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Therapeutic Substance Monitoring/Quantitative Toxicology Proficiency Test Program

Statistical Summary - February 2015 (Event 15-1)

This statistical report summarizes participant data for the five Therapeutic Substance Monitoring proficiency survey specimens shipped 2 February 2015 (originally scheduled 26 January 2015). Test samples (Vials T11, T12, T13, T14, T15) 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 Therapeutic Substance Monitoring Section at (518) 474-0005.

Summary of Participant Performance (Mean and Standard Deviation)

Acetaminophen (mg/L)

Specimen: T11	Specimen: T12	Specimen: T13	Specimen: T14	Specimen: T15	Number	[Code] Instrument or Reagent System
27.18 ± 4.22 26.2	107.77 ± 8.63 106.8	52.14 ± 6.08 51.1	161.98 ± 12.59 160.2	117.11 ± 10.15 115.1	n = 214	[---] All Methods & Instruments [---] Weigh-in value
<Instruments>						
24.81 ± 0.91	101.43 ± 1.45	48.02 ± 0.72	152.21 ± 1.97	109.22 ± 1.77	n = 18	[ABJ] Abbott Architect c System
26.13 ± 1.90	101.92 ± 3.83	48.94 ± 4.17	153.90 ± 9.38	110.67 ± 7.68	n = 23	[OLC] Beckman Coulter AU Chemistry System
25.34 ± 2.19	109.80 ± 5.38	51.63 ± 3.40	164.81 ± 8.40	116.17 ± 2.23	n = 9	[BCG] Beckman Coulter UniCel DxC 600
26.72 ± 0.84	111.06 ± 4.55	52.41 ± 1.92	166.54 ± 6.15	120.61 ± 4.47	n = 9	[BCH] Beckman Coulter UniCel DxC 800
28.48 ± 0.67	116.45 ± 1.48	56.62 ± 0.68	176.44 ± 1.49	129.07 ± 1.93	n = 8	[JJF] Ortho Vitros 5,1FS
28.66 ± 0.76	116.87 ± 2.53	56.75 ± 1.22	176.38 ± 2.51	128.91 ± 2.81	n = 18	[JJG] Ortho Vitros 5600
17.57 ± 0.45	93.31 ± 2.06	40.03 ± 1.05	143.35 ± 3.17	101.38 ± 1.94	n = 21	[ROC] Roche cobas c501
23.67 ± 1.08	100.88 ± 2.25	47.43 ± 0.42	151.22 ± 3.91	108.78 ± 1.85	n = 8	[ROT] Roche Cobas INTEGRA 800
20.73 ± 3.31	99.08 ± 7.28	44.55 ± 4.37	152.83 ± 14.80	108.74 ± 9.89	n = 8	[ROD] Roche MODULAR D/P
25.06 ± 0.71	102.90 ± 3.20	48.62 ± 1.48	152.86 ± 5.34	110.55 ± 3.21	n = 10	[BYE] Siemens ADVIA 1800
30.47 ± 0.73	111.18 ± 1.45	55.67 ± 1.18	166.49 ± 2.40	121.03 ± 1.44	n = 16	[DUE] Siemens Dimension EXL
30.59 ± 0.65	111.96 ± 1.43	55.91 ± 0.57	167.97 ± 2.32	122.50 ± 2.30	n = 8	[DUR] Siemens Dimension RxL
31.02 ± 1.01	113.74 ± 1.90	56.78 ± 1.32	169.13 ± 3.20	123.71 ± 2.87	n = 41	[DUT] Siemens Dimension Vista
30.41 ± 0.53	110.88 ± 1.12	55.16 ± 0.68	166.03 ± 1.06	120.60 ± 1.44	n = 6	[DUX] Siemens Dimension Xpand
<Reagents>						
24.81 ± 0.91	101.43 ± 1.45	48.02 ± 0.72	152.21 ± 1.97	109.22 ± 1.77	n = 18	[AB1] Abbott
26.23 ± 1.51	110.31 ± 4.85	52.06 ± 2.67	165.99 ± 7.09	117.92 ± 3.72	n = 19	[BC1] Beckman Coulter
26.20 ± 1.73	102.20 ± 3.63	48.86 ± 3.71	154.42 ± 8.92	110.22 ± 5.67	n = 16	[OL1] Beckman Coulter AU Series
28.61 ± 0.72	116.70 ± 2.03	56.61 ± 0.92	176.36 ± 1.91	128.85 ± 2.26	n = 29	[JJ1] Ortho Clinical Diagnostics
17.64 ± 0.51	93.49 ± 2.56	40.13 ± 1.14	143.66 ± 3.72	101.55 ± 2.32	n = 23	[RO4] Roche cobas c311/c501/c502/c701/c702
19.47 ± 0.71	96.47 ± 3.00	42.70 ± 1.66	146.64 ± 5.35	105.11 ± 3.45	n = 6	[RO2] Roche Hitachi and Modular D/P
23.18 ± 0.21	100.58 ± 2.44	47.30 ± 0.33	152.11 ± 3.20	108.74 ± 2.01	n = 7	[RO1] Roche Integra and MIRA
25.08 ± 0.73	102.21 ± 2.90	48.61 ± 1.47	151.07 ± 6.21	109.85 ± 3.12	n = 10	[BY1] Siemens ADVIA/ADVIA Centaur
30.76 ± 0.91	112.67 ± 2.15	56.24 ± 1.29	167.99 ± 3.02	122.56 ± 2.72	n = 71	[DA5] Siemens Dimension
28.00 ± 1.80	103.85 ± 6.08	54.26 ± 4.06	162.60 ± 18.16	118.43 ± 7.34	n = 3	[SY2] Syva Emit
25.30 ± 1.50	102.62 ± 5.07	49.14 ± 2.69	155.93 ± 10.58	115.66 ± 9.71	n = 6	[SY5] Syva Emit tox

Summary of Participant Performance (Mean and Standard Deviation)

Carbamazepine (mg/L)

Specimen: T11	Specimen: T12	Specimen: T13	Specimen: T14	Specimen: T15	Number	[Code] Instrument or Reagent System
4.54 ± 0.57	9.38 ± 0.93	8.48 ± 0.89	14.04 ± 1.48	3.52 ± 0.43	n = 221	[---] All Methods & Instruments
5.0	10.6	8.9	16.0	4.0		[---] Weigh-in value
<Instruments>						
4.43 ± 0.86	9.13 ± 2.14	8.24 ± 1.75	13.86 ± 3.51	3.58 ± 0.60	n = 8	[ABJ] Abbott Architect c System
4.45 ± 0.14	9.39 ± 0.54	8.43 ± 0.54	13.66 ± 0.58	3.43 ± 0.20	n = 11	[ABH] Abbott Architect i System
4.85 ± 0.27	9.91 ± 0.55	8.90 ± 0.34	15.07 ± 1.14	3.79 ± 0.22	n = 27	[OLC] Beckman Coulter AU Chemistry System
4.03 ± 0.19	8.77 ± 0.19	7.90 ± 0.28	13.10 ± 0.54	3.09 ± 0.15	n = 9	[BCG] Beckman Coulter UniCel DxC 600
4.23 ± 0.19	9.23 ± 0.28	8.17 ± 0.29	13.72 ± 0.60	3.18 ± 0.14	n = 10	[BCH] Beckman Coulter UniCel DxC 800
3.26 ± 0.23	7.22 ± 0.42	6.30 ± 0.32	10.84 ± 0.60	3.00 ± 0.00	n = 7	[JJF] Ortho Vitros 5,1FS
3.27 ± 0.20	7.36 ± 0.41	6.54 ± 0.39	10.97 ± 0.38	3.00 ± 0.00	n = 18	[JJG] Ortho Vitros 5600
4.64 ± 0.48	9.41 ± 0.69	8.64 ± 0.66	14.03 ± 0.78	3.58 ± 0.59	n = 20	[ROC] Roche cobas c501
4.60 ± 0.13	9.13 ± 0.23	8.45 ± 0.17	14.41 ± 0.30	3.51 ± 0.09	n = 10	[ROT] Roche Cobas INTEGRA 800
5.07 ± 0.21	10.08 ± 0.24	9.07 ± 0.04	14.77 ± 0.28	4.03 ± 0.21	n = 8	[ROD] Roche MODULAR D/P
5.64 ± 0.70	10.11 ± 0.43	9.35 ± 0.76	14.31 ± 0.87	4.37 ± 0.61	n = 6	[BYE] Siemens ADVIA 1800
4.97 ± 0.30	10.42 ± 0.62	9.57 ± 0.68	16.08 ± 1.26	3.85 ± 0.18	n = 11	[COB] Siemens ADVIA Centaur
4.48 ± 0.25	9.22 ± 0.47	8.31 ± 0.37	13.91 ± 0.32	3.41 ± 0.16	n = 10	[DUE] Siemens Dimension EXL
4.48 ± 0.12	9.46 ± 0.29	8.53 ± 0.22	14.29 ± 0.37	3.57 ± 0.15	n = 8	[DUR] Siemens Dimension RxL
4.62 ± 0.24	9.50 ± 0.41	8.54 ± 0.41	14.23 ± 0.54	3.57 ± 0.24	n = 42	[DUT] Siemens Dimension Vista
4.52 ± 0.24	9.56 ± 0.26	8.48 ± 0.15	14.27 ± 0.23	3.54 ± 0.10	n = 3	[DUX] Siemens Dimension Xpand
<Reagents>						
4.50 ± 0.51	9.50 ± 1.16	8.47 ± 1.06	13.88 ± 1.98	3.51 ± 0.41	n = 19	[AB1] Abbott
4.15 ± 0.21	8.99 ± 0.33	8.08 ± 0.36	13.48 ± 0.72	3.13 ± 0.19	n = 22	[BC1] Beckman Coulter
4.78 ± 0.24	9.87 ± 0.58	8.90 ± 0.34	15.51 ± 1.38	3.77 ± 0.19	n = 12	[OL1] Beckman Coulter AU Series
5.05 ± 0.24	10.01 ± 0.36	9.01 ± 0.37	14.62 ± 0.49	4.08 ± 0.23	n = 8	[MG1] Microgenics CEDIA
3.27 ± 0.21	7.32 ± 0.41	6.47 ± 0.38	10.95 ± 0.46	3.00 ± 0.00	n = 25	[JJ1] Ortho Clinical Diagnostics
4.64 ± 0.50	9.41 ± 0.71	8.64 ± 0.65	14.02 ± 0.75	3.58 ± 0.61	n = 23	[RO4] Roche cobas c311/c501/c502/c701/c702
5.02 ± 0.21	10.04 ± 0.20	9.06 ± 0.04	14.72 ± 0.28	3.96 ± 0.19	n = 6	[RO2] Roche Hitachi and Modular D/P
4.60 ± 0.11	9.14 ± 0.26	8.46 ± 0.16	14.40 ± 0.27	3.51 ± 0.07	n = 12	[RO1] Roche Integra and MIRA
5.07 ± 0.38	10.59 ± 0.71	9.72 ± 0.74	16.28 ± 1.29	3.91 ± 0.31	n = 13	[BY1] Siemens ADVIA/ADVIA Centaur
5.60 ± 0.64	10.22 ± 0.58	9.38 ± 0.69	14.57 ± 1.03	4.36 ± 0.53	n = 7	[BY5] Siemens ADVIA/Syva Emit 2000
4.58 ± 0.23	9.46 ± 0.42	8.50 ± 0.38	14.18 ± 0.50	3.54 ± 0.22	n = 63	[DA5] Siemens Dimension
4.95 ± 0.25	10.14 ± 0.42	8.98 ± 0.35	15.05 ± 0.65	3.77 ± 0.17	n = 7	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

Digoxin (µg/L)

Specimen: T11	Specimen: T12	Specimen: T13	Specimen: T14	Specimen: T15	Number	[Code] Instrument or Reagent System
0.688 ± 0.113 0.7	2.195 ± 0.172 2.2	1.567 ± 0.152 1.7	3.295 ± 0.248 3.3	1.119 ± 0.139 1.2	n = 271	[---] All Methods & Instruments [---] Weigh-in value
<Instruments>						
0.640 ± 0.037	2.147 ± 0.075	1.507 ± 0.097	3.131 ± 0.050	1.041 ± 0.061	n = 7	[ABJ] Abbott Architect c System
0.631 ± 0.059	1.979 ± 0.091	1.390 ± 0.075	2.953 ± 0.115	0.965 ± 0.052	n = 15	[ABH] Abbott Architect i System
0.735 ± 0.056	2.254 ± 0.058	1.634 ± 0.074	3.392 ± 0.137	1.192 ± 0.083	n = 4	[SAA] Beckman Coulter ACCESS
0.674 ± 0.110	2.083 ± 0.148	1.470 ± 0.145	3.209 ± 0.193	1.062 ± 0.117	n = 34	[OLC] Beckman Coulter AU Chemistry System
0.568 ± 0.106	2.157 ± 0.109	1.444 ± 0.152	3.171 ± 0.173	1.034 ± 0.107	n = 10	[BCG] Beckman Coulter UniCel DxC 600
0.552 ± 0.148	2.120 ± 0.134	1.529 ± 0.134	3.184 ± 0.148	1.026 ± 0.107	n = 10	[BCH] Beckman Coulter UniCel DxC 800
0.797 ± 0.023	2.371 ± 0.081	1.768 ± 0.024	3.506 ± 0.010	1.263 ± 0.032	n = 3	[BCU] Beckman Coulter UniCel DxI 800
0.472 ± 0.069	1.933 ± 0.093	1.353 ± 0.105	2.967 ± 0.079	0.875 ± 0.100	n = 8	[JJF] Ortho Vitros 5,1FS
0.546 ± 0.102	2.008 ± 0.103	1.426 ± 0.119	3.041 ± 0.160	0.953 ± 0.110	n = 19	[JJG] Ortho Vitros 5600
0.750 ± 0.045	2.280 ± 0.036	1.636 ± 0.047	3.340 ± 0.046	1.145 ± 0.045	n = 3	[ROJ] Roche cobas c311
0.731 ± 0.072	2.216 ± 0.100	1.588 ± 0.066	3.229 ± 0.087	1.190 ± 0.085	n = 20	[ROC] Roche cobas c501
0.828 ± 0.051	2.200 ± 0.000	1.572 ± 0.051	3.328 ± 0.051	1.284 ± 0.154	n = 3	[ROG] Roche cobas c502
0.782 ± 0.040	2.693 ± 0.137	1.831 ± 0.090	4.072 ± 0.115	1.226 ± 0.042	n = 4	[ROA] Roche cobas e601
0.781 ± 0.103	2.179 ± 0.152	1.580 ± 0.108	3.359 ± 0.183	1.209 ± 0.076	n = 5	[ROT] Roche Cobas INTEGRA 800
0.744 ± 0.086	2.173 ± 0.122	1.644 ± 0.078	3.123 ± 0.150	1.166 ± 0.071	n = 9	[ROD] Roche MODULAR D/P
0.559 ± 0.093	2.179 ± 0.083	1.493 ± 0.110	3.128 ± 0.104	1.008 ± 0.043	n = 9	[BYE] Siemens ADVIA 1800
0.803 ± 0.040	2.378 ± 0.076	1.793 ± 0.073	3.437 ± 0.153	1.322 ± 0.064	n = 17	[COB] Siemens ADVIA Centaur
0.751 ± 0.083	2.328 ± 0.096	1.686 ± 0.099	3.474 ± 0.136	1.198 ± 0.077	n = 18	[DUE] Siemens Dimension EXL
0.701 ± 0.061	2.273 ± 0.089	1.600 ± 0.000	3.423 ± 0.124	1.199 ± 0.064	n = 10	[DUR] Siemens Dimension RxL
0.699 ± 0.017	2.240 ± 0.059	1.580 ± 0.040	3.455 ± 0.081	1.120 ± 0.037	n = 43	[DUT] Siemens Dimension Vista
0.693 ± 0.116	2.328 ± 0.151	1.612 ± 0.132	3.556 ± 0.122	1.175 ± 0.136	n = 6	[DUX] Siemens Dimension Xpand
0.774 ± 0.061	2.407 ± 0.117	1.676 ± 0.079	3.631 ± 0.064	1.257 ± 0.039	n = 4	[DPD] Siemens Immulite 2000
<Reagents>						
0.635 ± 0.051	2.034 ± 0.131	1.427 ± 0.106	3.018 ± 0.137	0.985 ± 0.063	n = 22	[AB1] Abbott
0.621 ± 0.141	2.175 ± 0.129	1.536 ± 0.160	3.242 ± 0.191	1.075 ± 0.131	n = 29	[BC1] Beckman Coulter
0.705 ± 0.098	2.098 ± 0.163	1.502 ± 0.130	3.247 ± 0.195	1.071 ± 0.119	n = 20	[OL1] Beckman Coulter AU Series
0.528 ± 0.051	2.026 ± 0.097	1.381 ± 0.073	3.119 ± 0.073	0.960 ± 0.079	n = 6	[MG2] Microgenics DRI
0.525 ± 0.099	1.990 ± 0.105	1.402 ± 0.114	3.007 ± 0.124	0.932 ± 0.110	n = 28	[JJ1] Ortho Clinical Diagnostics
0.742 ± 0.074	2.225 ± 0.090	1.592 ± 0.067	3.254 ± 0.095	1.186 ± 0.085	n = 25	[RO4] Roche cobas c311/c501/c502/c701/c702
0.800 ± 0.000	2.662 ± 0.111	1.815 ± 0.066	4.066 ± 0.145	1.264 ± 0.051	n = 7	[RO3] Roche Elecsys/Modular E/e601/e411
0.770 ± 0.082	2.231 ± 0.090	1.685 ± 0.041	3.100 ± 0.176	1.185 ± 0.041	n = 4	[RO2] Roche Hitachi and Modular D/P
0.789 ± 0.088	2.143 ± 0.155	1.563 ± 0.105	3.328 ± 0.175	1.209 ± 0.066	n = 6	[RO1] Roche Integra and MIRA
0.727 ± 0.079	2.120 ± 0.123	1.597 ± 0.086	3.140 ± 0.118	1.157 ± 0.087	n = 5	[RO5] Roche Tina-quant
0.737 ± 0.136	2.324 ± 0.126	1.713 ± 0.163	3.367 ± 0.216	1.228 ± 0.169	n = 27	[BY1] Siemens ADVIA/ADVIA Centaur
0.718 ± 0.073	2.294 ± 0.102	1.632 ± 0.093	3.470 ± 0.129	1.177 ± 0.077	n = 45	[DA5] Siemens Dimension
0.700 ± 0.000	2.237 ± 0.054	1.574 ± 0.041	3.455 ± 0.075	1.113 ± 0.029	n = 32	[DA6] Siemens Dimension LOCI
0.798 ± 0.077	2.446 ± 0.134	1.682 ± 0.070	3.690 ± 0.170	1.268 ± 0.039	n = 5	[DP5] Siemens Immulite
0.698 ± 0.078	2.095 ± 0.148	1.507 ± 0.189	3.272 ± 0.350	1.118 ± 0.094	n = 7	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

Ethanol (mg/dL)

Specimen: T11	Specimen: T12	Specimen: T13	Specimen: T14	Specimen: T15	Number	[Code] Instrument or Reagent System
88.54 ± 4.30 90.9	112.61 ± 4.55 113.3	230.71 ± 9.69 237.4	166.47 ± 7.17 170.0	177.46 ± 8.21 183.5	n = 219	[---] All Methods & Instruments [---] Weigh-in value
<Instruments>						
88.27 ± 2.78	112.25 ± 3.21	228.02 ± 5.78	165.28 ± 4.62	176.06 ± 5.01	n = 17	[ABJ] Abbott Architect c System
89.66 ± 1.82	114.01 ± 2.79	234.43 ± 5.25	168.29 ± 3.65	179.12 ± 5.03	n = 18	[OLC] Beckman Coulter AU Chemistry System
91.70 ± 2.37	115.31 ± 3.22	234.47 ± 5.01	168.39 ± 4.99	179.17 ± 5.16	n = 10	[BCG] Beckman Coulter UniCel DxC 600
91.44 ± 3.54	115.40 ± 4.15	233.53 ± 8.74	168.20 ± 6.77	179.20 ± 9.11	n = 8	[BCH] Beckman Coulter UniCel DxC 800
85.85 ± 4.17	110.97 ± 3.97	229.61 ± 6.81	166.21 ± 7.48	175.40 ± 8.16	n = 11	[GCC] Gas Chromatograph
82.50 ± 3.54	105.73 ± 1.05	210.10 ± 8.63	157.95 ± 8.34	164.48 ± 5.35	n = 8	[JJF] Ortho Vitros 5,1FS
82.17 ± 1.88	105.75 ± 4.79	212.05 ± 10.06	155.14 ± 5.22	162.68 ± 6.48	n = 18	[JJG] Ortho Vitros 5600
89.45 ± 2.18	114.01 ± 2.93	233.35 ± 6.93	168.01 ± 5.25	180.96 ± 5.67	n = 20	[ROC] Roche cobas c501
89.48 ± 2.63	111.99 ± 1.91	230.73 ± 3.53	165.45 ± 2.00	177.73 ± 3.88	n = 6	[ROT] Roche Cobas INTEGRA 800
89.85 ± 3.30	113.59 ± 3.34	232.55 ± 6.59	168.37 ± 5.68	180.03 ± 7.32	n = 10	[ROD] Roche MODULAR D/P
91.44 ± 2.02	116.34 ± 2.59	240.03 ± 2.98	173.65 ± 2.55	183.70 ± 3.32	n = 10	[BYE] Siemens ADVIA 1800
92.97 ± 1.85	119.22 ± 1.43	243.55 ± 2.47	175.94 ± 1.95	189.08 ± 1.69	n = 3	[BYB] Siemens ADVIA 2400
89.76 ± 2.59	113.90 ± 3.48	232.74 ± 6.70	168.59 ± 5.15	180.27 ± 4.12	n = 16	[DUE] Siemens Dimension EXL
88.34 ± 5.43	111.89 ± 6.75	230.63 ± 13.13	166.92 ± 10.89	176.56 ± 11.57	n = 8	[DUR] Siemens Dimension RxL
88.32 ± 4.19	112.55 ± 3.54	231.51 ± 7.70	166.64 ± 7.07	178.01 ± 6.98	n = 40	[DUT] Siemens Dimension Vista
90.65 ± 3.85	113.94 ± 2.98	232.07 ± 4.34	167.54 ± 2.66	178.42 ± 4.07	n = 6	[DUX] Siemens Dimension Xpand
<Reagents>						
87.90 ± 3.15	111.85 ± 3.61	228.08 ± 5.50	165.37 ± 4.41	176.16 ± 4.80	n = 18	[AB1] Abbott
91.25 ± 3.17	115.03 ± 3.74	233.28 ± 6.83	167.66 ± 6.06	178.45 ± 7.26	n = 19	[BC1] Beckman Coulter
89.71 ± 1.34	114.48 ± 2.43	235.71 ± 3.92	168.91 ± 3.07	180.36 ± 3.22	n = 14	[OL1] Beckman Coulter AU Series
85.72 ± 4.48	111.04 ± 4.50	229.46 ± 8.57	166.31 ± 8.09	175.20 ± 8.81	n = 10	[IH1] In-House
81.94 ± 2.73	105.60 ± 3.35	211.73 ± 8.94	156.00 ± 5.84	163.76 ± 6.23	n = 29	[JJ1] Ortho Clinical Diagnostics
89.40 ± 2.01	113.70 ± 2.85	232.59 ± 6.46	167.83 ± 4.94	180.42 ± 5.05	n = 23	[RO4] Roche cobas c311/c501/c502/c701/c702
89.85 ± 3.30	113.59 ± 3.34	232.55 ± 6.59	168.37 ± 5.68	180.03 ± 7.32	n = 10	[RO2] Roche Hitachi and Modular D/P
88.99 ± 1.43	111.93 ± 1.64	230.78 ± 3.21	165.43 ± 1.14	177.84 ± 3.48	n = 7	[RO1] Roche Integra and MIRA
91.89 ± 2.33	116.96 ± 2.44	240.47 ± 2.20	173.86 ± 2.08	183.90 ± 3.15	n = 7	[BY1] Siemens ADVIA/ADVIA Centaur
91.28 ± 1.27	116.48 ± 2.82	240.97 ± 5.03	173.73 ± 3.33	185.52 ± 4.06	n = 5	[BY5] Siemens ADVIA/Syva Emit 2000
88.94 ± 4.06	112.97 ± 3.89	231.81 ± 7.77	167.35 ± 6.68	178.79 ± 6.41	n = 70	[DA5] Siemens Dimension
87.84 ± 2.34	112.43 ± 3.63	226.30 ± 8.04	161.08 ± 6.45	171.27 ± 4.15	n = 3	[SY2] Syva Emit

Summary of Participant Performance (Mean and Standard Deviation)

Ethosuximide (mg/L)

Specimen: T11 -----	Specimen: T12 -----	Specimen: T13 -----	Specimen: T14 -----	Specimen: T15 -----	Number -----	[Code] Instrument or Reagent System -----
105.08 ± 7.19 101.8	119.73 ± 8.65 119.2	64.08 ± 4.43 63.2	183.14 ± 13.14 178.8	39.56 ± 3.18 39.0	n = 7	[---] All Methods & Instruments [---] Weigh-in value
103.50 ± 7.01	119.37 ± 9.32	63.94 ± 3.47	178.98 ± 9.83	38.85 ± 3.52	n = 4	<Instruments> [OLC] Beckman Coulter AU Chemistry System
106.58 ± 6.78	121.64 ± 7.88	65.13 ± 3.54	185.83 ± 12.48	40.16 ± 3.08	n = 6	<Reagents> [SY2] Syva Emit

Summary of Participant Performance (Mean and Standard Deviation)

Gentamicin (mg/L)

Specimen: T11	Specimen: T12	Specimen: T13	Specimen: T14	Specimen: T15	Number	[Code] Instrument or Reagent System
14.25 ± 1.37 13.8	3.80 ± 0.30 3.6	7.96 ± 0.68 7.6	5.73 ± 0.46 5.4	12.21 ± 1.11 12.0	n = 167	[---] All Methods & Instruments [---] Weigh-in value
<Instruments>						
13.92 ± 1.33	3.46 ± 0.26	7.70 ± 0.68	5.43 ± 0.44	11.98 ± 1.17	n = 5	[ABJ] Abbott Architect c System
13.56 ± 0.92	3.77 ± 0.15	7.85 ± 0.26	5.64 ± 0.34	11.58 ± 0.42	n = 11	[ABH] Abbott Architect i System
15.69 ± 1.12	4.23 ± 0.29	8.84 ± 0.64	6.34 ± 0.43	13.80 ± 1.47	n = 17	[OLC] Beckman Coulter AU Chemistry System
15.92 ± 0.50	4.22 ± 0.27	8.78 ± 0.23	6.28 ± 0.24	13.34 ± 0.57	n = 5	[BCG] Beckman Coulter UniCel DxC 600
15.02 ± 0.71	3.99 ± 0.22	8.54 ± 0.29	6.14 ± 0.25	12.57 ± 0.69	n = 9	[BCH] Beckman Coulter UniCel DxC 800
16.85 ± 1.33	4.22 ± 0.26	8.70 ± 0.69	6.38 ± 0.43	14.69 ± 1.24	n = 6	[JJF] Ortho Vitros 5,1FS
15.21 ± 0.78	4.08 ± 0.14	8.35 ± 0.44	6.05 ± 0.19	13.10 ± 0.56	n = 14	[JJG] Ortho Vitros 5600
12.74 ± 1.49	3.45 ± 0.22	7.13 ± 0.26	5.33 ± 0.26	11.32 ± 0.89	n = 11	[ROC] Roche cobas c501
12.90 ± 2.09	3.63 ± 0.14	7.37 ± 0.14	5.45 ± 0.36	12.01 ± 1.99	n = 3	[ROS] Roche Cobas INTEGRA 400
13.03 ± 0.38	3.69 ± 0.10	7.02 ± 0.11	5.25 ± 0.14	11.35 ± 0.40	n = 11	[ROT] Roche Cobas INTEGRA 800
14.16 ± 0.50	3.69 ± 0.20	7.52 ± 0.73	5.55 ± 0.55	11.80 ± 0.52	n = 7	[ROD] Roche MODULAR D/P
14.22 ± 0.69	3.76 ± 0.16	8.16 ± 0.60	5.80 ± 0.29	12.97 ± 0.72	n = 10	[COB] Siemens ADVIA Centaur
14.47 ± 0.21	3.66 ± 0.11	7.72 ± 0.23	5.44 ± 0.06	11.96 ± 0.33	n = 5	[DUE] Siemens Dimension EXL
14.48 ± 0.68	3.74 ± 0.11	7.79 ± 0.13	5.60 ± 0.00	12.27 ± 0.37	n = 5	[DUR] Siemens Dimension RxL
13.86 ± 0.95	3.68 ± 0.14	7.82 ± 0.32	5.55 ± 0.21	11.74 ± 0.28	n = 42	[DUT] Siemens Dimension Vista
<Reagents>						
13.63 ± 1.14	3.70 ± 0.22	7.85 ± 0.41	5.59 ± 0.37	11.63 ± 0.79	n = 16	[AB1] Abbott
15.17 ± 0.98	4.04 ± 0.25	8.61 ± 0.30	6.16 ± 0.27	12.87 ± 0.70	n = 15	[BC1] Beckman Coulter
15.65 ± 0.99	4.21 ± 0.22	8.86 ± 0.57	6.38 ± 0.43	14.03 ± 1.97	n = 9	[OL1] Beckman Coulter AU Series
15.62 ± 1.20	4.11 ± 0.18	8.42 ± 0.50	6.12 ± 0.29	13.41 ± 0.99	n = 20	[JJ1] Ortho Clinical Diagnostics
12.29 ± 1.78	3.52 ± 0.20	7.14 ± 0.18	5.34 ± 0.35	11.10 ± 1.00	n = 7	[RO4] Roche cobas c311/c501/c502/c701/c702
14.39 ± 0.34	3.71 ± 0.13	7.26 ± 0.95	5.70 ± 0.92	11.65 ± 0.69	n = 5	[RO2] Roche Hitachi and Modular D/P
13.09 ± 1.18	3.67 ± 0.11	7.09 ± 0.19	5.25 ± 0.16	11.29 ± 0.59	n = 14	[RO1] Roche Integra and MIRA
14.22 ± 0.69	3.76 ± 0.16	8.16 ± 0.60	5.80 ± 0.29	12.97 ± 0.72	n = 10	[BY1] Siemens ADVIA/ADVIA Centaur
13.86 ± 0.10	3.89 ± 0.29	7.65 ± 0.54	6.20 ± 0.00	12.72 ± 0.49	n = 3	[BY5] Siemens ADVIA/Syva Emit 2000
14.01 ± 0.91	3.68 ± 0.14	7.80 ± 0.30	5.54 ± 0.18	11.82 ± 0.37	n = 52	[DA5] Siemens Dimension
15.55 ± 1.63	4.25 ± 0.34	8.83 ± 0.66	6.29 ± 0.40	13.39 ± 1.45	n = 9	[SY4] Syva Emit 2000
13.38 ± 0.47	3.23 ± 0.16	6.06 ± 2.94	5.33 ± 0.23	11.63 ± 0.53	n = 4	[TH1] Thermo Scientific

Summary of Participant Performance (Mean and Standard Deviation)

Lithium (mmol/L)

Specimen: T11	Specimen: T12	Specimen: T13	Specimen: T14	Specimen: T15	Number	[Code] Instrument or Reagent System
0.439 ± 0.061 0.3	0.707 ± 0.058 0.8	2.146 ± 0.126 2.4	1.053 ± 0.069 1.2	1.176 ± 0.079 1.3	n = 202	[---] All Methods & Instruments [---] Weigh-in value
<Instruments>						
0.427 ± 0.041	0.698 ± 0.037	2.085 ± 0.062	1.051 ± 0.055	1.164 ± 0.049	n = 15	[ABJ] Abbott Architect c System
0.409 ± 0.013	0.693 ± 0.012	2.065 ± 0.043	1.005 ± 0.014	1.132 ± 0.046	n = 22	[OLC] Beckman Coulter AU Chemistry System
0.428 ± 0.044	0.668 ± 0.039	2.107 ± 0.030	1.006 ± 0.022	1.139 ± 0.054	n = 7	[BCG] Beckman Coulter UniCel DxC 600
0.417 ± 0.056	0.666 ± 0.039	2.078 ± 0.097	1.015 ± 0.071	1.130 ± 0.059	n = 10	[BCH] Beckman Coulter UniCel DxC 800
0.433 ± 0.034	0.675 ± 0.045	2.093 ± 0.106	1.044 ± 0.118	1.141 ± 0.085	n = 3	[ICP] ICP/MS
0.507 ± 0.063	0.795 ± 0.042	2.391 ± 0.062	1.167 ± 0.067	1.311 ± 0.080	n = 8	[JJF] Ortho Vitros 5,1FS
0.509 ± 0.046	0.796 ± 0.069	2.404 ± 0.049	1.155 ± 0.077	1.300 ± 0.000	n = 19	[JJG] Ortho Vitros 5600
0.436 ± 0.056	0.701 ± 0.051	2.109 ± 0.072	1.043 ± 0.053	1.200 ± 0.000	n = 21	[ROC] Roche cobas c501
0.410 ± 0.040	0.705 ± 0.041	2.160 ± 0.062	1.092 ± 0.011	1.173 ± 0.042	n = 6	[ROT] Roche Cobas INTEGRA 800
0.491 ± 0.068	0.762 ± 0.074	2.098 ± 0.107	1.084 ± 0.085	1.189 ± 0.094	n = 7	[ROD] Roche MODULAR D/P
0.477 ± 0.067	0.709 ± 0.013	2.262 ± 0.120	1.093 ± 0.023	1.224 ± 0.070	n = 13	[BYE] Siemens ADVIA 1800
0.432 ± 0.049	0.675 ± 0.054	2.131 ± 0.147	1.068 ± 0.049	1.190 ± 0.073	n = 3	[BYB] Siemens ADVIA 2400
0.314 ± 0.033	0.596 ± 0.029	2.030 ± 0.041	0.936 ± 0.041	1.071 ± 0.026	n = 6	[DUE] Siemens Dimension EXL
0.332 ± 0.049	0.626 ± 0.053	2.105 ± 0.056	0.980 ± 0.040	1.066 ± 0.049	n = 6	[DUR] Siemens Dimension RxL
0.434 ± 0.037	0.707 ± 0.025	2.154 ± 0.052	1.058 ± 0.037	1.177 ± 0.031	n = 41	[DUT] Siemens Dimension Vista
0.394 ± 0.010	0.645 ± 0.045	2.092 ± 0.015	0.994 ± 0.010	1.092 ± 0.015	n = 3	[DUX] Siemens Dimension Xpand
<Reagents>						
0.430 ± 0.042	0.698 ± 0.039	2.093 ± 0.054	1.056 ± 0.054	1.169 ± 0.046	n = 14	[AB1] Abbott
0.418 ± 0.046	0.666 ± 0.039	2.081 ± 0.059	1.012 ± 0.053	1.141 ± 0.057	n = 16	[BC1] Beckman Coulter
0.409 ± 0.014	0.693 ± 0.010	2.074 ± 0.038	1.006 ± 0.014	1.135 ± 0.042	n = 17	[OL1] Beckman Coulter AU Series
0.436 ± 0.039	0.683 ± 0.060	2.110 ± 0.137	1.014 ± 0.061	1.097 ± 0.005	n = 3	[IH1] In-House
0.508 ± 0.050	0.796 ± 0.061	2.405 ± 0.059	1.160 ± 0.074	1.310 ± 0.051	n = 28	[JJ1] Ortho Clinical Diagnostics
0.433 ± 0.050	0.700 ± 0.041	2.115 ± 0.070	1.043 ± 0.051	1.200 ± 0.000	n = 24	[RO4] Roche cobas c311/c501/c502/c701/c702
0.410 ± 0.040	0.705 ± 0.041	2.160 ± 0.062	1.092 ± 0.011	1.173 ± 0.042	n = 6	[RO1] Roche Integra and MIRA
0.469 ± 0.070	0.724 ± 0.080	2.246 ± 0.137	1.090 ± 0.033	1.214 ± 0.081	n = 14	[BY1] Siemens ADVIA/ADVIA Centaur
0.416 ± 0.057	0.693 ± 0.052	2.134 ± 0.065	1.036 ± 0.057	1.154 ± 0.055	n = 56	[DA5] Siemens Dimension
0.466 ± 0.062	0.725 ± 0.060	2.088 ± 0.081	1.051 ± 0.073	1.160 ± 0.063	n = 13	[TH1] Thermo Scientific

Summary of Participant Performance (Mean and Standard Deviation)

Phenobarbital (mg/L)

Specimen: T11	Specimen: T12	Specimen: T13	Specimen: T14	Specimen: T15	Number	[Code] Instrument or Reagent System
26.73 ± 1.67 27.7	31.69 ± 1.82 32.4	38.17 ± 2.09 39.7	47.23 ± 2.58 48.5	14.91 ± 1.14 14.9	n = 191	[---] All Methods & Instruments [---] Weigh-in value
<Instruments>						
26.87 ± 0.99	31.91 ± 1.05	38.65 ± 0.98	47.75 ± 1.32	15.10 ± 0.40	n = 4	[ABJ] Abbott Architect c System
27.98 ± 1.08	33.29 ± 1.45	40.22 ± 1.60	49.80 ± 1.87	15.15 ± 0.46	n = 15	[ABH] Abbott Architect i System
26.27 ± 1.03	30.99 ± 1.42	37.67 ± 1.61	46.86 ± 1.97	14.24 ± 0.59	n = 26	[OLC] Beckman Coulter AU Chemistry System
24.74 ± 1.19	29.69 ± 1.07	34.82 ± 1.54	43.98 ± 1.57	15.42 ± 0.86	n = 9	[BCG] Beckman Coulter UniCel DxC 600
26.11 ± 1.09	30.71 ± 0.62	36.10 ± 1.01	44.84 ± 1.16	16.12 ± 0.59	n = 10	[BCH] Beckman Coulter UniCel DxC 800
25.45 ± 1.44	30.61 ± 1.75	37.44 ± 1.72	46.70 ± 2.95	13.60 ± 0.66	n = 4	[ROJ] Roche cobas c311
26.37 ± 0.87	31.26 ± 0.79	38.55 ± 1.20	47.49 ± 1.29	13.98 ± 0.80	n = 22	[ROC] Roche cobas c501
26.18 ± 0.46	30.65 ± 0.75	37.62 ± 0.84	47.13 ± 1.60	14.11 ± 0.23	n = 10	[ROT] Roche Cobas INTEGRA 800
27.05 ± 1.67	32.07 ± 1.89	38.67 ± 1.48	47.72 ± 0.95	14.62 ± 0.69	n = 8	[ROD] Roche MODULAR D/P
29.98 ± 1.38	35.03 ± 1.96	42.52 ± 3.04	52.14 ± 2.32	16.40 ± 1.20	n = 10	[COB] Siemens ADVIA Centaur
29.17 ± 3.21	33.72 ± 2.07	39.83 ± 1.72	48.71 ± 2.92	15.79 ± 0.98	n = 8	[DUE] Siemens Dimension EXL
28.56 ± 1.96	33.81 ± 1.85	40.00 ± 2.38	50.39 ± 2.59	16.01 ± 1.42	n = 8	[DUR] Siemens Dimension RxL
26.82 ± 1.54	31.97 ± 1.41	37.81 ± 1.43	46.72 ± 1.80	15.36 ± 1.16	n = 42	[DUT] Siemens Dimension Vista
27.07 ± 0.77	31.48 ± 1.12	37.67 ± 0.50	46.84 ± 1.75	15.17 ± 0.60	n = 3	[DUX] Siemens Dimension Xpand
<Reagents>						
27.75 ± 1.14	32.98 ± 1.45	39.84 ± 1.55	49.33 ± 1.96	15.14 ± 0.44	n = 19	[AB1] Abbott
25.53 ± 1.42	30.26 ± 1.18	35.55 ± 1.43	44.49 ± 1.43	15.73 ± 0.77	n = 21	[BC1] Beckman Coulter
26.07 ± 1.10	31.09 ± 1.40	37.57 ± 1.72	46.73 ± 1.93	14.16 ± 0.41	n = 13	[OL1] Beckman Coulter AU Series
27.07 ± 0.87	32.04 ± 0.95	38.43 ± 1.28	48.85 ± 1.87	15.05 ± 0.56	n = 4	[MG1] Microgenics CEDIA
26.44 ± 0.90	31.17 ± 0.98	38.50 ± 1.24	47.47 ± 1.45	13.94 ± 0.78	n = 27	[RO4] Roche cobas c311/c501/c502/c701/c702
26.07 ± 0.48	30.50 ± 0.74	37.44 ± 0.84	46.80 ± 1.66	14.13 ± 0.23	n = 12	[RO1] Roche Integra and MIRA
26.60 ± 1.79	31.59 ± 1.39	38.06 ± 1.70	47.76 ± 1.01	14.42 ± 0.78	n = 8	[RO6] Roche ONLINE
29.98 ± 1.38	35.03 ± 1.96	42.52 ± 3.04	52.14 ± 2.32	16.40 ± 1.20	n = 10	[BY1] Siemens ADVIA/ADVIA Centaur
25.29 ± 2.34	30.32 ± 3.13	37.89 ± 3.77	45.80 ± 5.60	14.20 ± 0.89	n = 4	[BY5] Siemens ADVIA/Syva Emit 2000
27.20 ± 1.87	32.31 ± 1.67	38.20 ± 1.65	47.26 ± 2.27	15.48 ± 1.17	n = 61	[DA5] Siemens Dimension
26.03 ± 0.56	30.10 ± 0.96	37.33 ± 1.05	46.06 ± 1.09	13.90 ± 0.42	n = 8	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

Phenytoin (mg/L)

Specimen: T11	Specimen: T12	Specimen: T13	Specimen: T14	Specimen: T15	Number	[Code] Instrument or Reagent System
16.59 ± 1.23 17.0	7.89 ± 0.69 8.0	27.19 ± 1.80 28.0	11.83 ± 0.89 12.0	19.66 ± 1.42 20.0	n = 259	[---] All Methods & Instruments [---] Weigh-in value
<Instruments>						
16.38 ± 0.82	7.92 ± 0.20	27.79 ± 1.00	11.57 ± 0.51	19.48 ± 0.72	n = 4	[ABJ] Abbott Architect c System
16.28 ± 0.62	7.75 ± 0.31	26.36 ± 1.04	11.64 ± 0.38	19.02 ± 0.68	n = 17	[ABH] Abbott Architect i System
16.49 ± 0.87	7.60 ± 0.43	26.52 ± 1.86	11.63 ± 0.63	19.24 ± 1.20	n = 38	[OLC] Beckman Coulter AU Chemistry System
16.12 ± 0.55	7.76 ± 0.40	26.03 ± 1.46	11.69 ± 0.39	19.07 ± 0.85	n = 10	[BCG] Beckman Coulter UniCel DxC 600
16.21 ± 0.67	7.73 ± 0.35	26.23 ± 1.05	11.79 ± 0.31	19.41 ± 0.85	n = 11	[BCH] Beckman Coulter UniCel DxC 800
15.09 ± 0.71	7.23 ± 0.23	26.39 ± 1.17	10.83 ± 0.48	18.38 ± 0.88	n = 8	[JJF] Ortho Vitros 5,1FS
15.19 ± 0.73	7.16 ± 0.34	26.38 ± 1.29	10.79 ± 0.35	18.58 ± 0.77	n = 19	[JJG] Ortho Vitros 5600
15.67 ± 0.68	7.65 ± 0.19	25.19 ± 0.93	11.43 ± 0.41	18.82 ± 0.78	n = 3	[ROJ] Roche cobas c311
15.96 ± 0.91	7.58 ± 0.49	26.25 ± 1.30	11.40 ± 0.66	19.00 ± 0.91	n = 23	[ROC] Roche cobas c501
15.61 ± 0.37	7.82 ± 0.15	25.67 ± 1.22	11.13 ± 0.14	18.31 ± 0.29	n = 3	[ROG] Roche cobas c502
15.99 ± 0.50	7.55 ± 0.23	26.86 ± 0.67	11.31 ± 0.37	19.01 ± 0.59	n = 11	[ROT] Roche Cobas INTEGRA 800
16.47 ± 0.73	7.87 ± 0.37	26.68 ± 0.96	11.78 ± 0.33	19.50 ± 0.74	n = 9	[ROD] Roche MODULAR D/P
16.31 ± 1.79	8.10 ± 0.91	27.60 ± 2.77	11.85 ± 1.56	21.24 ± 2.67	n = 8	[BYE] Siemens ADVIA 1800
17.59 ± 1.44	8.52 ± 0.47	30.69 ± 3.19	12.89 ± 0.57	22.27 ± 0.99	n = 12	[COB] Siemens ADVIA Centaur
17.49 ± 0.64	8.19 ± 0.50	28.43 ± 1.38	12.22 ± 0.47	20.54 ± 0.82	n = 17	[DUE] Siemens Dimension EXL
17.22 ± 0.60	8.01 ± 0.64	28.68 ± 1.41	12.28 ± 0.42	20.55 ± 0.75	n = 8	[DUR] Siemens Dimension RxL
17.87 ± 0.75	8.80 ± 0.56	28.56 ± 1.06	12.91 ± 0.69	20.85 ± 0.94	n = 43	[DUT] Siemens Dimension Vista
17.50 ± 1.30	8.49 ± 0.53	28.92 ± 1.40	12.30 ± 0.67	20.42 ± 1.00	n = 5	[DUX] Siemens Dimension Xpand
<Reagents>						
16.30 ± 0.66	7.78 ± 0.30	26.65 ± 1.26	11.63 ± 0.41	19.11 ± 0.72	n = 21	[AB1] Abbott
16.18 ± 0.67	7.75 ± 0.40	26.18 ± 1.30	11.72 ± 0.37	19.25 ± 0.95	n = 23	[BC1] Beckman Coulter
16.68 ± 0.81	7.70 ± 0.34	26.33 ± 1.80	11.82 ± 0.65	19.32 ± 1.18	n = 20	[OL1] Beckman Coulter AU Series
16.60 ± 0.78	6.98 ± 0.17	27.50 ± 0.50	11.55 ± 0.62	19.61 ± 0.86	n = 6	[MG1] Microgenics CEDIA
15.18 ± 0.76	7.20 ± 0.34	26.41 ± 1.36	10.81 ± 0.41	18.57 ± 0.87	n = 28	[JJ1] Ortho Clinical Diagnostics
15.93 ± 0.82	7.63 ± 0.42	26.09 ± 1.31	11.40 ± 0.58	18.86 ± 0.83	n = 29	[RO4] Roche cobas c311/c501/c502/c701/c702
15.97 ± 0.44	7.54 ± 0.26	26.68 ± 0.77	11.28 ± 0.35	18.90 ± 0.60	n = 13	[RO1] Roche Integra and MIRA
16.24 ± 0.87	7.77 ± 0.40	26.43 ± 0.75	11.72 ± 0.36	19.52 ± 0.72	n = 8	[RO6] Roche ONLINE
18.01 ± 1.71	8.62 ± 0.51	30.88 ± 3.00	13.07 ± 0.86	22.43 ± 0.96	n = 14	[BY1] Siemens ADVIA/ADVIA Centaur
16.98 ± 2.11	8.35 ± 0.62	27.89 ± 2.79	12.06 ± 1.39	21.82 ± 2.04	n = 8	[BY5] Siemens ADVIA/Syva Emit 2000
17.68 ± 0.78	8.55 ± 0.65	28.56 ± 1.21	12.61 ± 0.70	20.71 ± 0.91	n = 73	[DA5] Siemens Dimension
16.08 ± 0.62	7.61 ± 0.19	25.90 ± 2.13	11.43 ± 0.59	18.68 ± 1.33	n = 10	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

Free Phenytoin (mg/L)

Specimen: T11	Specimen: T12	Specimen: T13	Specimen: T14	Specimen: T15	Number	[Code] Instrument or Reagent System
2.70 ± 0.41	1.04 ± 0.17	4.40 ± 0.64	1.65 ± 0.19	2.99 ± 0.35	n = 21	[---] All Methods & Instruments
2.58 ± 0.42	0.99 ± 0.21	4.16 ± 0.63	1.60 ± 0.20	2.81 ± 0.33	n = 9	<Instruments> [OLC] Beckman Coulter AU Chemistry System
2.74 ± 0.36	1.09 ± 0.09	4.74 ± 0.66	1.71 ± 0.16	3.14 ± 0.31	n = 5	[ROT] Roche Cobas INTEGRA 800
2.17 ± 0.05	0.87 ± 0.05	3.57 ± 0.14	1.40 ± 0.09	2.41 ± 0.20	n = 3	<Reagents> [OL1] Beckman Coulter AU Series
2.72 ± 0.29	1.08 ± 0.09	4.67 ± 0.55	1.69 ± 0.14	3.07 ± 0.27	n = 7	[RO1] Roche Integra and MIRA
2.99 ± 0.39	1.18 ± 0.30	4.67 ± 0.93	1.76 ± 0.21	3.03 ± 0.32	n = 6	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

Primidone (mg/L)

Specimen: T11	Specimen: T12	Specimen: T13	Specimen: T14	Specimen: T15	Number	[Code] Instrument or Reagent System
8.07 ± 0.34 7.8	10.97 ± 0.41 11.1	5.78 ± 0.45 5.1	16.42 ± 1.08 16.7	10.85 ± 0.44 11.2	n = 13	[---] All Methods & Instruments [---] Weigh-in value
8.21 ± 0.31 7.93 ± 0.05	10.94 ± 0.47 10.93 ± 0.14	5.91 ± 0.24 5.30 ± 0.09	15.93 ± 1.18 16.63 ± 0.42	10.77 ± 0.35 10.99 ± 0.37	n = 7 n = 3	<Instruments> [OLC] Beckman Coulter AU Chemistry System [ROT] Roche Cobas INTEGRA 800
7.93 ± 0.05 8.17 ± 0.32	10.93 ± 0.14 11.05 ± 0.50	5.30 ± 0.09 5.97 ± 0.30	16.63 ± 0.42 16.03 ± 1.22	10.99 ± 0.37 10.91 ± 0.42	n = 3 n = 8	<Reagents> [RO1] Roche Integra and MIRA [SY2] Syva Emit

Summary of Participant Performance (Mean and Standard Deviation)

Procainamide (mg/L)

Specimen: T11	Specimen: T12	Specimen: T13	Specimen: T14	Specimen: T15	Number	[Code] Instrument or Reagent System
9.36 ± 0.48 9.2	10.70 ± 0.65 10.9	7.97 ± 0.38 8.2	15.82 ± 1.08 16.3	4.29 ± 0.17 4.1	n = 9	[---] All Methods & Instruments [---] Weigh-in value
9.32 ± 0.50	10.25 ± 0.19	7.68 ± 0.24	15.13 ± 1.13	4.16 ± 0.10	n = 3	<Instruments> [OLC] Beckman Coulter AU Chemistry System
9.32 ± 0.50	10.50 ± 0.36	7.92 ± 0.32	15.90 ± 1.37	4.24 ± 0.10	n = 3	<Reagents> [SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

N-Acetyl-Procaïnamide (mg/L)

Specimen: T11	Specimen: T12	Specimen: T13	Specimen: T14	Specimen: T15	Number	[Code] Instrument or Reagent System
6.65 ± 0.28 6.5	14.37 ± 0.80 14.2	5.33 ± 0.45 4.9	21.39 ± 1.40 21.3	9.44 ± 0.46 9.6	n = 10	[---] All Methods & Instruments [---] Weigh-in value
6.45 ± 0.19	13.86 ± 0.60	5.02 ± 0.27	21.05 ± 1.40	9.12 ± 0.20	n = 4	<Instruments> [OLC] Beckman Coulter AU Chemistry System
6.70 ± 0.18	13.98 ± 0.96	5.30 ± 0.27	21.70 ± 1.62	9.35 ± 0.54	n = 3	<Reagents> [SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

Quinidine (mg/L)

Specimen: T11	Specimen: T12	Specimen: T13	Specimen: T14	Specimen: T15	Number	[Code] Instrument or Reagent System
2.82 ± 0.12 3.0	3.91 ± 0.23 4.0	1.49 ± 0.08 1.7	5.70 ± 0.38 6.0	6.92 ± 0.54 7.5	n = 9	[---] All Methods & Instruments [---] Weigh-in value
2.67 ± 0.14	3.83 ± 0.41	1.43 ± 0.05	5.93 ± 1.13	7.16 ± 1.02	n = 3	<Instruments> [OLC] Beckman Coulter AU Chemistry System

Summary of Participant Performance (Mean and Standard Deviation)

Salicylate (mg/L)

Specimen: T11	Specimen: T12	Specimen: T13	Specimen: T14	Specimen: T15	Number	[Code] Instrument or Reagent System
86.23 ± 4.30 84.1	43.68 ± 1.51 42.2	21.59 ± 0.82 21.3	65.33 ± 2.53 63.3	31.71 ± 1.01 31.0	n = 210	[---] All Methods & Instruments [---] Weigh-in value
<Instruments>						
87.50 ± 2.14	43.56 ± 1.28	20.88 ± 0.73	65.72 ± 1.73	31.22 ± 1.02	n = 18	[ABJ] Abbott Architect c System
91.45 ± 7.63	45.13 ± 2.77	22.09 ± 1.03	68.06 ± 3.88	32.58 ± 1.85	n = 20	[OLC] Beckman Coulter AU Chemistry System
90.63 ± 2.66	44.73 ± 1.42	21.59 ± 0.91	67.06 ± 1.52	31.71 ± 1.01	n = 9	[BCG] Beckman Coulter UniCel DxC 600
89.91 ± 1.65	43.86 ± 1.10	20.63 ± 0.43	66.87 ± 1.26	32.11 ± 0.72	n = 9	[BCH] Beckman Coulter UniCel DxC 800
85.73 ± 6.07	42.47 ± 2.56	22.57 ± 0.69	62.80 ± 2.32	32.25 ± 1.62	n = 8	[JJF] Ortho Vitros 5,1FS
86.28 ± 5.80	43.49 ± 2.11	22.60 ± 0.53	63.87 ± 2.50	32.38 ± 1.01	n = 18	[JJG] Ortho Vitros 5600
85.69 ± 5.35	44.43 ± 0.58	21.13 ± 0.38	67.11 ± 1.68	31.82 ± 0.73	n = 21	[ROC] Roche cobas c501
81.71 ± 0.90	41.68 ± 1.17	20.30 ± 0.37	62.52 ± 1.82	30.09 ± 0.54	n = 7	[ROT] Roche Cobas INTEGRA 800
82.62 ± 2.04	42.20 ± 0.92	20.76 ± 0.50	63.31 ± 1.27	30.41 ± 0.57	n = 7	[ROD] Roche MODULAR D/P
92.56 ± 1.44	45.50 ± 0.79	21.53 ± 0.72	69.33 ± 1.02	32.66 ± 0.73	n = 9	[BYE] Siemens ADVIA 1800
90.12 ± 1.40	44.88 ± 1.51	22.21 ± 0.83	67.93 ± 1.06	32.78 ± 0.87	n = 3	[BYB] Siemens ADVIA 2400
85.34 ± 1.06	43.59 ± 0.48	21.90 ± 0.21	64.72 ± 0.66	31.86 ± 0.34	n = 16	[DUE] Siemens Dimension EXL
85.16 ± 1.05	43.32 ± 0.20	21.72 ± 0.36	64.43 ± 0.40	31.67 ± 0.45	n = 8	[DUR] Siemens Dimension RxL
84.54 ± 1.28	43.30 ± 0.66	21.75 ± 0.34	64.49 ± 1.09	31.52 ± 0.50	n = 41	[DUT] Siemens Dimension Vista
84.39 ± 1.52	43.35 ± 0.49	21.67 ± 0.41	64.84 ± 0.75	31.84 ± 0.52	n = 5	[DUX] Siemens Dimension Xpand
<Reagents>						
87.50 ± 2.14	43.56 ± 1.28	20.88 ± 0.73	65.72 ± 1.73	31.22 ± 1.02	n = 18	[AB1] Abbott
90.31 ± 2.01	44.37 ± 1.40	21.17 ± 0.91	66.93 ± 1.37	31.84 ± 0.95	n = 19	[BC1] Beckman Coulter
90.85 ± 8.44	44.59 ± 2.47	21.91 ± 0.95	67.97 ± 4.22	32.27 ± 1.80	n = 15	[OL1] Beckman Coulter AU Series
86.00 ± 5.60	42.90 ± 2.35	22.53 ± 0.59	63.25 ± 2.45	32.27 ± 1.16	n = 29	[JJ1] Ortho Clinical Diagnostics
84.69 ± 6.41	44.38 ± 0.66	21.09 ± 0.35	66.88 ± 2.08	31.75 ± 0.81	n = 23	[RO4] Roche cobas c311/c501/c502/c701/c702
82.62 ± 2.04	42.20 ± 0.92	20.76 ± 0.50	63.31 ± 1.27	30.41 ± 0.57	n = 7	[RO2] Roche Hitachi and Modular D/P
81.84 ± 0.88	41.43 ± 1.33	20.23 ± 0.41	62.20 ± 1.86	29.96 ± 0.63	n = 8	[RO1] Roche Integra and MIRA
91.85 ± 2.01	45.18 ± 0.98	21.59 ± 0.62	68.94 ± 1.31	32.58 ± 0.68	n = 11	[BY1] Siemens ADVIA/ADVIA Centaur
84.82 ± 1.25	43.39 ± 0.59	21.79 ± 0.32	64.60 ± 0.91	31.65 ± 0.48	n = 70	[DA5] Siemens Dimension
93.53 ± 5.32	46.86 ± 3.22	22.39 ± 1.12	67.93 ± 3.27	33.51 ± 2.07	n = 4	[SY5] Syva Emit tox

Summary of Participant Performance (Mean and Standard Deviation)

Theophylline (mg/L)

Specimen: T11	Specimen: T12	Specimen: T13	Specimen: T14	Specimen: T15	Number	[Code] Instrument or Reagent System
16.96 ± 1.01 17.6	22.17 ± 2.01 22.3	28.83 ± 2.50 29.2	32.93 ± 2.96 33.4	7.84 ± 0.57 7.9	n = 188	[---] All Methods & Instruments [---] Weigh-in value
<Instruments>						
17.21 ± 1.24	21.75 ± 1.58	28.03 ± 2.26	32.57 ± 2.33	8.01 ± 0.15	n = 9	[ABH] Abbott Architect i System
17.21 ± 1.46	21.57 ± 1.94	28.23 ± 3.19	30.95 ± 3.52	7.60 ± 0.49	n = 23	[OLC] Beckman Coulter AU Chemistry System
15.91 ± 0.50	20.66 ± 0.66	26.90 ± 1.04	31.61 ± 0.75	7.36 ± 0.15	n = 8	[BCG] Beckman Coulter UniCel DxC 600
15.74 ± 0.73	20.16 ± 0.83	26.53 ± 1.04	31.33 ± 0.95	7.29 ± 0.34	n = 9	[BCH] Beckman Coulter UniCel DxC 800
24.22 ± 0.53	27.48 ± 0.41	34.02 ± 0.56	40.49 ± 1.49	10.00 ± 0.32	n = 7	[JJF] Ortho Vitros 5,1FS
23.79 ± 1.14	26.93 ± 1.07	33.76 ± 1.64	40.85 ± 1.48	9.84 ± 0.61	n = 16	[JJG] Ortho Vitros 5600
16.91 ± 0.58	22.01 ± 0.81	28.70 ± 0.77	33.33 ± 0.98	7.68 ± 0.23	n = 18	[ROC] Roche cobas c501
17.30 ± 0.26	22.52 ± 0.68	28.93 ± 0.70	33.60 ± 1.03	7.97 ± 0.12	n = 6	[ROT] Roche Cobas INTEGRA 800
17.24 ± 0.49	22.15 ± 0.78	29.37 ± 1.91	33.15 ± 0.51	7.96 ± 0.17	n = 9	[ROD] Roche MODULAR D/P
15.42 ± 1.39	20.99 ± 2.23	27.78 ± 1.66	30.43 ± 2.66	7.27 ± 0.58	n = 10	[COB] Siemens ADVIA Centaur
17.38 ± 0.32	22.16 ± 0.67	29.21 ± 3.09	33.78 ± 2.65	8.06 ± 0.26	n = 7	[DUE] Siemens Dimension EXL
17.91 ± 1.01	22.96 ± 1.64	29.71 ± 1.83	33.25 ± 2.10	8.02 ± 0.27	n = 6	[DUR] Siemens Dimension RxL
17.10 ± 0.50	22.03 ± 0.87	28.50 ± 1.09	32.83 ± 1.26	7.98 ± 0.32	n = 42	[DUT] Siemens Dimension Vista
16.01 ± 0.52	20.04 ± 1.17	25.90 ± 0.72	29.42 ± 1.76	7.08 ± 0.24	n = 3	[DPD] Siemens Immulite 2000
<Reagents>						
17.43 ± 1.14	22.21 ± 1.72	28.53 ± 2.25	33.18 ± 2.42	8.04 ± 0.13	n = 11	[AB1] Abbott
15.79 ± 0.66	20.34 ± 0.85	26.65 ± 1.05	31.45 ± 0.83	7.31 ± 0.27	n = 18	[BC1] Beckman Coulter
17.70 ± 1.55	22.00 ± 2.17	29.23 ± 3.43	31.96 ± 3.61	7.69 ± 0.43	n = 14	[OL1] Beckman Coulter AU Series
23.97 ± 0.96	27.14 ± 0.94	33.86 ± 1.28	40.74 ± 1.48	9.90 ± 0.51	n = 23	[JJ1] Ortho Clinical Diagnostics
16.89 ± 0.51	21.94 ± 0.78	28.68 ± 0.85	33.25 ± 0.98	7.68 ± 0.26	n = 20	[RO4] Roche cobas c311/c501/c502/c701/c702
17.23 ± 0.34	21.96 ± 0.74	28.65 ± 1.17	33.15 ± 0.46	8.05 ± 0.19	n = 3	[RO2] Roche Hitachi and Modular D/P
17.21 ± 0.27	22.32 ± 0.68	28.95 ± 0.68	33.30 ± 0.95	7.94 ± 0.11	n = 8	[RO1] Roche Integra and MIRA
17.31 ± 0.56	22.41 ± 0.81	29.85 ± 2.02	33.20 ± 1.06	7.95 ± 0.15	n = 7	[RO6] Roche ONLINE
15.42 ± 1.39	20.99 ± 2.23	27.78 ± 1.66	30.43 ± 2.66	7.27 ± 0.58	n = 10	[BY1] Siemens ADVIA/ADVIA Centaur
17.81 ± 1.23	24.04 ± 1.16	31.13 ± 2.31	34.09 ± 1.09	8.60 ± 0.32	n = 4	[BY5] Siemens ADVIA/Syva Emit 2000
17.18 ± 0.64	22.13 ± 1.01	28.57 ± 1.39	32.92 ± 1.56	7.99 ± 0.31	n = 57	[DA5] Siemens Dimension
16.01 ± 0.52	20.04 ± 1.17	25.90 ± 0.72	29.42 ± 1.76	7.08 ± 0.24	n = 3	[DP5] Siemens Immulite
16.58 ± 1.08	21.15 ± 1.31	27.20 ± 2.10	29.57 ± 2.91	7.47 ± 0.53	n = 9	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

Tobramycin (mg/L)

Specimen: T11	Specimen: T12	Specimen: T13	Specimen: T14	Specimen: T15	Number	[Code] Instrument or Reagent System
3.08 ± 0.33 3.2	8.23 ± 0.65 8.4	5.45 ± 0.50 5.8	12.20 ± 1.32 12.6	8.54 ± 0.64 9.1	n = 73	[---] All Methods & Instruments [---] Weigh-in value
<Instruments>						
3.10 ± 0.05	8.04 ± 0.26	5.33 ± 0.13	12.60 ± 0.40	8.51 ± 0.07	n = 7	[ABJ] Abbott Architect c System
3.05 ± 0.09	7.97 ± 0.33	5.38 ± 0.15	11.51 ± 0.90	8.49 ± 0.33	n = 11	[OLC] Beckman Coulter AU Chemistry System
3.85 ± 0.11	9.80 ± 0.21	6.71 ± 0.13	14.32 ± 0.99	10.14 ± 0.26	n = 5	[BCH] Beckman Coulter UniCel DxC 800
3.03 ± 0.09	8.26 ± 0.19	5.53 ± 0.42	12.49 ± 0.49	8.61 ± 0.30	n = 4	[JJG] Ortho Vitros 5600
3.28 ± 0.17	8.52 ± 0.34	5.67 ± 0.24	11.96 ± 1.43	9.00 ± 0.22	n = 6	[ROC] Roche cobas c501
2.93 ± 0.10	8.10 ± 0.27	5.25 ± 0.14	12.19 ± 1.48	8.33 ± 0.22	n = 5	[ROT] Roche Cobas INTEGRA 800
3.11 ± 0.27	8.24 ± 0.78	6.63 ± 2.85	10.46 ± 2.66	8.52 ± 0.48	n = 4	[ROD] Roche MODULAR D/P
3.70 ± 0.15	9.23 ± 0.38	6.29 ± 0.35	14.26 ± 1.30	9.61 ± 0.75	n = 5	[COB] Siemens ADVIA Centaur
3.02 ± 0.15	8.13 ± 0.76	5.30 ± 0.46	11.88 ± 0.94	8.34 ± 0.65	n = 3	[DUE] Siemens Dimension EXL
2.80 ± 0.08	7.90 ± 0.39	5.11 ± 0.27	11.42 ± 0.32	8.04 ± 0.25	n = 15	[DUT] Siemens Dimension Vista
<Reagents>						
3.10 ± 0.05	8.04 ± 0.26	5.33 ± 0.13	12.60 ± 0.40	8.51 ± 0.07	n = 7	[AB1] Abbott
3.86 ± 0.08	9.78 ± 0.17	6.72 ± 0.14	14.83 ± 0.52	10.05 ± 0.25	n = 7	[BC1] Beckman Coulter
3.05 ± 0.06	7.83 ± 0.42	5.35 ± 0.12	11.18 ± 1.00	8.36 ± 0.54	n = 4	[OL1] Beckman Coulter AU Series
2.99 ± 0.14	8.13 ± 0.32	5.30 ± 0.20	12.67 ± 0.61	8.45 ± 0.40	n = 6	[JJ1] Ortho Clinical Diagnostics
3.27 ± 0.20	8.55 ± 0.37	5.64 ± 0.26	11.69 ± 1.51	8.98 ± 0.23	n = 5	[RO4] Roche cobas c311/c501/c502/c701/c702
2.97 ± 0.15	8.16 ± 0.36	5.32 ± 0.20	12.37 ± 1.23	8.37 ± 0.30	n = 7	[RO1] Roche Integra and MIRA
3.16 ± 0.26	8.26 ± 0.67	5.57 ± 0.60	11.23 ± 2.31	8.66 ± 0.50	n = 5	[RO6] Roche ONLINE
3.70 ± 0.15	9.23 ± 0.38	6.29 ± 0.35	14.26 ± 1.30	9.61 ± 0.75	n = 5	[BY1] Siemens ADVIA/ADVIA Centaur
2.82 ± 0.13	7.97 ± 0.49	5.17 ± 0.33	11.49 ± 0.51	8.09 ± 0.37	n = 20	[DA5] Siemens Dimension
3.05 ± 0.11	8.08 ± 0.18	5.40 ± 0.16	11.64 ± 0.78	8.54 ± 0.20	n = 7	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

Valproic Acid (mg/L)

Specimen: T11	Specimen: T12	Specimen: T13	Specimen: T14	Specimen: T15	Number	[Code] Instrument or Reagent System
73.13 ± 4.57 73.6	92.55 ± 5.34 91.3	42.80 ± 2.99 42.1	137.67 ± 8.59 136.9	122.53 ± 7.67 122.2	n = 247	[---] All Methods & Instruments [---] Weigh-in value
<Instruments>						
70.77 ± 4.65	91.09 ± 7.09	40.34 ± 3.71	134.89 ± 11.28	122.02 ± 10.31	n = 5	[ABJ] Abbott Architect c System
73.70 ± 3.52	93.30 ± 3.00	42.70 ± 2.31	139.97 ± 5.15	124.25 ± 7.12	n = 17	[ABH] Abbott Architect i System
75.86 ± 3.89	96.53 ± 4.55	43.87 ± 2.52	143.13 ± 6.66	129.31 ± 6.50	n = 36	[OLC] Beckman Coulter AU Chemistry System
64.35 ± 4.03	81.78 ± 2.46	37.02 ± 3.09	115.95 ± 6.91	109.48 ± 2.80	n = 9	[BCG] Beckman Coulter UniCel DxC 600
64.41 ± 3.13	80.10 ± 3.73	35.30 ± 4.36	113.28 ± 7.44	107.32 ± 7.94	n = 10	[BCH] Beckman Coulter UniCel DxC 800
70.55 ± 2.44	88.87 ± 3.06	40.73 ± 2.03	134.66 ± 5.34	117.98 ± 4.41	n = 6	[JJF] Ortho Vitros 5,1FS
72.85 ± 4.87	92.65 ± 5.51	42.59 ± 3.87	137.45 ± 7.04	123.36 ± 6.49	n = 18	[JJG] Ortho Vitros 5600
75.49 ± 4.76	95.16 ± 3.61	43.04 ± 1.91	143.07 ± 7.28	125.13 ± 5.84	n = 24	[ROC] Roche cobas c501
70.55 ± 1.38	91.73 ± 1.95	40.77 ± 1.00	139.91 ± 4.51	122.90 ± 2.62	n = 8	[ROT] Roche Cobas INTEGRA 800
70.65 ± 1.69	90.18 ± 3.30	40.57 ± 0.94	137.71 ± 6.17	122.28 ± 5.87	n = 10	[ROD] Roche MODULAR D/P
75.52 ± 6.87	96.65 ± 6.85	44.04 ± 4.07	135.78 ± 14.39	121.40 ± 15.21	n = 8	[BYE] Siemens ADVIA 1800
72.49 ± 4.13	91.01 ± 4.03	42.84 ± 2.33	133.59 ± 4.15	120.10 ± 5.06	n = 15	[COB] Siemens ADVIA Centaur
72.42 ± 1.71	89.52 ± 3.54	43.84 ± 1.92	132.12 ± 4.12	117.36 ± 5.07	n = 12	[DUE] Siemens Dimension EXL
73.48 ± 1.96	92.16 ± 2.94	45.04 ± 1.44	135.23 ± 3.37	119.46 ± 4.14	n = 10	[DUR] Siemens Dimension RxL
74.26 ± 3.03	93.29 ± 3.11	44.05 ± 1.95	137.68 ± 4.83	122.74 ± 2.98	n = 43	[DUT] Siemens Dimension Vista
71.19 ± 2.06	90.18 ± 3.30	43.79 ± 1.03	132.52 ± 10.73	116.80 ± 6.24	n = 4	[DUX] Siemens Dimension Xpand
<Reagents>						
73.15 ± 3.95	93.08 ± 4.48	42.34 ± 2.73	139.24 ± 7.09	123.91 ± 8.00	n = 22	[AB1] Abbott
64.25 ± 3.88	80.49 ± 3.72	36.00 ± 4.35	114.33 ± 7.56	107.86 ± 6.36	n = 21	[BC1] Beckman Coulter
76.09 ± 3.55	96.94 ± 3.88	44.07 ± 2.03	144.40 ± 6.21	129.02 ± 6.66	n = 21	[OL1] Beckman Coulter AU Series
72.03 ± 4.31	91.55 ± 5.02	41.93 ± 3.42	136.49 ± 6.46	121.86 ± 6.24	n = 25	[JJ1] Ortho Clinical Diagnostics
75.28 ± 4.40	94.71 ± 3.80	42.68 ± 2.00	143.14 ± 6.78	124.39 ± 5.57	n = 26	[RO4] Roche cobas c311/c501/c502/c701/c702
72.33 ± 1.83	89.40 ± 2.56	41.20 ± 0.36	142.53 ± 2.51	124.12 ± 6.09	n = 3	[RO2] Roche Hitachi and Modular D/P
70.37 ± 1.33	91.37 ± 2.12	40.55 ± 0.93	138.67 ± 4.70	122.59 ± 2.74	n = 10	[RO1] Roche Integra and MIRA
70.31 ± 0.58	90.98 ± 4.09	40.68 ± 1.63	135.59 ± 7.54	121.28 ± 4.87	n = 7	[RO6] Roche ONLINE
72.54 ± 4.20	90.97 ± 4.38	42.83 ± 2.76	132.95 ± 4.21	120.15 ± 4.43	n = 17	[BY1] Siemens ADVIA/ADVIA Centaur
75.87 ± 6.29	96.20 ± 5.52	44.46 ± 3.59	139.73 ± 10.20	127.91 ± 9.55	n = 9	[BY5] Siemens ADVIA/Syva Emit 2000
73.51 ± 2.72	92.36 ± 3.42	44.15 ± 1.86	136.26 ± 5.08	121.29 ± 4.46	n = 69	[DA5] Siemens Dimension
74.21 ± 3.98	94.65 ± 3.92	42.80 ± 2.85	140.60 ± 6.71	128.53 ± 6.13	n = 14	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

Vancomycin (mg/L)

Specimen: T11	Specimen: T12	Specimen: T13	Specimen: T14	Specimen: T15	Number	[Code] Instrument or Reagent System
16.87 ± 1.76 17.5	24.06 ± 2.72 27.7	5.93 ± 0.67 6.3	35.81 ± 4.32 37.1	11.81 ± 1.28 12.4	n = 221	[---] All Methods & Instruments [---] Weigh-in value
<Instruments>						
16.51 ± 0.66	24.50 ± 0.87	5.74 ± 0.40	36.56 ± 1.35	11.66 ± 0.66	n = 5	[ABJ] Abbott Architect c System
18.62 ± 0.40	26.50 ± 0.70	6.51 ± 0.23	39.85 ± 1.31	13.28 ± 0.27	n = 15	[ABH] Abbott Architect i System
15.29 ± 0.52	21.70 ± 1.00	5.61 ± 0.45	31.92 ± 1.69	10.61 ± 0.47	n = 25	[OLC] Beckman Coulter AU Chemistry System
17.28 ± 1.48	26.54 ± 2.49	6.03 ± 0.90	39.26 ± 2.50	12.03 ± 0.74	n = 7	[BCG] Beckman Coulter UniCel DxC 600
17.68 ± 0.82	26.56 ± 0.93	6.25 ± 0.60	40.25 ± 1.86	12.24 ± 0.71	n = 11	[BCH] Beckman Coulter UniCel DxC 800
15.17 ± 0.24	21.29 ± 0.44	5.59 ± 0.25	31.41 ± 1.36	10.79 ± 0.14	n = 6	[JJF] Ortho Vitros 5,1FS
15.72 ± 0.80	22.47 ± 0.86	5.63 ± 0.43	33.93 ± 1.14	11.00 ± 0.53	n = 16	[JJG] Ortho Vitros 5600
18.05 ± 0.69	26.09 ± 1.24	6.20 ± 0.40	39.57 ± 2.27	12.86 ± 0.55	n = 22	[ROC] Roche cobas c501
20.17 ± 0.53	28.97 ± 1.01	6.81 ± 0.31	43.31 ± 1.57	13.30 ± 0.41	n = 8	[ROT] Roche Cobas INTEGRA 800
18.58 ± 1.15	26.04 ± 1.39	6.24 ± 0.21	39.77 ± 2.29	13.22 ± 0.86	n = 7	[ROD] Roche MODULAR D/P
16.84 ± 1.93	22.76 ± 3.29	5.90 ± 0.66	34.69 ± 6.22	11.56 ± 1.11	n = 6	[BYE] Siemens ADVIA 1800
13.39 ± 0.84	19.83 ± 1.18	4.85 ± 0.32	29.58 ± 1.48	9.17 ± 0.68	n = 16	[COB] Siemens ADVIA Centaur
16.97 ± 0.49	23.61 ± 0.91	5.74 ± 0.41	35.00 ± 1.39	11.53 ± 0.48	n = 13	[DUE] Siemens Dimension EXL
16.66 ± 0.94	23.61 ± 0.19	5.85 ± 0.26	35.80 ± 0.84	11.82 ± 0.60	n = 6	[DUR] Siemens Dimension RxL
17.04 ± 0.77	23.86 ± 1.18	6.02 ± 0.54	34.76 ± 1.93	11.94 ± 0.54	n = 43	[DUT] Siemens Dimension Vista
16.31 ± 0.38	23.30 ± 0.80	5.60 ± 0.34	33.59 ± 1.32	11.28 ± 0.38	n = 4	[DUX] Siemens Dimension Xpand
<Reagents>						
18.28 ± 0.93	26.12 ± 1.19	6.36 ± 0.45	39.19 ± 1.94	13.09 ± 0.65	n = 20	[AB1] Abbott
17.55 ± 1.07	26.64 ± 1.53	6.23 ± 0.72	39.86 ± 2.01	12.21 ± 0.71	n = 20	[BC1] Beckman Coulter
15.20 ± 0.60	21.75 ± 1.13	5.61 ± 0.45	32.01 ± 1.69	10.68 ± 0.57	n = 14	[OL1] Beckman Coulter AU Series
15.50 ± 0.71	22.07 ± 0.95	5.58 ± 0.40	33.32 ± 1.57	10.87 ± 0.52	n = 23	[JJ1] Ortho Clinical Diagnostics
18.12 ± 0.80	26.23 ± 1.29	6.22 ± 0.42	39.64 ± 2.14	12.83 ± 0.60	n = 25	[RO4] Roche cobas c311/c501/c502/c701/c702
17.90 ± 0.64	25.53 ± 0.77	6.35 ± 0.19	39.44 ± 1.82	12.74 ± 0.47	n = 3	[RO2] Roche Hitachi and Modular D/P
20.10 ± 0.52	28.81 ± 0.96	6.96 ± 0.47	43.54 ± 1.40	13.35 ± 0.46	n = 10	[RO1] Roche Integra and MIRA
18.78 ± 1.26	26.58 ± 1.74	6.30 ± 0.68	40.03 ± 2.21	13.44 ± 0.89	n = 5	[RO6] Roche ONLINE
13.33 ± 0.93	19.67 ± 1.45	4.86 ± 0.36	29.31 ± 1.72	9.18 ± 0.77	n = 19	[BY1] Siemens ADVIA/ADVIA Centaur
16.75 ± 1.91	23.07 ± 3.23	6.17 ± 0.66	33.17 ± 6.05	11.83 ± 1.01	n = 6	[BY5] Siemens ADVIA/Syva Emit 2000
16.94 ± 0.75	23.77 ± 1.07	5.92 ± 0.50	34.84 ± 1.74	11.81 ± 0.57	n = 66	[DA5] Siemens Dimension
15.39 ± 0.39	21.52 ± 0.58	5.58 ± 0.36	31.67 ± 1.40	10.52 ± 0.34	n = 10	[SY4] Syva Emit 2000