UniCel DxC 600
6.99 ± 0.12	13.05 ± 0.06	7.57 ± 0.05	9.75 ± 0.07	8.76 ± 0.09	n = 7	[BCH] Beckman Coulter UniCel DxC 800
7.16 ± 0.14	13.90 ± 0.43	7.67 ± 0.14	10.24 ± 0.22	9.19 ± 0.21	n = 8	[JJE] Ortho Vitros 250/350/950
7.05 ± 0.19	13.63 ± 0.32	7.55 ± 0.19	10.05 ± 0.19	8.97 ± 0.23	n = 3	[JJH] Ortho Vitros 4600
7.05 ± 0.20	13.62 ± 0.22	7.51 ± 0.22	10.04 ± 0.21	8.94 ± 0.20	n = 17	[JJF] Ortho Vitros 5,1FS
7.07 ± 0.14	13.59 ± 0.19	7.50 ± 0.12	10.00 ± 0.15	8.93 ± 0.10	n = 20	[JJG] Ortho Vitros 5600
6.74 ± 0.10	13.27 ± 0.34	7.16 ± 0.26	9.85 ± 0.19	8.62 ± 0.24	n = 3	[ROK] Roche cobas c111
7.23 ± 0.09	13.55 ± 0.12	7.68 ± 0.04	10.07 ± 0.09	9.05 ± 0.12	n = 4	[ROJ] Roche cobas c311
7.15 ± 0.18	13.56 ± 0.30	7.59 ± 0.15	10.06 ± 0.21	8.97 ± 0.16	n = 22	[ROC] Roche cobas c501
7.02 ± 0.04	13.52 ± 0.20	7.53 ± 0.09	10.08 ± 0.04	8.87 ± 0.09	n = 4	[ROH] Roche cobas c701
6.97 ± 0.14	13.40 ± 0.23	7.36 ± 0.11	10.06 ± 0.23	8.84 ± 0.15	n = 5	[ROS] Roche Cobas INTEGRA 400
6.83 ± 0.23	13.20 ± 0.09	7.35 ± 0.19	9.97 ± 0.05	8.80 ± 0.09	n = 3	[ROT] Roche Cobas INTEGRA 800
7.24 ± 0.13	13.37 ± 0.23	7.63 ± 0.12	10.07 ± 0.15	9.00 ± 0.17	n = 29	[ROD] Roche MODULAR D/P
7.27 ± 0.22	13.17 ± 0.21	7.54 ± 0.09	10.00 ± 0.13	8.93 ± 0.09	n = 21	[BYE] Siemens ADVIA 1800
7.16 ± 0.10	12.93 ± 0.32	7.54 ± 0.10	9.85 ± 0.19	8.77 ± 0.14	n = 3	[BYB] Siemens ADVIA 2400
6.99 ± 0.19	12.84 ± 0.29	7.39 ± 0.18	9.76 ± 0.19	8.69 ± 0.14	n = 23	[DUE] Siemens Dimension EXL
6.93 ± 0.06	12.83 ± 0.24	7.44 ± 0.11	9.77 ± 0.15	8.71 ± 0.10	n = 18	[DUR] Siemens Dimension RxL
6.99 ± 0.16	12.85 ± 0.19	7.39 ± 0.20	9.72 ± 0.22	8.68 ± 0.18	n = 41	[DUT] Siemens Dimension Vista
6.90 ± 0.15	12.69 ± 0.19	7.33 ± 0.14	9.67 ± 0.15	8.64 ± 0.17	n = 15	[DUX] Siemens Dimension Xpand
<Reagents>						
7.07 ± 0.08	11.95 ± 0.06	7.55 ± 0.12	9.87 ± 0.09	8.85 ± 0.06	n = 4	[AX1] Abaxis
7.41 ± 0.08	13.58 ± 0.17	7.66 ± 0.09	10.21 ± 0.12	9.06 ± 0.10	n = 21	[AB1] Abbott
7.10 ± 0.09	12.78 ± 0.24	7.69 ± 0.37	9.91 ± 0.44	8.92 ± 0.24	n = 3	[AW1] Alfa Wassermann
6.91 ± 0.11	13.06 ± 0.16	7.51 ± 0.10	9.75 ± 0.13	8.75 ± 0.12	n = 29	[BC1] Beckman Coulter
7.25 ± 0.14	13.30 ± 0.25	7.52 ± 0.12	9.99 ± 0.15	8.90 ± 0.15	n = 60	[OL1] Beckman Coulter AU Series
7.08 ± 0.17	13.64 ± 0.25	7.54 ± 0.19	10.06 ± 0.21	8.98 ± 0.20	n = 49	[JJ1] Ortho Clinical Diagnostics
6.74 ± 0.10	13.27 ± 0.34	7.16 ± 0.26	9.85 ± 0.19	8.62 ± 0.24	n = 3	[R08] Roche cobas c111
7.14 ± 0.15	13.54 ± 0.25	7.59 ± 0.13	10.06 ± 0.15	8.96 ± 0.14	n = 29	[R04] Roche cobas c311/c501/c502/c701/c702
7.25 ± 0.12	13.38 ± 0.21	7.63 ± 0.12	10.08 ± 0.14	9.01 ± 0.17	n = 28	[R02] Roche Hitachi and Modular D/P
6.93 ± 0.19	13.30 ± 0.19	7.36 ± 0.14	10.01 ± 0.18	8.82 ± 0.13	n = 8	[R01] Roche Integra and MIRA
7.15 ± 0.27	12.50 ± 0.60	7.64 ± 0.26	9.81 ± 0.34	8.79 ± 0.30	n = 4	[GZ1] Sekisui Diagnostics (Genzyme)
7.27 ± 0.23	13.17 ± 0.25	7.54 ± 0.09	9.99 ± 0.15	8.91 ± 0.10	n = 25	[BY1] Siemens ADVIA/ADVIA Centaur
6.97 ± 0.16	12.82 ± 0.23	7.39 ± 0.17	9.73 ± 0.19	8.69 ± 0.16	n = 97	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

Magnesium (mg/dL)

Specimen: C91	Specimen: C92	Specimen: C93	Specimen: C94	Specimen: C95	Number	[Code] Instrument or Reagent System
1.86 ± 0.09	1.23 ± 0.11	1.57 ± 0.09	4.11 ± 0.13	2.96 ± 0.10	n = 334	[---] All Methods & Instruments
<Instruments>						
1.78 ± 0.06	1.40 ± 0.09	1.52 ± 0.07	4.03 ± 0.09	2.91 ± 0.08	n = 20	[ABJ] Abbott Architect c System
1.86 ± 0.07	1.22 ± 0.05	1.56 ± 0.06	4.02 ± 0.11	2.92 ± 0.08	n = 59	[OLC] Beckman Coulter AU Chemistry System
1.86 ± 0.08	1.26 ± 0.06	1.58 ± 0.06	4.06 ± 0.12	2.94 ± 0.08	n = 18	[BCG] Beckman Coulter UniCel DxC 600
1.88 ± 0.05	1.28 ± 0.05	1.60 ± 0.00	4.05 ± 0.07	2.93 ± 0.07	n = 7	[BCH] Beckman Coulter UniCel DxC 800
1.83 ± 0.07	1.20 ± 0.06	1.56 ± 0.08	4.18 ± 0.10	3.02 ± 0.07	n = 6	[JJE] Ortho Vitros 250/350/950
1.87 ± 0.05	1.20 ± 0.00	1.57 ± 0.05	4.17 ± 0.05	3.00 ± 0.00	n = 3	[JJH] Ortho Vitros 4600
1.80 ± 0.06	1.18 ± 0.05	1.53 ± 0.06	4.11 ± 0.10	2.92 ± 0.08	n = 17	[JJF] Ortho Vitros 5,1FS
1.81 ± 0.05	1.20 ± 0.00	1.54 ± 0.06	4.13 ± 0.08	2.96 ± 0.06	n = 19	[JJG] Ortho Vitros 5600
1.90 ± 0.00	1.28 ± 0.06	1.64 ± 0.06	4.11 ± 0.09	3.00 ± 0.06	n = 20	[ROC] Roche cobas c501
1.90 ± 0.09	1.26 ± 0.10	1.60 ± 0.09	4.00 ± 0.09	2.93 ± 0.05	n = 3	[ROH] Roche cobas c701
1.83 ± 0.05	1.27 ± 0.05	1.63 ± 0.05	4.06 ± 0.10	2.96 ± 0.10	n = 3	[ROT] Roche Cobas INTEGRA 800
1.90 ± 0.00	1.29 ± 0.05	1.62 ± 0.07	4.07 ± 0.08	2.97 ± 0.10	n = 27	[ROD] Roche MODULAR D/P
1.97 ± 0.08	1.56 ± 0.07	1.69 ± 0.08	4.19 ± 0.12	3.09 ± 0.12	n = 20	[BYE] Siemens ADVIA 1800
2.00 ± 0.09	1.57 ± 0.14	1.73 ± 0.05	4.23 ± 0.14	3.06 ± 0.10	n = 3	[BYB] Siemens ADVIA 2400
1.77 ± 0.07	1.14 ± 0.06	1.51 ± 0.06	4.16 ± 0.10	2.96 ± 0.08	n = 20	[DUE] Siemens Dimension EXL
1.83 ± 0.08	1.17 ± 0.07	1.54 ± 0.06	4.21 ± 0.12	2.98 ± 0.08	n = 18	[DUR] Siemens Dimension RxL
1.89 ± 0.09	1.11 ± 0.09	1.57 ± 0.09	4.21 ± 0.13	3.03 ± 0.14	n = 41	[DUT] Siemens Dimension Vista
1.83 ± 0.09	1.18 ± 0.07	1.51 ± 0.07	4.15 ± 0.08	3.00 ± 0.00	n = 14	[DUX] Siemens Dimension Xpand
<Reagents>						
1.78 ± 0.06	1.40 ± 0.09	1.52 ± 0.07	4.03 ± 0.09	2.91 ± 0.08	n = 20	[AB1] Abbott
1.86 ± 0.06	1.26 ± 0.06	1.59 ± 0.04	4.05 ± 0.10	2.93 ± 0.07	n = 27	[BC1] Beckman Coulter
1.86 ± 0.07	1.23 ± 0.05	1.56 ± 0.06	4.03 ± 0.12	2.92 ± 0.08	n = 57	[OL1] Beckman Coulter AU Series
1.81 ± 0.06	1.20 ± 0.00	1.54 ± 0.06	4.13 ± 0.09	2.96 ± 0.08	n = 45	[JJ1] Ortho Clinical Diagnostics
1.91 ± 0.05	1.27 ± 0.07	1.63 ± 0.06	4.09 ± 0.09	2.99 ± 0.07	n = 26	[R04] Roche cobas c311/c501/c502/c701/c702
1.90 ± 0.00	1.29 ± 0.05	1.62 ± 0.07	4.07 ± 0.08	2.97 ± 0.10	n = 27	[R02] Roche Hitachi and Modular D/P
1.84 ± 0.06	1.24 ± 0.06	1.60 ± 0.06	4.00 ± 0.09	2.90 ± 0.00	n = 5	[R01] Roche Integra and MIRA
1.99 ± 0.09	1.57 ± 0.09	1.70 ± 0.08	4.20 ± 0.13	3.10 ± 0.12	n = 24	[BY1] Siemens ADVIA/ADVIA Centaur
1.84 ± 0.10	1.14 ± 0.08	1.54 ± 0.08	4.19 ± 0.12	3.00 ± 0.10	n = 93	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

Iron (µg/dL)

Specimen: C91	Specimen: C92	Specimen: C93	Specimen: C94	Specimen: C95	Number	[Code] Instrument or Reagent System
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109.3 ± 5.33	100.6 ± 5.14	70.7 ± 2.85	93.5 ± 6.26	83.6 ± 4.08	n = 267	[---] All Methods & Instruments
<Instruments>						
111.9 ± 2.86	96.7 ± 3.49	70.7 ± 2.29	93.6 ± 3.49	83.5 ± 2.29	n = 15	[ABJ] Abbott Architect c System
111.4 ± 3.05	103.7 ± 3.14	72.3 ± 2.26	95.5 ± 3.04	85.3 ± 2.35	n = 53	[OLC] Beckman Coulter AU Chemistry System
108.7 ± 3.93	101.6 ± 4.99	72.2 ± 1.50	87.0 ± 3.28	80.7 ± 2.14	n = 11	[BCG] Beckman Coulter UniCel DxC 600
109.8 ± 3.38	101.7 ± 3.23	71.6 ± 2.68	87.6 ± 3.50	82.0 ± 2.93	n = 7	[BCH] Beckman Coulter UniCel DxC 800
121.5 ± 5.43	108.0 ± 6.42	66.8 ± 3.23	109.5 ± 6.32	89.4 ± 7.08	n = 3	[JJH] Ortho Vitros 4600
120.1 ± 7.61	111.9 ± 6.76	67.9 ± 5.62	112.2 ± 5.97	93.9 ± 6.27	n = 15	[JJF] Ortho Vitros 5,1FS
120.8 ± 4.27	109.5 ± 4.23	68.1 ± 4.82	111.4 ± 4.46	92.7 ± 5.07	n = 20	[JJG] Ortho Vitros 5600
109.8 ± 1.92	101.2 ± 2.76	72.2 ± 1.45	96.7 ± 1.63	85.2 ± 1.83	n = 12	[ROC] Roche cobas c501
112.7 ± 3.16	104.2 ± 2.36	73.5 ± 3.63	98.9 ± 2.86	87.5 ± 3.63	n = 3	[ROG] Roche cobas c502
107.8 ± 2.40	99.2 ± 2.39	70.6 ± 1.82	93.9 ± 1.95	83.7 ± 2.15	n = 26	[ROD] Roche MODULAR D/P
108.9 ± 3.54	99.6 ± 3.38	71.1 ± 2.70	94.0 ± 2.56	84.2 ± 2.82	n = 20	[BYE] Siemens ADVIA 1800
108.2 ± 1.54	98.3 ± 1.37	70.4 ± 1.02	94.2 ± 1.54	83.4 ± 1.02	n = 3	[BYB] Siemens ADVIA 2400
103.6 ± 0.91	96.6 ± 1.69	69.5 ± 1.23	89.1 ± 1.08	80.1 ± 1.12	n = 12	[DUE] Siemens Dimension EXL
103.3 ± 1.69	95.5 ± 1.23	68.1 ± 1.15	88.2 ± 0.65	79.3 ± 1.01	n = 10	[DUR] Siemens Dimension RxL
105.2 ± 1.81	97.5 ± 2.23	70.2 ± 1.61	89.5 ± 1.68	80.6 ± 1.79	n = 37	[DUT] Siemens Dimension Vista
103.5 ± 1.86	95.3 ± 2.26	68.7 ± 1.37	88.5 ± 1.86	80.0 ± 1.80	n = 3	[DUX] Siemens Dimension Xpand
<Reagents>						
111.3 ± 2.90	96.1 ± 3.31	70.4 ± 1.46	92.9 ± 3.44	83.3 ± 1.39	n = 13	[AB3] Abbott-Iron/6K95
109.1 ± 3.52	101.7 ± 3.44	72.0 ± 2.16	88.0 ± 3.53	81.6 ± 2.45	n = 22	[BC1] Beckman Coulter
112.3 ± 2.29	104.6 ± 2.46	72.8 ± 2.04	96.1 ± 2.50	85.9 ± 2.08	n = 42	[OL1] Beckman Coulter AU Series
120.6 ± 5.68	109.9 ± 5.75	67.7 ± 5.05	111.4 ± 5.22	92.8 ± 5.94	n = 39	[JJ1] Ortho Clinical Diagnostics
110.2 ± 2.17	101.5 ± 2.77	72.0 ± 1.45	96.6 ± 2.19	85.2 ± 1.86	n = 18	[R04] Roche cobas c311/c501/c502/c701/c702
107.8 ± 2.40	99.2 ± 2.39	70.6 ± 1.82	93.9 ± 1.95	83.7 ± 2.15	n = 26	[R02] Roche Hitachi and Modular D/P
109.0 ± 1.76	100.7 ± 3.17	70.9 ± 2.04	95.0 ± 3.16	84.6 ± 4.37	n = 4	[R01] Roche Integra and MIRA
108.1 ± 2.24	100.0 ± 0.56	71.8 ± 0.40	93.0 ± 2.92	83.4 ± 1.60	n = 8	[GZ1] Sekisui Diagnostics (Genzyme)
108.7 ± 3.08	99.0 ± 2.78	70.7 ± 2.18	93.7 ± 1.99	83.9 ± 2.23	n = 23	[BY1] Siemens ADVIA/ADVIA Centaur
104.5 ± 1.94	96.8 ± 2.12	69.6 ± 1.69	89.1 ± 1.57	80.2 ± 1.62	n = 62	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

Sodium (mmol/L)

Specimen: C91	Specimen: C92	Specimen: C93	Specimen: C94	Specimen: C95	Number	[Code] Instrument or Reagent System
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166.9 ± 3.73	152.4 ± 2.68	124.7 ± 1.89	150.5 ± 1.97	139.2 ± 1.65	n = 372	[---] All Methods & Instruments
<Instruments>						
164.5 ± 1.94	146.1 ± 1.13	121.2 ± 2.58	147.3 ± 2.65	136.1 ± 1.88	n = 4	[AXA] Abaxis Piccolo
168.7 ± 1.15	152.6 ± 0.98	123.6 ± 0.92	150.5 ± 0.94	138.6 ± 1.07	n = 21	[ABJ] Abbott Architect c System
172.5 ± 1.86	156.2 ± 1.54	122.0 ± 0.90	151.3 ± 0.51	138.5 ± 1.86	n = 3	[AWA] Alfa Wassermann ACE Alera
165.5 ± 2.02	151.1 ± 1.35	124.0 ± 1.46	149.4 ± 1.55	138.4 ± 1.23	n = 63	[OLC] Beckman Coulter AU Chemistry System
165.1 ± 1.71	151.2 ± 0.85	124.0 ± 1.12	149.5 ± 1.21	138.3 ± 1.40	n = 19	[BCG] Beckman Coulter UniCel DxC 600
165.8 ± 0.76	150.8 ± 0.92	124.5 ± 0.74	149.4 ± 0.56	138.4 ± 0.96	n = 7	[BCH] Beckman Coulter UniCel DxC 800
162.0 ± 0.00	151.7 ± 0.51	123.5 ± 0.57	148.2 ± 0.73	137.0 ± 0.00	n = 6	[IAA] i-STAT
174.8 ± 1.36	160.6 ± 1.69	124.2 ± 1.44	154.1 ± 1.48	140.1 ± 2.07	n = 8	[JJE] Ortho Vitros 250/350/950
173.6 ± 1.77	159.9 ± 1.61	123.8 ± 1.68	153.4 ± 2.10	140.2 ± 1.78	n = 18	[JJF] Ortho Vitros 5,1FS
174.4 ± 3.20	160.1 ± 2.29	123.7 ± 1.55	153.7 ± 1.88	140.4 ± 1.72	n = 20	[JJG] Ortho Vitros 5600
163.7 ± 0.51	150.0 ± 0.90	123.3 ± 0.51	148.4 ± 1.02	137.4 ± 1.02	n = 3	[ROK] Roche cobas c111
166.1 ± 2.45	151.1 ± 2.33	123.6 ± 2.64	149.3 ± 2.69	137.6 ± 2.64	n = 4	[ROJ] Roche cobas c311
167.2 ± 1.66	151.9 ± 1.11	123.8 ± 0.94	150.0 ± 1.43	138.5 ± 1.13	n = 21	[ROC] Roche cobas c501
167.1 ± 1.88	152.1 ± 1.88	123.9 ± 1.13	150.0 ± 1.14	138.7 ± 1.51	n = 4	[ROH] Roche cobas c701
164.7 ± 0.90	150.0 ± 0.75	122.5 ± 0.57	148.0 ± 0.75	136.8 ± 0.41	n = 4	[ROS] Roche Cobas INTEGRA 400
165.7 ± 0.51	151.3 ± 0.51	123.3 ± 0.51	149.3 ± 0.51	138.0 ± 0.00	n = 3	[ROT] Roche Cobas INTEGRA 800
169.7 ± 1.97	153.6 ± 1.47	124.8 ± 1.15	150.7 ± 1.15	139.2 ± 1.12	n = 28	[ROD] Roche MODULAR D/P
168.6 ± 1.38	154.1 ± 1.19	126.7 ± 0.82	152.3 ± 1.23	140.8 ± 0.84	n = 21	[BYE] Siemens ADVIA 1800
169.0 ± 0.90	153.6 ± 1.02	126.3 ± 1.37	151.6 ± 1.02	140.0 ± 0.90	n = 3	[BYB] Siemens ADVIA 2400
165.9 ± 2.13	152.7 ± 1.43	125.9 ± 0.81	150.7 ± 1.36	139.6 ± 1.18	n = 24	[DUE] Siemens Dimension EXL
164.2 ± 2.58	151.2 ± 1.82	125.1 ± 1.37	149.0 ± 1.35	138.7 ± 1.17	n = 17	[DUR] Siemens Dimension RxL
163.3 ± 1.60	150.8 ± 1.62	127.3 ± 1.58	150.5 ± 1.46	140.4 ± 1.39	n = 41	[DUT] Siemens Dimension Vista
167.0 ± 1.13	153.2 ± 0.93	126.6 ± 1.09	151.2 ± 1.06	140.4 ± 1.18	n = 15	[DUX] Siemens Dimension Xpand
<Reagents>						
164.5 ± 1.94	146.1 ± 1.13	121.2 ± 2.58	147.3 ± 2.65	136.1 ± 1.88	n = 4	[AX1] Abaxis
168.7 ± 1.17	152.5 ± 0.96	123.6 ± 0.90	150.5 ± 1.09	138.5 ± 1.11	n = 22	[AB1] Abbott
172.5 ± 1.86	156.2 ± 1.54	122.0 ± 0.90	151.3 ± 0.51	138.5 ± 1.86	n = 3	[AW1] Alfa Wassermann
165.4 ± 1.68	151.1 ± 1.01	124.2 ± 1.08	149.5 ± 1.05	138.3 ± 1.23	n = 29	[BC1] Beckman Coulter
165.4 ± 2.07	151.1 ± 1.34	124.0 ± 1.48	149.4 ± 1.56	138.4 ± 1.18	n = 61	[OL1] Beckman Coulter AU Series
162.0 ± 0.00	151.6 ± 0.55	123.4 ± 0.55	148.2 ± 0.80	137.0 ± 0.00	n = 5	[IA1] i-STAT
167.3 ± 1.37	156.7 ± 0.51	123.6 ± 1.02	150.7 ± 0.51	138.7 ± 0.51	n = 3	[IL1] Instrumentation Lab
174.0 ± 2.35	160.2 ± 1.98	123.9 ± 1.58	153.8 ± 1.85	140.3 ± 1.80	n = 48	[JJ1] Ortho Clinical Diagnostics
163.7 ± 0.51	150.0 ± 0.90	123.3 ± 0.51	148.4 ± 1.02	137.4 ± 1.02	n = 3	[R08] Roche cobas c111
167.2 ± 1.68	152.0 ± 1.32	123.9 ± 1.03	150.1 ± 1.32	138.5 ± 1.20	n = 30	[R04] Roche cobas c311/c501/c502/c701/c702
169.7 ± 1.97	153.6 ± 1.47	124.8 ± 1.15	150.7 ± 1.15	139.2 ± 1.12	n = 28	[R02] Roche Hitachi and Modular D/P
165.2 ± 0.92	148.6 ± 0.94	122.8 ± 0.66	148.6 ± 0.94	137.3 ± 0.74	n = 7	[R01] Roche Integra and MIRA
168.7 ± 1.33	154.0 ± 1.16	126.6 ± 0.99	152.2 ± 1.19	140.6 ± 0.88	n = 25	[BY1] Siemens ADVIA/ADVIA Centaur
164.5 ± 2.53	151.8 ± 1.86	126.4 ± 1.52	150.5 ± 1.54	139.9 ± 1.43	n = 96	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

Potassium (mmol/L)

Specimen: C91	Specimen: C92	Specimen: C93	Specimen: C94	Specimen: C95	Number	[Code] Instrument or Reagent System
6.11 ± 0.15	3.35 ± 0.10	2.81 ± 0.08	5.14 ± 0.11	4.08 ± 0.09	n = 373	[---] All Methods & Instruments
<Instruments>						
6.18 ± 0.20	3.35 ± 0.06	2.58 ± 0.04	5.35 ± 0.06	4.14 ± 0.18	n = 4	[AXA] Abaxis Piccolo
6.10 ± 0.11	3.29 ± 0.09	2.75 ± 0.07	5.09 ± 0.09	4.02 ± 0.10	n = 21	[ABJ] Abbott Architect c System
6.47 ± 0.05	3.56 ± 0.10	2.83 ± 0.05	5.27 ± 0.05	4.23 ± 0.05	n = 3	[AWA] Alfa Wassermann ACE Alera
6.09 ± 0.09	3.40 ± 0.00	2.85 ± 0.06	5.13 ± 0.07	4.10 ± 0.00	n = 63	[OLC] Beckman Coulter AU Chemistry System
6.14 ± 0.07	3.30 ± 0.00	2.75 ± 0.06	5.15 ± 0.06	4.06 ± 0.05	n = 19	[BCG] Beckman Coulter UniCel DxC 600
6.18 ± 0.07	3.30 ± 0.00	2.70 ± 0.00	5.14 ± 0.06	4.08 ± 0.05	n = 7	[BCH] Beckman Coulter UniCel DxC 800
5.90 ± 0.00	3.30 ± 0.00	2.70 ± 0.00	5.00 ± 0.00	4.00 ± 0.00	n = 6	[IAA] i-STAT
6.37 ± 0.07	3.55 ± 0.06	2.90 ± 0.00	5.32 ± 0.04	4.25 ± 0.06	n = 8	[JJE] Ortho Vitros 250/350/950
6.23 ± 0.05	3.50 ± 0.00	2.90 ± 0.00	5.27 ± 0.05	4.13 ± 0.05	n = 3	[JJH] Ortho Vitros 4600
6.31 ± 0.09	3.50 ± 0.00	2.89 ± 0.05	5.27 ± 0.07	4.18 ± 0.06	n = 17	[JJF] Ortho Vitros 5,1FS
6.34 ± 0.12	3.51 ± 0.06	2.88 ± 0.05	5.28 ± 0.07	4.20 ± 0.07	n = 20	[JJG] Ortho Vitros 5600
6.00 ± 0.00	3.33 ± 0.05	2.80 ± 0.00	5.13 ± 0.05	4.10 ± 0.00	n = 3	[ROK] Roche cobas c111
5.99 ± 0.11	3.20 ± 0.08	2.70 ± 0.08	5.07 ± 0.08	3.97 ± 0.08	n = 4	[ROJ] Roche cobas c311
6.05 ± 0.10	3.24 ± 0.07	2.72 ± 0.07	5.07 ± 0.08	4.02 ± 0.08	n = 21	[ROC] Roche cobas c501
6.07 ± 0.09	3.29 ± 0.11	2.80 ± 0.08	5.12 ± 0.13	4.08 ± 0.04	n = 4	[ROH] Roche cobas c701
6.10 ± 0.00	3.30 ± 0.00	2.80 ± 0.00	5.12 ± 0.04	4.10 ± 0.00	n = 4	[ROS] Roche Cobas INTEGRA 400
6.13 ± 0.05	3.37 ± 0.05	2.83 ± 0.05	5.20 ± 0.00	4.10 ± 0.00	n = 3	[ROT] Roche Cobas INTEGRA 800
6.12 ± 0.10	3.29 ± 0.10	2.77 ± 0.09	5.07 ± 0.08	4.02 ± 0.07	n = 28	[ROD] Roche MODULAR D/P
6.22 ± 0.06	3.47 ± 0.05	2.90 ± 0.00	5.24 ± 0.07	4.20 ± 0.00	n = 21	[BYE] Siemens ADVIA 1800
6.17 ± 0.14	3.37 ± 0.05	2.90 ± 0.00	5.23 ± 0.05	4.10 ± 0.09	n = 3	[BYB] Siemens ADVIA 2400
6.10 ± 0.04	3.30 ± 0.00	2.80 ± 0.00	5.16 ± 0.07	4.10 ± 0.00	n = 23	[DUE] Siemens Dimension EXL
6.07 ± 0.09	3.30 ± 0.00	2.80 ± 0.00	5.11 ± 0.05	4.06 ± 0.05	n = 18	[DUR] Siemens Dimension RxL
5.91 ± 0.05	3.30 ± 0.00	2.80 ± 0.00	5.02 ± 0.05	4.01 ± 0.04	n = 41	[DUT] Siemens Dimension Vista
6.13 ± 0.06	3.30 ± 0.00	2.80 ± 0.00	5.17 ± 0.05	4.09 ± 0.04	n = 15	[DUX] Siemens Dimension Xpand
<Reagents>						
6.18 ± 0.20	3.35 ± 0.06	2.58 ± 0.04	5.35 ± 0.06	4.14 ± 0.18	n = 4	[AX1] Abaxis
6.09 ± 0.12	3.29 ± 0.09	2.75 ± 0.07	5.08 ± 0.09	4.02 ± 0.09	n = 22	[AB1] Abbott
6.47 ± 0.05	3.56 ± 0.10	2.83 ± 0.05	5.27 ± 0.05	4.23 ± 0.05	n = 3	[AW1] Alfa Wassermann
6.15 ± 0.08	3.30 ± 0.00	2.75 ± 0.06	5.15 ± 0.06	4.07 ± 0.05	n = 29	[BC1] Beckman Coulter
6.09 ± 0.10	3.40 ± 0.00	2.85 ± 0.06	5.13 ± 0.07	4.10 ± 0.00	n = 61	[OL1] Beckman Coulter AU Series
5.90 ± 0.00	3.30 ± 0.00	2.70 ± 0.00	5.00 ± 0.00	4.00 ± 0.00	n = 5	[IA1] i-STAT
5.97 ± 0.05	3.23 ± 0.05	2.67 ± 0.05	5.03 ± 0.05	3.93 ± 0.05	n = 3	[IL1] Instrumentation Lab
6.33 ± 0.11	3.51 ± 0.06	2.90 ± 0.00	5.29 ± 0.07	4.20 ± 0.07	n = 49	[JJ1] Ortho Clinical Diagnostics
6.00 ± 0.00	3.33 ± 0.05	2.80 ± 0.00	5.13 ± 0.05	4.10 ± 0.00	n = 3	[R08] Roche cobas c111
6.05 ± 0.10	3.25 ± 0.09	2.73 ± 0.08	5.08 ± 0.09	4.02 ± 0.08	n = 30	[R04] Roche cobas c311/c501/c502/c701/c702
6.12 ± 0.10	3.29 ± 0.10	2.77 ± 0.09	5.07 ± 0.08	4.02 ± 0.07	n = 28	[R02] Roche Hitachi and Modular D/P
6.10 ± 0.00	3.32 ± 0.05	2.80 ± 0.00	5.16 ± 0.06	4.10 ± 0.00	n = 7	[R01] Roche Integra and MIRA
6.23 ± 0.07	3.45 ± 0.06	2.90 ± 0.00	5.24 ± 0.07	4.20 ± 0.00	n = 25	[BY1] Siemens ADVIA/ADVIA Centaur
6.01 ± 0.12	3.30 ± 0.00	2.80 ± 0.00	5.09 ± 0.09	4.05 ± 0.06	n = 97	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

Chloride (mmol/L)

Specimen: C91	Specimen: C92	Specimen: C93	Specimen: C94	Specimen: C95	Number	[Code] Instrument or Reagent System
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116.4 ± 2.77	110.4 ± 1.86	85.4 ± 1.65	108.2 ± 1.91	98.0 ± 1.77	n = 369	[---] All Methods & Instruments
<Instruments>						
115.0 ± 0.75	110.8 ± 0.41	84.2 ± 0.41	106.3 ± 0.90	96.0 ± 0.75	n = 4	[AXA] Abaxis Piccolo
116.0 ± 0.00	110.7 ± 0.65	85.9 ± 0.65	107.8 ± 0.85	97.9 ± 0.69	n = 20	[ABJ] Abbott Architect c System
122.7 ± 0.51	114.7 ± 1.37	86.0 ± 0.90	110.4 ± 1.02	100.6 ± 1.02	n = 3	[AWA] Alfa Wassermann ACE Alera
114.0 ± 1.30	109.4 ± 1.00	85.1 ± 1.03	107.4 ± 1.14	97.5 ± 0.83	n = 63	[OLC] Beckman Coulter AU Chemistry System
115.8 ± 0.98	111.0 ± 1.12	85.9 ± 0.77	108.0 ± 1.46	98.2 ± 1.05	n = 19	[BCG] Beckman Coulter UniCel DxC 600
116.4 ± 0.82	111.1 ± 1.01	86.3 ± 1.11	107.6 ± 1.34	98.4 ± 1.10	n = 7	[BCH] Beckman Coulter UniCel DxC 800
126.0 ± 0.00	119.0 ± 1.00	85.0 ± 0.00	111.6 ± 1.09	100.0 ± 0.93	n = 5	[IAA] i-STAT
119.1 ± 1.90	111.5 ± 1.49	86.3 ± 1.75	109.1 ± 2.01	99.0 ± 1.76	n = 8	[JJE] Ortho Vitros 250/350/950
117.6 ± 1.02	110.0 ± 0.00	85.3 ± 0.51	107.7 ± 0.51	97.3 ± 0.51	n = 3	[JJH] Ortho Vitros 4600
118.5 ± 1.66	110.8 ± 1.62	85.7 ± 1.40	108.4 ± 1.55	98.4 ± 1.45	n = 17	[JJF] Ortho Vitros 5,1FS
118.9 ± 2.36	111.2 ± 1.97	85.4 ± 1.15	108.6 ± 2.10	98.5 ± 1.88	n = 20	[JJG] Ortho Vitros 5600
118.0 ± 0.00	111.0 ± 1.80	86.3 ± 1.37	108.7 ± 0.51	98.6 ± 1.02	n = 3	[ROK] Roche cobas c111
111.8 ± 2.11	107.7 ± 2.47	82.2 ± 1.96	105.5 ± 2.17	94.7 ± 2.47	n = 4	[ROJ] Roche cobas c311
112.0 ± 1.02	106.9 ± 1.42	81.3 ± 1.24	105.2 ± 1.23	94.6 ± 1.16	n = 20	[ROC] Roche cobas c501
113.5 ± 1.22	107.7 ± 0.90	81.7 ± 0.82	105.5 ± 1.23	94.7 ± 1.51	n = 4	[ROH] Roche cobas c701
116.2 ± 0.41	110.2 ± 0.41	84.8 ± 0.41	107.8 ± 0.41	97.0 ± 0.00	n = 4	[ROS] Roche Cobas INTEGRA 400
117.0 ± 0.00	111.7 ± 0.51	85.0 ± 0.00	107.7 ± 0.51	97.7 ± 0.51	n = 3	[ROT] Roche Cobas INTEGRA 800
114.7 ± 1.41	109.3 ± 0.85	83.5 ± 0.71	106.6 ± 0.84	95.9 ± 1.07	n = 28	[ROD] Roche MODULAR D/P
116.3 ± 0.97	110.8 ± 0.95	85.4 ± 0.74	108.7 ± 1.01	98.2 ± 0.63	n = 21	[BYE] Siemens ADVIA 1800
115.7 ± 1.37	111.7 ± 1.37	86.0 ± 0.90	108.6 ± 1.02	97.2 ± 2.36	n = 3	[BYB] Siemens ADVIA 2400
117.5 ± 0.88	110.2 ± 0.72	87.0 ± 0.73	109.5 ± 0.95	99.2 ± 0.85	n = 23	[DUE] Siemens Dimension EXL
119.1 ± 1.00	110.7 ± 1.26	85.5 ± 1.23	109.6 ± 1.16	99.0 ± 1.09	n = 18	[DUR] Siemens Dimension RxL
118.5 ± 1.37	112.5 ± 1.19	86.1 ± 1.21	109.8 ± 1.17	99.3 ± 1.03	n = 41	[DUT] Siemens Dimension Vista
118.3 ± 1.00	110.4 ± 0.71	87.3 ± 0.72	109.7 ± 0.81	99.4 ± 0.83	n = 15	[DUX] Siemens Dimension Xpand
<Reagents>						
115.0 ± 0.75	110.8 ± 0.41	84.2 ± 0.41	106.3 ± 0.90	96.0 ± 0.75	n = 4	[AX1] Abaxis
116.0 ± 0.00	110.7 ± 0.71	85.8 ± 0.75	107.7 ± 0.94	97.9 ± 0.79	n = 21	[AB1] Abbott
122.7 ± 0.51	114.7 ± 1.37	86.0 ± 0.90	110.4 ± 1.02	100.6 ± 1.02	n = 3	[AW1] Alfa Wassermann
116.0 ± 1.21	110.9 ± 1.25	86.0 ± 1.01	107.8 ± 1.45	98.2 ± 1.09	n = 29	[BC1] Beckman Coulter
114.0 ± 1.25	109.5 ± 0.96	85.1 ± 1.00	107.4 ± 1.09	97.5 ± 0.77	n = 61	[OL1] Beckman Coulter AU Series
126.0 ± 0.00	119.0 ± 1.00	85.0 ± 0.00	111.6 ± 1.09	100.0 ± 0.93	n = 5	[IA1] i-STAT
118.7 ± 2.03	111.1 ± 1.79	85.6 ± 1.32	108.6 ± 1.93	98.5 ± 1.70	n = 49	[JJ1] Ortho Clinical Diagnostics
118.0 ± 0.00	111.0 ± 1.80	86.3 ± 1.37	108.7 ± 0.51	98.6 ± 1.02	n = 3	[R08] Roche cobas c111
112.0 ± 1.43	107.2 ± 1.54	81.4 ± 1.36	105.4 ± 1.34	94.6 ± 1.41	n = 29	[R04] Roche cobas c311/c501/c502/c701/c702
114.7 ± 1.41	109.3 ± 0.85	83.5 ± 0.71	106.6 ± 0.84	95.9 ± 1.07	n = 28	[R02] Roche Hitachi and Modular D/P
116.5 ± 0.71	110.7 ± 1.25	85.0 ± 0.00	107.8 ± 0.48	97.2 ± 0.60	n = 8	[R01] Roche Integra and MIRA
116.2 ± 0.99	111.0 ± 1.09	85.5 ± 0.85	108.7 ± 0.99	98.2 ± 0.61	n = 25	[BY1] Siemens ADVIA/ADVIA Centaur
118.4 ± 1.28	111.3 ± 1.57	86.5 ± 1.20	109.7 ± 1.08	99.2 ± 0.96	n = 97	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

Albumin (g/dL)

Specimen: C91	Specimen: C92	Specimen: C93	Specimen: C94	Specimen: C95	Number	[Code] Instrument or Reagent System
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4.53 ± 0.19	5.99 ± 0.40	3.04 ± 0.16	4.08 ± 0.16	3.63 ± 0.16	n = 361	[---] All Methods & Instruments
<Instruments>						
4.72 ± 0.04	5.80 ± 0.08	3.18 ± 0.04	4.20 ± 0.08	3.75 ± 0.06	n = 4	[AXA] Abaxis Piccolo
4.27 ± 0.19	5.79 ± 0.10	2.94 ± 0.09	3.93 ± 0.15	3.51 ± 0.12	n = 21	[ABJ] Abbott Architect c System
4.50 ± 0.00	5.85 ± 0.19	3.20 ± 0.00	4.20 ± 0.00	3.77 ± 0.05	n = 3	[AWA] Alfa Wassermann ACE Alera
4.52 ± 0.10	5.96 ± 0.12	3.08 ± 0.07	4.12 ± 0.07	3.67 ± 0.08	n = 64	[OLC] Beckman Coulter AU Chemistry System
4.11 ± 0.07	5.95 ± 0.13	2.88 ± 0.06	3.85 ± 0.07	3.42 ± 0.07	n = 18	[BCG] Beckman Coulter UniCel DxC 600
4.22 ± 0.07	6.10 ± 0.11	2.92 ± 0.07	3.93 ± 0.07	3.50 ± 0.05	n = 7	[BCH] Beckman Coulter UniCel DxC 800
4.64 ± 0.11	5.40 ± 0.12	2.66 ± 0.07	3.89 ± 0.10	3.41 ± 0.06	n = 8	[JJE] Ortho Vitros 250/350/950
4.77 ± 0.14	5.54 ± 0.10	2.73 ± 0.05	4.00 ± 0.09	3.50 ± 0.09	n = 3	[JJH] Ortho Vitros 4600
4.63 ± 0.11	5.35 ± 0.14	2.67 ± 0.09	3.89 ± 0.13	3.37 ± 0.08	n = 16	[JJF] Ortho Vitros 5,1FS
4.64 ± 0.15	5.33 ± 0.13	2.67 ± 0.07	3.84 ± 0.11	3.40 ± 0.13	n = 20	[JJG] Ortho Vitros 5600
4.80 ± 0.00	6.08 ± 0.04	3.20 ± 0.00	4.25 ± 0.06	3.80 ± 0.00	n = 4	[ROJ] Roche cobas c311
4.77 ± 0.13	6.20 ± 0.49	3.24 ± 0.10	4.28 ± 0.09	3.82 ± 0.11	n = 20	[ROC] Roche cobas c501
4.80 ± 0.20	5.82 ± 0.19	3.15 ± 0.16	4.28 ± 0.18	3.85 ± 0.18	n = 5	[ROH] Roche cobas c701
4.55 ± 0.06	5.85 ± 0.06	3.13 ± 0.09	4.18 ± 0.04	3.73 ± 0.09	n = 4	[ROS] Roche Cobas INTEGRA 400
4.60 ± 0.09	5.83 ± 0.05	3.07 ± 0.05	4.17 ± 0.05	3.70 ± 0.09	n = 3	[ROT] Roche Cobas INTEGRA 800
4.74 ± 0.08	5.98 ± 0.10	3.15 ± 0.11	4.23 ± 0.12	3.76 ± 0.12	n = 30	[ROD] Roche MODULAR D/P
4.56 ± 0.11	5.75 ± 0.13	3.11 ± 0.08	4.15 ± 0.09	3.70 ± 0.07	n = 21	[BYE] Siemens ADVIA 1800
4.46 ± 0.10	5.58 ± 0.15	3.06 ± 0.10	4.06 ± 0.10	3.58 ± 0.15	n = 3	[BYB] Siemens ADVIA 2400
4.51 ± 0.09	6.46 ± 0.11	3.08 ± 0.07	4.10 ± 0.08	3.65 ± 0.08	n = 23	[DUE] Siemens Dimension EXL
4.43 ± 0.07	6.40 ± 0.10	3.02 ± 0.07	4.07 ± 0.07	3.59 ± 0.07	n = 18	[DUR] Siemens Dimension RxL
4.49 ± 0.09	6.41 ± 0.14	3.10 ± 0.07	4.12 ± 0.09	3.66 ± 0.07	n = 41	[DUT] Siemens Dimension Vista
4.46 ± 0.08	6.35 ± 0.10	3.01 ± 0.05	4.06 ± 0.07	3.59 ± 0.08	n = 15	[DUX] Siemens Dimension Xpand
<Reagents>						
4.72 ± 0.04	5.80 ± 0.08	3.18 ± 0.04	4.20 ± 0.08	3.75 ± 0.06	n = 4	[AX1] Abaxis
4.27 ± 0.19	5.79 ± 0.10	2.94 ± 0.09	3.93 ± 0.15	3.51 ± 0.12	n = 21	[AB1] Abbott
4.50 ± 0.00	5.85 ± 0.19	3.20 ± 0.00	4.20 ± 0.00	3.77 ± 0.05	n = 3	[AW1] Alfa Wassermann
4.14 ± 0.09	5.97 ± 0.15	2.89 ± 0.06	3.87 ± 0.08	3.44 ± 0.09	n = 27	[BC1] Beckman Coulter
4.52 ± 0.09	5.97 ± 0.11	3.08 ± 0.07	4.12 ± 0.07	3.67 ± 0.08	n = 60	[OL1] Beckman Coulter AU Series
4.64 ± 0.14	5.36 ± 0.15	2.67 ± 0.07	3.88 ± 0.12	3.39 ± 0.09	n = 48	[JJ1] Ortho Clinical Diagnostics
4.79 ± 0.14	6.10 ± 0.42	3.23 ± 0.10	4.28 ± 0.11	3.82 ± 0.12	n = 30	[R04] Roche cobas c311/c501/c502/c701/c702
4.74 ± 0.08	5.98 ± 0.10	3.15 ± 0.10	4.23 ± 0.11	3.76 ± 0.11	n = 29	[R02] Roche Hitachi and Modular D/P
4.57 ± 0.07	5.84 ± 0.06	3.10 ± 0.08	4.18 ± 0.05	3.72 ± 0.09	n = 7	[R01] Roche Integra and MIRA
4.55 ± 0.11	5.73 ± 0.14	3.10 ± 0.08	4.14 ± 0.09	3.69 ± 0.09	n = 25	[BY1] Siemens ADVIA/ADVIA Centaur
4.48 ± 0.09	6.41 ± 0.12	3.06 ± 0.08	4.09 ± 0.09	3.64 ± 0.08	n = 97	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

Total Protein (g/dL)

Specimen: C91	Specimen: C92	Specimen: C93	Specimen: C94	Specimen: C95	Number	[Code] Instrument or Reagent System
7.60 ± 0.21	8.25 ± 0.26	4.98 ± 0.15	6.79 ± 0.20	5.99 ± 0.17	n = 357	[---] All Methods & Instruments
<Instruments>						
7.70 ± 0.11	8.18 ± 0.20	5.02 ± 0.04	6.88 ± 0.04	6.02 ± 0.04	n = 4	[AXA] Abaxis Piccolo
7.66 ± 0.07	8.19 ± 0.07	4.89 ± 0.07	6.78 ± 0.06	5.93 ± 0.06	n = 21	[ABJ] Abbott Architect c System
7.50 ± 0.09	7.98 ± 0.15	4.90 ± 0.09	6.66 ± 0.10	5.83 ± 0.05	n = 3	[AWA] Alfa Wassermann ACE Alera
7.40 ± 0.13	8.01 ± 0.14	4.86 ± 0.12	6.61 ± 0.15	5.86 ± 0.13	n = 63	[OLC] Beckman Coulter AU Chemistry System
7.38 ± 0.24	8.10 ± 0.00	4.86 ± 0.10	6.63 ± 0.05	5.83 ± 0.14	n = 3	[BCX] Beckman Coulter LX-20
7.51 ± 0.15	8.22 ± 0.16	4.96 ± 0.14	6.72 ± 0.18	5.92 ± 0.14	n = 17	[BCG] Beckman Coulter UniCel DxC 600
7.28 ± 0.09	8.01 ± 0.12	4.78 ± 0.09	6.50 ± 0.14	5.77 ± 0.11	n = 7	[BCH] Beckman Coulter UniCel DxC 800
7.68 ± 0.19	8.52 ± 0.17	5.00 ± 0.09	6.87 ± 0.13	6.05 ± 0.10	n = 8	[JJE] Ortho Vitros 250/350/950
7.77 ± 0.05	8.77 ± 0.05	5.00 ± 0.09	6.90 ± 0.09	6.12 ± 0.15	n = 3	[JJH] Ortho Vitros 4600
7.63 ± 0.16	8.48 ± 0.19	4.89 ± 0.09	6.73 ± 0.15	5.92 ± 0.12	n = 17	[JJF] Ortho Vitros 5,1FS
7.71 ± 0.18	8.59 ± 0.20	4.97 ± 0.15	6.84 ± 0.19	6.02 ± 0.21	n = 20	[JJG] Ortho Vitros 5600
7.52 ± 0.04	8.17 ± 0.09	5.01 ± 0.11	6.82 ± 0.04	6.00 ± 0.08	n = 4	[ROJ] Roche cobas c311
7.46 ± 0.11	8.05 ± 0.09	4.95 ± 0.09	6.71 ± 0.08	5.90 ± 0.04	n = 20	[ROC] Roche cobas c501
7.50 ± 0.00	8.03 ± 0.09	5.00 ± 0.08	6.70 ± 0.00	5.92 ± 0.04	n = 4	[ROH] Roche cobas c701
7.28 ± 0.15	7.99 ± 0.19	4.85 ± 0.06	6.53 ± 0.09	5.81 ± 0.11	n = 4	[ROS] Roche Cobas INTEGRA 400
7.11 ± 0.20	7.80 ± 0.00	4.77 ± 0.05	6.37 ± 0.05	5.63 ± 0.05	n = 3	[ROT] Roche Cobas INTEGRA 800
7.54 ± 0.14	8.13 ± 0.12	5.01 ± 0.10	6.72 ± 0.09	5.99 ± 0.12	n = 29	[ROD] Roche MODULAR D/P
7.69 ± 0.15	8.25 ± 0.17	5.02 ± 0.10	6.83 ± 0.13	6.05 ± 0.10	n = 21	[BYE] Siemens ADVIA 1800
7.67 ± 0.14	8.27 ± 0.14	5.07 ± 0.05	6.84 ± 0.10	6.00 ± 0.09	n = 3	[BYB] Siemens ADVIA 2400
7.82 ± 0.11	8.48 ± 0.10	5.12 ± 0.05	7.02 ± 0.11	6.17 ± 0.08	n = 23	[DUE] Siemens Dimension EXL
7.78 ± 0.14	8.43 ± 0.15	5.11 ± 0.11	6.98 ± 0.13	6.14 ± 0.11	n = 18	[DUR] Siemens Dimension RxL
7.73 ± 0.10	8.42 ± 0.12	5.10 ± 0.08	6.96 ± 0.10	6.12 ± 0.08	n = 41	[DUT] Siemens Dimension Vista
7.75 ± 0.17	8.42 ± 0.15	5.08 ± 0.14	6.95 ± 0.13	6.11 ± 0.12	n = 15	[DUX] Siemens Dimension Xpand
<Reagents>						
7.70 ± 0.11	8.18 ± 0.20	5.02 ± 0.04	6.88 ± 0.04	6.02 ± 0.04	n = 4	[AX1] Abaxis
7.66 ± 0.07	8.19 ± 0.07	4.89 ± 0.07	6.78 ± 0.06	5.93 ± 0.06	n = 21	[AB1] Abbott
7.50 ± 0.09	7.98 ± 0.15	4.90 ± 0.09	6.66 ± 0.10	5.83 ± 0.05	n = 3	[AW1] Alfa Wassermann
7.42 ± 0.19	8.13 ± 0.18	4.89 ± 0.15	6.64 ± 0.19	5.86 ± 0.15	n = 28	[BC1] Beckman Coulter
7.41 ± 0.13	8.01 ± 0.14	4.87 ± 0.13	6.62 ± 0.15	5.85 ± 0.13	n = 60	[OL1] Beckman Coulter AU Series
7.68 ± 0.17	8.55 ± 0.20	4.94 ± 0.12	6.80 ± 0.17	5.99 ± 0.16	n = 48	[JJ1] Ortho Clinical Diagnostics
7.47 ± 0.09	8.07 ± 0.10	4.96 ± 0.09	6.72 ± 0.08	5.92 ± 0.06	n = 28	[R04] Roche cobas c311/c501/c502/c701/c702
7.54 ± 0.14	8.13 ± 0.12	5.01 ± 0.10	6.72 ± 0.09	5.99 ± 0.12	n = 29	[R02] Roche Hitachi and Modular D/P
7.22 ± 0.19	7.89 ± 0.17	4.82 ± 0.07	6.45 ± 0.11	5.73 ± 0.13	n = 7	[R01] Roche Integra and MIRA
7.70 ± 0.16	8.27 ± 0.18	5.03 ± 0.10	6.84 ± 0.14	6.05 ± 0.12	n = 25	[BY1] Siemens ADVIA/ADVIA Centaur
7.76 ± 0.13	8.44 ± 0.13	5.11 ± 0.08	6.98 ± 0.11	6.14 ± 0.09	n = 96	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

Cholesterol (mg/dL)

Specimen: C91	Specimen: C92	Specimen: C93	Specimen: C94	Specimen: C95	Number	[Code] Instrument or Reagent System
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266.4 ± 8.59	144.0 ± 7.37	110.8 ± 3.81	230.0 ± 5.59	176.5 ± 4.73	n = 326	[---] All Methods & Instruments
<Instruments>						
277.5 ± 3.63	150.0 ± 2.70	110.2 ± 2.36	235.5 ± 6.32	181.0 ± 0.90	n = 3	[AXA] Abaxis Piccolo
273.6 ± 2.48	147.9 ± 1.34	116.2 ± 1.21	237.3 ± 2.92	183.2 ± 3.04	n = 17	[ABJ] Abbott Architect c System
263.1 ± 5.75	141.5 ± 3.14	110.2 ± 2.44	228.0 ± 5.19	174.8 ± 3.75	n = 68	[OLC] Beckman Coulter AU Chemistry System
268.6 ± 5.37	146.3 ± 2.34	109.7 ± 2.45	231.1 ± 3.45	177.1 ± 3.11	n = 14	[BCG] Beckman Coulter UniCel DxC 600
268.7 ± 7.49	147.1 ± 2.27	111.5 ± 3.03	230.1 ± 8.99	177.2 ± 4.99	n = 7	[BCH] Beckman Coulter UniCel DxC 800
271.3 ± 6.93	154.9 ± 2.05	113.5 ± 1.86	228.3 ± 4.06	177.8 ± 1.54	n = 3	[JJE] Ortho Vitros 250/350/950
281.1 ± 9.71	156.0 ± 5.64	111.5 ± 2.90	227.5 ± 5.83	176.4 ± 5.97	n = 15	[JJF] Ortho Vitros 5,1FS
283.0 ± 10.44	155.9 ± 4.24	111.7 ± 3.54	228.4 ± 5.76	177.0 ± 5.06	n = 20	[JJG] Ortho Vitros 5600
271.1 ± 4.65	147.5 ± 3.62	113.9 ± 3.05	232.1 ± 4.42	178.7 ± 3.94	n = 18	[ROC] Roche cobas c501
266.9 ± 9.16	144.0 ± 2.64	111.8 ± 3.45	229.8 ± 6.94	176.5 ± 5.35	n = 5	[ROH] Roche cobas c701
267.8 ± 5.69	145.3 ± 1.61	113.2 ± 2.10	233.1 ± 4.20	177.7 ± 2.57	n = 5	[ROS] Roche Cobas INTEGRA 400
270.0 ± 3.61	147.0 ± 1.80	113.3 ± 0.51	235.6 ± 1.02	179.7 ± 1.37	n = 3	[ROT] Roche Cobas INTEGRA 800
270.2 ± 4.81	146.2 ± 2.59	113.3 ± 2.27	233.2 ± 3.84	179.6 ± 3.69	n = 31	[ROD] Roche MODULAR D/P
267.1 ± 3.74	147.4 ± 2.45	111.0 ± 1.62	228.3 ± 3.20	175.2 ± 2.84	n = 21	[BYE] Siemens ADVIA 1800
264.2 ± 4.11	146.2 ± 3.23	111.7 ± 3.16	227.4 ± 4.72	175.3 ± 4.06	n = 3	[BYB] Siemens ADVIA 2400
260.1 ± 4.07	132.7 ± 3.25	105.5 ± 2.31	228.7 ± 3.62	174.1 ± 2.32	n = 21	[DUE] Siemens Dimension EXL
258.7 ± 6.34	131.9 ± 4.73	105.5 ± 3.75	228.2 ± 4.38	173.2 ± 3.90	n = 13	[DUR] Siemens Dimension RxL
258.7 ± 5.63	138.9 ± 4.85	109.6 ± 3.38	228.4 ± 5.94	175.6 ± 5.08	n = 36	[DUT] Siemens Dimension Vista
258.6 ± 4.04	131.3 ± 2.08	105.9 ± 2.91	230.0 ± 4.00	174.6 ± 2.85	n = 10	[DUX] Siemens Dimension Xpand
<Reagents>						
277.5 ± 3.63	150.0 ± 2.70	110.2 ± 2.36	235.5 ± 6.32	181.0 ± 0.90	n = 3	[AX1] Abaxis
273.6 ± 2.48	147.9 ± 1.34	116.2 ± 1.21	237.3 ± 2.92	183.2 ± 3.04	n = 17	[AB1] Abbott
269.2 ± 5.42	146.7 ± 2.78	110.5 ± 2.82	232.4 ± 4.44	177.5 ± 3.80	n = 26	[BC1] Beckman Coulter
263.0 ± 5.60	141.6 ± 3.00	110.1 ± 2.41	227.8 ± 4.72	174.7 ± 3.64	n = 62	[OL1] Beckman Coulter AU Series
281.4 ± 10.20	155.7 ± 4.52	111.9 ± 3.19	228.1 ± 5.53	177.0 ± 5.18	n = 39	[JJ1] Ortho Clinical Diagnostics
271.0 ± 5.18	146.8 ± 3.56	113.6 ± 2.87	232.0 ± 4.96	178.6 ± 4.24	n = 23	[R04] Roche cobas c311/c501/c502/c701/c702
270.3 ± 4.77	146.2 ± 2.59	113.1 ± 2.42	233.3 ± 3.82	179.7 ± 3.80	n = 31	[R02] Roche Hitachi and Modular D/P
268.7 ± 5.09	145.9 ± 1.83	113.1 ± 1.45	234.3 ± 3.49	178.6 ± 2.39	n = 8	[R01] Roche Integra and MIRA
267.0 ± 3.96	147.4 ± 2.53	111.1 ± 1.81	228.4 ± 3.37	175.3 ± 3.05	n = 25	[BY1] Siemens ADVIA/ADVIA Centaur
259.0 ± 5.18	135.0 ± 5.30	107.3 ± 3.69	228.6 ± 4.84	174.4 ± 3.80	n = 80	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

HDL-Cholesterol (mg/dL)

Specimen: C91	Specimen: C92	Specimen: C93	Specimen: C94	Specimen: C95	Number	[Code] Instrument or Reagent System
93.7 ± 7.34	31.3 ± 4.67	27.9 ± 3.47	67.8 ± 6.10	49.9 ± 4.48	n = 311	[---] All Methods & Instruments
95.9 ± 9.82	30.8 ± 4.83	26.0 ± 2.66	68.7 ± 6.34	49.8 ± 2.96	n = 23	[---] All Precipitation Methods
93.5 ± 7.15	31.3 ± 4.66	28.1 ± 3.46	67.8 ± 6.08	49.9 ± 4.54	n = 288	[---] All Homogeneous (Direct) Methods
79.9 ± 2.86	16.4 ± 1.02	< 15.0	45.5 ± 1.86	32.0 ± 0.90	n = 3	[AX1] Abaxis
94.8 ± 3.06	37.1 ± 1.17	33.3 ± 1.13	72.3 ± 2.46	54.6 ± 1.49	n = 16	[AB1] Abbott
105.7 ± 2.86	36.6 ± 1.25	32.1 ± 1.06	78.1 ± 2.09	57.4 ± 1.38	n = 22	[BC1] Beckman Coulter
95.0 ± 3.32	36.5 ± 1.48	32.4 ± 1.36	72.8 ± 2.75	54.3 ± 2.18	n = 43	[OL1] Beckman Coulter AU Series
105.3 ± 1.43	40.9 ± 1.03	36.0 ± 1.08	80.5 ± 2.79	60.5 ± 1.77	n = 2	[CR1] Carolina
104.3 ± 5.28	34.2 ± 1.64	26.2 ± 1.45	72.9 ± 2.16	51.1 ± 2.10	n = 30	[JJ1] Ortho Clinical Diagnostics
94.7 ± 3.07	29.3 ± 0.87	28.1 ± 0.85	65.8 ± 1.92	49.4 ± 1.52	n = 8	[R01] Roche Integra and MIRA
92.2 ± 3.32	28.3 ± 1.05	26.9 ± 1.17	63.6 ± 2.22	47.3 ± 1.69	n = 21	[R04] Roche cobas c311/c501/c502/c701/c702
93.4 ± 3.11	28.6 ± 1.16	27.1 ± 1.09	64.9 ± 2.54	48.4 ± 2.06	n = 27	[R02] Roche Hitachi and Modular D/P
96.5 ± 4.03	37.8 ± 1.28	33.5 ± 0.83	74.0 ± 2.33	55.9 ± 2.41	n = 5	[GZ1] Sekisui Diagnostics (Genzyme)
81.9 ± 3.84	26.9 ± 1.21	23.8 ± 1.27	60.6 ± 2.85	43.3 ± 2.17	n = 26	[BY1] Siemens ADVIA/ADVIA Centaur
90.3 ± 3.03	28.1 ± 1.20	26.5 ± 0.93	64.2 ± 1.72	47.5 ± 1.45	n = 69	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

LDL-Cholesterol (mg/dL)

Specimen: C91	Specimen: C92	Specimen: C93	Specimen: C94	Specimen: C95	Number	[Code] Instrument or Reagent System
140.6 ± 15.35	93.2 ± 12.14	67.3 ± 10.02	131.4 ± 16.63	102.2 ± 13.81	n = 298	[-A-] All Methods & Instruments
145.9 ± 10.74	98.9 ± 7.99	72.6 ± 4.90	139.9 ± 7.82	109.4 ± 6.57	n = 147	[-A-] All Calculated Results Friedewald formula [LDL=TC-HDL-(Trigs÷5)]
133.8 ± 16.95	86.0 ± 11.65	60.1 ± 9.48	120.0 ± 16.75	92.4 ± 13.24	n = 149	[-A-] All Homogeneous (Direct) Methods
131.3 ± 2.26	85.2 ± 1.46	59.2 ± 0.41	115.9 ± 2.35	89.3 ± 1.51	n = 4	[AB1] Abbott
121.6 ± 5.79	77.8 ± 3.82	52.8 ± 3.03	105.8 ± 6.21	82.2 ± 3.49	n = 12	[BC1] Beckman Coulter
117.1 ± 6.70	76.4 ± 5.23	52.2 ± 2.88	104.0 ± 5.72	81.3 ± 4.39	n = 25	[OL1] Beckman Coulter AU Series
149.9 ± 4.42	85.4 ± 2.53	58.6 ± 1.52	122.7 ± 4.25	92.7 ± 3.59	n = 15	[JJ1] Ortho Clinical Diagnostics
121.6 ± 7.41	93.7 ± 5.49	69.0 ± 0.75	136.4 ± 5.91	103.7 ± 4.29	n = 4	[R01] Roche Cobas INTEGRA 800
162.3 ± 3.66	109.3 ± 3.08	78.6 ± 1.57	147.9 ± 3.79	116.3 ± 3.12	n = 10	[R04] Roche cobas c311/c501/c502/c701/c702
158.0 ± 4.51	110.2 ± 2.20	78.2 ± 1.81	149.7 ± 3.94	117.4 ± 2.89	n = 13	[R02] Roche Hitachi and Modular D/P
110.0 ± 2.73	71.9 ± 3.10	50.0 ± 2.52	98.8 ± 3.28	75.5 ± 3.05	n = 10	[GZ1] Sekisui Diagnostics (Genzyme)
133.3 ± 5.01	81.2 ± 3.53	54.4 ± 1.86	114.3 ± 4.40	86.7 ± 3.58	n = 13	[BY1] Siemens ADVIA/ADVIA Centaur
135.2 ± 6.91	89.5 ± 3.86	63.4 ± 3.54	124.5 ± 5.98	96.4 ± 5.05	n = 35	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

Triglycerides (mg/dL)

Specimen: C91	Specimen: C92	Specimen: C93	Specimen: C94	Specimen: C95	Number	[Code] Instrument or Reagent System
-----	-----	-----	-----	-----	-----	-----
140.1 ± 7.41	69.7 ± 4.29	52.3 ± 3.61	112.7 ± 5.15	87.6 ± 4.54	n = 317	[---] All Methods & Instruments
<Instruments>						
163.8 ± 1.54	76.7 ± 0.51	56.3 ± 0.51	124.7 ± 1.37	96.0 ± 0.90	n = 3	[AXA] Abaxis Piccolo
135.8 ± 2.09	72.4 ± 1.74	51.3 ± 1.39	110.6 ± 2.19	85.7 ± 1.80	n = 18	[ABJ] Abbott Architect c System
136.7 ± 3.88	67.2 ± 2.19	50.9 ± 1.66	110.4 ± 3.41	85.6 ± 2.61	n = 62	[OLC] Beckman Coulter AU Chemistry System
147.8 ± 4.48	72.5 ± 2.63	56.5 ± 2.58	117.2 ± 3.13	92.7 ± 3.05	n = 13	[BCG] Beckman Coulter UniCel DxC 600
146.9 ± 4.53	73.3 ± 0.97	57.4 ± 2.68	114.8 ± 4.29	91.1 ± 2.67	n = 7	[BCH] Beckman Coulter UniCel DxC 800
154.0 ± 4.60	76.8 ± 2.36	56.3 ± 2.26	121.5 ± 2.74	95.3 ± 2.26	n = 3	[JJE] Ortho Vitros 250/350/950
147.4 ± 4.71	72.8 ± 2.68	52.6 ± 2.63	114.5 ± 4.47	88.0 ± 3.85	n = 15	[JJF] Ortho Vitros 5,1FS
147.7 ± 3.58	72.5 ± 2.09	52.3 ± 2.11	114.8 ± 2.52	88.1 ± 2.38	n = 20	[JJG] Ortho Vitros 5600
136.2 ± 2.49	69.3 ± 1.42	55.4 ± 1.05	114.3 ± 1.87	90.7 ± 1.47	n = 17	[ROC] Roche cobas c501
136.0 ± 4.35	68.4 ± 1.50	52.9 ± 1.38	112.6 ± 2.60	89.9 ± 1.55	n = 5	[ROH] Roche cobas c701
130.8 ± 4.85	65.7 ± 2.04	52.8 ± 2.10	111.2 ± 3.06	87.8 ± 4.14	n = 5	[ROS] Roche Cobas INTEGRA 400
131.6 ± 4.72	65.3 ± 0.51	53.8 ± 1.54	112.1 ± 2.05	89.7 ± 1.37	n = 3	[ROT] Roche Cobas INTEGRA 800
137.6 ± 3.98	68.8 ± 2.32	52.8 ± 1.80	112.1 ± 3.75	87.8 ± 2.83	n = 31	[ROD] Roche MODULAR D/P
142.2 ± 2.84	71.3 ± 1.85	51.8 ± 1.86	113.1 ± 2.54	87.4 ± 2.01	n = 21	[BYE] Siemens ADVIA 1800
139.4 ± 2.56	71.3 ± 3.16	51.5 ± 3.63	111.4 ± 2.56	85.5 ± 1.86	n = 3	[BYB] Siemens ADVIA 2400
135.2 ± 2.44	64.0 ± 1.94	44.9 ± 1.95	105.7 ± 2.20	80.6 ± 1.69	n = 21	[DUE] Siemens Dimension EXL
135.1 ± 3.29	64.8 ± 2.20	46.2 ± 2.28	107.7 ± 3.11	81.7 ± 3.61	n = 13	[DUR] Siemens Dimension RxL
149.3 ± 3.84	74.7 ± 1.96	54.5 ± 1.75	119.3 ± 2.93	92.2 ± 2.43	n = 38	[DUT] Siemens Dimension Vista
135.1 ± 1.90	64.1 ± 2.19	44.5 ± 2.02	106.5 ± 2.33	81.1 ± 1.44	n = 7	[DUX] Siemens Dimension Xpand
<Reagents>						
163.8 ± 1.54	76.7 ± 0.51	56.3 ± 0.51	124.7 ± 1.37	96.0 ± 0.90	n = 3	[AX1] Abaxis
135.8 ± 2.09	72.4 ± 1.74	51.3 ± 1.39	110.6 ± 2.19	85.7 ± 1.80	n = 18	[AB1] Abbott
147.6 ± 4.41	72.4 ± 2.64	56.7 ± 2.73	116.7 ± 3.70	91.9 ± 3.09	n = 24	[BC1] Beckman Coulter
136.9 ± 3.63	67.4 ± 1.97	51.0 ± 1.48	110.4 ± 3.10	85.7 ± 2.52	n = 56	[OL1] Beckman Coulter AU Series
121.0 ± 19.23	61.0 ± 7.32	57.3 ± 7.68	114.8 ± 8.59	89.5 ± 6.26	n = 3	[CR1] Carolina
147.8 ± 4.34	73.0 ± 2.55	52.8 ± 2.53	115.1 ± 3.49	88.5 ± 3.33	n = 39	[JJ1] Ortho Clinical Diagnostics
136.2 ± 2.71	69.1 ± 1.45	54.9 ± 1.44	114.0 ± 2.15	90.5 ± 1.49	n = 23	[R04] Roche cobas c311/c501/c502/c701/c702
137.6 ± 3.98	68.8 ± 2.32	52.8 ± 1.80	112.1 ± 3.75	87.8 ± 2.83	n = 31	[R02] Roche Hitachi and Modular D/P
131.1 ± 4.73	65.8 ± 1.00	53.3 ± 1.86	112.0 ± 1.92	88.9 ± 3.08	n = 8	[R01] Roche Integra and MIRA
142.1 ± 2.99	71.4 ± 2.03	51.8 ± 2.08	113.1 ± 2.66	87.3 ± 2.14	n = 25	[BY1] Siemens ADVIA/ADVIA Centaur
141.5 ± 8.40	69.4 ± 6.23	49.8 ± 5.80	112.6 ± 7.57	86.5 ± 6.81	n = 79	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

Homocysteine (μmol/L)

Specimen: C91	Specimen: C92	Specimen: C93	Specimen: C94	Specimen: C95	Number	[Code] Instrument or Reagent System
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10.78 ± 1.38	14.84 ± 1.17	7.96 ± 0.66	22.26 ± 1.63	15.90 ± 1.25	n = 113	[---] All Methods & Instruments
<Instruments>						
10.81 ± 0.73	14.21 ± 1.02	7.66 ± 0.59	20.68 ± 1.45	14.75 ± 0.92	n = 14	[ABH] Abbott Architect i System
11.50 ± 0.78	15.58 ± 0.72	8.30 ± 0.39	22.94 ± 0.82	16.55 ± 0.77	n = 20	[OLC] Beckman Coulter AU Chemistry System
12.36 ± 0.82	15.02 ± 0.68	7.94 ± 0.39	21.71 ± 1.19	15.60 ± 0.91	n = 3	[JJG] Ortho Vitros 5600
11.03 ± 0.16	14.24 ± 0.29	8.07 ± 0.16	21.30 ± 0.66	15.35 ± 0.56	n = 4	[ROC] Roche cobas c501
11.01 ± 0.29	14.27 ± 0.23	7.97 ± 0.23	21.11 ± 0.37	15.30 ± 0.27	n = 3	[ROG] Roche cobas c502
9.93 ± 0.31	14.15 ± 0.45	7.85 ± 0.27	22.22 ± 1.23	15.72 ± 0.77	n = 3	[ROT] Roche Cobas INTEGRA 800
12.45 ± 1.54	15.87 ± 0.51	8.25 ± 0.19	22.55 ± 0.54	16.75 ± 0.19	n = 3	[ROD] Roche MODULAR D/P
9.42 ± 0.74	14.72 ± 0.67	7.83 ± 0.54	22.94 ± 0.90	16.37 ± 0.85	n = 24	[COB] Siemens ADVIA Centaur
9.26 ± 0.58	13.24 ± 0.78	7.55 ± 0.40	20.06 ± 0.94	13.93 ± 0.92	n = 8	[DUT] Siemens Dimension Vista
11.44 ± 0.97	15.11 ± 1.53	7.74 ± 1.00	22.46 ± 1.74	15.60 ± 1.04	n = 15	[DPD] Siemens Immulite 2000
<Reagents>						
10.81 ± 0.73	14.21 ± 1.02	7.66 ± 0.59	20.68 ± 1.45	14.75 ± 0.92	n = 14	[AB1] Abbott
14.05 ± 1.36	16.50 ± 0.18	8.79 ± 0.93	23.35 ± 0.46	17.45 ± 0.72	n = 3	[AS1] Axis-Shield
12.81 ± 0.90	15.70 ± 0.92	8.14 ± 0.69	23.20 ± 1.50	16.38 ± 1.29	n = 6	[CR1] Carolina
11.16 ± 0.62	15.23 ± 0.99	8.28 ± 0.39	22.57 ± 1.05	16.42 ± 0.87	n = 28	[DZ1] Diazyme
12.70 ± 0.90	15.43 ± 1.02	8.15 ± 0.57	22.18 ± 1.28	15.91 ± 0.91	n = 4	[JJ1] Ortho Clinical Diagnostics
11.67 ± 0.71	15.61 ± 0.80	8.60 ± 0.58	23.38 ± 1.09	16.76 ± 0.81	n = 4	[GZ1] Sekisui Diagnostics (Genzyme)
9.42 ± 0.74	14.72 ± 0.67	7.83 ± 0.54	22.94 ± 0.90	16.37 ± 0.85	n = 24	[BY1] Siemens ADVIA/ADVIA Centaur
8.95 ± 0.13	13.21 ± 0.77	7.55 ± 0.44	19.68 ± 0.77	13.90 ± 0.69	n = 6	[DA5] Siemens Dimension
11.44 ± 0.97	15.11 ± 1.53	7.74 ± 1.00	22.46 ± 1.74	15.60 ± 1.04	n = 15	[DP5] Siemens Immulite

Summary of Participant Performance (Mean and Standard Deviation)

Troponin I (µg/L)

Specimen: C91	Specimen: C92	Specimen: C93	Specimen: C94	Specimen: C95	Number	[Code] Instrument or Reagent System
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1.380 ± 0.353	0.014 ± 0.013	0.016 ± 0.015	0.347 ± 0.091	0.541 ± 0.229	n = 225	[---] All Methods & Instruments
<Instruments>						
6.282 ± 0.267	0.010 ± 0.000	0.010 ± 0.000	1.044 ± 0.096	1.942 ± 0.109	n = 22	[ABH] Abbott Architect i System
1.052 ± 0.084	0.010 ± 0.000	0.008 ± 0.005	0.243 ± 0.023	0.425 ± 0.038	n = 24	[SAA] Beckman Coulter ACCESS
0.311 ± 0.013	<0.05	<0.05	<0.05	<0.05	n = 6	[BSA] BioSite Triage
2.373 ± 0.089	0.026 ± 0.035	0.024 ± 0.036	0.208 ± 0.031	0.686 ± 0.008	n = 6	[IAA] i-STAT
3.649 ± 0.150	0.010 ± 0.000	0.010 ± 0.000	0.384 ± 0.036	1.166 ± 0.058	n = 18	[JJG] Ortho Vitros 5600
3.631 ± 0.126	0.010 ± 0.000	0.010 ± 0.000	0.358 ± 0.027	1.188 ± 0.040	n = 10	[JJC] Ortho Vitros Eci/ECiQ
1.616 ± 0.080	0.008 ± 0.006	0.009 ± 0.007	0.409 ± 0.022	0.496 ± 0.020	n = 44	[COB] Siemens ADVIA Centaur
1.590 ± 0.100	0.018 ± 0.020	0.018 ± 0.020	0.405 ± 0.022	0.456 ± 0.030	n = 4	[BYP] Siemens ADVIA Centaur CP
1.386 ± 0.054	0.060 ± 0.039	0.061 ± 0.038	0.353 ± 0.021	0.596 ± 0.029	n = 17	[DUE] Siemens Dimension EXL
1.113 ± 0.091	0.040 ± 0.000	0.040 ± 0.000	0.215 ± 0.026	0.334 ± 0.027	n = 10	[DUR] Siemens Dimension RxL
1.427 ± 0.080	0.016 ± 0.006	0.019 ± 0.004	0.364 ± 0.026	0.603 ± 0.036	n = 39	[DUT] Siemens Dimension Vista
1.084 ± 0.079	0.021 ± 0.022	0.029 ± 0.015	0.198 ± 0.019	0.324 ± 0.031	n = 7	[DUX] Siemens Dimension Xpand
2.735 ± 0.126	<0.20	<0.20	0.390 ± 0.009	0.993 ± 0.005	n = 3	[DPD] Siemens Immulite 2000
6.650 ± 0.439	0.060 ± 0.000	0.060 ± 0.000	0.618 ± 0.041	2.255 ± 0.180	n = 6	[TOM] Tosoh Bioscience
<Reagents>						
6.267 ± 0.268	0.009 ± 0.005	0.009 ± 0.005	1.041 ± 0.094	1.935 ± 0.112	n = 26	[AB1] Abbott
1.045 ± 0.091	0.010 ± 0.000	0.008 ± 0.005	0.242 ± 0.024	0.424 ± 0.037	n = 25	[BC1] Beckman Coulter
0.311 ± 0.013	<0.05	<0.05	<0.05	<0.05	n = 6	[BS1] Biosite Diagnostics
2.433 ± 0.059	0.030 ± 0.018	0.027 ± 0.023	0.192 ± 0.032	0.683 ± 0.005	n = 3	[IA1] i-STAT
3.644 ± 0.143	0.010 ± 0.000	0.010 ± 0.000	0.374 ± 0.035	1.174 ± 0.053	n = 28	[JJ1] Ortho Clinical Diagnostics
0.613 ± 0.035	<0.30	<0.30	<0.30	0.306 ± 0.008	n = 6	[R03] Roche Elecsys/Modular E/e601/e411
1.614 ± 0.083	0.009 ± 0.006	0.009 ± 0.006	0.408 ± 0.022	0.494 ± 0.023	n = 48	[BY1] Siemens ADVIA/ADVIA Centaur
1.129 ± 0.131	0.033 ± 0.017	0.040 ± 0.000	0.207 ± 0.024	0.330 ± 0.029	n = 20	[DA5] Siemens Dimension
1.412 ± 0.076	0.017 ± 0.007	0.019 ± 0.005	0.361 ± 0.025	0.602 ± 0.034	n = 53	[DA6] Siemens Dimension LOCI
2.735 ± 0.126	<0.20	<0.20	0.390 ± 0.009	0.993 ± 0.005	n = 3	[DP5] Siemens Immulite
6.760 ± 0.537	0.057 ± 0.008	0.058 ± 0.004	0.631 ± 0.034	2.350 ± 0.156	n = 4	[T02] Tosoh ST AIA

Summary of Participant Performance (Mean and Standard Deviation)

Troponin T (µg/L)

Specimen: C91 -----	Specimen: C92 -----	Specimen: C93 -----	Specimen: C94 -----	Specimen: C95 -----	Number -----	[Code] Instrument or Reagent System -----
0.690 ± 0.040	0.010 ± 0.000	0.010 ± 0.000	0.055 ± 0.006	0.310 ± 0.017	n = 36	[---] All Methods & Instruments
						<Instruments>
0.717 ± 0.040	0.010 ± 0.000	0.010 ± 0.000	0.058 ± 0.011	0.314 ± 0.011	n = 5	[ROF] Roche cobas e411
0.663 ± 0.028	0.010 ± 0.000	0.010 ± 0.000	0.053 ± 0.005	0.301 ± 0.021	n = 13	[ROA] Roche cobas e601
0.711 ± 0.033	0.010 ± 0.000	0.010 ± 0.000	0.058 ± 0.008	0.315 ± 0.013	n = 7	[BME] Roche Elecsys
0.706 ± 0.026	0.010 ± 0.000	0.010 ± 0.000	0.055 ± 0.006	0.317 ± 0.015	n = 8	[ROE] Roche MODULAR E
						<Reagents>
0.690 ± 0.041	0.010 ± 0.000	0.010 ± 0.000	0.055 ± 0.006	0.310 ± 0.018	n = 33	[R03] Roche Elecsys/Modular E/e601/e411

Summary of Participant Performance (Mean and Standard Deviation)

Alanine Aminotransferase (U/L 37°C)

Specimen: C91	Specimen: C92	Specimen: C93	Specimen: C94	Specimen: C95	Number	[Code] Instrument or Reagent System
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376.4 ± 19.77	86.0 ± 6.63	278.6 ± 19.77	47.9 ± 5.95	149.4 ± 11.16	n = 361	[---] All Methods & Instruments
<Instruments>						
329.6 ± 4.98	76.8 ± 2.92	239.0 ± 1.76	45.2 ± 2.92	130.0 ± 4.20	n = 4	[AXA] Abaxis Piccolo
392.6 ± 7.83	86.4 ± 2.28	282.8 ± 7.43	46.2 ± 1.53	150.9 ± 3.98	n = 21	[ABJ] Abbott Architect c System
339.8 ± 1.54	75.3 ± 2.26	249.0 ± 0.00	38.5 ± 2.74	131.5 ± 2.74	n = 3	[AWA] Alfa Wassermann ACE Alera
342.7 ± 11.00	75.9 ± 2.58	245.4 ± 8.38	41.3 ± 1.77	131.2 ± 4.33	n = 64	[OLC] Beckman Coulter AU Chemistry System
365.3 ± 8.62	86.9 ± 1.37	273.3 ± 5.71	48.1 ± 1.45	146.1 ± 3.06	n = 18	[BCG] Beckman Coulter UniCel DxC 600
368.8 ± 3.08	88.4 ± 0.56	275.5 ± 2.93	48.7 ± 0.72	148.3 ± 1.91	n = 6	[BCH] Beckman Coulter UniCel DxC 800
396.8 ± 10.63	93.0 ± 4.16	310.6 ± 12.88	62.5 ± 3.09	167.4 ± 4.69	n = 8	[JJE] Ortho Vitros 250/350/950
391.7 ± 3.07	91.2 ± 2.36	308.8 ± 4.89	56.5 ± 1.86	163.0 ± 0.00	n = 3	[JJH] Ortho Vitros 4600
387.2 ± 9.41	91.3 ± 5.54	304.0 ± 7.81	57.9 ± 5.85	162.4 ± 6.11	n = 17	[JJF] Ortho Vitros 5,1FS
387.1 ± 5.67	88.2 ± 3.30	301.9 ± 7.44	57.7 ± 3.92	161.2 ± 3.79	n = 20	[JJG] Ortho Vitros 5600
376.4 ± 6.92	85.0 ± 1.76	274.6 ± 6.45	46.0 ± 1.14	146.1 ± 2.72	n = 4	[ROJ] Roche cobas c311
375.7 ± 7.23	83.5 ± 1.48	274.4 ± 5.15	44.8 ± 0.92	145.6 ± 3.02	n = 20	[ROC] Roche cobas c501
369.7 ± 5.43	81.6 ± 1.52	270.0 ± 4.61	42.5 ± 1.06	143.3 ± 2.61	n = 5	[ROH] Roche cobas c701
370.9 ± 3.81	83.6 ± 3.82	275.8 ± 3.87	44.5 ± 1.81	145.3 ± 2.03	n = 5	[ROS] Roche Cobas INTEGRA 400
365.7 ± 1.37	81.6 ± 1.02	268.2 ± 4.89	44.7 ± 0.51	142.8 ± 2.36	n = 3	[ROT] Roche Cobas INTEGRA 800
372.1 ± 11.34	82.8 ± 2.89	270.2 ± 8.02	45.5 ± 1.96	144.9 ± 4.56	n = 30	[ROD] Roche MODULAR D/P
398.1 ± 9.53	90.4 ± 3.38	292.5 ± 7.50	49.6 ± 2.22	157.5 ± 4.56	n = 21	[BYE] Siemens ADVIA 1800
390.8 ± 5.00	88.1 ± 2.05	289.0 ± 3.58	50.6 ± 3.87	155.1 ± 2.86	n = 3	[BYB] Siemens ADVIA 2400
390.0 ± 9.23	92.4 ± 3.37	291.2 ± 6.45	52.2 ± 2.55	157.1 ± 3.49	n = 23	[DUE] Siemens Dimension EXL
383.0 ± 9.10	93.6 ± 4.00	288.4 ± 4.14	54.6 ± 5.80	156.8 ± 3.91	n = 18	[DUR] Siemens Dimension RxL
377.7 ± 5.39	87.6 ± 1.94	280.9 ± 3.43	48.9 ± 1.36	150.4 ± 2.16	n = 41	[DUT] Siemens Dimension Vista
383.4 ± 8.53	94.0 ± 4.03	286.3 ± 5.04	55.8 ± 5.27	157.0 ± 3.61	n = 15	[DUX] Siemens Dimension Xpand
<Reagents>						
329.6 ± 4.98	76.8 ± 2.92	239.0 ± 1.76	45.2 ± 2.92	130.0 ± 4.20	n = 4	[AX1] Abaxis
392.6 ± 7.83	86.4 ± 2.28	282.8 ± 7.43	46.2 ± 1.53	150.9 ± 3.98	n = 21	[AB1] Abbott
339.8 ± 1.54	75.3 ± 2.26	249.0 ± 0.00	38.5 ± 2.74	131.5 ± 2.74	n = 3	[AW1] Alfa Wassermann
365.6 ± 7.99	87.1 ± 1.57	274.1 ± 5.33	48.2 ± 1.24	146.6 ± 2.87	n = 29	[BC1] Beckman Coulter
342.4 ± 10.75	75.8 ± 2.57	245.3 ± 8.24	41.3 ± 1.72	131.1 ± 4.21	n = 60	[OL1] Beckman Coulter AU Series
388.9 ± 7.89	90.0 ± 4.57	303.8 ± 8.28	58.4 ± 4.88	162.7 ± 4.92	n = 49	[JJ1] Ortho Clinical Diagnostics
374.4 ± 7.13	83.3 ± 1.73	273.4 ± 5.42	44.7 ± 1.32	145.2 ± 3.00	n = 30	[R04] Roche cobas c311/c501/c502/c701/c702
372.1 ± 11.34	82.8 ± 2.89	270.2 ± 8.02	45.5 ± 1.96	144.9 ± 4.56	n = 30	[R02] Roche Hitachi and Modular D/P
368.3 ± 3.80	82.1 ± 1.63	273.0 ± 6.03	44.3 ± 0.75	144.3 ± 2.53	n = 8	[R01] Roche Integra and MIRA
396.3 ± 9.93	89.9 ± 3.54	291.4 ± 7.63	49.5 ± 2.27	156.8 ± 4.73	n = 25	[BY1] Siemens ADVIA/ADVIA Centaur
381.9 ± 8.90	90.6 ± 4.31	285.2 ± 6.68	51.2 ± 4.17	154.1 ± 4.64	n = 96	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

Aspartate Aminotransferase (U/L 37°C)

Specimen: C91	Specimen: C92	Specimen: C93	Specimen: C94	Specimen: C95	Number	[Code] Instrument or Reagent System
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140.9 ± 8.18	63.6 ± 5.47	422.4 ± 33.49	95.9 ± 7.61	247.1 ± 17.91	n = 360	[---] All Methods & Instruments
<Instruments>						
140.6 ± 2.31	65.9 ± 2.35	405.2 ± 12.43	94.7 ± 0.90	241.3 ± 2.69	n = 4	[AXA] Abaxis Piccolo
141.5 ± 2.77	63.8 ± 1.28	422.9 ± 8.51	95.9 ± 1.81	247.2 ± 5.37	n = 21	[ABJ] Abbott Architect c System
135.4 ± 1.02	59.0 ± 0.90	406.2 ± 8.77	89.7 ± 1.37	236.1 ± 2.86	n = 3	[AWA] Alfa Wassermann ACE Alera
127.5 ± 5.41	58.1 ± 2.67	379.1 ± 18.51	85.5 ± 3.53	220.3 ± 8.77	n = 63	[OLC] Beckman Coulter AU Chemistry System
139.7 ± 3.39	70.3 ± 2.60	408.3 ± 10.85	94.7 ± 1.72	243.1 ± 4.15	n = 18	[BCG] Beckman Coulter UniCel DxC 600
141.0 ± 3.16	69.5 ± 1.66	415.6 ± 7.11	95.9 ± 1.22	243.1 ± 4.94	n = 7	[BCH] Beckman Coulter UniCel DxC 800
151.9 ± 6.19	70.1 ± 1.90	493.8 ± 20.92	109.7 ± 0.97	280.2 ± 10.45	n = 8	[JJE] Ortho Vitros 250/350/950
154.8 ± 3.23	73.2 ± 1.54	502.4 ± 17.17	113.5 ± 1.86	287.5 ± 5.43	n = 3	[JJH] Ortho Vitros 4600
150.1 ± 3.90	71.0 ± 2.26	483.0 ± 19.40	110.5 ± 3.23	276.5 ± 8.79	n = 17	[JJF] Ortho Vitros 5,1FS
150.5 ± 4.47	71.0 ± 2.02	490.1 ± 14.11	110.3 ± 3.59	278.5 ± 8.65	n = 20	[JJG] Ortho Vitros 5600
143.1 ± 3.47	65.2 ± 2.11	427.7 ± 13.44	95.8 ± 2.58	250.1 ± 6.97	n = 4	[ROJ] Roche cobas c311
142.5 ± 4.25	64.2 ± 2.11	426.6 ± 15.01	95.3 ± 2.59	249.3 ± 7.29	n = 20	[ROC] Roche cobas c501
141.1 ± 2.16	63.3 ± 1.06	428.5 ± 14.93	94.0 ± 2.33	244.5 ± 5.35	n = 5	[ROH] Roche cobas c701
142.2 ± 2.27	64.6 ± 0.55	438.5 ± 9.48	95.8 ± 0.80	252.9 ± 3.75	n = 5	[ROS] Roche Cobas INTEGRA 400
143.0 ± 3.61	65.0 ± 0.90	437.7 ± 13.89	94.8 ± 2.36	252.9 ± 8.08	n = 3	[ROT] Roche Cobas INTEGRA 800
138.8 ± 2.94	63.3 ± 1.60	414.3 ± 8.36	94.2 ± 2.36	241.6 ± 3.92	n = 30	[ROD] Roche MODULAR D/P
150.7 ± 3.87	70.4 ± 2.46	455.9 ± 13.08	103.6 ± 2.71	266.4 ± 6.09	n = 21	[BYE] Siemens ADVIA 1800
149.0 ± 3.58	68.6 ± 1.02	448.1 ± 8.93	100.8 ± 2.36	261.7 ± 2.26	n = 3	[BYB] Siemens ADVIA 2400
138.0 ± 4.85	59.4 ± 2.93	413.3 ± 16.62	94.9 ± 3.74	243.6 ± 7.33	n = 23	[DUE] Siemens Dimension EXL
140.6 ± 4.87	60.9 ± 2.37	420.6 ± 15.37	96.8 ± 3.16	247.5 ± 7.79	n = 18	[DUR] Siemens Dimension RxL
141.6 ± 3.15	60.2 ± 2.21	425.0 ± 11.25	95.8 ± 2.80	248.6 ± 5.04	n = 41	[DUT] Siemens Dimension Vista
143.2 ± 4.29	60.9 ± 1.85	424.4 ± 11.28	97.6 ± 2.16	250.3 ± 4.47	n = 15	[DUX] Siemens Dimension Xpand
<Reagents>						
140.6 ± 2.31	65.9 ± 2.35	405.2 ± 12.43	94.7 ± 0.90	241.3 ± 2.69	n = 4	[AX1] Abaxis
141.5 ± 2.77	63.8 ± 1.28	422.9 ± 8.51	95.9 ± 1.81	247.2 ± 5.37	n = 21	[AB1] Abbott
135.4 ± 1.02	59.0 ± 0.90	406.2 ± 8.77	89.7 ± 1.37	236.1 ± 2.86	n = 3	[AW1] Alfa Wassermann
140.0 ± 3.63	70.0 ± 2.45	410.8 ± 13.20	95.1 ± 1.66	243.0 ± 4.19	n = 29	[BC1] Beckman Coulter
127.5 ± 5.32	58.1 ± 2.68	378.7 ± 17.80	85.5 ± 3.51	220.1 ± 8.49	n = 59	[OL1] Beckman Coulter AU Series
150.9 ± 4.63	71.0 ± 2.24	488.8 ± 18.13	110.8 ± 3.54	278.9 ± 9.30	n = 49	[JJ1] Ortho Clinical Diagnostics
142.2 ± 3.96	64.1 ± 1.94	426.5 ± 14.81	95.1 ± 2.62	248.4 ± 7.23	n = 30	[R04] Roche cobas c311/c501/c502/c701/c702
138.8 ± 2.94	63.3 ± 1.60	414.3 ± 8.36	94.2 ± 2.36	241.6 ± 3.92	n = 30	[R02] Roche Hitachi and Modular D/P
142.4 ± 2.80	64.7 ± 0.69	438.1 ± 11.22	95.5 ± 1.58	252.6 ± 5.26	n = 8	[R01] Roche Integra and MIRA
150.3 ± 4.12	70.0 ± 2.43	453.9 ± 13.24	103.1 ± 2.95	265.3 ± 6.49	n = 25	[BY1] Siemens ADVIA/ADVIA Centaur
140.9 ± 4.32	60.3 ± 2.40	421.7 ± 14.16	96.1 ± 3.19	247.7 ± 6.36	n = 97	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

 α -Amylase (U/L 37°C)

Specimen: C91	Specimen: C92	Specimen: C93	Specimen: C94	Specimen: C95	Number	[Code] Instrument or Reagent System
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528.6 ± 101.74	79.4 ± 7.24	39.3 ± 5.96	209.9 ± 34.77	133.8 ± 19.79	n = 314	[---] All Methods & Instruments
<Instruments>						
601.1 ± 11.76	84.2 ± 2.12	43.2 ± 1.29	233.1 ± 4.25	147.4 ± 3.09	n = 19	[ABJ] Abbott Architect c System
463.0 ± 23.17	63.3 ± 3.34	31.7 ± 1.98	177.9 ± 9.18	112.7 ± 5.88	n = 54	[OLC] Beckman Coulter AU Chemistry System
576.6 ± 12.87	87.6 ± 2.06	46.9 ± 1.24	230.6 ± 3.91	147.3 ± 2.76	n = 14	[BCG] Beckman Coulter UniCel DxC 600
586.7 ± 8.73	87.5 ± 1.66	47.8 ± 0.86	233.0 ± 4.34	149.5 ± 3.40	n = 7	[BCH] Beckman Coulter UniCel DxC 800
330.0 ± 13.64	72.8 ± 4.66	32.8 ± 1.89	143.2 ± 6.02	99.5 ± 6.49	n = 6	[JJE] Ortho Vitros 250/350/950
352.4 ± 21.53	79.8 ± 7.69	37.3 ± 4.22	153.9 ± 11.54	102.3 ± 7.75	n = 3	[JJH] Ortho Vitros 4600
347.8 ± 17.42	76.9 ± 7.10	33.1 ± 3.14	150.3 ± 7.23	99.1 ± 6.56	n = 16	[JJF] Ortho Vitros 5,1FS
351.1 ± 10.58	77.7 ± 5.93	31.8 ± 2.70	151.2 ± 7.75	100.5 ± 7.03	n = 20	[JJG] Ortho Vitros 5600
513.0 ± 15.51	82.7 ± 2.26	44.7 ± 1.37	211.7 ± 5.09	136.9 ± 3.72	n = 3	[ROJ] Roche cobas c311
515.9 ± 5.92	82.5 ± 1.31	44.7 ± 1.00	211.9 ± 2.15	136.8 ± 1.98	n = 19	[ROC] Roche cobas c501
509.3 ± 8.70	81.8 ± 1.41	44.4 ± 0.67	210.2 ± 2.17	136.3 ± 2.51	n = 3	[ROS] Roche Cobas INTEGRA 400
509.6 ± 1.02	80.3 ± 0.51	44.0 ± 0.00	209.3 ± 1.37	134.3 ± 2.26	n = 3	[ROT] Roche Cobas INTEGRA 800
510.1 ± 8.68	81.2 ± 1.12	44.1 ± 0.64	207.1 ± 2.70	134.1 ± 1.78	n = 26	[ROD] Roche MODULAR D/P
520.0 ± 8.80	82.1 ± 1.36	43.9 ± 0.63	213.1 ± 3.24	137.0 ± 2.55	n = 20	[BYE] Siemens ADVIA 1800
514.7 ± 9.53	81.0 ± 1.80	42.6 ± 1.02	209.0 ± 4.60	135.3 ± 3.16	n = 3	[BYB] Siemens ADVIA 2400
627.9 ± 13.61	80.1 ± 1.66	38.5 ± 0.97	240.7 ± 4.70	149.5 ± 2.80	n = 19	[DUE] Siemens Dimension EXL
638.6 ± 20.43	81.6 ± 2.38	39.2 ± 1.23	243.1 ± 4.52	151.7 ± 3.94	n = 15	[DUR] Siemens Dimension RxL
630.2 ± 10.33	79.8 ± 1.80	38.1 ± 0.71	241.4 ± 3.92	149.8 ± 2.57	n = 41	[DUT] Siemens Dimension Vista
627.4 ± 10.74	80.6 ± 1.82	39.0 ± 0.91	241.6 ± 4.19	150.3 ± 3.09	n = 11	[DUX] Siemens Dimension Xpand
<Reagents>						
601.1 ± 11.76	84.2 ± 2.12	43.2 ± 1.29	233.1 ± 4.25	147.4 ± 3.09	n = 19	[AB1] Abbott
580.9 ± 9.75	87.4 ± 2.24	47.2 ± 1.31	232.4 ± 4.49	147.8 ± 3.26	n = 7	[BC1] Beckman Coulter
463.4 ± 23.17	63.5 ± 3.41	31.8 ± 1.95	178.2 ± 9.52	112.9 ± 5.84	n = 50	[OL1] Beckman Coulter AU Series
579.8 ± 12.44	88.0 ± 1.79	47.4 ± 1.18	231.4 ± 4.20	148.2 ± 3.00	n = 16	[BC2] Beckman Coulter IFCC Standardized
346.6 ± 16.15	76.5 ± 6.55	32.8 ± 3.28	150.4 ± 8.36	100.3 ± 7.12	n = 47	[JJ1] Ortho Clinical Diagnostics
515.8 ± 7.24	82.5 ± 1.65	44.7 ± 1.04	211.4 ± 3.20	136.5 ± 2.38	n = 26	[R04] Roche cobas c311/c501/c502/c701/c702
510.8 ± 9.21	81.3 ± 1.22	44.1 ± 0.66	207.1 ± 2.71	134.2 ± 1.94	n = 27	[R02] Roche Hitachi and Modular D/P
509.5 ± 5.44	80.9 ± 1.25	44.0 ± 0.00	209.7 ± 1.81	135.3 ± 2.62	n = 6	[R01] Roche Integra and MIRA
519.2 ± 9.41	82.0 ± 1.48	43.8 ± 0.79	212.7 ± 3.73	136.8 ± 2.77	n = 24	[BY1] Siemens ADVIA/ADVIA Centaur
629.9 ± 12.27	80.2 ± 2.01	38.4 ± 0.97	241.5 ± 4.31	150.0 ± 3.05	n = 86	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

Alkaline Phosphatase (U/L 37°C)

Specimen: C91	Specimen: C92	Specimen: C93	Specimen: C94	Specimen: C95	Number	[Code] Instrument or Reagent System
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55.9 ± 11.89	288.4 ± 29.52	130.8 ± 14.91	352.8 ± 33.60	253.2 ± 24.14	n = 360	[---] All Methods & Instruments
<Instruments>						
45.8 ± 4.33	246.9 ± 8.67	116.3 ± 4.73	296.1 ± 8.31	217.4 ± 7.05	n = 4	[AXA] Abaxis Piccolo
52.9 ± 1.87	297.6 ± 10.13	134.2 ± 4.05	356.4 ± 11.08	258.3 ± 9.63	n = 21	[ABJ] Abbott Architect c System
50.8 ± 1.54	301.5 ± 4.61	136.0 ± 1.80	360.5 ± 6.32	260.5 ± 7.22	n = 3	[AWA] Alfa Wassermann ACE Alera
45.7 ± 2.46	264.1 ± 13.46	119.4 ± 6.64	315.2 ± 16.21	229.3 ± 12.59	n = 63	[OLC] Beckman Coulter AU Chemistry System
44.6 ± 2.02	262.2 ± 10.04	115.8 ± 5.01	310.3 ± 12.53	225.4 ± 8.91	n = 18	[BCG] Beckman Coulter UniCel DxC 600
45.4 ± 0.96	258.8 ± 6.90	118.4 ± 2.11	314.1 ± 8.23	226.1 ± 6.72	n = 7	[BCH] Beckman Coulter UniCel DxC 800
73.0 ± 3.80	277.2 ± 15.10	123.6 ± 3.66	381.6 ± 21.16	260.5 ± 12.68	n = 8	[JJE] Ortho Vitros 250/350/950
71.4 ± 1.02	254.0 ± 3.61	112.0 ± 1.80	357.3 ± 6.85	239.7 ± 3.07	n = 3	[JJH] Ortho Vitros 4600
74.8 ± 2.84	269.6 ± 9.32	120.4 ± 4.65	368.2 ± 12.41	250.7 ± 9.13	n = 17	[JJF] Ortho Vitros 5,1FS
72.3 ± 3.50	260.1 ± 9.38	116.0 ± 4.77	361.3 ± 12.90	243.7 ± 9.77	n = 20	[JJG] Ortho Vitros 5600
50.8 ± 0.41	291.0 ± 1.76	131.3 ± 0.82	349.5 ± 2.30	253.7 ± 1.58	n = 4	[ROJ] Roche cobas c311
49.9 ± 1.38	283.1 ± 6.73	129.1 ± 2.58	337.5 ± 10.48	245.1 ± 6.44	n = 20	[ROC] Roche cobas c501
49.2 ± 0.80	282.7 ± 5.63	128.7 ± 2.55	341.6 ± 7.95	247.2 ± 3.75	n = 5	[ROH] Roche cobas c701
49.3 ± 0.90	288.3 ± 5.23	130.8 ± 2.11	349.8 ± 9.69	251.7 ± 3.15	n = 4	[ROS] Roche Cobas INTEGRA 400
49.7 ± 0.51	293.1 ± 3.72	134.3 ± 1.37	351.1 ± 3.72	257.0 ± 0.90	n = 3	[ROT] Roche Cobas INTEGRA 800
49.7 ± 1.79	279.9 ± 11.17	128.1 ± 4.23	334.3 ± 12.28	243.5 ± 8.18	n = 28	[ROD] Roche MODULAR D/P
53.8 ± 1.91	313.4 ± 9.26	140.3 ± 3.47	375.1 ± 12.41	270.7 ± 8.30	n = 21	[BYE] Siemens ADVIA 1800
53.6 ± 1.02	306.2 ± 3.23	139.7 ± 3.16	369.5 ± 3.63	265.3 ± 2.26	n = 3	[BYB] Siemens ADVIA 2400
71.9 ± 4.53	334.9 ± 14.60	160.4 ± 8.21	392.6 ± 19.18	291.3 ± 15.64	n = 23	[DUE] Siemens Dimension EXL
66.6 ± 7.11	322.4 ± 14.86	153.3 ± 7.50	384.1 ± 17.13	282.7 ± 13.26	n = 18	[DUR] Siemens Dimension RxL
64.8 ± 5.89	322.7 ± 13.20	145.9 ± 7.06	385.2 ± 16.88	277.6 ± 12.26	n = 41	[DUT] Siemens Dimension Vista
62.6 ± 4.73	313.7 ± 8.59	145.1 ± 4.11	374.2 ± 9.17	275.3 ± 7.49	n = 15	[DUX] Siemens Dimension Xpand
<Reagents>						
45.8 ± 4.33	246.9 ± 8.67	116.3 ± 4.73	296.1 ± 8.31	217.4 ± 7.05	n = 4	[AX1] Abaxis
52.9 ± 1.87	297.6 ± 10.13	134.2 ± 4.05	356.4 ± 11.08	258.3 ± 9.63	n = 21	[AB1] Abbott
50.8 ± 1.54	301.5 ± 4.61	136.0 ± 1.80	360.5 ± 6.32	260.5 ± 7.22	n = 3	[AW1] Alfa Wassermann
44.8 ± 1.89	260.5 ± 9.88	116.4 ± 4.28	310.8 ± 12.50	225.1 ± 8.98	n = 29	[BC1] Beckman Coulter
45.7 ± 2.46	264.5 ± 13.27	119.4 ± 6.71	315.7 ± 16.11	229.6 ± 12.44	n = 60	[OL1] Beckman Coulter AU Series
73.3 ± 3.45	265.6 ± 13.01	118.8 ± 6.00	366.6 ± 16.13	248.6 ± 12.09	n = 49	[JJ1] Ortho Clinical Diagnostics
49.9 ± 1.23	284.4 ± 6.68	129.5 ± 2.59	340.7 ± 10.04	247.1 ± 6.28	n = 30	[R04] Roche cobas c311/c501/c502/c701/c702
49.6 ± 1.74	279.9 ± 10.87	128.2 ± 4.08	334.6 ± 12.07	243.8 ± 8.09	n = 29	[R02] Roche Hitachi and Modular D/P
49.4 ± 0.72	290.1 ± 4.61	131.9 ± 2.71	350.6 ± 6.29	253.3 ± 4.31	n = 8	[R01] Roche Integra and MIRA
53.6 ± 1.93	311.7 ± 9.90	140.0 ± 3.76	373.4 ± 12.77	269.3 ± 8.56	n = 25	[BY1] Siemens ADVIA/ADVIA Centaur
66.5 ± 6.71	323.6 ± 14.75	150.3 ± 9.41	384.3 ± 17.20	280.6 ± 13.27	n = 97	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

 γ -Glutamyltransferase (U/L 37°C)

Specimen: C91	Specimen: C92	Specimen: C93	Specimen: C94	Specimen: C95	Number	[Code] Instrument or Reagent System
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80.7 ± 19.58	85.1 ± 20.08	198.2 ± 47.36	37.4 ± 8.71	111.2 ± 26.90	n = 296	[---] All Methods & Instruments
<Instruments>						
80.1 ± 4.33	85.2 ± 5.19	199.5 ± 10.94	37.1 ± 2.04	110.1 ± 5.91	n = 17	[ABJ] Abbott Architect c System
62.9 ± 3.36	66.1 ± 3.49	153.0 ± 7.93	29.8 ± 1.84	86.0 ± 4.36	n = 55	[OLC] Beckman Coulter AU Chemistry System
77.0 ± 2.43	84.3 ± 3.29	203.5 ± 5.44	31.7 ± 1.18	109.9 ± 3.85	n = 15	[BCG] Beckman Coulter UniCel DxC 600
77.1 ± 2.32	83.9 ± 1.73	202.9 ± 5.52	32.0 ± 0.82	110.4 ± 3.70	n = 7	[BCH] Beckman Coulter UniCel DxC 800
125.8 ± 3.97	131.6 ± 4.45	335.2 ± 10.18	50.1 ± 1.83	177.7 ± 6.70	n = 5	[JJE] Ortho Vitros 250/350/950
127.2 ± 3.23	134.2 ± 2.36	334.7 ± 5.09	50.7 ± 1.37	177.7 ± 3.37	n = 3	[JJH] Ortho Vitros 4600
123.1 ± 2.66	128.7 ± 3.05	323.3 ± 8.67	49.6 ± 1.19	172.1 ± 3.94	n = 15	[JJF] Ortho Vitros 5,1FS
123.4 ± 1.43	129.0 ± 2.10	325.8 ± 7.38	49.5 ± 1.20	172.8 ± 3.04	n = 20	[JJG] Ortho Vitros 5600
67.8 ± 1.07	73.4 ± 0.85	171.3 ± 1.92	31.4 ± 0.63	95.5 ± 1.44	n = 16	[ROC] Roche cobas c501
67.3 ± 1.37	72.3 ± 1.37	168.3 ± 3.37	31.7 ± 0.51	94.1 ± 2.05	n = 3	[ROH] Roche cobas c701
67.0 ± 0.90	71.7 ± 1.37	170.9 ± 2.86	31.0 ± 0.00	93.7 ± 1.37	n = 3	[ROS] Roche Cobas INTEGRA 400
67.0 ± 0.90	71.8 ± 2.36	173.3 ± 4.06	30.6 ± 1.02	94.5 ± 1.86	n = 3	[ROT] Roche Cobas INTEGRA 800
68.8 ± 1.60	74.5 ± 1.62	175.5 ± 3.25	31.5 ± 1.10	96.8 ± 1.89	n = 27	[ROD] Roche MODULAR D/P
75.4 ± 2.28	78.6 ± 2.17	185.2 ± 4.12	34.0 ± 1.94	102.7 ± 2.59	n = 21	[BYE] Siemens ADVIA 1800
75.0 ± 2.70	77.5 ± 2.74	185.1 ± 7.44	35.0 ± 0.90	101.7 ± 3.16	n = 3	[BYB] Siemens ADVIA 2400
93.9 ± 2.09	98.1 ± 1.97	223.1 ± 3.15	47.6 ± 1.58	128.1 ± 2.17	n = 18	[DUE] Siemens Dimension EXL
91.7 ± 3.11	96.1 ± 2.81	220.2 ± 4.78	45.9 ± 1.89	124.8 ± 2.61	n = 11	[DUR] Siemens Dimension RxL
92.9 ± 2.77	97.4 ± 2.66	229.5 ± 4.00	44.1 ± 2.46	128.5 ± 2.48	n = 38	[DUT] Siemens Dimension Vista
94.5 ± 1.70	97.9 ± 1.79	222.7 ± 4.13	47.8 ± 1.76	127.2 ± 2.80	n = 6	[DUX] Siemens Dimension Xpand
<Reagents>						
79.7 ± 3.87	84.7 ± 4.78	198.5 ± 9.64	36.9 ± 1.91	109.6 ± 5.22	n = 16	[AB1] Abbott
76.8 ± 2.35	83.9 ± 2.75	202.8 ± 5.60	31.8 ± 1.05	109.9 ± 3.70	n = 26	[BC1] Beckman Coulter
63.1 ± 3.27	66.3 ± 3.46	153.4 ± 7.93	29.9 ± 1.82	86.2 ± 4.35	n = 53	[OL1] Beckman Coulter AU Series
123.7 ± 2.74	129.4 ± 3.08	326.5 ± 8.93	49.6 ± 1.34	173.2 ± 4.28	n = 43	[JJ1] Ortho Clinical Diagnostics
67.9 ± 1.31	73.5 ± 1.14	171.5 ± 2.82	31.5 ± 0.61	95.6 ± 1.87	n = 22	[R04] Roche cobas c311/c501/c502/c701/c702
68.8 ± 1.60	74.5 ± 1.62	175.5 ± 3.25	31.5 ± 1.10	96.8 ± 1.89	n = 27	[R02] Roche Hitachi and Modular D/P
67.0 ± 0.90	71.7 ± 1.85	171.9 ± 3.59	30.8 ± 0.73	94.0 ± 1.60	n = 6	[R01] Roche Integra and MIRA
75.3 ± 2.31	78.4 ± 2.21	184.9 ± 5.05	34.3 ± 1.87	102.8 ± 2.68	n = 25	[BY1] Siemens ADVIA/ADVIA Centaur
93.2 ± 2.71	97.4 ± 2.51	226.1 ± 5.61	45.6 ± 2.71	127.9 ± 2.75	n = 73	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

Creatine Kinase (U/L 37°C)

Specimen: C91	Specimen: C92	Specimen: C93	Specimen: C94	Specimen: C95	Number	[Code] Instrument or Reagent System
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226.9 ± 17.24	72.5 ± 5.36	62.1 ± 4.54	296.9 ± 16.24	190.8 ± 10.98	n = 325	[---] All Methods & Instruments
<Instruments>						
242.8 ± 11.08	79.2 ± 1.81	64.2 ± 2.01	313.4 ± 7.31	198.6 ± 4.80	n = 21	[ABJ] Abbott Architect c System
201.1 ± 11.27	65.2 ± 3.26	54.4 ± 2.89	271.7 ± 11.55	171.8 ± 7.69	n = 58	[OLC] Beckman Coulter AU Chemistry System
236.4 ± 14.54	71.2 ± 2.19	63.7 ± 1.86	306.8 ± 6.85	196.1 ± 5.29	n = 13	[BCG] Beckman Coulter UniCel DxC 600
248.2 ± 11.22	72.8 ± 2.00	65.3 ± 2.40	313.3 ± 6.67	202.2 ± 4.65	n = 7	[BCH] Beckman Coulter UniCel DxC 800
232.9 ± 15.68	65.5 ± 4.65	66.1 ± 3.58	292.0 ± 23.02	198.0 ± 13.85	n = 5	[JJE] Ortho Vitros 250/350/950
229.5 ± 11.02	64.5 ± 1.86	65.0 ± 1.80	282.2 ± 12.34	189.7 ± 5.97	n = 3	[JJH] Ortho Vitros 4600
235.4 ± 8.99	67.7 ± 3.11	67.1 ± 4.14	294.1 ± 14.86	197.5 ± 10.73	n = 15	[JJF] Ortho Vitros 5,1FS
236.1 ± 13.21	68.6 ± 2.88	68.7 ± 2.60	295.2 ± 11.88	197.9 ± 8.23	n = 20	[JJG] Ortho Vitros 5600
243.7 ± 13.23	77.9 ± 2.86	64.5 ± 1.86	324.7 ± 9.73	206.7 ± 6.93	n = 3	[ROJ] Roche cobas c311
243.3 ± 8.46	75.9 ± 1.78	63.4 ± 1.79	322.6 ± 6.74	204.2 ± 4.79	n = 20	[ROC] Roche cobas c501
238.0 ± 7.05	80.8 ± 2.09	66.8 ± 2.07	300.4 ± 3.43	195.3 ± 3.24	n = 4	[ROH] Roche cobas c701
230.2 ± 22.10	72.7 ± 3.37	60.4 ± 3.87	316.8 ± 5.00	199.8 ± 2.36	n = 3	[ROT] Roche Cobas INTEGRA 800
229.8 ± 8.17	76.5 ± 2.14	63.9 ± 1.90	299.7 ± 3.92	192.3 ± 2.82	n = 28	[ROD] Roche MODULAR D/P
218.9 ± 7.71	72.9 ± 2.24	60.4 ± 1.36	302.6 ± 5.70	191.8 ± 2.91	n = 20	[BYE] Siemens ADVIA 1800
216.3 ± 8.64	70.8 ± 3.23	58.8 ± 2.36	299.2 ± 11.38	189.4 ± 6.45	n = 3	[BYB] Siemens ADVIA 2400
228.5 ± 7.11	73.2 ± 2.39	60.6 ± 2.31	295.2 ± 4.93	188.1 ± 4.39	n = 21	[DUE] Siemens Dimension EXL
228.7 ± 8.79	74.9 ± 1.71	62.5 ± 2.16	297.2 ± 4.77	190.0 ± 3.62	n = 18	[DUR] Siemens Dimension RxL
227.3 ± 5.99	74.5 ± 2.00	62.2 ± 1.77	293.3 ± 4.83	188.2 ± 3.14	n = 41	[DUT] Siemens Dimension Vista
229.2 ± 5.31	73.3 ± 1.93	61.2 ± 1.72	294.5 ± 3.66	188.7 ± 3.60	n = 10	[DUX] Siemens Dimension Xpand
<Reagents>						
242.8 ± 11.08	79.2 ± 1.81	64.2 ± 2.01	313.4 ± 7.31	198.6 ± 4.80	n = 21	[AB1] Abbott
237.3 ± 18.38	71.6 ± 3.04	64.4 ± 2.41	309.1 ± 8.78	198.5 ± 7.11	n = 26	[BC1] Beckman Coulter
202.3 ± 10.10	65.4 ± 3.23	54.6 ± 2.71	273.1 ± 10.85	172.6 ± 7.25	n = 53	[OL1] Beckman Coulter AU Series
235.2 ± 11.65	67.7 ± 3.44	67.5 ± 3.68	294.1 ± 13.67	197.3 ± 9.78	n = 43	[JJ1] Ortho Clinical Diagnostics
242.2 ± 10.12	76.5 ± 2.54	63.7 ± 2.16	319.8 ± 10.52	202.9 ± 6.14	n = 29	[R04] Roche cobas c311/c501/c502/c701/c702
230.3 ± 7.81	76.4 ± 2.11	63.8 ± 1.92	299.6 ± 4.07	192.4 ± 2.87	n = 27	[R02] Roche Hitachi and Modular D/P
231.1 ± 18.79	75.8 ± 5.05	63.4 ± 4.84	317.1 ± 4.20	200.3 ± 2.41	n = 5	[R01] Roche Integra and MIRA
217.9 ± 8.83	72.5 ± 2.66	60.1 ± 1.79	301.9 ± 7.23	191.4 ± 3.96	n = 24	[BY1] Siemens ADVIA/ADVIA Centaur
228.1 ± 6.53	74.1 ± 2.21	61.8 ± 2.10	294.7 ± 5.07	188.5 ± 3.76	n = 86	[DA5] Siemens Dimension
228.0 ± 7.61	75.1 ± 1.13	63.3 ± 2.47	294.2 ± 3.73	188.8 ± 2.68	n = 4	[DA6] Siemens Dimension LOCI

Summary of Participant Performance (Mean and Standard Deviation)

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

Specimen: C91	Specimen: C92	Specimen: C93	Specimen: C94	Specimen: C95	Number	[Code] Instrument or Reagent System
57.23 ± 9.40	0.79 ± 0.35	0.76 ± 0.36	18.45 ± 3.45	10.49 ± 2.19	n = 198	[-A-] All Methods - Results reported in ng/mL
57.96 ± 4.67	1.15 ± 1.23	1.06 ± 1.27	18.45 ± 1.69	10.21 ± 0.76	n = 21	[AB1] Abbott
65.49 ± 3.47	1.03 ± 0.06	0.85 ± 0.06	21.85 ± 0.99	12.31 ± 0.79	n = 15	[SAA] Beckman Coulter ACCESS
66.78 ± 2.94	1.02 ± 0.07	0.85 ± 0.06	22.18 ± 1.03	12.46 ± 0.68	n = 14	[BC1] Beckman Coulter UniCel
31.23 ± 4.55	0.72 ± 0.51	< 1.0	9.95 ± 0.36	4.79 ± 1.27	n = 3	[BS1] Biosite Diagnostics
38.80 ± 1.87	0.62 ± 0.08	0.52 ± 0.08	13.78 ± 0.63	8.01 ± 0.37	n = 26	[JJ1] Ortho Clinical Diagnostics
65.44 ± 2.23	1.39 ± 0.11	1.43 ± 0.11	22.53 ± 0.80	13.42 ± 0.47	n = 29	[R03] Roche Elecsys/Modular E/e601/e411
53.68 ± 3.28	0.59 ± 0.21	0.49 ± 0.23	18.53 ± 1.13	10.84 ± 0.60	n = 31	[BY1] Siemens ADVIA/ADVIA Centaur
57.88 ± 4.16	0.55 ± 0.16	0.56 ± 0.27	16.06 ± 1.17	8.30 ± 0.97	n = 27	[DA5] Siemens Dimension
53.05 ± 1.84	0.60 ± 0.19	0.85 ± 0.24	16.83 ± 0.64	9.64 ± 0.53	n = 27	[DA6] Siemens Dimension LOCI
63.15 ± 5.19	1.35 ± 0.17	0.95 ± 0.06	20.70 ± 2.05	11.55 ± 0.17	n = 2	[TOM] Tosoh
41.96 ± 3.41	3.37 ± 0.55	4.86 ± 1.27	21.52 ± 1.62	14.26 ± 1.10	n = 5	[---] All Methods - Results reported in U/L
19.14 ± 7.79	0.00 ± 0.00	0.00 ± 0.00	5.17 ± 2.11	3.16 ± 2.80	n = 4	[-P-] All Methods - Results reported as %
16.85 ± 7.95	0.00 ± 0.00	0.00 ± 0.00	4.26 ± 1.37	2.00 ± 1.80	n = 3	[HL1] Helena Laboratories

Summary of Participant Performance (Mean and Standard Deviation)

Lactate Dehydrogenase (U/L 37°C)

Specimen: C91	Specimen: C92	Specimen: C93	Specimen: C94	Specimen: C95	Number	[Code] Instrument or Reagent System
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151.9 ± 13.48	93.1 ± 8.33	77.8 ± 7.58	290.3 ± 25.83	196.4 ± 17.88	n = 262	[-A-] All Methods - Lactate to Pyruvate
406.9 ± 15.67	251.3 ± 14.05	191.9 ± 13.00	713.1 ± 17.48	486.3 ± 15.51	n = 46	[-B-] All Methods - Pyruvate to Lactate
<Instruments>						
156.9 ± 6.20	95.4 ± 4.72	82.2 ± 2.75	296.9 ± 6.99	200.8 ± 6.05	n = 20	[ABJ] Abbott Architect c System
136.4 ± 7.31	83.8 ± 4.49	70.2 ± 3.73	260.7 ± 12.93	176.4 ± 8.51	n = 56	[OLC] Beckman Coulter AU Chemistry System
126.5 ± 2.87	78.2 ± 2.25	66.1 ± 2.72	238.3 ± 4.27	163.2 ± 3.87	n = 15	[BCG] Beckman Coulter UniCel DxC 600
127.0 ± 3.31	81.2 ± 1.34	65.6 ± 1.13	243.0 ± 3.41	167.1 ± 1.22	n = 7	[BCH] Beckman Coulter UniCel DxC 800
411.2 ± 13.17	255.3 ± 20.78	201.4 ± 14.11	715.3 ± 11.81	498.6 ± 2.30	n = 6	[JJE] Ortho Vitros 250/350/950
416.2 ± 10.29	257.6 ± 8.23	203.5 ± 8.12	724.5 ± 11.73	498.0 ± 6.31	n = 3	[JJH] Ortho Vitros 4600
400.2 ± 12.60	246.0 ± 13.36	187.5 ± 10.67	714.9 ± 14.65	486.6 ± 10.58	n = 17	[JJF] Ortho Vitros 5,1FS
406.4 ± 16.18	251.3 ± 13.36	191.4 ± 12.81	706.0 ± 19.94	480.8 ± 18.04	n = 20	[JJG] Ortho Vitros 5600
156.2 ± 4.11	95.9 ± 2.86	81.2 ± 2.36	298.5 ± 9.09	203.7 ± 6.93	n = 3	[ROJ] Roche cobas c311
154.8 ± 4.68	95.9 ± 2.13	80.6 ± 2.05	299.6 ± 7.19	201.7 ± 4.98	n = 19	[ROC] Roche cobas c501
154.8 ± 5.00	95.3 ± 1.37	79.4 ± 2.56	292.8 ± 6.95	201.0 ± 3.58	n = 3	[ROH] Roche cobas c701
157.8 ± 2.36	96.1 ± 2.86	81.3 ± 3.16	301.1 ± 9.19	204.0 ± 4.51	n = 3	[ROT] Roche Cobas INTEGRA 800
154.8 ± 3.33	95.0 ± 2.31	80.0 ± 2.50	297.1 ± 5.82	201.7 ± 3.93	n = 28	[ROD] Roche MODULAR D/P
159.3 ± 3.96	98.1 ± 3.00	81.5 ± 2.05	299.4 ± 7.23	204.8 ± 5.35	n = 21	[BYE] Siemens ADVIA 1800
155.8 ± 1.54	94.7 ± 0.51	78.7 ± 1.37	294.5 ± 3.63	201.5 ± 1.86	n = 3	[BYB] Siemens ADVIA 2400
157.7 ± 5.65	96.8 ± 3.62	79.6 ± 4.52	307.6 ± 7.20	207.5 ± 5.19	n = 18	[DUE] Siemens Dimension EXL
161.9 ± 4.87	99.3 ± 3.47	82.2 ± 3.89	311.6 ± 6.54	209.6 ± 4.59	n = 10	[DUR] Siemens Dimension RxL
161.4 ± 5.55	99.2 ± 5.33	83.5 ± 4.51	308.5 ± 9.18	208.6 ± 6.45	n = 41	[DUT] Siemens Dimension Vista
162.4 ± 5.92	98.2 ± 4.56	81.2 ± 4.67	314.2 ± 12.23	214.5 ± 8.48	n = 7	[DUX] Siemens Dimension Xpand
<Reagents>						
156.9 ± 6.20	95.4 ± 4.72	82.2 ± 2.75	296.9 ± 6.99	200.8 ± 6.05	n = 20	[AB1] Abbott
127.2 ± 3.43	79.3 ± 2.57	66.0 ± 2.34	241.1 ± 5.46	165.1 ± 3.70	n = 26	[BC1] Beckman Coulter
136.9 ± 7.20	84.1 ± 4.43	70.4 ± 3.67	261.6 ± 12.78	176.9 ± 8.47	n = 53	[OL1] Beckman Coulter AU Series
405.8 ± 15.31	250.1 ± 14.97	191.7 ± 12.78	712.5 ± 16.91	486.4 ± 14.90	n = 46	[JJ1] Ortho Clinical Diagnostics
154.8 ± 4.44	95.7 ± 2.15	80.5 ± 2.23	298.6 ± 7.41	201.9 ± 4.92	n = 27	[R04] Roche cobas c311/c501/c502/c701/c702
154.8 ± 3.33	95.0 ± 2.31	80.0 ± 2.50	297.1 ± 5.82	201.7 ± 3.93	n = 28	[R02] Roche Hitachi and Modular D/P
159.6 ± 3.40	97.8 ± 3.31	82.6 ± 2.83	304.5 ± 8.15	206.8 ± 5.06	n = 5	[R01] Roche Integra and MIRA
158.5 ± 4.38	97.3 ± 3.38	80.9 ± 2.50	298.1 ± 7.87	203.9 ± 5.76	n = 25	[BY1] Siemens ADVIA/ADVIA Centaur
160.7 ± 5.73	98.6 ± 4.65	82.3 ± 4.90	309.1 ± 8.93	208.8 ± 6.10	n = 74	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

LDH Isoenzyme 1 (%)

Specimen: C91 -----	Specimen: C92 -----	Specimen: C93 -----	Specimen: C94 -----	Specimen: C95 -----	Number -----	[Code] Instrument or Reagent System -----
45.2 ± 3.33	32.6 ± 1.81	31.6 ± 3.79	41.2 ± 0.88	39.9 ± 1.51	n = 8	[-P-] All Methods - Results reported as %
47.7 ± 0.82	33.3 ± 1.58	33.8 ± 1.27	41.5 ± 0.57	41.0 ± 0.00	n = 4	<Instruments>
42.3 ± 2.62	30.1 ± 3.98	28.5 ± 3.48	40.7 ± 1.15	38.6 ± 1.19	n = 4	[HLS] Helena SPIFE
						[SEE] Sebia Electrophoresis
47.7 ± 0.82	33.3 ± 1.58	33.8 ± 1.27	41.5 ± 0.57	41.0 ± 0.00	n = 4	<Reagents>
42.3 ± 2.62	30.1 ± 3.98	28.5 ± 3.48	40.7 ± 1.15	38.6 ± 1.19	n = 4	[HL1] Helena Laboratories
						[SE1] Sebia