



## Department of Health

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### Clinical Chemistry Proficiency Test Program

#### Statistical Summary – August 2015 (Event 15-3)

This statistical report summarizes participant data for the five Clinical Chemistry proficiency survey specimens shipped on 31 August 2015. Test samples (Vials C26, C27, C28, C29, C30) 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 ( $\pm 1$  SD) values are calculated by a robust statistical technique that does not assume a Gaussian distribution.

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

#### Disclaimer:

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

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

## Summary of Participant Performance (Mean and Standard Deviation)

## Glucose (mg/dL)

Specimen: C26	Specimen: C27	Specimen: C28	Specimen: C29	Specimen: C30	Number	[Code] Instrument or Reagent System
87.0 ± 3.05	308.3 ± 6.95	55.8 ± 2.17	104.1 ± 3.27	181.6 ± 4.62	n = 387	[---] All Methods & Instruments
87.4 ± 1.49	313.1 ± 5.99	54.7 ± 0.94	103.5 ± 1.78	181.3 ± 3.99	n = 27	<Instruments>
85.0 ± 1.86	306.9 ± 6.19	55.1 ± 1.27	102.3 ± 2.07	180.6 ± 3.99	n = 71	[ABJ] Abbott Architect c System
83.7 ± 1.72	305.4 ± 3.82	53.9 ± 1.54	101.8 ± 1.50	179.5 ± 2.18	n = 16	[OLC] Beckman Coulter AU Chemistry System
83.9 ± 1.49	304.6 ± 3.61	54.5 ± 0.70	102.1 ± 1.21	179.9 ± 2.19	n = 9	[BCG] Beckman Coulter UniCel DxC 600
100.5 ± 1.86	329.5 ± 1.86	76.6 ± 2.56	115.0 ± 0.90	198.3 ± 2.26	n = 3	[BCH] Beckman Coulter UniCel DxC 800
119.5 ± 5.43	341.5 ± 3.63	87.4 ± 6.23	131.3 ± 6.93	213.0 ± 3.58	n = 3	[HEB] HemoCue B-Glucose
85.8 ± 1.34	308.0 ± 1.01	54.5 ± 1.14	102.3 ± 1.67	179.1 ± 3.24	n = 7	[HEC] HemoCue Glucose 201
89.8 ± 1.02	308.5 ± 5.87	55.4 ± 1.39	106.1 ± 1.52	180.2 ± 2.56	n = 8	[IAA] i-STAT
89.7 ± 1.37	310.3 ± 7.58	56.0 ± 0.90	105.5 ± 1.86	179.9 ± 2.86	n = 3	[JJE] Ortho Vitros 250/350/950
88.3 ± 1.32	306.4 ± 4.86	54.8 ± 0.80	104.0 ± 1.43	177.5 ± 4.46	n = 10	[JJF] Ortho Vitros 5,1FS
87.8 ± 1.60	304.5 ± 3.25	54.9 ± 1.79	104.1 ± 1.74	177.7 ± 2.92	n = 22	[JJG] Ortho Vitros 5600
85.3 ± 1.37	307.0 ± 4.51	55.4 ± 1.02	102.0 ± 1.80	181.3 ± 3.16	n = 3	[ROK] Roche cobas c111
87.4 ± 0.94	313.4 ± 3.48	55.7 ± 0.51	104.5 ± 1.86	184.7 ± 2.22	n = 6	[ROJ] Roche cobas c311
86.6 ± 1.37	310.0 ± 4.25	55.8 ± 1.20	104.1 ± 1.71	182.8 ± 3.69	n = 28	[ROC] Roche cobas c501
85.8 ± 1.69	308.2 ± 4.66	55.3 ± 0.97	102.7 ± 1.62	182.8 ± 2.19	n = 9	[ROH] Roche cobas c701
85.8 ± 1.55	309.2 ± 3.86	55.4 ± 1.09	102.5 ± 1.62	183.0 ± 2.72	n = 5	[ROS] Roche Cobas INTEGRA 400
85.1 ± 2.05	303.6 ± 10.30	55.0 ± 1.80	100.7 ± 3.07	178.5 ± 5.40	n = 3	[ROT] Roche Cobas INTEGRA 800
85.7 ± 1.76	310.0 ± 8.05	55.8 ± 1.56	103.6 ± 2.47	183.1 ± 4.12	n = 17	[ROD] Roche MODULAR D/P
85.0 ± 1.83	304.4 ± 5.40	54.7 ± 1.21	101.6 ± 2.00	179.3 ± 3.19	n = 17	[BYE] Siemens ADVIA 1800
92.2 ± 1.80	314.8 ± 5.67	60.0 ± 1.73	109.7 ± 2.04	186.9 ± 3.43	n = 29	[DUE] Siemens Dimension EXL
92.1 ± 1.60	313.5 ± 7.05	60.0 ± 0.00	110.0 ± 2.96	187.4 ± 5.84	n = 7	[DUR] Siemens Dimension RxL
88.6 ± 1.99	304.7 ± 6.32	57.3 ± 1.32	105.6 ± 2.53	181.2 ± 3.59	n = 48	[DUT] Siemens Dimension Vista
91.7 ± 2.31	313.5 ± 5.39	59.6 ± 1.09	110.0 ± 2.38	187.3 ± 1.87	n = 12	[DUX] Siemens Dimension Xpand
87.3 ± 1.63	313.0 ± 6.49	54.7 ± 1.00	103.4 ± 1.98	181.1 ± 4.31	n = 28	<Reagents>
83.8 ± 1.79	304.9 ± 3.93	54.3 ± 1.34	101.8 ± 1.41	179.6 ± 2.24	n = 28	[AB1] Abbott
85.0 ± 1.70	307.0 ± 6.11	55.0 ± 1.20	102.3 ± 1.93	180.6 ± 3.88	n = 67	[BC1] Beckman Coulter
109.6 ± 11.11	335.3 ± 7.34	81.3 ± 7.20	122.5 ± 10.06	205.4 ± 8.56	n = 6	[OL1] Beckman Coulter AU Series
86.0 ± 0.90	308.0 ± 1.01	54.7 ± 0.97	102.7 ± 1.21	179.9 ± 2.14	n = 6	[HE1] HemoCue
88.4 ± 1.64	305.7 ± 4.96	55.0 ± 1.50	104.5 ± 1.86	178.3 ± 3.34	n = 43	[IA1] i-STAT
85.3 ± 1.37	307.0 ± 4.51	55.4 ± 1.02	102.0 ± 1.80	181.3 ± 3.16	n = 3	[JJ1] Ortho Clinical Diagnostics
86.6 ± 1.49	310.3 ± 4.44	55.6 ± 1.09	103.9 ± 1.84	183.3 ± 3.18	n = 47	[RO8] Roche cobas c111
85.7 ± 1.76	310.0 ± 8.05	55.8 ± 1.56	103.6 ± 2.47	183.1 ± 4.12	n = 17	[RO2] Roche Hitachi and Modular D/P
85.5 ± 1.82	307.9 ± 7.54	55.3 ± 1.38	102.1 ± 2.53	181.7 ± 4.50	n = 8	[RO1] Roche Integra and MIRA
85.3 ± 1.85	305.5 ± 5.87	54.9 ± 1.23	102.2 ± 2.19	180.0 ± 3.69	n = 21	[BY1] Siemens ADVIA/ADVIS Centaur
90.4 ± 2.70	309.5 ± 8.07	58.6 ± 1.99	107.8 ± 3.27	184.1 ± 4.80	n = 96	[DA5] Siemens Dimension

## Summary of Participant Performance (Mean and Standard Deviation)

## Urea Nitrogen (mg/dL)

Specimen: C26	Specimen: C27	Specimen: C28	Specimen: C29	Specimen: C30	Number	[Code] Instrument or Reagent System
15.9 ± 1.00	79.5 ± 2.53	10.2 ± 0.74	27.3 ± 1.22	44.8 ± 1.89	n = 368	[---] All Methods & Instruments
15.6 ± 0.59	81.8 ± 1.70	10.0 ± 0.00	27.1 ± 0.56	45.0 ± 1.29	n = 25	<Instruments>
16.0 ± 0.00	79.1 ± 1.81	10.4 ± 0.59	27.5 ± 0.71	44.9 ± 1.27	n = 67	[ABJ] Abbott Architect c System
16.4 ± 0.56	79.7 ± 1.98	11.0 ± 0.00	28.0 ± 0.72	45.7 ± 0.80	n = 16	[OLC] Beckman Coulter AU Chemistry System
14.1 ± 1.12	78.0 ± 2.00	8.7 ± 1.25	24.9 ± 1.13	42.5 ± 1.16	n = 9	[BCG] Beckman Coulter UniCel DxC 600
18.7 ± 0.74	81.5 ± 1.03	9.8 ± 0.47	32.0 ± 0.00	49.5 ± 0.74	n = 7	[BCH] Beckman Coulter UniCel DxC 800
14.3 ± 0.51	78.0 ± 1.11	9.0 ± 0.00	25.5 ± 0.70	41.9 ± 0.79	n = 9	[IAA] i-STAT
14.0 ± 0.00	77.7 ± 1.37	9.0 ± 0.00	25.7 ± 0.51	41.7 ± 0.51	n = 3	[JJE] Ortho Vitros 250/350/950
14.4 ± 0.55	79.2 ± 1.69	9.2 ± 0.48	25.8 ± 0.50	42.0 ± 0.84	n = 10	[JJH] Ortho Vitros 4600
14.0 ± 0.00	77.9 ± 1.03	9.0 ± 0.00	25.5 ± 0.74	41.8 ± 0.77	n = 22	[JJF] Ortho Vitros 5,1FS
16.0 ± 0.00	79.0 ± 2.70	10.0 ± 0.00	27.4 ± 1.02	45.2 ± 1.54	n = 3	[JGJ] Ortho Vitros 5600
16.0 ± 0.00	79.0 ± 0.00	11.0 ± 0.00	28.0 ± 0.00	46.0 ± 0.64	n = 5	[ROK] Roche cobas c111
16.0 ± 0.53	78.9 ± 2.24	10.5 ± 0.53	27.7 ± 0.72	45.4 ± 1.14	n = 28	[ROJ] Roche cobas c311
15.7 ± 0.51	76.5 ± 2.68	10.0 ± 0.00	26.8 ± 0.94	44.0 ± 1.72	n = 9	[ROC] Roche cobas c501
16.0 ± 0.00	81.2 ± 1.91	10.6 ± 0.55	28.0 ± 0.00	46.2 ± 1.28	n = 5	[ROH] Roche cobas c701
16.0 ± 0.90	81.0 ± 4.60	10.0 ± 0.00	26.8 ± 1.54	44.7 ± 1.37	n = 3	[ROS] Roche Cobas INTEGRA 400
16.2 ± 0.69	79.4 ± 1.73	10.6 ± 0.63	27.7 ± 0.92	45.3 ± 0.94	n = 16	[ROT] Roche Cobas INTEGRA 800
16.5 ± 0.71	81.9 ± 1.80	10.5 ± 0.57	27.9 ± 0.75	45.6 ± 0.79	n = 17	[ROD] Roche MODULAR D/P
16.3 ± 1.09	80.0 ± 2.94	10.2 ± 0.88	27.9 ± 1.04	45.8 ± 1.57	n = 29	[BYE] Siemens ADVIA 1800
16.2 ± 0.92	79.9 ± 4.04	10.6 ± 0.56	27.4 ± 1.45	45.8 ± 2.38	n = 7	[DUE] Siemens Dimension EXL
16.0 ± 0.77	79.4 ± 2.79	10.2 ± 0.51	27.4 ± 0.97	44.8 ± 1.63	n = 48	[DUR] Siemens Dimension RxL
16.0 ± 0.85	79.7 ± 2.40	10.7 ± 0.61	28.3 ± 0.61	45.8 ± 1.45	n = 12	[DUT] Siemens Dimension Vista
15.6 ± 0.66	81.8 ± 1.84	10.0 ± 0.00	27.1 ± 0.56	45.1 ± 1.35	n = 26	[DUX] Siemens Dimension Xpand
16.0 ± 1.22	79.2 ± 1.98	10.5 ± 0.89	27.2 ± 1.70	44.8 ± 1.81	n = 29	<Reagents>
16.0 ± 0.00	79.2 ± 1.77	10.4 ± 0.58	27.5 ± 0.68	44.9 ± 1.29	n = 62	[BC1] Beckman Coulter
18.8 ± 0.73	81.5 ± 1.02	9.7 ± 0.51	32.0 ± 0.00	49.3 ± 0.51	n = 6	[OL1] Beckman Coulter AU Series
14.1 ± 0.40	78.1 ± 1.32	9.0 ± 0.00	25.6 ± 0.69	41.9 ± 0.78	n = 44	[IA1] i-STAT
16.0 ± 0.00	79.0 ± 2.70	10.0 ± 0.00	27.4 ± 1.02	45.2 ± 1.54	n = 3	[RO8] Roche cobas c111
16.0 ± 0.50	78.3 ± 2.28	10.4 ± 0.54	27.6 ± 0.84	45.2 ± 1.34	n = 46	[RO4] Roche cobas c311/c501/c502/c701/c702
16.2 ± 0.69	79.4 ± 1.73	10.6 ± 0.63	27.7 ± 0.92	45.3 ± 0.94	n = 16	[RO2] Roche Hitachi and Modular D/P
16.0 ± 0.00	81.1 ± 3.05	10.3 ± 0.54	27.4 ± 1.22	45.5 ± 1.57	n = 8	[RO1] Roche Integra and MIRA
16.6 ± 0.80	81.9 ± 1.65	10.6 ± 0.55	28.0 ± 0.64	45.8 ± 0.90	n = 22	[BY1] Siemens ADVIA/ADVIS Centaur
16.0 ± 0.88	79.6 ± 2.93	10.3 ± 0.67	27.7 ± 1.05	45.3 ± 1.71	n = 94	[DA5] Siemens Dimension

## Summary of Participant Performance (Mean and Standard Deviation)

## Creatinine (mg/dL)

Specimen: C26	Specimen: C27	Specimen: C28	Specimen: C29	Specimen: C30	Number	[Code] Instrument or Reagent System
1.45 ± 0.12	5.11 ± 0.29	1.09 ± 0.10	2.35 ± 0.15	3.12 ± 0.17	n = 375	[---] All Methods & Instruments
1.61 ± 0.05	5.52 ± 0.09	1.07 ± 0.04	2.49 ± 0.05	3.29 ± 0.07	n = 25	<Instruments>
1.44 ± 0.05	4.96 ± 0.10	1.10 ± 0.04	2.31 ± 0.06	3.06 ± 0.07	n = 68	[ABJ] Abbott Architect c System
1.35 ± 0.06	4.91 ± 0.12	1.00 ± 0.04	2.21 ± 0.05	2.98 ± 0.06	n = 17	[OLC] Beckman Coulter AU Chemistry System
1.39 ± 0.03	5.10 ± 0.04	1.02 ± 0.02	2.26 ± 0.03	3.05 ± 0.05	n = 9	[BCG] Beckman Coulter UniCel DxC 600
1.23 ± 0.05	4.15 ± 0.19	0.90 ± 0.09	1.94 ± 0.10	2.50 ± 0.00	n = 3	[BCH] Beckman Coulter UniCel DxC 800
1.20 ± 0.00	5.33 ± 0.20	0.90 ± 0.00	2.26 ± 0.06	3.08 ± 0.07	n = 7	[EPO] Epoch epoc
1.51 ± 0.03	5.44 ± 0.15	1.10 ± 0.03	2.55 ± 0.07	3.41 ± 0.08	n = 10	[IAA] i-STAT
1.62 ± 0.03	5.42 ± 0.12	1.20 ± 0.00	2.52 ± 0.03	3.31 ± 0.02	n = 3	[JJE] Ortho Vitros 250/350/950
1.52 ± 0.06	5.47 ± 0.13	1.12 ± 0.08	2.50 ± 0.05	3.32 ± 0.10	n = 10	[JJH] Ortho Vitros 4600
1.53 ± 0.07	5.44 ± 0.12	1.14 ± 0.08	2.48 ± 0.05	3.31 ± 0.07	n = 22	[JJF] Ortho Vitros 5,1FS
1.37 ± 0.06	4.77 ± 0.07	0.98 ± 0.09	2.17 ± 0.05	2.96 ± 0.04	n = 3	[JJG] Ortho Vitros 5600
1.41 ± 0.13	4.94 ± 0.12	1.07 ± 0.11	2.27 ± 0.13	3.05 ± 0.11	n = 5	[ROK] Roche cobas c111
1.36 ± 0.08	4.86 ± 0.16	1.04 ± 0.07	2.23 ± 0.11	3.00 ± 0.13	n = 30	[ROJ] Roche cobas c311
1.44 ± 0.08	4.91 ± 0.23	1.08 ± 0.08	2.27 ± 0.10	3.03 ± 0.13	n = 9	[ROC] Roche cobas c501
1.40 ± 0.12	4.76 ± 0.09	1.07 ± 0.12	2.25 ± 0.12	2.98 ± 0.11	n = 5	[ROH] Roche cobas c701
1.28 ± 0.04	4.78 ± 0.22	0.97 ± 0.06	2.09 ± 0.10	2.84 ± 0.12	n = 3	[ROT] Roche Cobas INTEGRA 800
1.50 ± 0.14	5.09 ± 0.21	1.13 ± 0.13	2.38 ± 0.19	3.13 ± 0.17	n = 16	[ROD] Roche MODULAR D/P
1.52 ± 0.06	5.07 ± 0.14	1.09 ± 0.10	2.41 ± 0.13	3.11 ± 0.13	n = 17	[BYE] Siemens ADVIA 1800
1.48 ± 0.09	5.22 ± 0.13	1.18 ± 0.09	2.44 ± 0.09	3.22 ± 0.10	n = 29	[DUE] Siemens Dimension EXL
1.48 ± 0.04	5.29 ± 0.02	1.16 ± 0.09	2.45 ± 0.05	3.20 ± 0.04	n = 7	[DUR] Siemens Dimension RxL
1.44 ± 0.13	5.26 ± 0.20	1.11 ± 0.12	2.38 ± 0.15	3.15 ± 0.14	n = 48	[DUT] Siemens Dimension Vista
1.42 ± 0.11	5.16 ± 0.22	1.11 ± 0.11	2.35 ± 0.12	3.15 ± 0.14	n = 12	[DUX] Siemens Dimension Xpand
1.61 ± 0.05	5.52 ± 0.09	1.07 ± 0.04	2.49 ± 0.06	3.29 ± 0.07	n = 26	<Reagents>
1.37 ± 0.05	4.97 ± 0.14	1.01 ± 0.04	2.22 ± 0.06	3.00 ± 0.07	n = 29	[BC1] Beckman Coulter
1.44 ± 0.05	4.97 ± 0.09	1.10 ± 0.03	2.31 ± 0.06	3.06 ± 0.07	n = 64	[OL1] Beckman Coulter AU Series
1.23 ± 0.05	4.15 ± 0.19	0.90 ± 0.09	1.94 ± 0.10	2.50 ± 0.00	n = 3	[EP1] Epoch epoc
1.20 ± 0.00	5.29 ± 0.20	0.90 ± 0.00	2.25 ± 0.06	3.07 ± 0.05	n = 6	[IA1] i-STAT
1.53 ± 0.06	5.44 ± 0.13	1.13 ± 0.07	2.50 ± 0.06	3.33 ± 0.09	n = 44	[JJ1] Ortho Clinical Diagnostics
1.37 ± 0.06	4.77 ± 0.07	0.98 ± 0.09	2.17 ± 0.05	2.96 ± 0.04	n = 3	[R08] Roche cobas c111
1.39 ± 0.10	4.89 ± 0.18	1.06 ± 0.08	2.25 ± 0.12	3.02 ± 0.13	n = 48	[R04] Roche cobas c311/c501/c502/c701/c702
1.50 ± 0.14	5.09 ± 0.21	1.13 ± 0.13	2.38 ± 0.19	3.13 ± 0.17	n = 16	[R02] Roche Hitachi and Modular D/P
1.34 ± 0.10	4.77 ± 0.14	1.02 ± 0.11	2.18 ± 0.14	2.93 ± 0.13	n = 8	[R01] Roche Integra and MIRA
1.51 ± 0.08	5.07 ± 0.13	1.09 ± 0.10	2.42 ± 0.14	3.12 ± 0.13	n = 21	[BY1] Siemens ADVIA/ADVIS Centaur
1.45 ± 0.11	5.24 ± 0.18	1.14 ± 0.11	2.40 ± 0.13	3.18 ± 0.12	n = 96	[DA5] Siemens Dimension

## Summary of Participant Performance (Mean and Standard Deviation)

## Uric Acid (mg/dL)

Specimen: C26	Specimen: C27	Specimen: C28	Specimen: C29	Specimen: C30	Number	[Code] Instrument or Reagent System
5.92 ± 0.18	3.08 ± 0.17	11.21 ± 0.43	4.38 ± 0.13	7.12 ± 0.23	n = 323	[---] All Methods & Instruments
5.91 ± 0.10	3.05 ± 0.06	11.34 ± 0.11	4.35 ± 0.09	7.19 ± 0.09	n = 23	<Instruments>
6.01 ± 0.11	3.06 ± 0.07	11.59 ± 0.20	4.44 ± 0.08	7.29 ± 0.12	n = 65	[ABJ] Abbott Architect c System
5.60 ± 0.00	2.80 ± 0.00	10.70 ± 0.06	4.04 ± 0.06	6.70 ± 0.00	n = 12	[OLC] Beckman Coulter AU Chemistry System
5.58 ± 0.12	2.80 ± 0.08	10.60 ± 0.00	4.00 ± 0.00	6.64 ± 0.11	n = 8	[BCG] Beckman Coulter UniCel DxC 600
5.90 ± 0.09	2.93 ± 0.07	10.70 ± 0.16	4.32 ± 0.07	6.91 ± 0.11	n = 6	[BCH] Beckman Coulter UniCel DxC 800
5.97 ± 0.05	3.00 ± 0.09	11.00 ± 0.00	4.40 ± 0.00	6.97 ± 0.05	n = 3	[JJE] Ortho Vitros 250/350/950
5.96 ± 0.09	3.03 ± 0.07	10.88 ± 0.20	4.39 ± 0.10	6.99 ± 0.10	n = 9	[JJH] Ortho Vitros 4600
5.95 ± 0.09	3.01 ± 0.05	10.94 ± 0.19	4.41 ± 0.09	6.99 ± 0.13	n = 22	[JJF] Ortho Vitros 5,1FS
6.12 ± 0.04	3.08 ± 0.04	11.65 ± 0.06	4.42 ± 0.04	7.40 ± 0.00	n = 4	[JJG] Ortho Vitros 5600
6.01 ± 0.16	3.04 ± 0.09	11.57 ± 0.27	4.42 ± 0.08	7.24 ± 0.15	n = 27	[ROJ] Roche cobas c311
6.00 ± 0.18	3.00 ± 0.08	11.55 ± 0.28	4.33 ± 0.09	7.28 ± 0.13	n = 4	[ROC] Roche cobas c501
5.90 ± 0.14	2.98 ± 0.05	11.15 ± 0.21	4.28 ± 0.05	7.05 ± 0.11	n = 7	[ROG] Roche cobas c502
5.87 ± 0.12	2.95 ± 0.08	11.30 ± 0.19	4.31 ± 0.09	7.12 ± 0.15	n = 16	[ROH] Roche cobas c701
5.97 ± 0.08	3.05 ± 0.06	11.41 ± 0.16	4.39 ± 0.07	7.21 ± 0.10	n = 17	[ROD] Roche MODULAR D/P
6.02 ± 0.11	3.38 ± 0.09	11.23 ± 0.20	4.44 ± 0.12	7.20 ± 0.14	n = 27	[BYE] Siemens ADVIA 1800
6.03 ± 0.13	3.38 ± 0.07	11.34 ± 0.06	4.51 ± 0.11	7.29 ± 0.18	n = 6	[DUE] Siemens Dimension EXL
5.67 ± 0.10	3.28 ± 0.09	10.64 ± 0.14	4.29 ± 0.08	6.90 ± 0.09	n = 45	[DUR] Siemens Dimension RxL
5.97 ± 0.11	3.37 ± 0.11	11.16 ± 0.13	4.48 ± 0.09	7.21 ± 0.11	n = 7	[DUT] Siemens Dimension Vista
5.91 ± 0.10	3.05 ± 0.06	11.34 ± 0.11	4.35 ± 0.09	7.19 ± 0.09	n = 23	<Reagents>
5.62 ± 0.09	2.81 ± 0.06	10.67 ± 0.09	4.02 ± 0.06	6.69 ± 0.08	n = 24	[AB1] Abbott
6.01 ± 0.10	3.06 ± 0.06	11.60 ± 0.19	4.44 ± 0.08	7.30 ± 0.11	n = 62	[BC1] Beckman Coulter
5.95 ± 0.09	3.01 ± 0.07	10.90 ± 0.20	4.39 ± 0.09	6.97 ± 0.11	n = 40	[OLL] Beckman Coulter AU Series
6.01 ± 0.16	3.03 ± 0.08	11.50 ± 0.30	4.39 ± 0.09	7.24 ± 0.16	n = 44	[JJ1] Ortho Clinical Diagnostics
5.87 ± 0.12	2.95 ± 0.08	11.30 ± 0.19	4.31 ± 0.09	7.12 ± 0.15	n = 16	[RO4] Roche cobas c311/c501/c502/c701/c702
5.97 ± 0.09	3.00 ± 0.00	11.42 ± 0.15	4.35 ± 0.06	7.17 ± 0.09	n = 4	[RO2] Roche Hitachi and Modular D/P
6.00 ± 0.09	3.06 ± 0.07	11.44 ± 0.16	4.41 ± 0.08	7.23 ± 0.10	n = 21	[ROI] Roche Integra and MIRA
5.83 ± 0.21	3.33 ± 0.10	10.91 ± 0.36	4.36 ± 0.13	7.04 ± 0.21	n = 85	[BY1] Siemens ADVIA/ADVIS Centaur
						[DA5] Siemens Dimension

## Summary of Participant Performance (Mean and Standard Deviation)

## Bilirubin (mg/dL)

Specimen: C26	Specimen: C27	Specimen: C28	Specimen: C29	Specimen: C30	Number	[Code] Instrument or Reagent System
1.22 ± 0.11	4.60 ± 0.28	0.74 ± 0.10	2.13 ± 0.15	2.62 ± 0.17	n = 353	[---] All Methods & Instruments
1.33 ± 0.15	4.76 ± 0.22	0.78 ± 0.11	2.23 ± 0.20	2.73 ± 0.20	n = 25	<Instruments>
1.26 ± 0.06	4.38 ± 0.13	0.80 ± 0.00	2.09 ± 0.09	2.56 ± 0.10	n = 68	[ABJ] Abbott Architect c System
1.39 ± 0.11	4.80 ± 0.18	0.91 ± 0.12	2.31 ± 0.11	2.78 ± 0.14	n = 15	[OLC] Beckman Coulter AU Chemistry System
1.35 ± 0.16	4.69 ± 0.22	0.87 ± 0.13	2.24 ± 0.24	2.72 ± 0.21	n = 9	[BCG] Beckman Coulter UniCel DxC 600
1.22 ± 0.07	4.79 ± 0.17	0.82 ± 0.05	2.19 ± 0.08	2.72 ± 0.07	n = 9	[BCH] Beckman Coulter UniCel DxC 800
1.27 ± 0.05	4.94 ± 0.10	0.80 ± 0.09	2.27 ± 0.05	2.80 ± 0.09	n = 3	[JJE] Ortho Vitros 250/350/950
1.21 ± 0.06	4.85 ± 0.30	0.79 ± 0.05	2.15 ± 0.20	2.73 ± 0.19	n = 10	[JJH] Ortho Vitros 4600
1.24 ± 0.08	4.83 ± 0.16	0.79 ± 0.06	2.19 ± 0.11	2.78 ± 0.11	n = 22	[JJF] Ortho Vitros 5,1FS
1.16 ± 0.06	4.45 ± 0.08	0.60 ± 0.00	2.04 ± 0.06	2.50 ± 0.06	n = 5	[JGJ] Ortho Vitros 5600
1.12 ± 0.06	4.41 ± 0.14	0.65 ± 0.07	2.02 ± 0.08	2.48 ± 0.12	n = 27	[ROJ] Roche cobas c311
1.14 ± 0.05	4.50 ± 0.15	0.64 ± 0.05	2.07 ± 0.10	2.54 ± 0.14	n = 3	[ROC] Roche cobas c501
1.10 ± 0.00	4.34 ± 0.09	0.62 ± 0.05	2.00 ± 0.05	2.44 ± 0.06	n = 7	[ROG] Roche cobas c502
1.10 ± 0.06	4.27 ± 0.10	0.60 ± 0.00	1.95 ± 0.10	2.38 ± 0.07	n = 6	[ROH] Roche cobas c701
1.00 ± 0.09	3.98 ± 0.24	0.57 ± 0.05	1.78 ± 0.15	2.25 ± 0.19	n = 3	[ROS] Roche Cobas INTEGRA 400
1.10 ± 0.00	4.54 ± 0.13	0.61 ± 0.06	2.00 ± 0.06	2.49 ± 0.08	n = 16	[ROT] Roche Cobas INTEGRA 800
1.30 ± 0.00	5.14 ± 0.17	0.74 ± 0.05	2.33 ± 0.10	2.87 ± 0.10	n = 17	[BYE] Siemens ADVIA 1800
1.18 ± 0.06	4.62 ± 0.14	0.70 ± 0.00	2.12 ± 0.08	2.61 ± 0.09	n = 29	[DUE] Siemens Dimension EXL
1.20 ± 0.00	4.60 ± 0.17	0.72 ± 0.07	2.11 ± 0.11	2.62 ± 0.09	n = 7	[DUR] Siemens Dimension RxL
1.24 ± 0.06	4.68 ± 0.09	0.76 ± 0.07	2.18 ± 0.08	2.66 ± 0.07	n = 48	[DUT] Siemens Dimension Vista
1.19 ± 0.08	4.59 ± 0.11	0.70 ± 0.11	2.10 ± 0.13	2.59 ± 0.08	n = 11	[DUX] Siemens Dimension Xpand
1.33 ± 0.15	4.76 ± 0.22	0.78 ± 0.11	2.23 ± 0.20	2.73 ± 0.20	n = 25	<Reagents>
1.36 ± 0.13	4.73 ± 0.22	0.88 ± 0.12	2.28 ± 0.16	2.75 ± 0.16	n = 27	[AB1] Abbott
1.26 ± 0.06	4.38 ± 0.14	0.80 ± 0.00	2.09 ± 0.08	2.56 ± 0.10	n = 65	[BC1] Beckman Coulter
1.23 ± 0.07	4.84 ± 0.17	0.79 ± 0.06	2.20 ± 0.11	2.76 ± 0.12	n = 44	[OL1] Beckman Coulter AU Series
1.12 ± 0.06	4.40 ± 0.13	0.64 ± 0.07	2.02 ± 0.07	2.47 ± 0.11	n = 44	[JJ1] Ortho Clinical Diagnostics
1.10 ± 0.00	4.54 ± 0.13	0.61 ± 0.06	2.00 ± 0.06	2.49 ± 0.08	n = 16	[RO4] Roche cobas c311/c501/c502/c701/c702
1.07 ± 0.08	4.21 ± 0.19	0.60 ± 0.00	1.90 ± 0.14	2.35 ± 0.13	n = 9	[RO2] Roche Hitachi and Modular D/P
1.30 ± 0.00	5.17 ± 0.16	0.73 ± 0.05	2.34 ± 0.09	2.89 ± 0.10	n = 21	[R01] Roche Integra and MIRA
1.21 ± 0.07	4.64 ± 0.13	0.73 ± 0.07	2.15 ± 0.09	2.63 ± 0.08	n = 95	[BY1] Siemens ADVIA/ADVISIA Centaur
						[DA5] Siemens Dimension

## Summary of Participant Performance (Mean and Standard Deviation)

## Phosphorus (mg/dL)

Specimen: C26	Specimen: C27	Specimen: C28	Specimen: C29	Specimen: C30	Number	[Code] Instrument or Reagent System
3.44 ± 0.20	2.84 ± 0.23	6.45 ± 0.20	4.05 ± 0.23	4.75 ± 0.22	n = 327	[---] All Methods & Instruments
3.39 ± 0.08	2.80 ± 0.00	6.43 ± 0.07	4.00 ± 0.00	4.73 ± 0.11	n = 23	<Instruments>
3.34 ± 0.12	2.77 ± 0.12	6.28 ± 0.15	3.95 ± 0.12	4.62 ± 0.13	n = 62	[ABJ] Abbott Architect c System
3.45 ± 0.11	2.91 ± 0.16	6.51 ± 0.15	4.14 ± 0.14	4.82 ± 0.17	n = 13	[OLC] Beckman Coulter AU Chemistry System
3.53 ± 0.09	2.93 ± 0.05	6.47 ± 0.08	4.17 ± 0.07	4.90 ± 0.09	n = 9	[BCG] Beckman Coulter UniCel DxC 600
4.01 ± 0.14	3.45 ± 0.17	6.90 ± 0.28	4.56 ± 0.21	5.27 ± 0.23	n = 8	[BCH] Beckman Coulter UniCel DxC 800
3.84 ± 0.10	3.34 ± 0.10	6.63 ± 0.05	4.47 ± 0.05	5.07 ± 0.05	n = 3	[JJE] Ortho Vitros 250/350/950
3.91 ± 0.12	3.33 ± 0.17	6.67 ± 0.17	4.46 ± 0.18	5.06 ± 0.15	n = 10	[JJH] Ortho Vitros 4600
3.86 ± 0.11	3.32 ± 0.11	6.67 ± 0.14	4.48 ± 0.12	5.08 ± 0.13	n = 22	[JJF] Ortho Vitros 5,1FS
3.56 ± 0.10	2.96 ± 0.10	6.63 ± 0.14	4.18 ± 0.15	4.88 ± 0.15	n = 3	[JHG] Ortho Vitros 5600
3.47 ± 0.09	2.90 ± 0.10	6.55 ± 0.15	4.14 ± 0.13	4.84 ± 0.14	n = 28	[ROJ] Roche cobas c311
3.47 ± 0.12	2.83 ± 0.09	6.47 ± 0.11	4.04 ± 0.11	4.77 ± 0.09	n = 8	[ROC] Roche cobas c501
3.43 ± 0.09	2.80 ± 0.08	6.43 ± 0.20	4.02 ± 0.13	4.73 ± 0.09	n = 4	[ROH] Roche cobas c701
3.48 ± 0.11	2.91 ± 0.14	6.55 ± 0.15	4.14 ± 0.15	4.84 ± 0.14	n = 16	[ROS] Roche Cobas INTEGRA 400
3.49 ± 0.09	2.87 ± 0.10	6.52 ± 0.10	4.07 ± 0.10	4.79 ± 0.09	n = 17	[ROD] Roche MODULAR D/P
3.41 ± 0.08	2.73 ± 0.08	6.46 ± 0.12	3.94 ± 0.09	4.68 ± 0.12	n = 26	[BYE] Siemens ADVIA 1800
3.47 ± 0.05	2.86 ± 0.22	6.54 ± 0.22	4.00 ± 0.06	4.79 ± 0.20	n = 7	[DUE] Siemens Dimension EXL
3.22 ± 0.09	2.57 ± 0.08	6.30 ± 0.13	3.81 ± 0.10	4.50 ± 0.11	n = 46	[DUR] Siemens Dimension RxL
3.52 ± 0.14	2.87 ± 0.19	6.43 ± 0.14	4.14 ± 0.20	4.78 ± 0.14	n = 9	[DUT] Siemens Dimension Vista
3.39 ± 0.08	2.80 ± 0.00	6.43 ± 0.07	4.00 ± 0.00	4.73 ± 0.11	n = 23	<Reagents>
3.47 ± 0.13	2.90 ± 0.14	6.47 ± 0.15	4.14 ± 0.15	4.83 ± 0.18	n = 25	[AB1] Abbott
3.34 ± 0.11	2.77 ± 0.11	6.28 ± 0.15	3.95 ± 0.11	4.63 ± 0.12	n = 58	[BC1] Beckman Coulter
3.90 ± 0.13	3.35 ± 0.14	6.70 ± 0.18	4.49 ± 0.14	5.10 ± 0.16	n = 43	[OLL] Beckman Coulter AU Series
3.48 ± 0.10	2.88 ± 0.10	6.54 ± 0.15	4.12 ± 0.13	4.82 ± 0.13	n = 43	[JJI] Ortho Clinical Diagnostics
3.48 ± 0.11	2.91 ± 0.14	6.55 ± 0.15	4.14 ± 0.15	4.84 ± 0.14	n = 16	[RO4] Roche cobas c311/c501/c502/c701/c702
3.44 ± 0.08	2.83 ± 0.10	6.48 ± 0.17	4.05 ± 0.12	4.75 ± 0.10	n = 6	[RO2] Roche Hitachi and Modular D/P
3.49 ± 0.09	2.88 ± 0.10	6.52 ± 0.10	4.09 ± 0.10	4.80 ± 0.09	n = 21	[ROI] Roche Integra and MIRA
3.33 ± 0.16	2.65 ± 0.14	6.37 ± 0.16	3.88 ± 0.14	4.60 ± 0.17	n = 88	[BY1] Siemens ADVIA/ADVIS Centaur
						[DA5] Siemens Dimension

## Summary of Participant Performance (Mean and Standard Deviation)

## Calcium (mg/dL)

Specimen: C26	Specimen: C27	Specimen: C28	Specimen: C29	Specimen: C30	Number	[Code] Instrument or Reagent System
9.29 ± 0.32	14.14 ± 0.39	7.34 ± 0.17	8.24 ± 0.23	10.77 ± 0.27	n = 360	[---] All Methods & Instruments
9.45 ± 0.13	14.21 ± 0.18	7.38 ± 0.10	8.40 ± 0.11	10.80 ± 0.13	n = 25	<Instruments>
9.42 ± 0.13	14.01 ± 0.26	7.44 ± 0.13	8.37 ± 0.12	10.75 ± 0.17	n = 68	[ABJ] Abbott Architect c System
9.18 ± 0.19	13.81 ± 0.18	7.25 ± 0.14	8.11 ± 0.12	10.55 ± 0.17	n = 16	[OLC] Beckman Coulter AU Chemistry System
9.20 ± 0.10	13.84 ± 0.08	7.22 ± 0.09	8.12 ± 0.07	10.64 ± 0.11	n = 9	[BCG] Beckman Coulter UniCel DxC 600
9.58 ± 0.13	14.51 ± 0.27	7.32 ± 0.13	8.37 ± 0.12	11.19 ± 0.16	n = 8	[BCH] Beckman Coulter UniCel DxC 800
9.71 ± 0.20	14.98 ± 0.41	7.35 ± 0.19	8.37 ± 0.14	11.13 ± 0.23	n = 3	[JJE] Ortho Vitros 250/350/950
9.66 ± 0.19	14.70 ± 0.47	7.28 ± 0.15	8.36 ± 0.20	11.21 ± 0.18	n = 10	[JJH] Ortho Vitros 4600
9.58 ± 0.18	14.78 ± 0.49	7.28 ± 0.15	8.29 ± 0.18	11.06 ± 0.27	n = 22	[JJF] Ortho Vitros 5,1FS
9.47 ± 0.23	14.63 ± 0.31	7.32 ± 0.15	8.29 ± 0.20	10.99 ± 0.20	n = 3	[JGJ] Ortho Vitros 5600
9.34 ± 0.06	14.39 ± 0.13	7.30 ± 0.00	8.30 ± 0.00	10.86 ± 0.06	n = 5	[ROJ] Roche cobas c311
9.36 ± 0.17	14.36 ± 0.26	7.30 ± 0.12	8.30 ± 0.16	10.90 ± 0.23	n = 29	[ROC] Roche cobas c501
9.22 ± 0.09	14.19 ± 0.33	7.26 ± 0.13	8.18 ± 0.08	10.69 ± 0.28	n = 8	[ROH] Roche cobas c701
9.25 ± 0.16	14.33 ± 0.18	7.28 ± 0.18	8.17 ± 0.14	10.84 ± 0.23	n = 5	[ROS] Roche Cobas INTEGRA 400
9.20 ± 0.18	14.03 ± 0.23	7.12 ± 0.15	8.09 ± 0.29	10.57 ± 0.23	n = 3	[ROT] Roche Cobas INTEGRA 800
9.52 ± 0.19	14.43 ± 0.23	7.54 ± 0.20	8.40 ± 0.18	11.06 ± 0.19	n = 16	[ROD] Roche MODULAR D/P
9.44 ± 0.21	14.10 ± 0.27	7.44 ± 0.14	8.36 ± 0.19	10.80 ± 0.18	n = 17	[BYE] Siemens ADVIA 1800
8.94 ± 0.23	14.12 ± 0.32	7.36 ± 0.23	8.01 ± 0.21	10.62 ± 0.23	n = 29	[DUE] Siemens Dimension EXL
9.04 ± 0.08	14.21 ± 0.34	7.35 ± 0.19	8.16 ± 0.08	10.75 ± 0.27	n = 7	[DUR] Siemens Dimension RxL
8.86 ± 0.20	13.89 ± 0.32	7.24 ± 0.15	7.95 ± 0.18	10.53 ± 0.22	n = 48	[DUT] Siemens Dimension Vista
8.89 ± 0.15	14.18 ± 0.30	7.32 ± 0.11	8.03 ± 0.16	10.72 ± 0.18	n = 12	[DUX] Siemens Dimension Xpand
9.45 ± 0.13	14.21 ± 0.18	7.38 ± 0.10	8.40 ± 0.11	10.80 ± 0.13	n = 25	<Reagents>
9.19 ± 0.15	13.81 ± 0.18	7.24 ± 0.12	8.12 ± 0.10	10.58 ± 0.16	n = 28	[AB1] Abbott
9.42 ± 0.12	14.02 ± 0.25	7.45 ± 0.12	8.38 ± 0.12	10.76 ± 0.16	n = 64	[BC1] Beckman Coulter
9.61 ± 0.17	14.71 ± 0.48	7.29 ± 0.15	8.33 ± 0.17	11.12 ± 0.25	n = 43	[OL1] Beckman Coulter AU Series
9.47 ± 0.23	14.63 ± 0.31	7.32 ± 0.15	8.29 ± 0.20	10.99 ± 0.20	n = 3	[JJ1] Ortho Clinical Diagnostics
9.34 ± 0.16	14.33 ± 0.26	7.29 ± 0.12	8.29 ± 0.15	10.86 ± 0.23	n = 45	[RO8] Roche cobas c111
9.53 ± 0.18	14.44 ± 0.22	7.55 ± 0.16	8.42 ± 0.15	11.07 ± 0.17	n = 15	[RO4] Roche cobas c311/c501/c502/c701/c702
9.24 ± 0.17	14.24 ± 0.25	7.21 ± 0.18	8.17 ± 0.18	10.74 ± 0.26	n = 8	[RO2] Roche Hitachi and Modular D/P
9.12 ± 0.37	13.48 ± 0.36	7.36 ± 0.35	8.31 ± 0.34	10.67 ± 0.32	n = 4	[ROI] Roche Integra and MIRA
9.44 ± 0.19	14.07 ± 0.27	7.45 ± 0.13	8.34 ± 0.18	10.78 ± 0.19	n = 21	[GZ1] Sekisui Diagnostics
8.90 ± 0.20	14.02 ± 0.36	7.28 ± 0.18	7.99 ± 0.20	10.60 ± 0.24	n = 96	[BY1] Siemens ADVIA/ADVIS Centaur
						[DA5] Siemens Dimension

## Summary of Participant Performance (Mean and Standard Deviation)

## Magnesium (mg/dL)

Specimen: C26	Specimen: C27	Specimen: C28	Specimen: C29	Specimen: C30	Number	[Code] Instrument or Reagent System
2.24 ± 0.09	1.06 ± 0.10	5.09 ± 0.21	1.54 ± 0.10	3.09 ± 0.11	n = 333	[---] All Methods & Instruments
2.35 ± 0.11	1.00 ± 0.09	4.85 ± 0.12	1.54 ± 0.14	2.96 ± 0.15	n = 25	<Instruments>
2.24 ± 0.07	1.10 ± 0.00	5.04 ± 0.13	1.58 ± 0.07	3.07 ± 0.08	n = 64	[ABJ] Abbott Architect c System
2.25 ± 0.06	1.09 ± 0.05	4.97 ± 0.09	1.56 ± 0.06	3.03 ± 0.07	n = 15	[OLC] Beckman Coulter AU Chemistry System
2.24 ± 0.07	1.07 ± 0.05	4.91 ± 0.12	1.54 ± 0.09	3.01 ± 0.06	n = 9	[BCG] Beckman Coulter UniCel DxC 600
2.22 ± 0.07	1.10 ± 0.00	5.18 ± 0.19	1.45 ± 0.06	3.10 ± 0.09	n = 6	[BCH] Beckman Coulter UniCel DxC 800
2.23 ± 0.05	1.10 ± 0.00	5.20 ± 0.09	1.47 ± 0.05	3.20 ± 0.09	n = 3	[JJE] Ortho Vitros 250/350/950
2.20 ± 0.00	1.10 ± 0.00	5.06 ± 0.12	1.47 ± 0.05	3.08 ± 0.11	n = 10	[JJH] Ortho Vitros 4600
2.20 ± 0.00	1.09 ± 0.05	5.07 ± 0.11	1.48 ± 0.06	3.09 ± 0.08	n = 21	[JJF] Ortho Vitros 5,1FS
2.28 ± 0.06	1.10 ± 0.00	5.22 ± 0.24	1.60 ± 0.00	3.13 ± 0.08	n = 26	[JHG] Ortho Vitros 5600
2.22 ± 0.13	1.02 ± 0.08	5.37 ± 0.16	1.50 ± 0.09	3.08 ± 0.04	n = 5	[ROC] Roche cobas c501
2.24 ± 0.06	1.10 ± 0.06	4.84 ± 0.35	1.55 ± 0.08	3.04 ± 0.06	n = 5	[ROH] Roche cobas c701
2.20 ± 0.00	1.10 ± 0.00	4.87 ± 0.05	1.57 ± 0.05	3.06 ± 0.10	n = 3	[ROS] Roche Cobas INTEGRA 400
2.27 ± 0.05	1.10 ± 0.00	5.07 ± 0.26	1.58 ± 0.05	3.08 ± 0.07	n = 16	[ROD] Roche MODULAR D/P
2.40 ± 0.00	1.37 ± 0.07	5.14 ± 0.16	1.70 ± 0.09	3.26 ± 0.07	n = 17	[BYE] Siemens ADVIA 1800
2.19 ± 0.09	0.96 ± 0.07	5.21 ± 0.11	1.49 ± 0.07	3.09 ± 0.06	n = 26	[DUE] Siemens Dimension EXL
2.23 ± 0.07	1.00 ± 0.00	5.25 ± 0.13	1.50 ± 0.00	3.15 ± 0.13	n = 7	[DUR] Siemens Dimension RxL
2.17 ± 0.09	0.99 ± 0.09	5.24 ± 0.13	1.49 ± 0.09	3.13 ± 0.09	n = 47	[DUT] Siemens Dimension Vista
2.21 ± 0.09	0.96 ± 0.06	5.25 ± 0.20	1.52 ± 0.10	3.11 ± 0.13	n = 11	[DUX] Siemens Dimension Xpand
2.35 ± 0.11	1.00 ± 0.09	4.85 ± 0.12	1.54 ± 0.14	2.96 ± 0.15	n = 25	<Reagents>
2.24 ± 0.06	1.08 ± 0.05	4.94 ± 0.11	1.56 ± 0.06	3.02 ± 0.07	n = 27	[AB1] Abbott
2.24 ± 0.06	1.10 ± 0.00	5.04 ± 0.12	1.58 ± 0.06	3.06 ± 0.08	n = 59	[BC1] Beckman Coulter
2.21 ± 0.05	1.10 ± 0.00	5.08 ± 0.13	1.47 ± 0.06	3.10 ± 0.09	n = 40	[OL1] Beckman Coulter AU Series
2.27 ± 0.06	1.09 ± 0.04	5.16 ± 0.30	1.57 ± 0.06	3.11 ± 0.08	n = 40	[JJ1] Ortho Clinical Diagnostics
2.27 ± 0.05	1.10 ± 0.00	5.07 ± 0.26	1.58 ± 0.05	3.08 ± 0.07	n = 16	[RO4] Roche cobas c311/c501/c502/c701/c702
2.20 ± 0.00	1.10 ± 0.00	4.90 ± 0.09	1.60 ± 0.06	3.10 ± 0.10	n = 5	[RO2] Roche Hitachi and Modular D/P
2.40 ± 0.07	1.36 ± 0.07	5.14 ± 0.17	1.70 ± 0.08	3.26 ± 0.07	n = 21	[RO1] Roche Integra and MIRA
2.19 ± 0.09	0.97 ± 0.08	5.23 ± 0.13	1.49 ± 0.08	3.12 ± 0.09	n = 91	[BY1] Siemens ADVIA/ADVIS Centaur
						[DA5] Siemens Dimension

## Summary of Participant Performance (Mean and Standard Deviation)

Iron ( $\mu\text{g/dL}$ )

Specimen: C26	Specimen: C27	Specimen: C28	Specimen: C29	Specimen: C30	Number	[Code] Instrument or Reagent System
116.7 $\pm$ 6.48	111.8 $\pm$ 9.09	90.2 $\pm$ 5.80	123.1 $\pm$ 9.38	101.2 $\pm$ 7.91	n = 258	[---] All Methods & Instruments
112.4 $\pm$ 3.32	108.4 $\pm$ 3.09	82.4 $\pm$ 2.70	117.0 $\pm$ 3.45	95.0 $\pm$ 3.22	n = 17	<Instruments>
120.5 $\pm$ 3.56	114.9 $\pm$ 3.17	94.2 $\pm$ 2.94	127.8 $\pm$ 3.52	104.7 $\pm$ 3.06	n = 59	[ABJ] Abbott Architect c System
111.9 $\pm$ 2.37	101.5 $\pm$ 2.46	84.6 $\pm$ 2.46	113.9 $\pm$ 2.37	93.0 $\pm$ 2.16	n = 7	[OLC] Beckman Coulter AU Chemistry System
111.6 $\pm$ 1.98	103.0 $\pm$ 2.63	85.1 $\pm$ 1.83	114.3 $\pm$ 4.03	92.7 $\pm$ 2.23	n = 8	[BCG] Beckman Coulter UniCel DxC 600
135.5 $\pm$ 1.86	137.3 $\pm$ 3.16	92.3 $\pm$ 5.09	148.1 $\pm$ 4.38	116.9 $\pm$ 3.72	n = 3	[BCH] Beckman Coulter UniCel DxC 800
134.3 $\pm$ 6.58	139.0 $\pm$ 4.81	97.8 $\pm$ 4.70	148.6 $\pm$ 3.35	120.2 $\pm$ 7.19	n = 8	[JJH] Ortho Vitros 4600
131.9 $\pm$ 5.31	134.6 $\pm$ 5.54	93.7 $\pm$ 4.71	142.5 $\pm$ 6.31	116.0 $\pm$ 5.17	n = 21	[JJF] Ortho Vitros 5,1FS
120.2 $\pm$ 3.65	119.0 $\pm$ 3.09	95.0 $\pm$ 2.99	128.5 $\pm$ 4.19	107.5 $\pm$ 3.70	n = 18	[JJG] Ortho Vitros 5600
119.2 $\pm$ 2.11	119.0 $\pm$ 1.14	96.0 $\pm$ 1.50	127.7 $\pm$ 1.58	107.3 $\pm$ 1.58	n = 4	[ROC] Roche cobas c501
116.0 $\pm$ 0.93	115.0 $\pm$ 0.93	92.4 $\pm$ 1.09	124.2 $\pm$ 1.55	103.2 $\pm$ 1.55	n = 5	[ROG] Roche cobas c502
116.8 $\pm$ 1.06	115.6 $\pm$ 1.01	92.0 $\pm$ 0.57	124.6 $\pm$ 1.09	103.7 $\pm$ 1.20	n = 15	[ROH] Roche cobas c701
112.8 $\pm$ 1.70	105.4 $\pm$ 2.86	83.2 $\pm$ 2.27	114.2 $\pm$ 3.06	94.3 $\pm$ 2.31	n = 15	[ROD] Roche MODULAR D/P
110.9 $\pm$ 0.93	104.3 $\pm$ 1.10	86.2 $\pm$ 0.74	115.6 $\pm$ 0.64	95.2 $\pm$ 0.56	n = 15	[BYE] Siemens ADVIA 1800
109.0 $\pm$ 2.61	104.2 $\pm$ 1.28	87.0 $\pm$ 0.00	116.2 $\pm$ 0.41	94.1 $\pm$ 5.15	n = 5	[DUE] Siemens Dimension EXL
113.0 $\pm$ 1.98	105.8 $\pm$ 1.67	87.5 $\pm$ 2.16	118.0 $\pm$ 1.90	96.5 $\pm$ 2.05	n = 40	[DUR] Siemens Dimension RxL
						[DUT] Siemens Dimension Vista
112.2 $\pm$ 3.01	108.1 $\pm$ 3.01	82.2 $\pm$ 2.56	116.8 $\pm$ 3.22	94.8 $\pm$ 2.98	n = 15	<Reagents>
112.0 $\pm$ 2.76	102.5 $\pm$ 3.92	85.0 $\pm$ 2.64	114.3 $\pm$ 4.79	92.8 $\pm$ 2.45	n = 18	[BC1] Beckman Coulter
121.3 $\pm$ 2.95	115.5 $\pm$ 2.86	94.6 $\pm$ 3.06	128.5 $\pm$ 3.15	105.3 $\pm$ 2.85	n = 49	[OL1] Beckman Coulter AU Series
132.6 $\pm$ 5.52	136.2 $\pm$ 5.54	94.3 $\pm$ 5.13	144.5 $\pm$ 6.39	117.3 $\pm$ 5.83	n = 33	[JJ1] Ortho Clinical Diagnostics
119.1 $\pm$ 3.29	118.0 $\pm$ 2.62	94.6 $\pm$ 2.53	127.4 $\pm$ 3.35	106.3 $\pm$ 3.10	n = 32	[R04] Roche cobas c311/c501/c502/c701/c702
116.8 $\pm$ 1.06	115.6 $\pm$ 1.01	92.0 $\pm$ 0.57	124.6 $\pm$ 1.09	103.7 $\pm$ 1.20	n = 15	[R02] Roche Hitachi and Modular D/P
117.6 $\pm$ 3.87	117.3 $\pm$ 0.51	94.6 $\pm$ 3.87	126.4 $\pm$ 2.56	103.1 $\pm$ 2.86	n = 3	[R01] Roche Integra and MIRA
115.6 $\pm$ 3.60	112.4 $\pm$ 4.67	92.5 $\pm$ 5.18	124.1 $\pm$ 4.65	102.6 $\pm$ 4.24	n = 8	[GZ1] Sekisui Diagnostics
112.9 $\pm$ 1.92	105.4 $\pm$ 2.99	83.3 $\pm$ 2.35	114.2 $\pm$ 3.15	94.3 $\pm$ 2.31	n = 18	[BY1] Siemens ADVIA/ADVISIA Centaur
112.2 $\pm$ 2.08	105.3 $\pm$ 1.69	87.1 $\pm$ 1.82	117.1 $\pm$ 1.97	96.1 $\pm$ 1.90	n = 62	[DA5] Siemens Dimension

## Summary of Participant Performance (Mean and Standard Deviation)

## Sodium (mmol/L)

Specimen: C26	Specimen: C27	Specimen: C28	Specimen: C29	Specimen: C30	Number	[Code] Instrument or Reagent System
153.1 ± 2.96	128.1 ± 1.74	163.8 ± 2.34	141.4 ± 2.56	146.0 ± 1.87	n = 373	[---] All Methods & Instruments
						<Instruments>
154.7 ± 1.07	127.8 ± 0.69	165.2 ± 1.17	142.7 ± 0.72	146.5 ± 0.84	n = 25	[ABJ] Abbott Architect c System
151.2 ± 1.58	126.9 ± 1.16	162.2 ± 1.88	140.6 ± 1.23	144.8 ± 1.13	n = 68	[OLC] Beckman Coulter AU Chemistry System
152.4 ± 1.38	127.8 ± 1.38	163.8 ± 1.60	141.0 ± 1.68	145.8 ± 1.94	n = 16	[BCG] Beckman Coulter UniCel DxC 600
151.6 ± 1.44	127.4 ± 0.70	163.1 ± 1.34	141.1 ± 0.92	146.1 ± 1.41	n = 9	[BCH] Beckman Coulter UniCel DxC 800
151.5 ± 1.02	124.4 ± 0.56	158.2 ± 0.74	137.0 ± 0.00	141.6 ± 0.70	n = 9	[IAA] i-STAT
160.6 ± 1.69	130.4 ± 0.87	166.3 ± 1.52	146.0 ± 1.25	148.8 ± 1.37	n = 8	[JJE] Ortho Vitros 250/350/950
161.0 ± 1.98	130.8 ± 1.33	166.7 ± 1.61	146.3 ± 1.53	148.9 ± 1.28	n = 11	[JJF] Ortho Vitros 5,1FS
160.5 ± 1.77	130.3 ± 1.08	165.9 ± 1.40	145.7 ± 1.41	147.9 ± 1.40	n = 22	[JJG] Ortho Vitros 5600
153.0 ± 0.90	127.0 ± 0.90	164.5 ± 1.86	139.0 ± 0.00	144.3 ± 0.51	n = 3	[ROK] Roche cobas c111
154.8 ± 0.80	128.6 ± 0.55	165.8 ± 0.80	143.0 ± 0.00	147.0 ± 0.00	n = 5	[ROJ] Roche cobas c311
154.1 ± 1.55	128.5 ± 1.36	165.1 ± 1.43	142.5 ± 1.18	146.6 ± 1.63	n = 28	[ROC] Roche cobas c501
154.3 ± 0.74	127.8 ± 1.20	165.0 ± 1.86	141.5 ± 2.05	146.1 ± 1.48	n = 8	[ROH] Roche cobas c701
152.0 ± 1.00	126.0 ± 0.64	162.2 ± 0.80	139.2 ± 0.80	144.0 ± 0.00	n = 5	[ROS] Roche Cobas INTEGRA 400
153.0 ± 0.90	127.3 ± 1.37	162.3 ± 0.51	139.7 ± 0.51	144.7 ± 0.51	n = 3	[ROT] Roche Cobas INTEGRA 800
154.9 ± 1.52	129.1 ± 1.10	165.9 ± 1.45	143.2 ± 0.86	146.9 ± 0.99	n = 16	[ROD] Roche MODULAR D/P
154.7 ± 1.21	129.8 ± 0.75	164.7 ± 1.37	143.3 ± 0.95	147.5 ± 1.11	n = 17	[BYE] Siemens ADVIA 1800
153.0 ± 1.46	128.5 ± 0.89	163.9 ± 1.51	141.2 ± 1.13	146.3 ± 1.04	n = 29	[DUE] Siemens Dimension EXL
151.3 ± 1.32	127.4 ± 1.30	161.8 ± 1.69	139.6 ± 0.94	144.7 ± 1.28	n = 7	[DUR] Siemens Dimension RxL
150.9 ± 1.38	127.7 ± 1.39	162.4 ± 1.40	138.3 ± 1.20	145.0 ± 1.24	n = 48	[DUT] Siemens Dimension Vista
153.4 ± 1.44	128.7 ± 1.22	164.2 ± 1.61	142.0 ± 0.67	146.7 ± 1.06	n = 12	[DUX] Siemens Dimension Xpand
						<Reagents>
154.6 ± 1.23	127.8 ± 0.70	165.2 ± 1.17	142.7 ± 0.72	146.5 ± 0.85	n = 26	[AB1] Abbott
152.1 ± 1.41	127.6 ± 1.11	163.4 ± 1.66	141.0 ± 1.43	145.7 ± 1.70	n = 29	[BC1] Beckman Coulter
151.2 ± 1.58	126.8 ± 1.14	162.2 ± 1.83	140.5 ± 1.20	144.7 ± 1.11	n = 65	[OL1] Beckman Coulter AU Series
151.6 ± 1.07	124.5 ± 0.57	158.2 ± 0.48	137.0 ± 0.00	141.7 ± 0.69	n = 8	[IA1] i-STAT
160.6 ± 1.87	130.4 ± 1.16	166.2 ± 1.62	145.9 ± 1.46	148.3 ± 1.47	n = 43	[JJ1] Ortho Clinical Diagnostics
153.0 ± 0.90	127.0 ± 0.90	164.5 ± 1.86	139.0 ± 0.00	144.3 ± 0.51	n = 3	[RO8] Roche cobas c111
154.2 ± 1.36	128.4 ± 1.25	165.2 ± 1.45	142.5 ± 1.26	146.6 ± 1.50	n = 45	[RO4] Roche cobas c311/c501/c502/c701/c702
154.9 ± 1.52	129.1 ± 1.10	165.9 ± 1.45	143.2 ± 0.86	146.9 ± 0.99	n = 16	[RO2] Roche Hitachi and Modular D/P
152.4 ± 1.07	126.3 ± 0.94	162.3 ± 0.69	139.4 ± 0.72	144.3 ± 0.54	n = 8	[RO1] Roche Integra and MIRA
154.7 ± 1.27	129.8 ± 0.84	164.8 ± 1.33	143.3 ± 1.14	147.5 ± 1.13	n = 21	[BY1] Siemens ADVIA/ADVIS Centaur
151.8 ± 1.85	128.1 ± 1.29	163.0 ± 1.77	139.7 ± 2.01	145.5 ± 1.44	n = 96	[DA5] Siemens Dimension

## Summary of Participant Performance (Mean and Standard Deviation)

## Potassium (mmol/L)

Specimen: C26	Specimen: C27	Specimen: C28	Specimen: C29	Specimen: C30	Number	[Code] Instrument or Reagent System
5.31 ± 0.14	2.49 ± 0.09	6.50 ± 0.13	3.32 ± 0.11	4.47 ± 0.10	n = 374	[---] All Methods & Instruments
5.31 ± 0.06	2.50 ± 0.00	6.50 ± 0.00	3.36 ± 0.06	4.49 ± 0.04	n = 25	<Instruments>
5.24 ± 0.07	2.50 ± 0.00	6.44 ± 0.09	3.32 ± 0.05	4.44 ± 0.06	n = 68	[ABJ] Abbott Architect c System
5.29 ± 0.09	2.39 ± 0.05	6.54 ± 0.08	3.27 ± 0.07	4.45 ± 0.10	n = 16	[OLC] Beckman Coulter AU Chemistry System
5.25 ± 0.07	2.37 ± 0.05	6.53 ± 0.10	3.23 ± 0.05	4.44 ± 0.06	n = 9	[BCG] Beckman Coulter UniCel DxC 600
5.20 ± 0.00	2.37 ± 0.05	6.20 ± 0.00	3.20 ± 0.00	4.30 ± 0.00	n = 9	[BCH] Beckman Coulter UniCel DxC 800
5.58 ± 0.06	2.61 ± 0.06	6.58 ± 0.10	3.50 ± 0.00	4.66 ± 0.07	n = 8	[IAA] i-STAT
5.60 ± 0.09	2.63 ± 0.05	6.60 ± 0.18	3.47 ± 0.05	4.64 ± 0.10	n = 3	[JJE] Ortho Vitros 250/350/950
5.59 ± 0.08	2.60 ± 0.00	6.56 ± 0.08	3.48 ± 0.09	4.64 ± 0.06	n = 10	[JJH] Ortho Vitros 4600
5.57 ± 0.08	2.60 ± 0.00	6.54 ± 0.09	3.48 ± 0.05	4.60 ± 0.07	n = 22	[JJF] Ortho Vitros 5,1FS
5.37 ± 0.05	2.50 ± 0.00	6.57 ± 0.05	3.30 ± 0.00	4.47 ± 0.05	n = 3	[JGJ] Ortho Vitros 5600
5.40 ± 0.00	2.56 ± 0.06	6.60 ± 0.00	3.40 ± 0.00	4.60 ± 0.00	n = 5	[ROK] Roche cobas c111
5.40 ± 0.10	2.51 ± 0.09	6.59 ± 0.09	3.38 ± 0.08	4.53 ± 0.09	n = 28	[ROJ] Roche cobas c311
5.34 ± 0.07	2.50 ± 0.00	6.54 ± 0.07	3.33 ± 0.07	4.51 ± 0.06	n = 8	[ROC] Roche cobas c501
5.30 ± 0.00	2.44 ± 0.06	6.50 ± 0.00	3.30 ± 0.00	4.46 ± 0.06	n = 5	[ROH] Roche cobas c701
5.37 ± 0.05	2.47 ± 0.05	6.53 ± 0.05	3.30 ± 0.00	4.50 ± 0.00	n = 3	[ROS] Roche Cobas INTEGRA 400
5.40 ± 0.00	2.56 ± 0.08	6.61 ± 0.08	3.40 ± 0.00	4.58 ± 0.04	n = 16	[ROT] Roche Cobas INTEGRA 800
5.40 ± 0.07	2.57 ± 0.05	6.61 ± 0.08	3.40 ± 0.00	4.52 ± 0.05	n = 17	[ROD] Roche MODULAR D/P
5.29 ± 0.04	2.40 ± 0.00	6.53 ± 0.07	3.23 ± 0.05	4.42 ± 0.05	n = 29	[BYE] Siemens ADVIA 1800
5.24 ± 0.06	2.40 ± 0.00	6.46 ± 0.10	3.20 ± 0.00	4.42 ± 0.07	n = 7	[DUE] Siemens Dimension EXL
5.14 ± 0.06	2.45 ± 0.06	6.35 ± 0.06	3.22 ± 0.04	4.38 ± 0.05	n = 48	[DUR] Siemens Dimension RxL
5.30 ± 0.00	2.40 ± 0.00	6.51 ± 0.06	3.26 ± 0.06	4.46 ± 0.06	n = 12	[DUT] Siemens Dimension Vista
5.31 ± 0.06	2.50 ± 0.00	6.50 ± 0.00	3.35 ± 0.06	4.48 ± 0.05	n = 26	[DUX] Siemens Dimension Xpand
5.26 ± 0.08	2.39 ± 0.06	6.52 ± 0.11	3.25 ± 0.07	4.44 ± 0.08	n = 29	<Reagents>
5.24 ± 0.07	2.50 ± 0.00	6.43 ± 0.09	3.32 ± 0.04	4.44 ± 0.05	n = 65	[BC1] Beckman Coulter
5.18 ± 0.04	2.38 ± 0.04	6.20 ± 0.00	3.18 ± 0.04	4.30 ± 0.00	n = 8	[OL1] Beckman Coulter AU Series
5.58 ± 0.08	2.60 ± 0.00	6.55 ± 0.10	3.48 ± 0.06	4.62 ± 0.07	n = 43	[IA1] i-STAT
5.37 ± 0.05	2.50 ± 0.00	6.57 ± 0.05	3.30 ± 0.00	4.47 ± 0.05	n = 3	[JJ1] Ortho Clinical Diagnostics
5.39 ± 0.08	2.51 ± 0.08	6.59 ± 0.07	3.37 ± 0.08	4.53 ± 0.08	n = 45	[RO2] Roche cobas c111/c501/c502/c701/c702
5.40 ± 0.00	2.56 ± 0.08	6.61 ± 0.08	3.40 ± 0.00	4.58 ± 0.04	n = 16	[RO4] Roche cobas c311/c501/c701/c702
5.31 ± 0.06	2.45 ± 0.06	6.50 ± 0.00	3.30 ± 0.00	4.48 ± 0.04	n = 8	[RO1] Roche Integra and MIRA
5.40 ± 0.08	2.57 ± 0.06	6.62 ± 0.09	3.40 ± 0.00	4.53 ± 0.06	n = 21	[BY1] Siemens ADVIA/ADVIS Centaur
5.21 ± 0.10	2.42 ± 0.05	6.43 ± 0.11	3.23 ± 0.05	4.40 ± 0.06	n = 95	[DA5] Siemens Dimension

## Summary of Participant Performance (Mean and Standard Deviation)

## Chloride (mmol/L)

Specimen: C26	Specimen: C27	Specimen: C28	Specimen: C29	Specimen: C30	Number	[Code] Instrument or Reagent System
111.2 ± 2.80	84.3 ± 2.00	117.9 ± 2.60	89.6 ± 2.51	101.1 ± 2.45	n = 366	[---] All Methods & Instruments
						<Instruments>
112.9 ± 0.67	84.3 ± 0.72	117.6 ± 0.94	89.7 ± 0.67	101.1 ± 0.84	n = 24	[ABJ] Abbott Architect c System
109.3 ± 1.00	83.7 ± 0.92	116.1 ± 1.19	88.3 ± 0.94	100.0 ± 0.90	n = 67	[OLC] Beckman Coulter AU Chemistry System
112.0 ± 1.41	84.1 ± 1.14	117.5 ± 1.53	89.4 ± 1.30	100.8 ± 1.53	n = 16	[BCG] Beckman Coulter UniCel DxC 600
111.7 ± 1.57	83.8 ± 0.74	117.5 ± 1.19	89.4 ± 0.86	101.1 ± 0.63	n = 9	[BCH] Beckman Coulter UniCel DxC 800
119.2 ± 1.18	88.2 ± 0.76	120.3 ± 0.59	94.0 ± 0.47	104.8 ± 1.31	n = 7	[IAA] i-STAT
112.3 ± 1.91	83.7 ± 1.52	118.1 ± 1.41	89.0 ± 0.48	101.6 ± 0.98	n = 8	[JJE] Ortho Vitros 250/350/950
114.0 ± 0.90	85.4 ± 1.02	119.0 ± 0.90	90.7 ± 0.51	102.4 ± 1.02	n = 3	[JJH] Ortho Vitros 4600
113.4 ± 1.50	84.9 ± 1.59	118.0 ± 2.05	90.3 ± 1.22	101.5 ± 1.21	n = 10	[JJF] Ortho Vitros 5,1FS
112.4 ± 1.77	84.0 ± 1.09	117.5 ± 1.48	89.6 ± 1.11	101.2 ± 1.38	n = 22	[JGJ] Ortho Vitros 5600
114.3 ± 0.51	87.0 ± 0.90	121.7 ± 1.37	92.3 ± 0.51	103.6 ± 1.02	n = 3	[ROK] Roche cobas c111
108.0 ± 0.93	82.0 ± 0.00	116.0 ± 0.00	86.4 ± 0.55	98.0 ± 0.00	n = 5	[ROJ] Roche cobas c311
106.7 ± 1.39	80.8 ± 1.17	115.4 ± 1.20	85.8 ± 0.97	97.4 ± 1.55	n = 28	[ROC] Roche cobas c501
107.3 ± 0.87	81.3 ± 1.05	115.1 ± 0.85	85.6 ± 1.39	97.7 ± 0.69	n = 8	[ROH] Roche cobas c701
111.0 ± 0.00	84.0 ± 0.00	119.0 ± 0.64	90.0 ± 0.00	101.0 ± 0.00	n = 5	[ROS] Roche Cobas INTEGRA 400
111.3 ± 2.26	83.7 ± 0.51	118.3 ± 0.51	89.7 ± 0.51	101.3 ± 1.37	n = 3	[ROT] Roche Cobas INTEGRA 800
108.4 ± 1.39	82.0 ± 0.82	115.7 ± 0.69	86.8 ± 0.73	98.1 ± 0.85	n = 16	[ROD] Roche MODULAR D/P
112.3 ± 1.10	85.4 ± 0.83	117.2 ± 1.18	89.4 ± 1.15	100.6 ± 1.52	n = 17	[BYE] Siemens ADVIA 1800
111.2 ± 1.14	86.2 ± 0.85	121.1 ± 1.39	92.4 ± 1.09	103.3 ± 1.08	n = 28	[DUE] Siemens Dimension EXL
111.7 ± 1.56	85.2 ± 1.37	121.1 ± 2.14	90.8 ± 1.75	103.0 ± 1.72	n = 8	[DUR] Siemens Dimension RxL
114.1 ± 1.17	86.0 ± 1.13	120.7 ± 1.16	92.0 ± 1.17	103.6 ± 1.06	n = 48	[DUT] Siemens Dimension Vista
111.3 ± 0.88	86.2 ± 0.64	120.8 ± 1.22	92.3 ± 1.22	103.4 ± 1.23	n = 12	[DUX] Siemens Dimension Xpand
						<Reagents>
112.9 ± 0.64	84.3 ± 0.73	117.7 ± 0.93	89.7 ± 0.66	101.2 ± 0.85	n = 26	[AB1] Abbott
111.7 ± 1.60	84.0 ± 1.08	117.4 ± 1.45	89.3 ± 1.12	100.9 ± 1.39	n = 29	[BC1] Beckman Coulter
109.3 ± 0.98	83.6 ± 0.92	116.1 ± 1.18	88.3 ± 0.93	100.0 ± 0.87	n = 64	[OL1] Beckman Coulter AU Series
119.0 ± 0.00	88.1 ± 0.59	120.3 ± 0.51	94.0 ± 0.55	104.5 ± 1.02	n = 6	[IA1] i-STAT
112.7 ± 1.80	84.2 ± 1.39	117.8 ± 1.66	89.7 ± 1.23	101.4 ± 1.36	n = 42	[JJ1] Ortho Clinical Diagnostics
114.3 ± 0.51	87.0 ± 0.90	121.7 ± 1.37	92.3 ± 0.51	103.6 ± 1.02	n = 3	[RO8] Roche cobas c111
107.0 ± 1.25	81.1 ± 1.16	115.4 ± 1.01	85.9 ± 1.05	97.6 ± 1.24	n = 45	[R04] Roche cobas c311/c501/c502/c701/c702
108.4 ± 1.39	82.0 ± 0.82	115.7 ± 0.69	86.8 ± 0.73	98.1 ± 0.85	n = 16	[R02] Roche Hitachi and Modular D/P
111.1 ± 1.09	84.0 ± 0.00	118.7 ± 0.69	90.0 ± 0.00	101.1 ± 0.75	n = 8	[R01] Roche Integra and MIRA
112.3 ± 0.94	85.3 ± 0.76	117.3 ± 1.14	89.5 ± 1.10	100.7 ± 1.49	n = 21	[BY1] Siemens ADVIA/ADVIS Centaur
112.7 ± 1.93	86.0 ± 1.05	120.9 ± 1.35	92.1 ± 1.27	103.5 ± 1.14	n = 96	[DA5] Siemens Dimension

## Summary of Participant Performance (Mean and Standard Deviation)

## Albumin (g/dL)

Specimen: C26	Specimen: C27	Specimen: C28	Specimen: C29	Specimen: C30	Number	[Code] Instrument or Reagent System
5.77 ± 0.19	4.45 ± 0.17	3.59 ± 0.14	5.13 ± 0.17	4.04 ± 0.16	n = 359	[---] All Methods & Instruments
5.62 ± 0.09	4.36 ± 0.14	3.53 ± 0.12	4.96 ± 0.13	3.95 ± 0.15	n = 25	<Instruments>
5.71 ± 0.10	4.45 ± 0.09	3.59 ± 0.06	5.06 ± 0.10	4.03 ± 0.08	n = 70	[ABJ] Abbott Architect c System
5.70 ± 0.08	4.17 ± 0.05	3.39 ± 0.05	4.88 ± 0.07	3.80 ± 0.00	n = 15	[OLC] Beckman Coulter AU Chemistry System
5.85 ± 0.13	4.27 ± 0.08	3.50 ± 0.07	5.04 ± 0.10	3.93 ± 0.10	n = 9	[BCG] Beckman Coulter UniCel DxC 600
5.55 ± 0.12	4.38 ± 0.09	3.52 ± 0.08	5.17 ± 0.20	4.03 ± 0.10	n = 8	[BCH] Beckman Coulter UniCel DxC 800
5.65 ± 0.19	4.47 ± 0.14	3.62 ± 0.15	5.17 ± 0.14	4.07 ± 0.14	n = 3	[JJE] Ortho Vitros 250/350/950
5.59 ± 0.07	4.42 ± 0.04	3.55 ± 0.06	5.15 ± 0.07	4.03 ± 0.06	n = 10	[JJH] Ortho Vitros 4600
5.51 ± 0.19	4.35 ± 0.14	3.50 ± 0.11	5.08 ± 0.20	3.94 ± 0.13	n = 22	[JJF] Ortho Vitros 5,1FS
5.85 ± 0.08	4.70 ± 0.10	3.80 ± 0.06	5.32 ± 0.08	4.26 ± 0.06	n = 5	[JGJ] Ortho Vitros 5600
5.84 ± 0.13	4.70 ± 0.11	3.83 ± 0.13	5.31 ± 0.15	4.26 ± 0.16	n = 28	[ROJ] Roche cobas c311
5.80 ± 0.11	4.74 ± 0.10	3.83 ± 0.06	5.29 ± 0.07	4.24 ± 0.11	n = 9	[ROC] Roche cobas c501
5.81 ± 0.13	4.65 ± 0.08	3.74 ± 0.06	5.21 ± 0.13	4.20 ± 0.00	n = 5	[ROH] Roche cobas c701
5.76 ± 0.10	4.60 ± 0.09	3.73 ± 0.14	5.23 ± 0.14	4.23 ± 0.05	n = 3	[ROS] Roche Cobas INTEGRA 400
5.82 ± 0.13	4.67 ± 0.08	3.80 ± 0.11	5.28 ± 0.09	4.26 ± 0.10	n = 16	[ROT] Roche Cobas INTEGRA 800
5.61 ± 0.06	4.49 ± 0.07	3.62 ± 0.05	5.04 ± 0.07	4.06 ± 0.06	n = 17	[ROD] Roche MODULAR D/P
6.00 ± 0.14	4.44 ± 0.09	3.56 ± 0.08	5.22 ± 0.12	4.01 ± 0.10	n = 29	[BYE] Siemens ADVIA 1800
5.98 ± 0.08	4.39 ± 0.12	3.54 ± 0.10	5.16 ± 0.13	3.96 ± 0.13	n = 7	[DUE] Siemens Dimension EXL
5.91 ± 0.12	4.39 ± 0.08	3.56 ± 0.08	5.14 ± 0.11	3.98 ± 0.09	n = 48	[DUR] Siemens Dimension RxL
5.95 ± 0.12	4.43 ± 0.08	3.57 ± 0.06	5.21 ± 0.11	3.99 ± 0.07	n = 12	[DUT] Siemens Dimension Vista
5.62 ± 0.09	4.36 ± 0.14	3.53 ± 0.12	4.96 ± 0.13	3.95 ± 0.15	n = 25	<Reagents>
5.73 ± 0.12	4.21 ± 0.10	3.44 ± 0.09	4.93 ± 0.12	3.85 ± 0.10	n = 26	[AB1] Abbott
5.71 ± 0.10	4.45 ± 0.09	3.58 ± 0.06	5.07 ± 0.11	4.03 ± 0.09	n = 65	[BC1] Beckman Coulter
5.55 ± 0.16	4.39 ± 0.13	3.52 ± 0.11	5.12 ± 0.17	3.99 ± 0.13	n = 43	[OL1] Beckman Coulter AU Series
5.85 ± 0.13	4.71 ± 0.10	3.83 ± 0.10	5.32 ± 0.13	4.26 ± 0.14	n = 46	[JJ1] Ortho Clinical Diagnostics
5.82 ± 0.13	4.67 ± 0.08	3.80 ± 0.11	5.28 ± 0.09	4.26 ± 0.10	n = 16	[RO4] Roche cobas c311/c501/c502/c701/c702
5.79 ± 0.12	4.63 ± 0.09	3.73 ± 0.09	5.22 ± 0.13	4.22 ± 0.04	n = 8	[RO2] Roche Hitachi and Modular D/P
5.75 ± 0.27	4.60 ± 0.09	3.63 ± 0.05	5.13 ± 0.23	4.13 ± 0.14	n = 3	[GZ1] Sekisui Diagnostics
5.61 ± 0.08	4.49 ± 0.08	3.63 ± 0.06	5.04 ± 0.08	4.06 ± 0.06	n = 21	[BY1] Siemens ADVIA/ADVISIA Centaur
5.95 ± 0.13	4.41 ± 0.09	3.56 ± 0.08	5.18 ± 0.12	3.99 ± 0.10	n = 94	[DA5] Siemens Dimension Xpand

## Summary of Participant Performance (Mean and Standard Deviation)

## Total Protein (g/dL)

Specimen: C26	Specimen: C27	Specimen: C28	Specimen: C29	Specimen: C30	Number	[Code] Instrument or Reagent System
8.61 ± 0.23	7.51 ± 0.17	5.97 ± 0.16	8.09 ± 0.19	6.75 ± 0.18	n = 356	[---] All Methods & Instruments
8.50 ± 0.12	7.51 ± 0.11	5.93 ± 0.08	8.03 ± 0.09	6.71 ± 0.09	n = 27	<Instruments>
8.43 ± 0.17	7.38 ± 0.16	5.88 ± 0.12	7.94 ± 0.15	6.65 ± 0.12	n = 68	[ABJ] Abbott Architect c System
8.60 ± 0.11	7.50 ± 0.12	5.91 ± 0.07	8.04 ± 0.10	6.66 ± 0.12	n = 16	[OLC] Beckman Coulter AU Chemistry System
8.37 ± 0.14	7.39 ± 0.09	5.89 ± 0.05	7.95 ± 0.12	6.60 ± 0.00	n = 9	[BCG] Beckman Coulter UniCel DxC 600
9.03 ± 0.25	7.52 ± 0.15	5.87 ± 0.15	8.28 ± 0.23	6.74 ± 0.14	n = 8	[BCH] Beckman Coulter UniCel DxC 800
8.97 ± 0.05	7.47 ± 0.14	5.87 ± 0.14	8.24 ± 0.10	6.70 ± 0.09	n = 3	[JJE] Ortho Vitros 250/350/950
8.91 ± 0.23	7.46 ± 0.20	5.80 ± 0.15	8.14 ± 0.22	6.60 ± 0.20	n = 10	[JJH] Ortho Vitros 4600
8.83 ± 0.20	7.39 ± 0.06	5.76 ± 0.15	8.04 ± 0.15	6.57 ± 0.11	n = 22	[JJF] Ortho Vitros 5,1FS
8.62 ± 0.08	7.52 ± 0.08	6.06 ± 0.06	8.15 ± 0.08	6.84 ± 0.06	n = 5	[JGJ] Ortho Vitros 5600
8.54 ± 0.11	7.53 ± 0.12	6.01 ± 0.11	8.09 ± 0.13	6.77 ± 0.15	n = 27	[ROJ] Roche cobas c311
8.47 ± 0.19	7.42 ± 0.11	5.99 ± 0.11	8.00 ± 0.13	6.69 ± 0.12	n = 8	[ROC] Roche cobas c501
8.33 ± 0.14	7.42 ± 0.17	5.90 ± 0.00	7.86 ± 0.11	6.60 ± 0.09	n = 5	[ROH] Roche Cobas INTEGRA 400
8.39 ± 0.20	7.25 ± 0.27	5.78 ± 0.15	7.77 ± 0.23	6.45 ± 0.19	n = 3	[ROT] Roche Cobas INTEGRA 800
8.55 ± 0.11	7.48 ± 0.09	6.03 ± 0.10	8.07 ± 0.13	6.78 ± 0.12	n = 16	[ROD] Roche MODULAR D/P
8.55 ± 0.11	7.55 ± 0.12	5.99 ± 0.11	8.10 ± 0.13	6.80 ± 0.10	n = 17	[BYE] Siemens ADVIA 1800
8.82 ± 0.15	7.70 ± 0.15	6.15 ± 0.10	8.27 ± 0.15	6.96 ± 0.12	n = 29	[DUE] Siemens Dimension EXL
8.74 ± 0.19	7.69 ± 0.14	6.17 ± 0.13	8.30 ± 0.19	6.97 ± 0.15	n = 7	[DUR] Siemens Dimension RxL
8.76 ± 0.13	7.66 ± 0.12	6.11 ± 0.11	8.24 ± 0.11	6.90 ± 0.10	n = 48	[DUT] Siemens Dimension Vista
8.65 ± 0.21	7.57 ± 0.20	6.07 ± 0.14	8.18 ± 0.19	6.83 ± 0.16	n = 12	[DUX] Siemens Dimension Xpand
8.50 ± 0.12	7.51 ± 0.11	5.93 ± 0.08	8.03 ± 0.09	6.71 ± 0.09	n = 27	<Reagents>
8.51 ± 0.18	7.45 ± 0.14	5.89 ± 0.07	8.00 ± 0.12	6.63 ± 0.13	n = 28	[AB1] Abbott
8.44 ± 0.16	7.40 ± 0.15	5.89 ± 0.12	7.95 ± 0.15	6.65 ± 0.11	n = 64	[BC1] Beckman Coulter
8.89 ± 0.22	7.43 ± 0.16	5.80 ± 0.15	8.12 ± 0.21	6.62 ± 0.16	n = 43	[OL1] Beckman Coulter AU Series
8.54 ± 0.14	7.51 ± 0.12	6.02 ± 0.10	8.08 ± 0.14	6.77 ± 0.13	n = 43	[JJ1] Ortho Clinical Diagnostics
8.55 ± 0.11	7.48 ± 0.09	6.03 ± 0.10	8.07 ± 0.13	6.78 ± 0.12	n = 16	[R04] Roche cobas c311/c501/c502/c701/c702
8.35 ± 0.17	7.37 ± 0.22	5.86 ± 0.11	7.84 ± 0.15	6.55 ± 0.15	n = 8	[RO2] Roche Hitachi and Modular D/P
8.58 ± 0.11	7.57 ± 0.12	6.00 ± 0.10	8.13 ± 0.13	6.82 ± 0.09	n = 21	[ROI] Roche Integra and MIRA
8.77 ± 0.15	7.66 ± 0.14	6.12 ± 0.11	8.24 ± 0.14	6.91 ± 0.13	n = 95	[BY1] Siemens ADVIA/ADVISIA Centaur
						[DA5] Siemens Dimension

## Summary of Participant Performance (Mean and Standard Deviation)

## Cholesterol (mg/dL)

Specimen: C26	Specimen: C27	Specimen: C28	Specimen: C29	Specimen: C30	Number	[Code] Instrument or Reagent System
173.1 ± 7.92	223.8 ± 8.40	147.1 ± 5.64	193.8 ± 7.95	184.0 ± 6.73	n = 311	[---] All Methods & Instruments
						<Instruments>
179.5 ± 1.84	228.5 ± 1.73	152.8 ± 1.67	199.1 ± 1.59	188.2 ± 1.98	n = 21	[ABJ] Abbott Architect c System
171.2 ± 2.58	218.9 ± 3.37	145.3 ± 2.42	189.7 ± 3.78	179.9 ± 3.50	n = 72	[OLC] Beckman Coulter AU Chemistry System
172.5 ± 1.89	226.6 ± 2.45	145.4 ± 1.88	193.7 ± 2.27	184.8 ± 2.13	n = 11	[BCG] Beckman Coulter UniCel DxC 600
172.1 ± 2.71	226.6 ± 5.04	146.4 ± 2.74	193.5 ± 2.25	184.9 ± 2.61	n = 8	[BCH] Beckman Coulter UniCel DxC 800
188.0 ± 0.90	239.7 ± 2.26	154.7 ± 1.37	211.5 ± 2.74	193.5 ± 1.86	n = 3	[JJE] Ortho Vitros 250/350/950
187.9 ± 4.75	238.2 ± 4.94	149.2 ± 3.79	207.9 ± 4.33	190.5 ± 5.72	n = 8	[JJF] Ortho Vitros 5,1FS
188.3 ± 4.58	238.9 ± 3.41	150.4 ± 3.41	208.1 ± 4.19	192.5 ± 2.85	n = 21	[JJG] Ortho Vitros 5600
180.2 ± 4.37	230.6 ± 5.04	154.6 ± 4.85	201.4 ± 3.94	190.7 ± 2.66	n = 24	[ROC] Roche cobas c501
176.5 ± 4.61	228.8 ± 5.12	152.1 ± 3.72	198.6 ± 3.87	190.8 ± 2.36	n = 3	[ROG] Roche cobas c502
175.4 ± 3.26	226.3 ± 4.44	149.7 ± 2.84	196.1 ± 3.00	185.3 ± 3.02	n = 8	[ROH] Roche cobas c701
175.5 ± 1.71	228.7 ± 2.47	150.4 ± 1.90	196.5 ± 1.94	186.8 ± 1.96	n = 4	[ROS] Roche Cobas INTEGRA 400
175.0 ± 3.80	227.8 ± 4.88	150.4 ± 3.12	197.3 ± 3.75	187.8 ± 3.25	n = 16	[ROD] Roche MODULAR D/P
172.3 ± 2.72	226.4 ± 4.18	146.2 ± 3.35	193.2 ± 3.35	184.2 ± 3.68	n = 16	[BYE] Siemens ADVIA 1800
163.1 ± 4.55	218.0 ± 4.69	142.2 ± 4.34	187.0 ± 4.85	178.1 ± 4.85	n = 25	[DUE] Siemens Dimension EXL
168.3 ± 7.13	222.8 ± 8.13	145.2 ± 5.57	192.8 ± 6.95	184.5 ± 6.57	n = 6	[DUR] Siemens Dimension RxL
166.9 ± 5.02	216.2 ± 4.23	141.7 ± 4.51	187.8 ± 5.35	178.3 ± 5.00	n = 40	[DUT] Siemens Dimension Vista
161.5 ± 3.59	215.8 ± 4.56	141.8 ± 2.91	188.8 ± 5.24	179.3 ± 2.48	n = 7	[DUX] Siemens Dimension Xpand
						<Reagents>
179.5 ± 1.84	228.5 ± 1.73	152.8 ± 1.67	199.1 ± 1.59	188.2 ± 1.98	n = 21	[AB1] Abbott
171.5 ± 3.06	226.1 ± 4.00	145.4 ± 2.85	193.5 ± 3.14	184.6 ± 2.86	n = 23	[BC1] Beckman Coulter
171.2 ± 2.25	218.9 ± 3.30	145.4 ± 2.25	189.7 ± 3.37	179.9 ± 3.07	n = 66	[OL1] Beckman Coulter AU Series
188.4 ± 4.27	239.0 ± 4.12	150.7 ± 3.72	208.6 ± 4.33	192.5 ± 3.13	n = 33	[JJ1] Ortho Clinical Diagnostics
178.8 ± 4.67	229.7 ± 5.23	153.3 ± 4.87	200.0 ± 4.32	189.8 ± 3.74	n = 38	[RO4] Roche cobas c311/c501/c502/c701/c702
175.7 ± 3.99	228.5 ± 3.77	150.5 ± 2.70	197.9 ± 3.06	187.9 ± 2.72	n = 16	[RO2] Roche Hitachi and Modular D/P
175.3 ± 1.55	227.8 ± 2.31	150.6 ± 2.10	196.7 ± 1.48	186.9 ± 2.09	n = 6	[RO1] Roche Integra and MIRA
170.0 ± 4.60	221.3 ± 1.37	147.8 ± 7.82	193.7 ± 9.53	185.6 ± 8.81	n = 3	[GZ1] Sekisui Diagnostics
172.7 ± 2.91	226.8 ± 4.02	146.6 ± 3.23	194.0 ± 3.60	184.7 ± 3.57	n = 20	[BY1] Siemens ADVIA/ADVISIA Centaur
165.2 ± 5.33	217.1 ± 4.80	142.1 ± 4.44	187.9 ± 5.38	178.7 ± 5.04	n = 78	[DA5] Siemens Dimension

## Summary of Participant Performance (Mean and Standard Deviation)

## HDL-Cholesterol (mg/dL)

Specimen: C26	Specimen: C27	Specimen: C28	Specimen: C29	Specimen: C30	Number	[Code] Instrument or Reagent System
41.2 ± 4.74	68.4 ± 5.71	28.3 ± 2.80	50.6 ± 4.09	48.7 ± 3.33	n = 300	[---] All Methods & Instruments
42.5 ± 3.19	71.1 ± 10.08	29.5 ± 1.91	53.4 ± 6.32	50.7 ± 4.63	n = 20	[---] All Precipitation Methods
41.1 ± 4.82	68.4 ± 5.36	28.2 ± 2.89	50.5 ± 3.81	48.6 ± 3.14	n = 280	[---] All Homogeneous (Direct) Methods
46.1 ± 2.04	68.9 ± 2.73	27.4 ± 1.76	50.0 ± 2.31	47.5 ± 1.68	n = 18	[AB1] Abbott
46.2 ± 1.39	75.0 ± 5.39	29.9 ± 3.50	55.1 ± 4.90	52.1 ± 4.31	n = 20	[BC1] Beckman Coulter
45.6 ± 1.69	68.1 ± 2.11	26.1 ± 1.09	49.4 ± 1.67	46.9 ± 1.91	n = 51	[OL1] Beckman Coulter AU Series
43.7 ± 1.52	79.3 ± 2.77	29.7 ± 1.17	57.3 ± 2.31	53.2 ± 1.55	n = 26	[JJ1] Ortho Clinical
36.8 ± 1.00	67.0 ± 1.98	27.6 ± 1.04	49.3 ± 1.84	47.7 ± 1.59	n = 37	[RO4] Roche cobas c311/c501/c701/c702
37.1 ± 1.38	68.4 ± 2.68	27.8 ± 1.30	50.1 ± 1.72	48.6 ± 1.64	n = 15	[RO2] Roche Hitachi and Modular D/P
37.6 ± 1.62	69.2 ± 2.36	28.7 ± 1.21	51.2 ± 1.74	49.7 ± 1.68	n = 6	[RO1] Roche Integra and MIRA
46.3 ± 2.82	68.8 ± 4.02	27.3 ± 0.94	51.3 ± 3.33	48.0 ± 3.08	n = 4	[GZ1] Sekisui Diagnostics
34.0 ± 1.01	51.7 ± 1.42	18.0 ± 0.72	36.6 ± 1.28	33.9 ± 1.20	n = 21	[BY1] Siemens ADVIA/ADVIA Centaur
39.9 ± 1.79	67.5 ± 2.75	30.4 ± 1.86	50.7 ± 2.22	49.2 ± 2.08	n = 66	[DA5] Siemens Dimension

## Summary of Participant Performance (Mean and Standard Deviation)

## LDL-Cholesterol (mg/dL)

Specimen: C26	Specimen: C27	Specimen: C28	Specimen: C29	Specimen: C30	Number	[Code] Instrument or Reagent System
107.7 ± 12.96	129.5 ± 13.10	95.0 ± 11.04	115.3 ± 11.95	110.3 ± 10.95	n = 291	[---] All Methods & Instruments
111.6 ± 9.20	130.5 ± 8.77	98.0 ± 7.28	117.1 ± 8.34	112.1 ± 7.48	n = 142	[-A-] Calculated Results Friedewald formula [LDL=TC-HDL-(Trigs÷5)]
102.7 ± 14.51	128.6 ± 17.57	91.6 ± 13.40	114.0 ± 16.23	108.8 ± 14.75	n = 145	[---] All Homogeneous (Direct) Methods
95.5 ± 4.92	119.9 ± 4.04	86.6 ± 3.64	107.5 ± 4.46	102.1 ± 4.42	n = 5	[AB1] Abbott
94.5 ± 7.23	118.7 ± 5.76	84.6 ± 6.17	105.2 ± 5.66	100.1 ± 6.59	n = 10	[BC1] Beckman Coulter
89.0 ± 5.71	112.1 ± 6.63	80.7 ± 5.16	99.9 ± 6.50	95.4 ± 5.50	n = 28	[OL1] Beckman Coulter AU Series
102.4 ± 1.62	136.0 ± 4.93	86.0 ± 2.90	114.6 ± 3.45	108.5 ± 3.87	n = 16	[JJ1] Ortho Clinical Diagnostics
129.3 ± 3.30	159.3 ± 3.07	118.6 ± 3.01	145.9 ± 3.14	138.0 ± 3.25	n = 16	[RO4] Roche cobas c311/c501/c502/c701/c702
128.3 ± 3.16	158.1 ± 4.86	117.4 ± 3.32	145.1 ± 4.54	136.0 ± 4.10	n = 11	[RO2] Roche Hitachi and Modular D/P
122.0 ± 4.56	149.0 ± 1.14	109.5 ± 6.27	137.5 ± 1.71	132.0 ± 2.28	n = 2	[RO1] Roche Integra 800
90.1 ± 3.60	112.6 ± 4.17	82.2 ± 3.35	100.1 ± 4.13	98.2 ± 5.06	n = 8	[GZ1] Sekisui Diagnostics
104.3 ± 3.37	134.1 ± 3.64	88.3 ± 2.72	115.0 ± 3.24	108.7 ± 3.14	n = 12	[BY1] Siemens ADVIA/ADVISIA Centaur
102.3 ± 4.62	127.0 ± 5.21	94.4 ± 3.66	114.6 ± 5.44	109.6 ± 4.83	n = 33	[DA5] Siemens Dimension

## Summary of Participant Performance (Mean and Standard Deviation)

## Triglycerides (mg/dL)

Specimen: C26	Specimen: C27	Specimen: C28	Specimen: C29	Specimen: C30	Number	[Code] Instrument or Reagent System
101.1 ± 5.83	121.9 ± 6.84	107.6 ± 5.27	132.9 ± 7.38	118.4 ± 5.61	n = 306	[---] All Methods & Instruments
97.9 ± 2.98	119.9 ± 3.97	103.0 ± 3.46	127.4 ± 3.67	116.2 ± 3.68	n = 20	<Instruments>
98.9 ± 2.98	118.3 ± 4.03	106.0 ± 4.17	129.9 ± 3.93	115.4 ± 3.66	n = 68	[ABJ] Abbott Architect c System
109.3 ± 3.46	135.1 ± 2.79	114.5 ± 3.06	144.6 ± 3.19	125.9 ± 2.50	n = 11	[OLC] Beckman Coulter AU Chemistry System
107.9 ± 3.57	133.2 ± 5.79	113.2 ± 3.21	143.5 ± 3.81	125.8 ± 4.76	n = 8	[BCG] Beckman Coulter UniCel DxC 600
110.3 ± 1.37	126.3 ± 2.26	114.2 ± 2.36	145.9 ± 2.05	124.9 ± 2.05	n = 3	[BCH] Beckman Coulter UniCel DxC 800
109.9 ± 2.46	127.4 ± 2.24	111.7 ± 2.26	142.4 ± 2.12	122.4 ± 3.02	n = 8	[JJE] Ortho Vitros 250/350/950
107.6 ± 2.16	125.4 ± 1.53	110.0 ± 1.77	140.9 ± 1.91	121.1 ± 2.25	n = 21	[JJF] Ortho Vitros 5,1FS
100.8 ± 1.68	119.6 ± 2.49	109.2 ± 1.75	130.9 ± 2.38	118.3 ± 2.22	n = 24	[JJG] Ortho Vitros 5600
100.7 ± 4.06	120.2 ± 4.11	108.0 ± 4.60	129.5 ± 3.63	118.2 ± 4.11	n = 3	[ROC] Roche cobas c501
98.9 ± 1.44	117.4 ± 1.85	106.7 ± 1.52	128.0 ± 1.25	116.8 ± 1.54	n = 8	[ROG] Roche cobas c502
96.2 ± 3.09	113.0 ± 3.30	105.9 ± 2.86	125.9 ± 2.72	112.9 ± 2.87	n = 4	[ROH] Roche cobas c701
97.0 ± 3.84	118.9 ± 4.01	105.9 ± 2.95	129.9 ± 4.82	117.1 ± 5.16	n = 17	[ROS] Roche Cobas INTEGRA 400
99.9 ± 2.07	121.9 ± 1.96	104.6 ± 2.38	130.6 ± 2.75	117.2 ± 2.44	n = 16	[ROD] Roche MODULAR D/P
94.3 ± 2.30	116.7 ± 2.52	99.3 ± 2.21	125.6 ± 3.62	111.3 ± 2.96	n = 25	[BYE] Siemens ADVIA 1800
98.0 ± 4.51	121.1 ± 4.27	102.9 ± 3.96	131.1 ± 4.45	116.7 ± 3.01	n = 7	[DUE] Siemens Dimension EXL
106.6 ± 3.15	129.9 ± 3.61	111.8 ± 2.90	139.9 ± 3.09	124.5 ± 3.25	n = 41	[DUR] Siemens Dimension RxL
94.8 ± 0.41	120.8 ± 4.71	103.3 ± 2.41	130.0 ± 3.65	115.9 ± 2.41	n = 5	[DUT] Siemens Dimension Vista
97.9 ± 2.98	119.9 ± 3.97	103.0 ± 3.46	127.4 ± 3.67	116.2 ± 3.68	n = 20	[DUX] Siemens Dimension Xpand
108.4 ± 4.16	134.0 ± 4.33	113.8 ± 3.49	144.1 ± 3.38	125.9 ± 3.51	n = 22	<Reagents>
98.9 ± 2.86	118.7 ± 3.84	105.9 ± 3.80	130.0 ± 3.65	115.6 ± 3.44	n = 63	[BC1] Beckman Coulter
108.5 ± 2.53	125.9 ± 2.00	110.8 ± 2.39	141.7 ± 2.46	121.9 ± 2.86	n = 33	[OL1] Beckman Coulter AU Series
100.3 ± 2.02	119.3 ± 3.01	108.6 ± 2.30	130.2 ± 2.86	118.0 ± 2.52	n = 38	[JJ1] Ortho Clinical Diagnostics
97.0 ± 3.84	118.9 ± 4.01	105.9 ± 2.95	129.9 ± 4.82	117.1 ± 5.16	n = 17	[R04] Roche cobas c311/c501/c502/c701/c702
96.7 ± 3.25	113.7 ± 3.66	106.9 ± 2.37	126.8 ± 3.47	113.7 ± 3.01	n = 6	[R02] Roche Hitachi and Modular D/P
100.7 ± 0.51	115.2 ± 1.54	112.3 ± 4.22	132.3 ± 4.22	116.3 ± 4.06	n = 3	[R01] Roche Integra and MIRA
100.4 ± 2.24	122.5 ± 2.49	105.0 ± 2.43	131.3 ± 2.82	117.7 ± 2.60	n = 20	[GZ1] Sekisui Diagnostics
101.5 ± 7.17	124.6 ± 7.74	107.0 ± 6.99	134.5 ± 7.89	119.5 ± 7.29	n = 78	[BY1] Siemens ADVIA/ADVIS Centaur
						[DA5] Siemens Dimension

## Summary of Participant Performance (Mean and Standard Deviation)

**Homocysteine ( $\mu\text{mol/L}$ )**

Specimen: C26	Specimen: C27	Specimen: C28	Specimen: C29	Specimen: C30	Number	[Code] Instrument or Reagent System
17.82 ± 2.13	31.40 ± 2.93	9.23 ± 1.14	12.90 ± 1.67	20.34 ± 2.11	n = 112	[---] All Methods & Instruments
						<Instruments>
16.53 ± 0.57	30.06 ± 1.33	8.72 ± 0.51	12.10 ± 0.70	19.40 ± 0.87	n = 13	[ABH] Abbott Architect i System
20.09 ± 1.69	33.58 ± 1.62	10.32 ± 0.88	14.54 ± 1.32	22.41 ± 1.54	n = 23	[OLC] Beckman Coulter AU Chemistry System
19.23 ± 0.23	34.20 ± 1.18	10.11 ± 0.37	14.15 ± 0.27	21.70 ± 0.55	n = 3	[BCH] Beckman Coulter UniCel DxC 800
18.85 ± 0.18	32.50 ± 0.40	9.90 ± 0.15	13.97 ± 0.36	21.23 ± 0.33	n = 5	[JJG] Ortho Vitros 5600
18.69 ± 1.25	32.39 ± 2.04	10.00 ± 0.67	13.19 ± 0.95	20.80 ± 1.30	n = 4	[ROG] Roche cobas c502
19.23 ± 0.32	34.16 ± 1.45	9.69 ± 0.37	13.65 ± 0.19	21.32 ± 0.32	n = 3	[ROT] Roche Cobas INTEGRA 800
16.55 ± 0.89	29.14 ± 1.58	8.22 ± 0.45	11.65 ± 0.79	18.84 ± 0.89	n = 23	[COB] Siemens ADVIA Centaur
14.91 ± 1.29	26.68 ± 1.55	8.14 ± 0.86	10.51 ± 1.12	17.04 ± 1.26	n = 9	[DUT] Siemens Dimension Vista
17.99 ± 1.48	33.42 ± 2.35	9.18 ± 0.67	13.09 ± 0.75	21.30 ± 1.05	n = 12	[DPD] Siemens Immulite 2000
						<Reagents>
16.53 ± 0.57	30.06 ± 1.33	8.72 ± 0.51	12.10 ± 0.70	19.40 ± 0.87	n = 13	[AB1] Abbott
19.04 ± 1.15	31.71 ± 0.44	9.66 ± 0.84	13.96 ± 1.48	21.06 ± 1.11	n = 3	[AS1] Axis-Shield
18.15 ± 0.54	32.87 ± 0.32	9.25 ± 0.19	13.33 ± 0.05	20.50 ± 0.46	n = 3	[CR1] Carolina
20.11 ± 1.60	33.46 ± 1.82	10.42 ± 0.87	14.74 ± 1.32	22.46 ± 1.55	n = 24	[DZ1] Diazyme
18.80 ± 0.23	32.49 ± 0.35	9.85 ± 0.19	13.89 ± 0.36	21.14 ± 0.37	n = 6	[JJ1] Ortho Clinical Diagnostics
18.83 ± 0.87	32.50 ± 1.12	10.34 ± 0.76	13.46 ± 0.94	21.39 ± 1.13	n = 5	[RO4] Roche cobas c311/c501/c502/c701/c702
19.20 ± 1.66	34.24 ± 2.58	10.26 ± 0.61	13.97 ± 1.06	22.17 ± 0.60	n = 4	[GZ1] Sekisui Diagnostics
16.55 ± 0.89	29.14 ± 1.58	8.22 ± 0.45	11.65 ± 0.79	18.84 ± 0.89	n = 23	[BY1] Siemens ADVIA/ADVIS Centaur
14.52 ± 0.91	25.68 ± 0.94	7.94 ± 0.77	9.95 ± 1.00	16.33 ± 1.46	n = 5	[DA5] Siemens Dimension
15.51 ± 1.46	28.02 ± 0.91	8.42 ± 0.88	11.04 ± 0.84	17.62 ± 0.77	n = 4	[DA6] Siemens Dimension LOCI
17.80 ± 1.62	33.46 ± 2.22	9.11 ± 0.69	13.00 ± 0.82	21.17 ± 1.29	n = 13	[DP5] Siemens Immulite

## Summary of Participant Performance (Mean and Standard Deviation)

Troponin I ( $\mu\text{g/L}$ )

Specimen: C26	Specimen: C27	Specimen: C28	Specimen: C29	Specimen: C30	Number	[Code] Instrument or Reagent System
0.012 ± 0.009	0.537 ± 0.139	0.013 ± 0.010	1.131 ± 0.530	0.228 ± 0.066	n = 228	[---] All Methods & Instruments
						<Instruments>
0.009 ± 0.005	3.052 ± 0.161	0.009 ± 0.005	5.256 ± 0.199	1.395 ± 0.077	n = 24	[ABH] Abbott Architect i System
0.012 ± 0.009	0.383 ± 0.031	0.012 ± 0.009	0.722 ± 0.048	0.160 ± 0.015	n = 22	[SAA] Beckman Coulter ACCESS
0.008 ± 0.015	0.395 ± 0.045	0.008 ± 0.015	0.735 ± 0.036	0.154 ± 0.010	n = 3	[BCV] Beckman Coulter UniCel DxI 600
0.015 ± 0.015	0.385 ± 0.023	0.015 ± 0.015	0.715 ± 0.045	0.159 ± 0.010	n = 12	[BCU] Beckman Coulter UniCel DxI 800
0.014 ± 0.016	1.265 ± 0.120	0.017 ± 0.014	2.337 ± 0.182	0.608 ± 0.062	n = 9	[IAA] i-STAT
0.010 ± 0.000	1.697 ± 0.070	0.010 ± 0.000	2.605 ± 0.104	0.819 ± 0.042	n = 20	[JUG] Ortho Vitros 5600
0.010 ± 0.000	1.661 ± 0.139	0.010 ± 0.000	2.603 ± 0.126	0.788 ± 0.075	n = 5	[JJC] Ortho Vitros ECI/ECiQ
< 0.300	< 0.300	< 0.300	0.311 ± 0.020	< 0.300	n = 3	[ROA] Roche cobas e601
0.009 ± 0.006	0.582 ± 0.058	0.009 ± 0.006	1.328 ± 0.113	0.213 ± 0.024	n = 40	[COB] Siemens ADVIA Centaur
0.045 ± 0.041	0.630 ± 0.053	0.047 ± 0.038	1.107 ± 0.040	0.286 ± 0.022	n = 23	[DUE] Siemens Dimension EXL
0.029 ± 0.020	0.357 ± 0.042	0.029 ± 0.020	0.701 ± 0.044	0.130 ± 0.018	n = 3	[DUR] Siemens Dimension RxL
0.014 ± 0.006	0.609 ± 0.040	0.014 ± 0.006	1.066 ± 0.063	0.272 ± 0.021	n = 46	[DUT] Siemens Dimension Vista
0.040 ± 0.000	0.343 ± 0.047	0.040 ± 0.000	0.712 ± 0.086	0.121 ± 0.048	n = 5	[DUX] Siemens Dimension Xpand
0.062 ± 0.004	2.986 ± 0.275	0.060 ± 0.000	4.970 ± 0.340	1.508 ± 0.113	n = 5	[TOM] Tosoh Bioscience
						<Reagents>
0.009 ± 0.006	3.052 ± 0.161	0.009 ± 0.005	5.256 ± 0.200	1.395 ± 0.078	n = 28	[AB1] Abbott
0.012 ± 0.011	0.384 ± 0.030	0.012 ± 0.011	0.721 ± 0.047	0.159 ± 0.013	n = 37	[BC1] Beckman Coulter
0.018 ± 0.019	1.278 ± 0.112	0.021 ± 0.018	2.417 ± 0.190	0.615 ± 0.056	n = 5	[IA1] i-STAT
0.010 ± 0.000	1.691 ± 0.088	0.010 ± 0.000	2.605 ± 0.109	0.816 ± 0.048	n = 25	[JJ1] Ortho Clinical Diagnostics
< 0.300	< 0.300	< 0.300	0.321 ± 0.019	< 0.300	n = 5	[RO3] Roche Elecsys/Modular E/e601/e411
0.009 ± 0.006	0.579 ± 0.059	0.009 ± 0.006	1.323 ± 0.117	0.212 ± 0.024	n = 41	[BY1] Siemens ADVIA/ADVIS Centaur
0.030 ± 0.017	0.389 ± 0.107	0.031 ± 0.016	0.766 ± 0.148	0.154 ± 0.069	n = 11	[DA5] Siemens Dimension
0.016 ± 0.007	0.618 ± 0.043	0.016 ± 0.006	1.081 ± 0.062	0.278 ± 0.022	n = 66	[DA6] Siemens Dimension LOCI
0.063 ± 0.005	2.952 ± 0.113	0.060 ± 0.000	4.929 ± 0.245	1.489 ± 0.052	n = 3	[TO2] Tosoh ST AIA

## Summary of Participant Performance (Mean and Standard Deviation)

Troponin T ( $\mu\text{g/L}$ )

Specimen: C26	Specimen: C27	Specimen: C28	Specimen: C29	Specimen: C30	Number	[Code] Instrument or Reagent System
0.010 ± 0.000	0.331 ± 0.029	0.010 ± 0.000	0.515 ± 0.043	0.162 ± 0.013	n = 41	[---] All Methods & Instruments
						<Instruments>
0.010 ± 0.000	0.325 ± 0.042	0.010 ± 0.000	0.525 ± 0.050	0.164 ± 0.010	n = 6	[ROF] Roche cobas e411
0.010 ± 0.000	0.336 ± 0.022	0.010 ± 0.000	0.523 ± 0.036	0.165 ± 0.012	n = 18	[ROA] Roche cobas e601
0.010 ± 0.000	0.318 ± 0.015	0.010 ± 0.000	0.506 ± 0.039	0.156 ± 0.010	n = 3	[ROB] Roche cobas e602
0.010 ± 0.000	0.347 ± 0.009	0.010 ± 0.000	0.520 ± 0.051	0.160 ± 0.015	n = 5	[BME] Roche Elecsys
0.010 ± 0.000	0.321 ± 0.028	0.010 ± 0.000	0.488 ± 0.046	0.154 ± 0.011	n = 8	[ROE] Roche MODULAR E
						<Reagents>
0.010 ± 0.000	0.330 ± 0.028	0.010 ± 0.000	0.514 ± 0.043	0.161 ± 0.013	n = 40	[RO3] Roche Elecsys/Modular E/e601/e411

## Summary of Participant Performance (Mean and Standard Deviation)

## Alanine Aminotransferase (U/L 37°C)

Specimen: C26	Specimen: C27	Specimen: C28	Specimen: C29	Specimen: C30	Number	[Code] Instrument or Reagent System
67.2 ± 5.98	206.5 ± 15.85	37.3 ± 3.51	110.3 ± 7.99	122.1 ± 9.99	n = 358	[---] All Methods & Instruments
66.2 ± 1.77	207.8 ± 5.15	36.3 ± 1.36	111.1 ± 3.06	122.2 ± 3.19	n = 26	<Instruments>
59.7 ± 1.70	183.5 ± 4.19	34.1 ± 1.22	99.3 ± 2.49	107.8 ± 2.45	n = 70	[ABJ] Abbott Architect c System
67.3 ± 0.91	199.3 ± 1.89	37.9 ± 0.80	108.0 ± 1.19	118.2 ± 1.06	n = 16	[OLC] Beckman Coulter AU Chemistry System
67.3 ± 1.27	199.1 ± 3.33	38.3 ± 0.85	107.6 ± 2.20	118.1 ± 1.22	n = 9	[BCG] Beckman Coulter UniCel DxC 600
68.7 ± 3.31	225.8 ± 3.86	50.3 ± 1.75	115.6 ± 3.56	135.2 ± 2.69	n = 8	[BCH] Beckman Coulter UniCel DxC 800
70.7 ± 0.51	231.0 ± 6.42	53.0 ± 1.80	120.4 ± 5.58	136.9 ± 5.72	n = 3	[JJE] Ortho Vitros 250/350/950
75.5 ± 1.67	227.2 ± 6.74	52.7 ± 2.82	118.1 ± 3.89	135.8 ± 5.87	n = 10	[JJH] Ortho Vitros 4600
71.0 ± 3.23	225.1 ± 4.82	50.9 ± 4.02	115.5 ± 3.77	133.6 ± 4.43	n = 22	[JJF] Ortho Vitros 5,1FS
64.4 ± 0.55	202.4 ± 1.89	37.0 ± 1.00	106.9 ± 1.27	119.0 ± 0.93	n = 5	[JGJ] Ortho Vitros 5600
63.8 ± 1.64	202.3 ± 4.42	36.1 ± 0.92	107.1 ± 2.83	119.1 ± 2.78	n = 27	[ROJ] Roche cobas c311
63.6 ± 1.99	203.2 ± 5.53	34.9 ± 1.84	108.2 ± 3.48	118.8 ± 3.59	n = 9	[ROC] Roche cobas c501
63.0 ± 1.87	202.1 ± 6.93	34.6 ± 0.79	106.1 ± 2.84	118.6 ± 3.85	n = 6	[ROH] Roche cobas c701
62.0 ± 1.80	193.8 ± 6.79	34.7 ± 0.51	102.1 ± 3.72	114.3 ± 4.22	n = 3	[ROS] Roche Cobas INTEGRA 400
64.4 ± 2.62	202.9 ± 6.89	36.2 ± 2.02	108.5 ± 3.62	118.9 ± 3.95	n = 16	[ROT] Roche Cobas INTEGRA 800
69.9 ± 2.22	214.4 ± 4.59	39.6 ± 1.97	115.9 ± 2.54	127.3 ± 2.74	n = 17	[ROD] Roche MODULAR D/P
72.8 ± 2.59	214.7 ± 8.18	39.3 ± 1.99	116.2 ± 3.88	127.4 ± 4.35	n = 29	[BYE] Siemens ADVIA 1800
71.8 ± 3.74	214.8 ± 8.78	39.3 ± 2.19	115.1 ± 5.17	127.6 ± 4.88	n = 7	[DUE] Siemens Dimension EXL
73.3 ± 2.72	218.8 ± 6.44	39.9 ± 2.02	117.1 ± 4.47	129.4 ± 4.28	n = 48	[DUR] Siemens Dimension RxL
73.6 ± 3.28	217.6 ± 5.86	40.0 ± 2.42	116.3 ± 3.20	129.5 ± 2.94	n = 12	[DUT] Siemens Dimension Vista
66.2 ± 1.77	207.8 ± 5.15	36.3 ± 1.36	111.1 ± 3.06	122.2 ± 3.19	n = 26	<Reagents>
67.4 ± 1.14	197.9 ± 5.91	37.6 ± 1.51	107.1 ± 3.83	118.4 ± 1.25	n = 32	[BC1] Beckman Coulter
59.8 ± 1.66	183.6 ± 4.35	34.1 ± 1.25	99.2 ± 2.52	107.8 ± 2.49	n = 62	[OL1] Beckman Coulter AU Series
71.5 ± 3.66	225.8 ± 5.54	51.4 ± 3.38	116.2 ± 4.25	134.5 ± 4.72	n = 42	[JJ1] Ortho Clinical Diagnostics
64.0 ± 1.66	202.9 ± 4.62	36.1 ± 1.26	107.6 ± 2.97	119.4 ± 2.77	n = 43	[RO4] Roche cobas c311/c501/c502/c701/c702
64.4 ± 2.62	202.9 ± 6.89	36.2 ± 2.02	108.5 ± 3.62	118.9 ± 3.95	n = 16	[RO2] Roche Hitachi and Modular D/P
62.7 ± 1.90	199.5 ± 7.81	34.6 ± 0.70	105.0 ± 3.67	117.4 ± 4.46	n = 9	[ROI] Roche Integra and MIRA
69.6 ± 1.92	213.9 ± 4.43	38.9 ± 1.78	115.5 ± 2.51	126.9 ± 2.52	n = 20	[BY1] Siemens ADVIA/ADVISIA Centaur
74.0 ± 2.43	218.3 ± 7.27	39.8 ± 1.86	117.9 ± 3.90	129.4 ± 3.97	n = 39	[DA5] Siemens Dimension
72.4 ± 2.93	216.4 ± 7.30	39.6 ± 2.22	115.8 ± 4.33	128.1 ± 4.72	n = 57	[DA8] Siemens Dimension IFCC Standardized

## Summary of Participant Performance (Mean and Standard Deviation)

## Aspartate Aminotransferase (U/L 37°C)

Specimen: C26	Specimen: C27	Specimen: C28	Specimen: C29	Specimen: C30	Number	[Code] Instrument or Reagent System
101.0 ± 6.72	488.1 ± 39.23	57.7 ± 4.56	56.6 ± 4.09	275.1 ± 19.09	n = 355	[---] All Methods & Instruments
						<Instruments>
102.8 ± 2.61	495.4 ± 11.07	56.2 ± 1.51	57.7 ± 1.50	276.4 ± 6.04	n = 25	[ABJ] Abbott Architect c System
91.2 ± 3.12	436.2 ± 14.30	50.9 ± 1.92	51.8 ± 1.87	242.8 ± 7.44	n = 68	[OLC] Beckman Coulter AU Chemistry System
101.1 ± 2.96	475.5 ± 7.51	55.7 ± 1.17	57.0 ± 1.38	269.2 ± 1.79	n = 16	[BCG] Beckman Coulter UniCel DxC 600
100.0 ± 3.04	467.1 ± 9.02	55.4 ± 0.93	56.7 ± 0.94	265.7 ± 4.51	n = 9	[BCH] Beckman Coulter UniCel DxC 800
111.0 ± 3.49	613.8 ± 31.49	63.1 ± 1.64	64.5 ± 1.87	304.6 ± 14.04	n = 8	[JJE] Ortho Vitros 250/350/950
109.5 ± 3.63	615.1 ± 10.67	61.7 ± 1.37	63.7 ± 2.26	300.0 ± 13.52	n = 3	[JJH] Ortho Vitros 4600
112.6 ± 2.80	629.6 ± 16.71	63.7 ± 0.71	64.6 ± 2.55	308.6 ± 12.99	n = 10	[JJF] Ortho Vitros 5,1FS
109.2 ± 3.34	613.2 ± 10.56	62.9 ± 1.59	63.2 ± 1.35	302.0 ± 7.36	n = 22	[JJG] Ortho Vitros 5600
103.8 ± 3.60	506.2 ± 16.71	56.8 ± 0.80	58.0 ± 1.28	281.6 ± 4.84	n = 5	[ROJ] Roche cobas c311
103.3 ± 2.11	506.3 ± 10.37	56.9 ± 1.72	57.4 ± 1.54	282.4 ± 7.55	n = 27	[ROC] Roche cobas c501
106.6 ± 2.56	519.1 ± 15.26	59.6 ± 1.02	58.7 ± 2.26	288.0 ± 6.42	n = 3	[ROG] Roche cobas c502
102.5 ± 2.08	507.9 ± 14.76	56.8 ± 2.44	56.6 ± 1.58	282.6 ± 6.27	n = 8	[ROH] Roche cobas c701
101.3 ± 1.85	502.0 ± 4.55	55.0 ± 0.64	55.6 ± 0.79	279.8 ± 2.56	n = 6	[ROS] Roche Cobas INTEGRA 400
101.6 ± 1.02	492.0 ± 9.06	55.2 ± 1.54	55.6 ± 1.02	273.3 ± 5.86	n = 3	[ROT] Roche Cobas INTEGRA 800
102.1 ± 2.37	489.0 ± 10.36	56.4 ± 2.24	57.1 ± 1.41	274.4 ± 5.76	n = 16	[ROD] Roche MODULAR D/P
110.7 ± 2.60	528.0 ± 8.40	61.9 ± 1.66	62.1 ± 1.55	294.9 ± 4.46	n = 17	[BYE] Siemens ADVIA 1800
97.9 ± 2.97	481.6 ± 12.14	59.2 ± 2.59	55.2 ± 2.83	272.0 ± 8.32	n = 29	[DUE] Siemens Dimension EXL
101.6 ± 3.86	495.4 ± 14.77	62.0 ± 3.40	56.0 ± 3.09	278.4 ± 8.27	n = 7	[DUR] Siemens Dimension RxL
100.5 ± 3.05	494.8 ± 7.45	60.0 ± 1.85	55.4 ± 1.86	277.7 ± 5.71	n = 48	[DUT] Siemens Dimension Vista
100.5 ± 3.11	485.8 ± 12.31	61.7 ± 2.69	56.4 ± 2.06	275.8 ± 6.42	n = 12	[DUX] Siemens Dimension Xpand
						<Reagents>
102.8 ± 2.61	495.4 ± 11.07	56.2 ± 1.51	57.7 ± 1.50	276.4 ± 6.04	n = 25	[AB1] Abbott
100.5 ± 3.41	472.9 ± 11.05	55.5 ± 1.14	56.9 ± 1.32	268.0 ± 3.94	n = 29	[BC1] Beckman Coulter
91.2 ± 3.20	436.3 ± 14.58	50.9 ± 1.86	51.7 ± 1.84	242.9 ± 7.45	n = 63	[OL1] Beckman Coulter AU Series
110.4 ± 3.58	617.2 ± 18.96	63.0 ± 1.68	63.7 ± 1.92	303.5 ± 10.55	n = 43	[JJ1] Ortho Clinical Diagnostics
103.4 ± 2.38	507.6 ± 12.73	57.0 ± 1.76	57.4 ± 1.61	282.3 ± 7.14	n = 45	[RO4] Roche cobas c311/c501/c502/c701/c702
102.1 ± 2.37	489.0 ± 10.36	56.4 ± 2.24	57.1 ± 1.41	274.4 ± 5.76	n = 16	[RO2] Roche Hitachi and Modular D/P
101.5 ± 1.55	499.9 ± 7.20	55.2 ± 1.20	55.6 ± 0.87	278.5 ± 4.35	n = 9	[RO1] Roche Integra and MIRA
110.6 ± 2.76	528.6 ± 8.58	61.6 ± 1.85	61.9 ± 1.77	295.1 ± 4.43	n = 21	[BY1] Siemens ADVIA/ADVISIA Centaur
99.8 ± 3.36	490.2 ± 12.08	60.1 ± 2.43	55.4 ± 2.26	276.1 ± 7.14	n = 96	[DA5] Siemens Dimension

## Summary of Participant Performance (Mean and Standard Deviation)

 $\alpha$ -Amylase (U/L 37°C)

Specimen: C26	Specimen: C27	Specimen: C28	Specimen: C29	Specimen: C30	Number	[Code] Instrument or Reagent System
58.0 ± 8.81	100.2 ± 8.50	483.9 ± 97.82	157.6 ± 21.45	292.7 ± 52.53	n = 308	[---] All Methods & Instruments
58.5 ± 1.18	105.8 ± 2.63	542.1 ± 10.62	171.1 ± 3.53	324.2 ± 5.78	n = 24	<Instruments>
44.2 ± 2.65	78.9 ± 4.06	415.6 ± 24.56	130.5 ± 7.09	247.8 ± 14.27	n = 52	[ABJ] Abbott Architect c System
65.7 ± 1.44	109.0 ± 2.99	516.1 ± 6.66	171.2 ± 1.89	314.3 ± 4.51	n = 12	[OLC] Beckman Coulter AU Chemistry System
66.4 ± 0.93	108.4 ± 2.56	511.3 ± 11.53	170.1 ± 3.57	311.8 ± 6.94	n = 10	[BCG] Beckman Coulter UniCel DxC 600
70.4 ± 3.82	96.7 ± 4.09	290.1 ± 4.14	128.9 ± 2.96	198.9 ± 5.14	n = 6	[BCH] Beckman Coulter UniCel DxC 800
69.6 ± 6.23	97.8 ± 1.54	296.3 ± 1.37	128.4 ± 4.72	196.5 ± 5.40	n = 3	[JJE] Ortho Vitros 250/350/950
69.9 ± 3.92	93.5 ± 5.77	293.0 ± 9.92	130.9 ± 4.56	197.0 ± 7.80	n = 9	[JJH] Ortho Vitros 4600
67.4 ± 3.18	93.5 ± 5.64	286.7 ± 11.11	124.2 ± 5.88	192.7 ± 7.13	n = 22	[JJF] Ortho Vitros 5,1FS
64.2 ± 0.41	102.7 ± 0.90	465.9 ± 3.06	159.1 ± 1.13	287.3 ± 2.54	n = 4	[JGJ] Ortho Vitros 5600
63.9 ± 1.04	101.6 ± 1.34	463.7 ± 5.87	158.2 ± 1.99	283.7 ± 3.59	n = 23	[ROJ] Roche cobas c311
63.6 ± 1.33	101.2 ± 1.78	462.9 ± 9.88	157.9 ± 3.80	284.2 ± 6.12	n = 5	[ROC] Roche cobas c501
63.0 ± 0.90	101.0 ± 0.00	456.6 ± 7.08	156.3 ± 1.37	284.0 ± 1.80	n = 3	[ROG] Roche cobas c502
62.1 ± 1.09	100.2 ± 1.32	426.3 ± 97.82	155.1 ± 2.83	281.5 ± 4.79	n = 4	[ROH] Roche cobas c701
62.4 ± 1.02	98.0 ± 0.90	450.6 ± 7.08	152.6 ± 2.56	276.0 ± 4.60	n = 3	[ROS] Roche Cobas INTEGRA 400
63.0 ± 1.01	100.2 ± 1.48	459.8 ± 5.62	156.8 ± 1.68	282.9 ± 2.81	n = 16	[ROT] Roche Cobas INTEGRA 800
63.1 ± 0.84	103.9 ± 1.59	482.9 ± 3.84	162.5 ± 1.59	295.1 ± 3.04	n = 17	[ROD] Roche MODULAR D/P
54.6 ± 0.69	105.5 ± 1.62	591.3 ± 10.01	178.4 ± 2.73	349.8 ± 5.43	n = 25	[BYE] Siemens ADVIA 1800
54.3 ± 0.97	105.2 ± 2.31	594.0 ± 8.70	178.8 ± 2.31	349.4 ± 5.81	n = 6	[DUE] Siemens Dimension EXL
52.1 ± 1.19	101.2 ± 1.77	577.9 ± 11.75	173.8 ± 3.33	341.2 ± 6.91	n = 47	[DUR] Siemens Dimension RxL
53.9 ± 1.01	105.1 ± 1.54	592.9 ± 4.96	178.6 ± 1.90	351.3 ± 2.39	n = 7	[DUT] Siemens Dimension Vista
58.5 ± 1.18	105.8 ± 2.63	542.1 ± 10.62	171.1 ± 3.53	324.2 ± 5.78	n = 24	<Reagents>
66.6 ± 0.80	109.7 ± 1.82	517.1 ± 5.50	171.8 ± 1.86	315.2 ± 3.87	n = 11	[BC1] Abbott
44.0 ± 2.51	78.9 ± 4.03	413.6 ± 22.73	130.0 ± 6.38	246.7 ± 13.10	n = 49	[BC1] Beckman Coulter
65.4 ± 1.39	107.0 ± 3.22	510.3 ± 13.44	168.4 ± 4.42	309.6 ± 7.55	n = 12	[OL1] Beckman Coulter AU Series
68.6 ± 3.85	94.7 ± 5.56	289.6 ± 9.84	127.0 ± 5.83	195.0 ± 7.30	n = 41	[BC2] Beckman Coulter IFCC Standardized
63.8 ± 1.05	101.6 ± 1.34	463.3 ± 6.53	158.1 ± 2.21	284.1 ± 3.88	n = 37	[JJ1] Ortho Clinical Diagnostics
62.9 ± 1.17	100.1 ± 1.61	459.3 ± 5.67	156.5 ± 2.13	282.4 ± 3.71	n = 17	[RO2] Roche Hitachi and Modular D/P
62.3 ± 1.09	99.2 ± 1.60	455.3 ± 9.96	154.0 ± 2.76	279.2 ± 5.22	n = 7	[R01] Roche Integra and MIRA
62.9 ± 1.13	103.5 ± 1.99	481.7 ± 6.46	162.0 ± 2.30	294.3 ± 4.56	n = 21	[BY1] Siemens ADVIA/ADVISIA Centaur
53.1 ± 1.66	103.1 ± 2.87	584.8 ± 13.00	176.1 ± 3.86	345.7 ± 7.79	n = 85	[DAS] Siemens Dimension

## Summary of Participant Performance (Mean and Standard Deviation)

**Alkaline Phosphatase (U/L 37°C)**

Specimen: C26	Specimen: C27	Specimen: C28	Specimen: C29	Specimen: C30	Number	[Code] Instrument or Reagent System
247.9 ± 21.85	51.8 ± 6.29	474.0 ± 50.12	130.1 ± 11.87	267.2 ± 23.89	n = 354	[---] All Methods & Instruments
						<Instruments>
248.2 ± 9.72	51.9 ± 2.17	484.4 ± 16.45	129.8 ± 4.55	271.3 ± 8.81	n = 25	[ABJ] Abbott Architect c System
223.9 ± 14.15	45.5 ± 3.15	434.4 ± 26.67	115.7 ± 7.08	241.7 ± 14.81	n = 68	[OLC] Beckman Coulter AU Chemistry System
230.4 ± 7.29	46.0 ± 1.75	449.5 ± 16.31	117.7 ± 4.85	249.5 ± 4.74	n = 15	[BCG] Beckman Coulter UniCel DxC 600
223.2 ± 7.99	46.0 ± 1.22	437.8 ± 11.97	115.2 ± 3.99	239.3 ± 7.09	n = 9	[BCH] Beckman Coulter UniCel DxC 800
254.7 ± 8.65	66.0 ± 3.01	440.9 ± 19.95	145.7 ± 6.12	272.7 ± 9.13	n = 8	[JJE] Ortho Vitros 250/350/950
244.6 ± 7.44	64.8 ± 1.54	419.0 ± 7.27	137.0 ± 3.58	260.6 ± 11.05	n = 3	[JJH] Ortho Vitros 4600
241.8 ± 11.96	63.9 ± 5.67	406.2 ± 14.43	135.8 ± 9.42	252.4 ± 14.96	n = 10	[JJF] Ortho Vitros 5,1FS
242.8 ± 9.41	64.5 ± 2.80	408.5 ± 18.42	136.1 ± 5.64	256.7 ± 8.99	n = 22	[JJG] Ortho Vitros 5600
243.1 ± 2.81	50.2 ± 0.80	471.2 ± 5.56	127.4 ± 1.33	264.4 ± 2.61	n = 5	[ROJ] Roche cobas c311
243.3 ± 5.81	50.9 ± 1.71	471.6 ± 11.57	128.0 ± 3.46	263.9 ± 6.11	n = 27	[ROC] Roche cobas c501
239.9 ± 2.44	48.3 ± 0.80	465.8 ± 10.57	124.4 ± 2.46	259.2 ± 5.95	n = 9	[ROH] Roche cobas c701
248.7 ± 3.37	50.6 ± 0.55	487.6 ± 7.01	129.7 ± 1.81	270.8 ± 2.32	n = 5	[ROS] Roche Cobas INTEGRA 400
250.9 ± 14.68	48.7 ± 0.51	490.3 ± 29.39	129.0 ± 6.37	269.4 ± 15.49	n = 3	[ROT] Roche Cobas INTEGRA 800
240.8 ± 4.21	50.3 ± 1.54	462.8 ± 10.07	125.8 ± 2.69	259.4 ± 5.64	n = 16	[ROD] Roche MODULAR D/P
263.2 ± 10.99	53.7 ± 2.19	512.8 ± 21.56	135.7 ± 5.73	283.5 ± 11.39	n = 17	[BYE] Siemens ADVIA 1800
269.6 ± 4.91	55.2 ± 3.01	526.1 ± 8.54	140.0 ± 3.17	291.2 ± 5.57	n = 29	[DUE] Siemens Dimension EXL
268.4 ± 6.73	57.1 ± 2.68	524.9 ± 7.43	140.1 ± 3.80	290.2 ± 6.96	n = 7	[DUR] Siemens Dimension RxL
276.1 ± 7.52	54.6 ± 1.67	535.8 ± 14.81	141.1 ± 3.23	296.3 ± 7.95	n = 48	[DUT] Siemens Dimension Vista
267.5 ± 7.31	57.8 ± 6.57	518.4 ± 13.55	139.2 ± 5.23	288.5 ± 8.32	n = 12	[DUX] Siemens Dimension Xpand
						<Reagents>
248.2 ± 9.72	51.9 ± 2.17	484.4 ± 16.45	129.8 ± 4.55	271.3 ± 8.81	n = 25	[AB1] Abbott
226.3 ± 10.39	45.8 ± 1.66	440.8 ± 20.41	116.5 ± 5.50	243.5 ± 11.36	n = 30	[BC1] Beckman Coulter
223.7 ± 14.28	45.4 ± 3.22	435.1 ± 26.97	115.7 ± 6.96	241.7 ± 14.52	n = 61	[OL1] Beckman Coulter AU Series
245.0 ± 10.84	64.8 ± 3.32	413.5 ± 21.08	137.8 ± 7.50	258.8 ± 13.24	n = 43	[JJ1] Ortho Clinical Diagnostics
242.4 ± 4.88	50.0 ± 1.92	468.9 ± 10.80	126.9 ± 3.36	262.5 ± 5.91	n = 43	[RO4] Roche cobas c311/c501/c502/c701/c702
240.8 ± 4.21	50.3 ± 1.54	462.8 ± 10.07	125.8 ± 2.69	259.4 ± 5.64	n = 16	[RO2] Roche Hitachi and Modular D/P
247.8 ± 9.10	49.8 ± 1.12	490.2 ± 15.85	128.8 ± 4.06	269.7 ± 8.45	n = 9	[ROI] Roche Integra and MIRA
260.8 ± 11.22	53.4 ± 2.48	509.1 ± 21.01	135.0 ± 5.98	281.6 ± 11.10	n = 20	[BY1] Siemens ADVIA/ADVISIA Centaur
271.7 ± 8.34	54.9 ± 2.63	529.9 ± 14.20	140.6 ± 3.58	294.5 ± 7.45	n = 41	[DA5] Siemens Dimension
272.5 ± 7.14	55.0 ± 2.23	528.6 ± 12.75	140.4 ± 3.12	292.3 ± 7.69	n = 55	[DA8] Siemens Dimension IFCC Standardized

## Summary of Participant Performance (Mean and Standard Deviation)

 $\gamma$ -Glutamyltransferase (U/L 37°C)

Specimen: C26	Specimen: C27	Specimen: C28	Specimen: C29	Specimen: C30	Number	[Code] Instrument or Reagent System
114.1 ± 24.64	50.3 ± 10.47	239.0 ± 52.92	74.3 ± 16.21	146.8 ± 32.37	n = 285	[---] All Methods & Instruments
						<Instruments>
113.6 ± 6.43	50.5 ± 3.19	241.9 ± 15.38	74.5 ± 5.41	147.5 ± 10.60	n = 18	[ABJ] Abbott Architect c System
89.8 ± 3.58	40.7 ± 1.94	187.5 ± 8.40	58.9 ± 2.64	114.9 ± 5.03	n = 59	[OLC] Beckman Coulter AU Chemistry System
110.9 ± 1.39	44.5 ± 1.20	248.7 ± 5.65	70.0 ± 1.29	146.8 ± 2.98	n = 12	[BCG] Beckman Coulter UniCel DxC 600
109.9 ± 3.71	43.9 ± 0.85	247.3 ± 6.48	69.4 ± 2.29	145.8 ± 3.37	n = 8	[BCH] Beckman Coulter UniCel DxC 800
170.8 ± 4.48	66.2 ± 2.28	412.7 ± 4.15	108.8 ± 3.23	228.7 ± 5.52	n = 5	[JJE] Ortho Vitros 250/350/950
168.5 ± 5.43	65.7 ± 1.37	400.3 ± 9.47	107.2 ± 2.36	223.3 ± 9.47	n = 3	[JJH] Ortho Vitros 4600
165.7 ± 4.31	64.8 ± 2.28	392.7 ± 9.83	105.6 ± 2.04	217.1 ± 8.90	n = 8	[JJF] Ortho Vitros 5,1FS
166.8 ± 3.36	65.4 ± 1.41	396.1 ± 9.58	105.7 ± 2.16	220.1 ± 3.80	n = 22	[JJG] Ortho Vitros 5600
99.6 ± 2.51	42.7 ± 1.00	211.0 ± 5.25	64.0 ± 1.52	127.4 ± 2.93	n = 21	[ROC] Roche cobas c501
102.5 ± 0.84	43.9 ± 1.33	214.0 ± 6.07	65.5 ± 1.75	129.2 ± 2.95	n = 6	[ROG] Roche cobas c502
98.3 ± 2.02	42.9 ± 1.13	207.4 ± 5.97	63.8 ± 1.27	126.0 ± 3.00	n = 4	[ROH] Roche cobas c701
97.6 ± 1.02	42.7 ± 0.51	209.8 ± 3.23	63.7 ± 0.51	126.8 ± 1.54	n = 3	[ROS] Roche Cobas INTEGRA 400
100.8 ± 3.05	43.2 ± 1.57	214.9 ± 4.19	65.1 ± 1.93	129.9 ± 3.49	n = 15	[ROD] Roche MODULAR D/P
109.3 ± 3.57	47.9 ± 1.67	229.8 ± 6.75	70.5 ± 2.48	140.3 ± 3.77	n = 17	[BYE] Siemens ADVIA 1800
131.8 ± 3.57	62.2 ± 2.86	271.5 ± 6.23	88.0 ± 3.03	167.6 ± 4.32	n = 21	[DUE] Siemens Dimension EXL
128.8 ± 1.78	60.8 ± 0.80	271.5 ± 4.47	86.0 ± 2.12	165.7 ± 3.25	n = 5	[DUR] Siemens Dimension RxL
130.5 ± 2.54	59.1 ± 2.06	277.9 ± 3.60	85.6 ± 1.84	169.1 ± 2.66	n = 41	[DUT] Siemens Dimension Vista
133.3 ± 2.65	63.3 ± 1.51	275.4 ± 4.37	88.7 ± 1.58	168.9 ± 2.33	n = 4	[DUX] Siemens Dimension Xpand
						<Reagents>
113.6 ± 6.14	50.3 ± 3.05	240.6 ± 14.70	74.0 ± 5.10	146.6 ± 9.40	n = 17	[AB1] Abbott
110.3 ± 2.75	44.1 ± 1.38	247.9 ± 6.02	69.8 ± 1.60	146.4 ± 3.15	n = 23	[BC1] Beckman Coulter
89.8 ± 3.37	40.7 ± 1.89	187.4 ± 7.99	58.9 ± 2.56	114.8 ± 4.83	n = 55	[OL1] Beckman Coulter AU Series
167.3 ± 4.26	65.4 ± 1.66	398.1 ± 11.40	106.1 ± 2.60	221.2 ± 6.39	n = 38	[JJ1] Ortho Clinical Diagnostics
99.9 ± 2.66	43.0 ± 1.12	211.2 ± 5.64	64.2 ± 1.60	127.6 ± 2.98	n = 35	[RO4] Roche cobas c311/c501/c502/c701/c702
100.8 ± 3.05	43.2 ± 1.57	214.9 ± 4.19	65.1 ± 1.93	129.9 ± 3.49	n = 15	[RO2] Roche Hitachi and Modular D/P
98.0 ± 1.66	42.5 ± 0.83	211.2 ± 3.92	63.8 ± 0.41	127.7 ± 2.35	n = 5	[RO1] Roche Integra and MIRA
109.5 ± 3.75	48.2 ± 2.07	229.8 ± 6.77	70.6 ± 2.83	140.2 ± 3.81	n = 21	[BY1] Siemens ADVIA/ADVIS Centaur
130.8 ± 2.95	60.3 ± 2.70	275.9 ± 5.45	86.4 ± 2.49	168.6 ± 3.31	n = 71	[DA5] Siemens Dimension

## Summary of Participant Performance (Mean and Standard Deviation)

## Creatine Kinase (U/L 37°C)

Specimen: C26	Specimen: C27	Specimen: C28	Specimen: C29	Specimen: C30	Number	[Code] Instrument or Reagent System
124.6 ± 8.92	398.4 ± 32.02	93.9 ± 8.19	274.7 ± 20.15	243.7 ± 17.28	n = 320	[---] All Methods & Instruments
131.3 ± 4.38	422.8 ± 10.27	99.6 ± 3.49	288.3 ± 6.16	256.5 ± 7.08	n = 24	<Instruments>
105.9 ± 5.40	354.5 ± 15.74	78.7 ± 4.59	240.8 ± 11.80	211.8 ± 11.11	n = 62	[ABJ] Abbott Architect c System
128.4 ± 3.57	433.0 ± 7.86	97.7 ± 2.69	296.6 ± 4.67	261.1 ± 3.11	n = 13	[OLC] Beckman Coulter AU Chemistry System
126.9 ± 3.75	429.1 ± 9.51	98.1 ± 3.77	293.8 ± 4.73	259.7 ± 4.50	n = 9	[BCG] Beckman Coulter UniCel DxC 600
127.9 ± 13.25	368.3 ± 19.02	95.3 ± 5.92	283.2 ± 14.17	244.5 ± 12.00	n = 5	[BCH] Beckman Coulter UniCel DxC 800
129.5 ± 1.86	367.7 ± 1.37	97.5 ± 1.86	285.0 ± 3.61	245.1 ± 3.72	n = 3	[JJE] Ortho Vitros 250/350/950
130.0 ± 6.50	365.1 ± 24.56	97.0 ± 6.39	281.1 ± 22.68	243.3 ± 17.06	n = 9	[JJH] Ortho Vitros 4600
128.4 ± 7.17	366.4 ± 18.27	96.3 ± 4.05	281.3 ± 13.88	244.0 ± 13.29	n = 22	[JJF] Ortho Vitros 5,1FS
128.0 ± 0.75	435.4 ± 2.31	94.5 ± 1.71	289.6 ± 5.28	257.8 ± 4.62	n = 4	[JGJ] Ortho Vitros 5600
127.4 ± 2.17	436.6 ± 6.48	94.2 ± 1.93	293.1 ± 5.61	259.1 ± 5.68	n = 26	[ROJ] Roche cobas c311
127.9 ± 3.03	437.6 ± 6.59	94.4 ± 3.99	289.9 ± 5.62	257.2 ± 4.10	n = 7	[ROC] Roche cobas c501
116.4 ± 39.15	409.9 ± 7.20	101.2 ± 1.46	280.5 ± 7.34	250.3 ± 5.52	n = 4	[ROG] Roche cobas c502
130.4 ± 2.56	432.3 ± 0.51	100.3 ± 2.26	293.3 ± 3.37	260.5 ± 2.74	n = 3	[ROH] Roche cobas c701
128.8 ± 2.81	407.3 ± 7.89	100.1 ± 2.24	280.4 ± 5.05	249.5 ± 5.12	n = 16	[ROS] Roche Cobas INTEGRA 400
118.6 ± 2.79	393.4 ± 5.46	83.7 ± 1.84	259.3 ± 4.88	234.0 ± 4.06	n = 17	[ROD] Roche MODULAR D/P
125.1 ± 3.29	402.5 ± 8.96	95.6 ± 3.44	273.0 ± 7.27	243.9 ± 5.73	n = 24	[BYE] Siemens ADVIA 1800
127.5 ± 3.30	409.4 ± 13.06	98.6 ± 3.10	276.8 ± 7.99	246.8 ± 3.22	n = 7	[DUE] Siemens Dimension EXL
126.8 ± 3.19	402.8 ± 6.54	97.5 ± 2.66	274.7 ± 5.99	244.4 ± 5.57	n = 47	[DUR] Siemens Dimension RxL
124.5 ± 2.61	399.2 ± 5.27	95.2 ± 3.37	270.6 ± 4.04	241.7 ± 3.97	n = 7	[DUT] Siemens Dimension Vista
131.3 ± 4.38	422.8 ± 10.27	99.6 ± 3.49	288.3 ± 6.16	256.5 ± 7.08	n = 24	<Reagents>
128.0 ± 3.45	431.5 ± 7.58	97.8 ± 3.14	295.3 ± 4.59	260.6 ± 3.47	n = 27	[BC1] Beckman Coulter
105.8 ± 5.17	354.3 ± 16.10	78.6 ± 4.24	240.3 ± 11.50	211.7 ± 10.82	n = 56	[OL1] Beckman Coulter AU Series
129.2 ± 7.02	366.9 ± 18.25	96.5 ± 4.80	282.3 ± 14.46	244.3 ± 13.00	n = 39	[JJ1] Ortho Clinical Diagnostics
127.9 ± 2.47	434.7 ± 9.73	94.8 ± 3.10	290.9 ± 7.09	257.5 ± 6.17	n = 43	[RO4] Roche cobas c311/c501/c502/c701/c702
128.8 ± 2.81	407.3 ± 7.89	100.1 ± 2.24	280.4 ± 5.05	249.5 ± 5.12	n = 16	[RO2] Roche Hitachi and Modular D/P
126.2 ± 6.71	432.5 ± 0.57	95.0 ± 8.09	291.4 ± 5.92	259.7 ± 2.55	n = 5	[ROI] Roche Integra and MIRA
118.6 ± 2.82	393.3 ± 6.36	83.7 ± 1.86	259.4 ± 4.74	234.0 ± 4.46	n = 21	[BY1] Siemens ADVIA/ADVIS Centaur
126.3 ± 3.34	403.1 ± 7.46	97.1 ± 3.08	274.3 ± 6.24	244.5 ± 5.31	n = 81	[DA5] Siemens Dimension
124.8 ± 1.96	395.6 ± 4.47	94.6 ± 1.64	265.6 ± 6.14	239.2 ± 3.87	n = 4	[DA6] Siemens Dimension LOCI

## Summary of Participant Performance (Mean and Standard Deviation)

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

Specimen: C26	Specimen: C27	Specimen: C28	Specimen: C29	Specimen: C30	Number	[Code] Instrument or Reagent System
0.91 ± 0.30	112.02 ± 18.23	0.71 ± 0.27	0.80 ± 0.28	54.85 ± 8.22	n = 186	[-A-] All Methods - Results reported in ng/mL
0.89 ± 0.07	105.30 ± 7.18	0.62 ± 0.05	0.81 ± 0.08	53.06 ± 4.33	n = 22	[AB1] Abbott
1.10 ± 0.07	129.23 ± 4.42	0.78 ± 0.06	0.97 ± 0.06	61.23 ± 2.34	n = 14	[SAA] Beckman Coulter ACCESS
1.17 ± 0.05	129.93 ± 3.64	0.80 ± 0.00	1.03 ± 0.06	63.02 ± 2.70	n = 14	[BC1] Beckman Coulter UniCel
< 1.00	59.25 ± 7.81	< 1.00	< 1.00	26.25 ± 0.63	n = 2	[BS1] Biosite
0.77 ± 0.11	79.37 ± 4.04	0.47 ± 0.08	0.59 ± 0.08	40.33 ± 2.31	n = 23	[JJ1] Ortho Clinical Diagnostics
1.34 ± 0.09	122.41 ± 5.55	1.00 ± 0.00	1.14 ± 0.09	60.69 ± 1.98	n = 30	[RO3] Roche Elecsys/Modular E/e601/e411
0.59 ± 0.21	122.95 ± 4.91	0.42 ± 0.23	0.48 ± 0.24	59.29 ± 2.14	n = 27	[BY1] Siemens ADVIA/ADVIa Centaur
0.72 ± 0.25	114.16 ± 10.29	0.63 ± 0.30	0.67 ± 0.24	54.05 ± 4.44	n = 25	[DA5] Siemens Dimension
0.81 ± 0.15	97.04 ± 2.78	0.81 ± 0.21	0.73 ± 0.17	47.43 ± 1.10	n = 27	[DA6] Siemens Dimension LOCI
1.30 ± 0.23	131.45 ± 0.86	0.80 ± 0.11	0.90 ± 0.11	62.85 ± 2.68	n = 2	[TO2] Tosoh
2.04 ± 1.56	111.08 ± 11.55	1.65 ± 1.30	2.68 ± 2.50	54.36 ± 5.09	n = 7	[-B-] All Methods - Results reported in U/L
0.00 ± 0.00	33.47 ± 4.98	0.00 ± 0.00	0.00 ± 0.00	25.07 ± 3.89	n = 5	[-P-] All Methods - Results reported as %
0.00 ± 0.00	35.48 ± 6.32	0.00 ± 0.00	0.00 ± 0.00	25.20 ± 5.12	n = 3	[HL1] Helena Laboratories

## Summary of Participant Performance (Mean and Standard Deviation)

## Lactate Dehydrogenase (U/L 37°C)

Specimen: C26	Specimen: C27	Specimen: C28	Specimen: C29	Specimen: C30	Number	[Code] Instrument or Reagent System
101.9 ± 8.90	294.4 ± 26.93	76.0 ± 6.90	160.2 ± 13.56	186.4 ± 16.92	n = 261	[-A-] All Methods - Lactate to Pyruvate
296.7 ± 23.24	711.4 ± 18.51	212.5 ± 14.88	412.8 ± 13.09	477.0 ± 21.77	n = 38	[-B-] All Methods - Pyruvate to Lactate
<Instruments>						
105.6 ± 3.48	305.2 ± 6.98	81.2 ± 2.98	168.0 ± 3.99	192.6 ± 7.91	n = 23	[ABJ] Abbott Architect c System
90.9 ± 5.22	260.4 ± 11.63	67.7 ± 3.65	143.2 ± 6.89	164.8 ± 7.92	n = 59	[OLC] Beckman Coulter AU Chemistry System
89.4 ± 2.60	251.1 ± 5.50	68.0 ± 2.70	140.6 ± 3.12	161.3 ± 4.59	n = 14	[BCG] Beckman Coulter UniCel DxC 600
89.2 ± 1.70	249.6 ± 4.93	67.5 ± 1.86	141.2 ± 2.94	160.8 ± 3.68	n = 9	[BCH] Beckman Coulter UniCel DxC 800
295.4 ± 9.47	721.0 ± 26.18	213.9 ± 4.96	430.6 ± 21.73	489.3 ± 26.37	n = 6	[JJE] Ortho Vitros 250/350/950
292.6 ± 7.44	723.2 ± 5.00	209.5 ± 8.26	405.8 ± 9.60	474.1 ± 8.31	n = 3	[JJH] Ortho Vitros 4600
298.1 ± 31.21	721.4 ± 19.40	209.5 ± 16.13	412.2 ± 11.31	489.7 ± 16.26	n = 9	[JJF] Ortho Vitros 5,1FS
295.8 ± 22.29	705.8 ± 16.27	212.2 ± 15.34	410.6 ± 13.31	472.9 ± 20.55	n = 21	[JJG] Ortho Vitros 5600
107.2 ± 2.11	310.8 ± 4.80	79.9 ± 1.13	168.5 ± 1.94	196.5 ± 4.74	n = 4	[ROJ] Roche cobas c311
105.5 ± 2.59	306.5 ± 6.97	78.1 ± 1.69	165.0 ± 3.56	193.6 ± 4.23	n = 24	[ROC] Roche cobas c501
106.6 ± 3.04	307.0 ± 8.23	79.5 ± 1.62	166.4 ± 3.48	194.7 ± 0.82	n = 5	[ROG] Roche cobas c502
106.8 ± 2.43	303.1 ± 6.82	79.2 ± 2.14	165.3 ± 4.43	192.7 ± 4.21	n = 5	[ROH] Roche cobas c701
105.6 ± 2.73	305.0 ± 7.17	78.5 ± 3.02	165.1 ± 4.37	193.2 ± 6.45	n = 17	[ROD] Roche MODULAR D/P
108.2 ± 1.79	306.2 ± 6.56	81.1 ± 1.50	168.7 ± 3.42	196.1 ± 3.72	n = 17	[BYE] Siemens ADVIA 1800
104.3 ± 4.35	311.4 ± 11.69	76.1 ± 5.76	166.7 ± 6.78	194.9 ± 7.67	n = 21	[DUE] Siemens Dimension EXL
107.5 ± 6.55	311.8 ± 9.58	77.8 ± 5.63	169.8 ± 3.82	197.0 ± 9.63	n = 4	[DUR] Siemens Dimension RxL
107.5 ± 4.53	312.1 ± 8.88	80.6 ± 3.93	168.8 ± 6.04	197.3 ± 6.81	n = 45	[DUT] Siemens Dimension Vista
103.7 ± 4.86	305.4 ± 9.02	76.2 ± 2.77	162.8 ± 5.64	191.2 ± 6.42	n = 5	[DUX] Siemens Dimension Xpand
<Reagents>						
105.6 ± 3.48	305.2 ± 6.98	81.2 ± 2.98	168.0 ± 3.99	192.6 ± 7.91	n = 23	[ABL] Abbott
89.3 ± 2.25	251.1 ± 5.33	67.9 ± 2.25	140.8 ± 3.09	161.1 ± 3.84	n = 26	[BC1] Beckman Coulter
91.0 ± 5.16	260.4 ± 11.72	67.6 ± 3.57	143.2 ± 6.88	164.9 ± 7.83	n = 54	[OL1] Beckman Coulter AU Series
295.4 ± 21.93	712.0 ± 18.41	212.2 ± 14.54	412.6 ± 13.62	478.6 ± 21.34	n = 39	[JJ1] Ortho Clinical Diagnostics
106.0 ± 2.61	306.5 ± 6.97	78.7 ± 1.91	165.8 ± 3.72	194.1 ± 4.34	n = 40	[RO4] Roche cobas c311/c501/c502/c701/c702
105.6 ± 2.73	305.0 ± 7.17	78.5 ± 3.02	165.1 ± 4.37	193.2 ± 6.45	n = 17	[RO2] Roche Hitachi and Modular D/P
108.7 ± 2.65	308.9 ± 4.41	81.0 ± 0.75	167.8 ± 3.82	196.5 ± 3.42	n = 4	[RO1] Roche Integra and MIRA
108.3 ± 1.97	305.9 ± 6.84	81.3 ± 1.66	168.8 ± 3.69	195.9 ± 3.95	n = 21	[BY1] Siemens ADVIA/ADVISIA Centaur
106.3 ± 4.98	311.3 ± 10.05	79.1 ± 4.87	167.9 ± 6.44	196.2 ± 7.47	n = 73	[DA5] Siemens Dimension

## Summary of Participant Performance (Mean and Standard Deviation)

## LDH Isoenzyme 1 (%)

Specimen: C26	Specimen: C27	Specimen: C28	Specimen: C29	Specimen: C30	Number	[Code] Instrument or Reagent System
33.4 ± 2.85	45.9 ± 1.42	37.1 ± 3.12	26.4 ± 1.60	44.8 ± 1.67	n = 9	[-P-] All Methods
34.2 ± 2.36	44.4 ± 1.02	35.8 ± 3.23	26.6 ± 2.56	44.0 ± 0.90	n = 3	[HL1] Helena Laboratories
33.0 ± 2.99	46.5 ± 1.00	37.7 ± 2.83	26.4 ± 0.85	45.3 ± 1.81	n = 6	[SE1] Sebia