NEW YORK
state department of
HEALTH

Nirav R. Shah, M.D., M.P.H.
Commissioner

Sue Kelly
Executive Deputy Commissioner

Therapeutic Substance Monitoring/Quantitative Toxicology Proficiency Testing – January 23, 2012

Enclosed is a statistical summary of participant data for the five Therapeutic Substance Monitoring proficiency survey specimens **(T61, T62, T63, T64, T65)** shipped January 23, 2012. Test specimens were prepared by the quantitative transfer of constituents to a pooled human serum base. This material was subsequently sterile-filtered, dispensed into aliquots, stored at –80°C and distributed to each participant 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 shown on the attached sheets are calculated by a robust statistical technique that does not assume a Gaussian distribution. These statistical reports are also available on the internet at: http://www.wadsworth.org/chemheme

Outlined below is a description of the process utilized in the evaluation of your laboratory's proficiency test results. A summary of your laboratory's performance for the three most recent surveys is also included with your report.

Target value
In general, targets utilized are derived from all-participant mean values calculated by robust statistical technique. In some cases, however, it is recognized that reagent and/or instrument specific targets may be required and "peer group" specific targets are used where appropriate. Should an alternate target be required to evaluate your laboratory's data, an asterisk will be placed adjacent to the reagent and/or instrument listing(s) corresponding to the peer group utilized.

Acceptable ranges
Limits of acceptable performance were established using criteria specified by CLIA'88 regulations and the New York State Department of Health, allowing for rounding to appropriate significant digits. Results falling within acceptable range are scored as 100%. Laboratories must achieve an overall analyte score ≥ 80% in order to meet performance criteria for that analyte.

Range plots
Plots show relative distance of your laboratory's results (represented by an "x") from the target for each sample analyzed. Any result exceeding the high or low limit by > 20% of the acceptable range is indicated by an asterisk (*).

Disclaimer
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: T61	Specimen: T62	Specimen: T63	Specimen: T64	Specimen: T65	Number	[Code] Instrument or Reagent System
30.59 ± 2.55	159.57 ± 16.26	84.84 ± 9.07	46.03 ± 5.01	69.94 ± 7.50	n = 214	[---] All Methods & Instruments
29.8	156.8	83.4	44.8	68.1		[---] Weigh-in value
						<Instruments>
27.11 ± 0.86	144.47 ± 2.64	75.96 ± 0.85	40.85 ± 0.85	62.27 ± 0.87	n = 8	[ABJ] Abbott Architect c System
31.06 ± 1.68	162.60 ± 15.35	86.84 ± 7.76	46.49 ± 2.69	70.93 ± 4.60	n = 10	[ABB] Abbott AxSym
28.83 ± 2.08	159.06 ± 12.07	80.55 ± 4.02	43.34 ± 2.56	66.70 ± 4.16	n = 12	[OLC] Beckman Coulter AU Chemistry System
27.86 ± 1.54	155.90 ± 9.40	84.04 ± 4.66	44.63 ± 1.72	67.46 ± 2.77	n = 4	[BCX] Beckman Coulter LX-20
28.73 ± 1.70	153.21 ± 6.55	80.94 ± 3.22	43.94 ± 2.13	66.73 ± 2.67	n = 11	[BCG] Beckman Coulter UniCel DxC 600
29.38 ± 1.59	157.12 ± 5.76	82.30 ± 4.07	44.40 ± 2.72	68.25 ± 3.29	n = 16	[BCH] Beckman Coulter UniCel DxC 800
31.72 ± 0.51	177.00 ± 0.90	93.26 ± 1.37	49.72 ± 0.51	77.00 ± 0.00	n = 3	[JJE] Ortho Vitros 250/350/950
31.23 ± 0.73	176.88 ± 1.73	93.22 ± 0.96	49.00 ± 0.50	76.98 ± 1.12	n = 18	[JJF] Ortho Vitros 5,1FS
31.19 ± 0.60	177.29 ± 1.74	93.24 ± 1.71	49.27 ± 1.38	76.30 ± 1.27	n = 14	[JJG] Ortho Vitros 5600
18.17 ± 0.86	129.64 ± 3.42	63.39 ± 2.17	31.21 ± 1.30	51.18 ± 2.41	n = 11	[ROC] Roche cobas c501
23.75 ± 1.07	132.16 ± 4.68	68.75 ± 2.64	36.09 ± 1.13	56.09 ± 1.94	n = 11	[ROT] Roche Cobas INTEGRA 800
17.50 ± 0.72	118.61 ± 4.65	60.20 ± 2.71	29.64 ± 1.50	48.26 ± 1.62	n = 10	[ROD] Roche MODULAR D/P
30.80 ± 1.41	157.31 ± 14.24	85.05 ± 4.56	46.14 ± 2.55	69.45 ± 3.56	n = 8	[BYE] Siemens ADVIA 1800
30.80 ± 2.44	155.72 ± 9.02	85.09 ± 6.06	46.32 ± 3.53	69.81 ± 4.90	n = 3	[BYB] Siemens ADVIA 2400
31.49 ± 0.73	163.71 ± 2.34	87.93 ± 1.62	48.44 ± 0.70	73.04 ± 0.98	n = 7	[DUE] Siemens Dimension EXL
31.08 ± 1.20	162.43 ± 2.85	87.02 ± 1.49	46.88 ± 1.33	71.57 ± 1.16	n = 20	[DUR] Siemens Dimension RxL
33.04 ± 0.63	166.35 ± 2.36	89.73 ± 1.45	49.86 ± 0.98	74.38 ± 1.28	n = 32	[DUT] Siemens Dimension Vista
31.62 ± 0.79	162.72 ± 2.14	87.13 ± 1.39	47.66 ± 1.19	71.64 ± 0.95	n = 10	[DUX] Siemens Dimension Xpand
						<Reagents>
29.00 ± 2.61	152.71 ± 15.16	80.57 ± 7.76	43.80 ± 3.68	66.52 ± 5.80	n = 18	[AB1] Abbott
28.97 ± 1.71	155.15 ± 6.72	81.86 ± 3.81	44.10 ± 2.34	67.53 ± 2.88	n = 35	[BC1] Beckman Coulter
29.11 ± 1.80	158.76 ± 15.06	81.41 ± 5.11	43.49 ± 2.73	67.83 ± 3.41	n = 7	[OL1] Beckman Coulter AU Series
31.26 ± 0.68	177.05 ± 1.66	93.32 ± 1.43	49.18 ± 0.89	76.73 ± 1.19	n = 35	[JJ1] Ortho Clinical Diagnostics
18.13 ± 0.83	129.47 ± 3.26	63.23 ± 2.13	31.11 ± 1.28	51.07 ± 2.33	n = 12	[RO4] Roche cobas c311/c501/c502/c701
17.50 ± 0.72	118.61 ± 4.65	60.20 ± 2.69	29.64 ± 1.50	48.26 ± 1.62	n = 9	[RO2] Roche Hitachi and Modular D/P
23.75 ± 1.07	132.16 ± 4.68	68.75 ± 2.64	36.09 ± 1.13	56.09 ± 1.94	n = 11	[RO1] Roche Integra and MIRA
31.13 ± 1.40	158.85 ± 11.97	86.01 ± 4.17	46.88 ± 2.04	70.25 ± 3.41	n = 10	[BY1] Siemens ADVIA/ADVIA Centaur
32.18 ± 1.22	164.40 ± 3.22	88.31 ± 2.02	48.53 ± 1.74	72.94 ± 1.89	n = 69	[DA5] Siemens Dimension
27.92 ± 0.77	157.23 ± 11.04	78.50 ± 0.45	42.36 ± 1.36	64.42 ± 1.79	n = 3	[SY5] Syva Emit tox

Summary of Participant Performance (Mean and Standard Deviation)

Carbamazepine (mg/L)

Specimen: T61	Specimen: T62	Specimen: T63	Specimen: T64	Specimen: T65	Number	[Code] Instrument or Reagent System
5.71 ± 0.50	3.71 ± 0.40	14.11 ± 1.06	8.55 ± 0.73	9.01 ± 0.73	n = 237	[---] All Methods & Instruments
6.0	4.0	14.9	9.0	9.4		[---] Weigh-in value
						<Instruments>
6.21 ± 0.22	4.01 ± 0.20	15.38 ± 0.91	9.04 ± 0.32	9.66 ± 0.44	n = 7	[ABJ] Abbott Architect c System
5.75 ± 0.29	3.77 ± 0.17	14.24 ± 0.74	8.51 ± 0.31	8.86 ± 0.29	n = 11	[ABB] Abbott AxSym
5.81 ± 0.28	3.87 ± 0.28	14.29 ± 0.74	8.77 ± 0.50	9.11 ± 0.43	n = 15	[OLC] Beckman Coulter AU Chemistry System
5.52 ± 0.22	3.46 ± 0.21	13.71 ± 0.41	8.35 ± 0.37	8.79 ± 0.42	n = 6	[BCX] Beckman Coulter LX-20
5.64 ± 0.28	3.59 ± 0.18	13.91 ± 1.06	8.43 ± 0.59	8.95 ± 0.47	n = 8	[BCG] Beckman Coulter UniCel DxC 600
5.72 ± 0.20	3.63 ± 0.14	13.74 ± 0.56	8.52 ± 0.42	9.02 ± 0.37	n = 19	[BCH] Beckman Coulter UniCel DxC 800
4.49 ± 0.39	3.00 ± 0.00	12.39 ± 0.51	7.01 ± 0.35	6.94 ± 0.24	n = 15	[JJF] Ortho Vitros 5,1FS
4.49 ± 0.34	3.00 ± 0.00	12.09 ± 0.53	6.80 ± 0.37	7.25 ± 0.85	n = 13	[JJG] Ortho Vitros 5600
6.08 ± 0.42	4.26 ± 0.36	14.65 ± 0.70	9.18 ± 0.41	9.60 ± 0.36	n = 14	[ROC] Roche cobas c501
5.73 ± 0.15	3.78 ± 0.13	14.69 ± 0.46	8.61 ± 0.09	9.04 ± 0.26	n = 14	[ROT] Roche Cobas INTEGRA 800
6.27 ± 0.19	4.25 ± 0.15	14.83 ± 0.26	9.27 ± 0.17	9.75 ± 0.21	n = 13	[ROD] Roche MODULAR D/P
5.84 ± 0.28	3.91 ± 0.35	13.85 ± 0.98	8.90 ± 0.76	9.25 ± 0.69	n = 9	[BYE] Siemens ADVIA 1800
6.41 ± 0.40	4.02 ± 0.40	16.28 ± 1.37	9.51 ± 0.83	10.11 ± 0.64	n = 12	[COB] Siemens ADVIA Centaur
5.48 ± 0.07	3.63 ± 0.19	13.51 ± 0.22	8.32 ± 0.24	8.84 ± 0.11	n = 7	[DUE] Siemens Dimension EXL
5.69 ± 0.18	3.75 ± 0.14	14.16 ± 0.52	8.58 ± 0.25	9.01 ± 0.38	n = 22	[DUR] Siemens Dimension RxL
5.58 ± 0.27	3.63 ± 0.16	14.08 ± 0.56	8.41 ± 0.38	8.81 ± 0.41	n = 33	[DUT] Siemens Dimension Vista
5.83 ± 0.21	3.90 ± 0.09	13.97 ± 0.28	8.80 ± 0.19	8.98 ± 0.19	n = 6	[DUX] Siemens Dimension Xpand
						<Reagents>
5.93 ± 0.35	3.86 ± 0.21	14.69 ± 1.01	8.68 ± 0.43	9.12 ± 0.53	n = 18	[AB1] Abbott
5.65 ± 0.26	3.59 ± 0.19	13.76 ± 0.71	8.45 ± 0.49	8.95 ± 0.45	n = 36	[BC1] Beckman Coulter
5.74 ± 0.23	3.80 ± 0.19	14.28 ± 0.74	8.79 ± 0.55	8.78 ± 0.42	n = 6	[OL1] Beckman Coulter AU Series
6.39 ± 0.39	4.42 ± 0.33	15.10 ± 0.71	9.42 ± 0.50	9.77 ± 0.42	n = 9	[MG1] Microgenics CEDIA
4.49 ± 0.37	3.00 ± 0.00	12.26 ± 0.53	6.92 ± 0.38	6.99 ± 0.39	n = 28	[JJ1] Ortho Clinical Diagnostics
6.03 ± 0.36	4.17 ± 0.36	14.54 ± 0.58	9.07 ± 0.41	9.46 ± 0.43	n = 15	[RO4] Roche cobas c311/c501/c502/c701
6.19 ± 0.10	4.21 ± 0.12	14.78 ± 0.27	9.24 ± 0.16	9.71 ± 0.19	n = 10	[RO2] Roche Hitachi and Modular D/P
5.75 ± 0.18	3.78 ± 0.12	14.72 ± 0.45	8.61 ± 0.10	9.06 ± 0.26	n = 15	[RO1] Roche Integra and MIRA
6.51 ± 0.46	4.09 ± 0.40	16.39 ± 1.30	9.60 ± 0.88	10.13 ± 0.61	n = 14	[BY1] Siemens ADVIA/ADVIA Centaur
5.72 ± 0.31	3.87 ± 0.35	13.82 ± 0.87	8.75 ± 0.81	9.09 ± 0.76	n = 10	[BY5] Siemens ADVIA/Syva Emit 2000
5.63 ± 0.25	3.69 ± 0.18	14.05 ± 0.54	8.49 ± 0.34	8.89 ± 0.35	n = 67	[DA5] Siemens Dimension
5.73 ± 0.31	3.75 ± 0.25	14.26 ± 1.24	8.63 ± 0.45	9.29 ± 0.18	n = 5	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

Digoxin (µg/L)

Specimen: T61	Specimen: T62	Specimen: T63	Specimen: T64	Specimen: T65	Number	[Code] Instrument or Reagent System
0.726 ± 0.087	2.093 ± 0.140	1.675 ± 0.123	1.099 ± 0.105	3.579 ± 0.240	n = 292	[---] All Methods & Instruments
0.73	2.1	1.7	1.1	3.7		[---] Weigh-in value
						<Instruments>
0.774 ± 0.043	2.192 ± 0.069	1.803 ± 0.071	1.211 ± 0.019	3.536 ± 0.121	n = 5	[ABJ] Abbott Architect c System
0.704 ± 0.048	1.982 ± 0.080	1.577 ± 0.038	1.064 ± 0.062	3.369 ± 0.101	n = 8	[ABH] Abbott Architect i System
0.733 ± 0.059	2.177 ± 0.084	1.702 ± 0.094	1.055 ± 0.104	3.611 ± 0.152	n = 7	[ABB] Abbott AxSym
0.745 ± 0.085	2.123 ± 0.119	1.674 ± 0.150	1.158 ± 0.118	3.642 ± 0.223	n = 13	[SAA] Beckman Coulter ACCESS
0.668 ± 0.114	1.989 ± 0.166	1.585 ± 0.135	1.048 ± 0.127	3.439 ± 0.173	n = 16	[OLC] Beckman Coulter AU Chemistry System
0.465 ± 0.337	1.774 ± 0.316	1.465 ± 0.337	0.895 ± 0.372	3.268 ± 0.422	n = 3	[BCS] Beckman Coulter CX
0.544 ± 0.102	2.026 ± 0.226	1.426 ± 0.137	0.856 ± 0.102	3.248 ± 0.274	n = 3	[BCX] Beckman Coulter LX-20
0.701 ± 0.069	2.018 ± 0.120	1.635 ± 0.095	1.008 ± 0.097	3.407 ± 0.148	n = 14	[BCG] Beckman Coulter UniCel DxC 600
0.699 ± 0.092	2.063 ± 0.110	1.608 ± 0.110	1.020 ± 0.127	3.464 ± 0.153	n = 15	[BCH] Beckman Coulter UniCel DxC 800
0.630 ± 0.120	1.964 ± 0.121	1.542 ± 0.085	1.033 ± 0.110	3.409 ± 0.180	n = 4	[BCU] Beckman Coulter UniCel DxI 800
0.645 ± 0.103	2.016 ± 0.144	1.593 ± 0.104	1.002 ± 0.102	3.383 ± 0.173	n = 19	[JJF] Ortho Vitros 5,1FS
0.631 ± 0.115	2.014 ± 0.094	1.645 ± 0.080	1.019 ± 0.097	3.402 ± 0.179	n = 13	[JJG] Ortho Vitros 5600
0.764 ± 0.050	2.057 ± 0.064	1.655 ± 0.058	1.134 ± 0.058	3.566 ± 0.064	n = 18	[ROC] Roche cobas c501
0.748 ± 0.044	2.130 ± 0.058	1.740 ± 0.097	1.143 ± 0.062	3.578 ± 0.142	n = 8	[ROT] Roche Cobas INTEGRA 800
0.706 ± 0.060	2.006 ± 0.096	1.614 ± 0.073	1.069 ± 0.077	3.429 ± 0.106	n = 16	[ROD] Roche MODULAR D/P
0.728 ± 0.051	2.400 ± 0.090	1.872 ± 0.051	1.172 ± 0.051	4.022 ± 0.323	n = 3	[ROE] Roche MODULAR E
0.663 ± 0.068	2.146 ± 0.057	1.729 ± 0.081	1.100 ± 0.000	3.389 ± 0.033	n = 10	[BYE] Siemens ADVIA 1800
0.823 ± 0.066	2.207 ± 0.119	1.827 ± 0.084	1.214 ± 0.065	3.770 ± 0.280	n = 18	[COB] Siemens ADVIA Centaur
0.736 ± 0.109	2.186 ± 0.094	1.770 ± 0.118	1.151 ± 0.083	3.667 ± 0.098	n = 4	[BYP] Siemens ADVIA Centaur CP
0.740 ± 0.041	2.206 ± 0.080	1.764 ± 0.075	1.153 ± 0.040	3.805 ± 0.040	n = 8	[DUE] Siemens Dimension EXL
0.752 ± 0.059	2.201 ± 0.105	1.758 ± 0.081	1.158 ± 0.072	3.841 ± 0.131	n = 23	[DUR] Siemens Dimension RxL
0.739 ± 0.037	2.046 ± 0.048	1.630 ± 0.037	1.091 ± 0.023	3.657 ± 0.068	n = 34	[DUT] Siemens Dimension Vista
0.747 ± 0.057	2.229 ± 0.133	1.731 ± 0.085	1.148 ± 0.076	3.966 ± 0.129	n = 13	[DUX] Siemens Dimension Xpand
0.802 ± 0.104	2.216 ± 0.135	1.789 ± 0.156	1.160 ± 0.118	3.720 ± 0.164	n = 7	[DPD] Siemens Immulite 2000
						<Reagents>
0.732 ± 0.060	2.110 ± 0.141	1.683 ± 0.132	1.093 ± 0.098	3.494 ± 0.162	n = 20	[AB1] Abbott
0.699 ± 0.093	2.049 ± 0.140	1.624 ± 0.131	1.048 ± 0.140	3.470 ± 0.203	n = 53	[BC1] Beckman Coulter
0.681 ± 0.136	2.039 ± 0.214	1.627 ± 0.150	1.088 ± 0.156	3.488 ± 0.240	n = 9	[OL1] Beckman Coulter AU Series
0.637 ± 0.055	1.900 ± 0.000	1.524 ± 0.080	1.000 ± 0.064	3.424 ± 0.080	n = 5	[MG2] Microgenics DRI
0.643 ± 0.112	2.006 ± 0.120	1.604 ± 0.104	1.000 ± 0.106	3.380 ± 0.175	n = 34	[JJ1] Ortho Clinical Diagnostics
0.758 ± 0.051	2.060 ± 0.072	1.659 ± 0.069	1.136 ± 0.058	3.570 ± 0.069	n = 21	[RO4] Roche cobas c311/c501/c502/c701
0.719 ± 0.061	2.395 ± 0.099	1.869 ± 0.056	1.150 ± 0.045	4.048 ± 0.330	n = 3	[RO3] Roche Elecsys/Modular E/e601/e411
0.708 ± 0.066	2.004 ± 0.088	1.604 ± 0.061	1.051 ± 0.060	3.446 ± 0.071	n = 9	[RO2] Roche Hitachi and Modular D/P
0.756 ± 0.046	2.125 ± 0.055	1.749 ± 0.093	1.136 ± 0.059	3.596 ± 0.142	n = 9	[RO1] Roche Integra and MIRA
0.697 ± 0.064	2.026 ± 0.150	1.649 ± 0.136	1.082 ± 0.097	3.487 ± 0.231	n = 5	[RO5] Roche Tina-quant
0.777 ± 0.103	2.182 ± 0.096	1.799 ± 0.092	1.177 ± 0.079	3.643 ± 0.280	n = 29	[BY1] Siemens ADVIA/ADVIA Centaur
0.743 ± 0.052	2.178 ± 0.123	1.728 ± 0.092	1.139 ± 0.068	3.833 ± 0.156	n = 54	[DA5] Siemens Dimension
0.744 ± 0.039	2.046 ± 0.051	1.630 ± 0.037	1.094 ± 0.019	3.654 ± 0.064	n = 24	[DA6] Siemens Dimension LOCI
0.803 ± 0.094	2.242 ± 0.145	1.792 ± 0.141	1.166 ± 0.110	3.757 ± 0.232	n = 8	[DP5] Siemens Immulite
0.696 ± 0.147	1.987 ± 0.113	1.600 ± 0.090	1.021 ± 0.057	3.536 ± 0.259	n = 3	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

Ethanol (mg/dL)

Specimen: T61	Specimen: T62	Specimen: T63	Specimen: T64	Specimen: T65	Number	[Code] Instrument or Reagent System
132.90 ± 7.53	153.65 ± 8.56	114.36 ± 6.66	193.61 ± 10.75	224.44 ± 12.85	n = 226	[---] All Methods & Instruments
131.2	157.6	115.5	196.7	227.0		[---] Weigh-in value
						<Instruments>
137.50 ± 2.67	158.24 ± 2.50	118.81 ± 2.19	197.94 ± 3.21	229.78 ± 3.23	n = 10	[ABJ] Abbott Architect c System
140.89 ± 10.25	159.29 ± 6.10	116.50 ± 6.11	205.32 ± 8.25	241.96 ± 12.14	n = 3	[ABB] Abbott AxSym
135.21 ± 5.88	156.65 ± 6.58	116.32 ± 4.33	195.87 ± 6.99	228.70 ± 7.48	n = 10	[OLC] Beckman Coulter AU Chemistry System
134.19 ± 2.55	153.80 ± 1.94	113.71 ± 3.64	191.33 ± 3.79	221.41 ± 5.89	n = 5	[BCX] Beckman Coulter LX-20
135.62 ± 5.45	156.78 ± 6.34	117.21 ± 5.69	196.40 ± 9.65	229.26 ± 11.36	n = 13	[BCG] Beckman Coulter UniCel DxC 600
134.88 ± 3.93	154.78 ± 5.00	115.14 ± 3.99	194.29 ± 8.28	221.52 ± 10.63	n = 17	[BCH] Beckman Coulter UniCel DxC 800
133.49 ± 5.15	153.85 ± 3.99	115.29 ± 4.65	195.74 ± 6.63	229.15 ± 7.14	n = 13	[GCC] Gas Chromatograph
120.88 ± 2.05	139.47 ± 1.86	102.00 ± 1.80	175.93 ± 2.86	208.00 ± 0.90	n = 3	[JJE] Ortho Vitros 250/350/950
121.40 ± 4.82	138.57 ± 4.88	104.33 ± 4.41	176.52 ± 7.47	202.41 ± 7.05	n = 17	[JJF] Ortho Vitros 5,1FS
117.35 ± 2.75	138.33 ± 5.28	102.56 ± 4.01	171.17 ± 5.47	200.23 ± 9.03	n = 14	[JJG] Ortho Vitros 5600
135.43 ± 3.49	156.97 ± 2.99	117.12 ± 2.61	198.48 ± 3.69	229.05 ± 5.31	n = 12	[ROC] Roche cobas c501
132.21 ± 4.25	152.61 ± 4.14	113.83 ± 2.71	191.90 ± 4.44	225.12 ± 6.69	n = 8	[ROT] Roche Cobas INTEGRA 800
134.81 ± 5.46	156.08 ± 7.18	115.86 ± 5.27	196.01 ± 9.09	229.06 ± 9.47	n = 12	[ROD] Roche MODULAR D/P
138.40 ± 2.57	159.06 ± 3.72	119.86 ± 3.30	201.26 ± 6.78	233.44 ± 3.23	n = 9	[BYE] Siemens ADVIA 1800
136.32 ± 4.69	157.29 ± 3.84	117.60 ± 1.18	198.82 ± 4.89	229.87 ± 7.81	n = 3	[BYB] Siemens ADVIA 2400
132.18 ± 0.44	154.68 ± 4.26	115.10 ± 2.15	195.37 ± 5.57	227.43 ± 6.04	n = 6	[DUE] Siemens Dimension EXL
134.22 ± 5.64	154.80 ± 6.26	115.28 ± 4.82	195.45 ± 5.63	226.03 ± 8.37	n = 21	[DUR] Siemens Dimension RxL
133.25 ± 6.79	155.50 ± 7.08	115.00 ± 6.09	195.69 ± 9.28	225.44 ± 10.91	n = 32	[DUT] Siemens Dimension Vista
130.12 ± 3.20	149.96 ± 4.99	110.63 ± 4.31	191.26 ± 7.76	221.06 ± 7.29	n = 11	[DUX] Siemens Dimension Xpand
						<Reagents>
138.22 ± 5.09	158.36 ± 3.51	118.40 ± 3.50	198.98 ± 5.38	230.32 ± 4.26	n = 13	[AB1] Abbott
134.42 ± 4.57	155.16 ± 5.54	115.40 ± 4.93	194.34 ± 8.53	224.09 ± 11.08	n = 39	[BC1] Beckman Coulter
134.92 ± 6.73	157.28 ± 6.90	116.24 ± 4.63	194.57 ± 7.31	227.27 ± 7.85	n = 6	[OL1] Beckman Coulter AU Series
133.34 ± 5.63	153.99 ± 3.63	115.69 ± 5.11	195.94 ± 5.55	229.69 ± 6.47	n = 11	[IH1] In-House
119.71 ± 4.72	138.57 ± 4.78	103.34 ± 4.12	174.24 ± 6.96	202.37 ± 7.70	n = 34	[JJ1] Ortho Clinical Diagnostics
135.16 ± 3.36	156.69 ± 2.91	116.90 ± 2.41	198.34 ± 3.52	228.62 ± 5.25	n = 13	[RO4] Roche cobas c311/c501/c502/c701
134.81 ± 5.46	156.08 ± 7.18	115.86 ± 5.27	196.01 ± 9.09	229.06 ± 9.47	n = 12	[RO2] Roche Hitachi and Modular D/P
132.21 ± 4.25	152.61 ± 4.14	113.83 ± 2.71	191.90 ± 4.44	225.12 ± 6.69	n = 8	[RO1] Roche Integra and MIRA
138.25 ± 2.27	158.54 ± 3.02	119.34 ± 2.78	200.84 ± 3.33	232.92 ± 3.00	n = 6	[BY1] Siemens ADVIA/ADVIA Centaur
139.82 ± 4.04	160.34 ± 4.75	119.38 ± 3.76	203.03 ± 6.16	236.01 ± 6.59	n = 4	[BY5] Siemens ADVIA/Syva Emit 2000
132.96 ± 5.98	154.33 ± 6.80	114.41 ± 5.63	194.80 ± 8.00	224.96 ± 9.65	n = 71	[DA5] Siemens Dimension
138.02 ± 7.97	158.84 ± 9.69	118.44 ± 6.76	200.97 ± 10.60	234.11 ± 11.20	n = 5	[SY2] Syva Emit

Summary of Participant Performance (Mean and Standard Deviation)

Ethosuximide (mg/L)

Specimen: T61	Specimen: T62	Specimen: T63	Specimen: T64	Specimen: T65	Number	[Code] Instrument or Reagent System
54.21 ± 4.45	157.98 ± 11.62	176.68 ± 17.48	82.59 ± 4.83	44.65 ± 2.54	n = 6	[---] All Methods & Instruments
52.0	149.9	166.7	78.0	40.1		[---] Weigh-in value
						<Instruments>
57.47 ± 3.72	167.26 ± 5.87	188.04 ± 3.75	86.51 ± 1.08	46.34 ± 1.25	n = 3	[OLC] Beckman Coulter AU Chemistry System
						<Reagents>
54.62 ± 5.00	158.87 ± 12.83	174.90 ± 19.55	83.29 ± 5.06	45.38 ± 1.95	n = 5	[SY2] Syva Emit

Summary of Participant Performance (Mean and Standard Deviation)

Gentamicin (mg/L)

Specimen: T61	Specimen: T62	Specimen: T63	Specimen: T64	Specimen: T65	Number	[Code] Instrument or Reagent System
4.57 ± 0.36	3.57 ± 0.28	6.96 ± 0.53	6.87 ± 0.54	12.78 ± 1.15	n = 178	[---] All Methods & Instruments
4.7	3.6	7.0	7.1	13.1		[---] Weigh-in value
						<Instruments>
3.82 ± 0.08	3.05 ± 0.08	5.89 ± 0.13	5.78 ± 0.08	10.85 ± 0.18	n = 5	[ABJ] Abbott Architect c System
4.40 ± 0.16	3.36 ± 0.17	6.80 ± 0.28	6.63 ± 0.37	12.77 ± 0.91	n = 10	[ABB] Abbott AxSym
5.03 ± 0.31	3.89 ± 0.26	7.78 ± 0.71	7.60 ± 0.58	14.52 ± 1.41	n = 8	[OLC] Beckman Coulter AU Chemistry System
4.34 ± 0.19	3.35 ± 0.06	7.04 ± 0.35	6.90 ± 0.35	12.73 ± 0.67	n = 4	[BCX] Beckman Coulter LX-20
4.56 ± 0.19	3.38 ± 0.20	7.22 ± 0.39	7.07 ± 0.28	13.12 ± 0.88	n = 7	[BCG] Beckman Coulter UniCel DxC 600
4.47 ± 0.25	3.44 ± 0.26	7.13 ± 0.41	7.03 ± 0.33	12.81 ± 0.72	n = 13	[BCH] Beckman Coulter UniCel DxC 800
5.14 ± 0.22	4.05 ± 0.18	7.70 ± 0.49	7.65 ± 0.47	15.05 ± 1.09	n = 10	[JJF] Ortho Vitros 5,1FS
5.08 ± 0.20	3.98 ± 0.15	7.50 ± 0.29	7.41 ± 0.32	14.13 ± 0.60	n = 12	[JJG] Ortho Vitros 5600
3.97 ± 0.43	3.05 ± 0.32	6.23 ± 0.49	5.66 ± 1.34	10.92 ± 1.40	n = 5	[ROC] Roche cobas c501
4.34 ± 0.10	3.53 ± 0.05	6.05 ± 0.27	6.24 ± 0.10	11.49 ± 1.19	n = 3	[ROS] Roche Cobas INTEGRA 400
4.34 ± 0.12	3.60 ± 0.10	6.31 ± 0.28	6.15 ± 0.33	11.97 ± 0.64	n = 15	[ROT] Roche Cobas INTEGRA 800
4.52 ± 0.27	3.54 ± 0.24	6.76 ± 0.33	6.77 ± 0.34	11.85 ± 0.62	n = 9	[ROD] Roche MODULAR D/P
4.58 ± 0.08	3.62 ± 0.16	6.92 ± 0.29	6.61 ± 0.45	12.21 ± 0.37	n = 5	[BYE] Siemens ADVIA 1800
4.67 ± 0.48	3.51 ± 0.18	6.98 ± 0.39	6.94 ± 0.46	13.03 ± 1.16	n = 13	[COB] Siemens ADVIA Centaur
4.41 ± 0.11	3.45 ± 0.06	6.70 ± 0.08	6.73 ± 0.09	12.90 ± 0.15	n = 4	[DUE] Siemens Dimension EXL
4.46 ± 0.17	3.52 ± 0.15	6.83 ± 0.23	6.72 ± 0.26	12.77 ± 0.48	n = 15	[DUR] Siemens Dimension RxL
4.64 ± 0.18	3.60 ± 0.16	7.08 ± 0.25	6.99 ± 0.26	12.86 ± 0.82	n = 32	[DUT] Siemens Dimension Vista
4.47 ± 0.05	3.53 ± 0.05	6.78 ± 0.24	6.65 ± 0.19	12.73 ± 0.14	n = 3	[DUX] Siemens Dimension Xpand
						<Reagents>
4.22 ± 0.34	3.25 ± 0.21	6.47 ± 0.54	6.32 ± 0.55	12.08 ± 1.21	n = 16	[AB1] Abbott
4.49 ± 0.26	3.43 ± 0.25	7.18 ± 0.41	7.05 ± 0.35	12.89 ± 0.86	n = 26	[BC1] Beckman Coulter
5.27 ± 0.33	4.11 ± 0.19	8.29 ± 0.58	8.08 ± 0.63	15.85 ± 1.53	n = 4	[OL1] Beckman Coulter AU Series
4.38 ± 0.32	3.46 ± 0.26	6.57 ± 0.23	6.44 ± 0.26	11.39 ± 0.44	n = 3	[MG1] Microgenics CEDIA
5.11 ± 0.21	4.00 ± 0.15	7.55 ± 0.38	7.49 ± 0.40	14.40 ± 0.84	n = 22	[JJ1] Ortho Clinical Diagnostics
3.91 ± 0.29	3.01 ± 0.21	6.21 ± 0.46	5.61 ± 1.18	10.82 ± 1.33	n = 5	[RO4] Roche cobas c311/c501/c502/c701
4.59 ± 0.21	3.60 ± 0.24	6.88 ± 0.33	6.92 ± 0.25	11.95 ± 0.52	n = 6	[RO2] Roche Hitachi and Modular D/P
4.35 ± 0.11	3.58 ± 0.10	6.30 ± 0.27	6.16 ± 0.30	11.99 ± 0.63	n = 17	[RO1] Roche Integra and MIRA
4.67 ± 0.48	3.51 ± 0.18	6.98 ± 0.39	6.94 ± 0.46	13.03 ± 1.16	n = 13	[BY1] Siemens ADVIA/ADVIA Centaur
4.61 ± 0.14	3.59 ± 0.14	6.95 ± 0.25	6.78 ± 0.22	12.13 ± 0.34	n = 6	[BY5] Siemens ADVIA/Syva Emit 2000
4.56 ± 0.19	3.56 ± 0.15	6.96 ± 0.28	6.87 ± 0.28	12.84 ± 0.63	n = 54	[DA5] Siemens Dimension
4.87 ± 0.15	3.70 ± 0.08	7.35 ± 0.46	7.28 ± 0.28	13.72 ± 0.46	n = 4	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

Lithium (mmol/L)

Specimen: T61	Specimen: T62	Specimen: T63	Specimen: T64	Specimen: T65	Number	[Code] Instrument or Reagent System
0.509 ± 0.067	2.121 ± 0.120	1.659 ± 0.107	0.779 ± 0.079	1.312 ± 0.094	n = 203	[---] All Methods & Instruments
0.6	2.3	1.8	0.9	1.4		[---] Weigh-in value
						<Instruments>
0.545 ± 0.024	2.164 ± 0.050	1.713 ± 0.052	0.829 ± 0.030	1.367 ± 0.023	n = 10	[ABJ] Abbott Architect c System
0.500 ± 0.000	2.042 ± 0.055	1.600 ± 0.000	0.777 ± 0.040	1.300 ± 0.000	n = 15	[OLC] Beckman Coulter AU Chemistry System
0.495 ± 0.019	2.086 ± 0.084	1.620 ± 0.072	0.763 ± 0.032	1.335 ± 0.054	n = 3	[BCX] Beckman Coulter LX-20
0.476 ± 0.027	2.077 ± 0.024	1.627 ± 0.051	0.757 ± 0.045	1.282 ± 0.025	n = 7	[BCG] Beckman Coulter UniCel DxC 600
0.458 ± 0.060	2.028 ± 0.075	1.583 ± 0.062	0.720 ± 0.055	1.263 ± 0.062	n = 14	[BCH] Beckman Coulter UniCel DxC 800
0.492 ± 0.041	2.022 ± 0.104	1.553 ± 0.176	0.740 ± 0.072	1.240 ± 0.117	n = 3	[ICP] ICP/MS
0.512 ± 0.042	2.269 ± 0.065	1.781 ± 0.058	0.821 ± 0.053	1.411 ± 0.057	n = 17	[JJF] Ortho Vitros 5,1FS
0.524 ± 0.049	2.239 ± 0.086	1.778 ± 0.059	0.800 ± 0.000	1.400 ± 0.000	n = 13	[JJG] Ortho Vitros 5600
0.565 ± 0.022	2.170 ± 0.121	1.671 ± 0.085	0.833 ± 0.063	1.270 ± 0.064	n = 5	[ROY] Roche 9180/9181
0.532 ± 0.048	2.101 ± 0.038	1.667 ± 0.051	0.800 ± 0.000	1.327 ± 0.062	n = 15	[ROC] Roche cobas c501
0.596 ± 0.010	2.204 ± 0.051	1.705 ± 0.016	0.887 ± 0.029	1.307 ± 0.028	n = 11	[ROT] Roche Cobas INTEGRA 800
0.584 ± 0.052	2.143 ± 0.054	1.690 ± 0.024	0.824 ± 0.055	1.366 ± 0.038	n = 9	[ROD] Roche MODULAR D/P
0.582 ± 0.027	2.229 ± 0.069	1.783 ± 0.051	0.815 ± 0.047	1.429 ± 0.067	n = 11	[BYE] Siemens ADVIA 1800
0.408 ± 0.017	1.983 ± 0.077	1.501 ± 0.073	0.655 ± 0.048	1.158 ± 0.078	n = 16	[DUR] Siemens Dimension RxL
0.480 ± 0.044	2.092 ± 0.042	1.621 ± 0.049	0.733 ± 0.044	1.275 ± 0.037	n = 31	[DUT] Siemens Dimension Vista
0.414 ± 0.026	1.947 ± 0.105	1.492 ± 0.077	0.631 ± 0.056	1.172 ± 0.051	n = 3	[DUX] Siemens Dimension Xpand
						<Reagents>
0.549 ± 0.020	2.172 ± 0.047	1.721 ± 0.042	0.833 ± 0.029	1.369 ± 0.018	n = 9	[AB1] Abbott
0.573 ± 0.025	2.197 ± 0.122	1.697 ± 0.095	0.852 ± 0.090	1.290 ± 0.078	n = 6	[AV1] AVL Scientific
0.468 ± 0.052	2.055 ± 0.064	1.606 ± 0.059	0.740 ± 0.051	1.280 ± 0.054	n = 22	[BC1] Beckman Coulter
0.500 ± 0.000	2.055 ± 0.057	1.600 ± 0.000	0.772 ± 0.043	1.300 ± 0.000	n = 13	[OL1] Beckman Coulter AU Series
0.508 ± 0.068	2.086 ± 0.184	1.587 ± 0.197	0.764 ± 0.106	1.241 ± 0.145	n = 4	[IH1] In-House
0.621 ± 0.056	2.341 ± 0.120	1.830 ± 0.063	0.933 ± 0.051	1.386 ± 0.084	n = 3	[NO1] NOVA Biomedical
0.516 ± 0.044	2.255 ± 0.074	1.771 ± 0.061	0.817 ± 0.051	1.410 ± 0.050	n = 34	[JJ1] Ortho Clinical Diagnostics
0.526 ± 0.050	2.098 ± 0.050	1.652 ± 0.059	0.794 ± 0.023	1.327 ± 0.060	n = 16	[RO4] Roche cobas c311/c501/c502/c701
0.596 ± 0.010	2.204 ± 0.051	1.705 ± 0.016	0.887 ± 0.029	1.307 ± 0.028	n = 11	[RO1] Roche Integra and MIRA
0.581 ± 0.025	2.237 ± 0.071	1.789 ± 0.050	0.816 ± 0.044	1.431 ± 0.063	n = 12	[BY1] Siemens ADVIA/ADVIA Centaur
0.453 ± 0.051	2.053 ± 0.081	1.577 ± 0.087	0.704 ± 0.060	1.236 ± 0.075	n = 52	[DA5] Siemens Dimension
0.523 ± 0.066	2.082 ± 0.095	1.632 ± 0.058	0.800 ± 0.056	1.310 ± 0.067	n = 13	[TH1] Thermo Scientific

Summary of Participant Performance (Mean and Standard Deviation)

Phenobarbital (mg/L)

Specimen: T61	Specimen: T62	Specimen: T63	Specimen: T64	Specimen: T65	Number	[Code] Instrument or Reagent System
21.82 ± 1.55	46.19 ± 3.69	14.42 ± 1.08	32.79 ± 2.65	37.88 ± 3.03	n = 227	[---] All Methods & Instruments
22.5	47.8	15.0	33.7	39.3		[---] Weigh-in value
						<Instruments>
21.07 ± 1.38	47.02 ± 2.16	14.92 ± 0.81	31.85 ± 1.40	38.27 ± 1.39	n = 4	[ABJ] Abbott Architect c System
22.31 ± 1.23	47.65 ± 2.42	14.83 ± 1.10	33.66 ± 2.02	38.65 ± 2.09	n = 5	[ABH] Abbott Architect i System
20.37 ± 0.53	43.33 ± 1.84	14.04 ± 0.46	31.13 ± 1.84	34.77 ± 1.75	n = 10	[ABB] Abbott AxSym
21.63 ± 1.21	46.11 ± 1.95	14.21 ± 0.49	32.55 ± 2.44	36.72 ± 3.33	n = 13	[OLC] Beckman Coulter AU Chemistry System
15.46 ± 11.35	31.34 ± 22.47	8.12 ± 5.96	23.38 ± 17.61	24.62 ± 17.58	n = 3	[BCS] Beckman Coulter CX
20.53 ± 0.42	41.15 ± 2.19	13.83 ± 0.23	29.49 ± 0.44	34.48 ± 0.32	n = 3	[BCX] Beckman Coulter LX-20
20.77 ± 1.03	41.31 ± 1.46	13.95 ± 0.94	30.48 ± 1.17	34.93 ± 0.98	n = 8	[BCG] Beckman Coulter UniCel DxC 600
20.89 ± 0.69	42.00 ± 1.98	13.77 ± 0.54	30.27 ± 0.86	34.86 ± 1.54	n = 13	[BCH] Beckman Coulter UniCel DxC 800
23.33 ± 1.37	53.30 ± 2.14	14.64 ± 1.04	37.31 ± 1.23	42.69 ± 1.38	n = 17	[JJF] Ortho Vitros 5,1FS
23.54 ± 1.78	54.64 ± 4.25	13.92 ± 0.97	37.68 ± 2.71	43.89 ± 3.81	n = 13	[JJG] Ortho Vitros 5600
20.99 ± 1.14	44.52 ± 1.41	13.76 ± 0.72	31.54 ± 1.05	36.55 ± 1.54	n = 17	[ROC] Roche cobas c501
20.72 ± 0.49	44.44 ± 0.76	13.92 ± 0.24	31.28 ± 0.49	35.98 ± 0.62	n = 13	[ROT] Roche Cobas INTEGRA 800
20.98 ± 1.04	45.75 ± 1.81	13.83 ± 0.88	32.20 ± 1.62	37.75 ± 2.04	n = 14	[ROD] Roche MODULAR D/P
21.07 ± 1.59	43.81 ± 3.19	14.26 ± 1.57	32.64 ± 1.95	36.53 ± 2.93	n = 8	[BYE] Siemens ADVIA 1800
22.98 ± 1.36	49.48 ± 2.58	15.92 ± 1.18	34.47 ± 2.51	40.50 ± 1.82	n = 12	[COB] Siemens ADVIA Centaur
22.26 ± 0.45	46.51 ± 1.46	14.83 ± 0.33	33.57 ± 1.17	39.17 ± 0.68	n = 4	[DUE] Siemens Dimension EXL
22.64 ± 1.12	47.05 ± 1.56	15.06 ± 0.85	33.28 ± 1.56	38.72 ± 1.63	n = 20	[DUR] Siemens Dimension RxL
22.53 ± 1.05	46.62 ± 1.57	15.19 ± 0.99	33.04 ± 1.18	38.27 ± 1.55	n = 33	[DUT] Siemens Dimension Vista
22.50 ± 1.01	47.49 ± 1.78	15.09 ± 0.84	34.55 ± 1.48	38.99 ± 1.21	n = 6	[DUX] Siemens Dimension Xpand
						<Reagents>
20.92 ± 1.18	45.10 ± 2.92	14.41 ± 0.85	31.87 ± 2.06	36.50 ± 2.60	n = 19	[AB1] Abbott
20.75 ± 0.85	41.72 ± 1.88	13.78 ± 0.71	30.10 ± 1.09	34.73 ± 1.26	n = 28	[BC1] Beckman Coulter
21.18 ± 1.13	45.60 ± 1.84	13.98 ± 0.29	33.13 ± 2.23	35.61 ± 2.76	n = 5	[OL1] Beckman Coulter AU Series
23.08 ± 1.60	49.07 ± 2.21	15.27 ± 1.23	35.25 ± 2.41	40.28 ± 2.88	n = 4	[MG1] Microgenics CEDIA
23.36 ± 1.52	53.75 ± 3.01	14.33 ± 1.14	37.40 ± 1.84	42.84 ± 2.13	n = 31	[JJ1] Ortho Clinical Diagnostics
20.88 ± 1.09	44.46 ± 1.31	13.75 ± 0.68	31.50 ± 1.03	36.48 ± 1.45	n = 19	[RO4] Roche cobas c311/c501/c502/c701
20.90 ± 0.73	46.17 ± 1.80	13.62 ± 0.58	31.41 ± 1.63	37.23 ± 2.07	n = 4	[RO2] Roche Hitachi and Modular D/P
20.67 ± 0.49	44.33 ± 0.95	13.92 ± 0.22	31.23 ± 0.53	35.91 ± 0.67	n = 14	[RO1] Roche Integra and MIRA
21.03 ± 1.17	45.57 ± 1.76	13.96 ± 0.99	32.47 ± 1.47	37.95 ± 1.98	n = 10	[RO6] Roche ONLINE
23.04 ± 1.33	49.67 ± 2.69	15.88 ± 1.17	34.61 ± 2.32	39.82 ± 0.78	n = 14	[BY1] Siemens ADVIA/ADVIA Centaur
21.00 ± 2.03	43.56 ± 2.99	14.26 ± 1.57	31.56 ± 2.98	35.54 ± 2.59	n = 8	[BY5] Siemens ADVIA/Syva Emit 2000
22.54 ± 1.03	46.82 ± 1.61	15.11 ± 0.89	33.27 ± 1.36	38.56 ± 1.53	n = 63	[DA5] Siemens Dimension
21.45 ± 1.51	45.90 ± 0.88	14.08 ± 0.50	31.11 ± 2.51	37.82 ± 2.87	n = 5	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

Phenytoin (mg/L)

Specimen: T61	Specimen: T62	Specimen: T63	Specimen: T64	Specimen: T65	Number	[Code] Instrument or Reagent System
17.39 ± 1.32	11.69 ± 1.01	8.01 ± 0.70	26.16 ± 1.99	20.13 ± 1.61	n = 271	[---] All Methods & Instruments
18.0	12.0	8.5	27.0	21.0		[---] Weigh-in value
						<Instruments>
18.19 ± 1.01	11.79 ± 0.20	8.50 ± 0.30	29.58 ± 3.55	21.81 ± 1.56	n = 4	[ABJ] Abbott Architect c System
17.82 ± 0.27	11.47 ± 1.20	8.31 ± 0.36	26.43 ± 1.75	20.65 ± 0.62	n = 7	[ABH] Abbott Architect i System
17.26 ± 0.51	12.39 ± 0.71	8.47 ± 0.29	26.33 ± 1.03	20.18 ± 0.40	n = 9	[ABB] Abbott AxSym
17.33 ± 0.94	11.83 ± 0.68	8.05 ± 0.51	26.73 ± 1.91	20.34 ± 0.89	n = 23	[OLC] Beckman Coulter AU Chemistry System
17.33 ± 2.87	11.45 ± 1.46	7.49 ± 0.61	26.29 ± 3.41	19.75 ± 2.74	n = 3	[BCS] Beckman Coulter CX
16.24 ± 0.41	11.27 ± 0.43	7.64 ± 0.23	24.62 ± 1.22	19.11 ± 0.81	n = 5	[BCX] Beckman Coulter LX-20
16.91 ± 0.68	11.34 ± 0.51	7.77 ± 0.26	25.15 ± 1.42	19.49 ± 0.99	n = 12	[BCG] Beckman Coulter UniCel DxC 600
16.94 ± 0.65	11.43 ± 0.31	7.90 ± 0.25	25.13 ± 1.14	19.63 ± 0.77	n = 18	[BCH] Beckman Coulter UniCel DxC 800
15.99 ± 0.91	9.98 ± 0.49	7.08 ± 0.39	24.35 ± 1.24	18.01 ± 1.08	n = 20	[JJF] Ortho Vitros 5,1FS
16.16 ± 0.67	10.03 ± 0.34	7.14 ± 0.35	23.83 ± 1.06	17.62 ± 0.83	n = 13	[JJG] Ortho Vitros 5600
16.75 ± 0.87	11.52 ± 0.56	7.78 ± 0.30	25.45 ± 1.17	19.59 ± 1.21	n = 17	[ROC] Roche cobas c501
17.13 ± 0.58	11.48 ± 0.30	7.91 ± 0.22	26.36 ± 0.70	20.07 ± 0.75	n = 15	[ROT] Roche Cobas INTEGRA 800
17.02 ± 0.74	11.74 ± 0.49	7.83 ± 0.46	25.97 ± 0.65	20.23 ± 0.78	n = 17	[ROD] Roche MODULAR D/P
17.08 ± 1.27	11.80 ± 0.54	8.17 ± 1.04	24.03 ± 1.85	18.49 ± 1.85	n = 9	[BYE] Siemens ADVIA 1800
21.37 ± 0.98	14.53 ± 1.05	9.69 ± 0.82	33.32 ± 2.97	25.52 ± 2.02	n = 13	[COB] Siemens ADVIA Centaur
18.02 ± 0.23	11.92 ± 0.16	8.12 ± 0.18	27.97 ± 1.22	21.59 ± 0.74	n = 6	[DUE] Siemens Dimension EXL
18.50 ± 0.94	12.19 ± 0.63	8.42 ± 0.65	27.83 ± 1.08	21.27 ± 0.85	n = 22	[DUR] Siemens Dimension RxL
18.27 ± 0.86	12.28 ± 0.60	8.55 ± 0.47	26.71 ± 1.23	20.90 ± 0.95	n = 34	[DUT] Siemens Dimension Vista
18.42 ± 1.27	12.22 ± 1.01	8.11 ± 0.73	27.80 ± 1.37	21.30 ± 1.26	n = 11	[DUX] Siemens Dimension Xpand
						<Reagents>
17.57 ± 0.68	12.06 ± 0.58	8.43 ± 0.32	26.51 ± 1.57	20.50 ± 0.99	n = 20	[AB1] Abbott
16.84 ± 0.78	11.41 ± 0.45	7.81 ± 0.30	25.11 ± 1.50	19.56 ± 0.95	n = 40	[BC1] Beckman Coulter
17.14 ± 0.98	11.94 ± 0.60	8.10 ± 0.40	26.07 ± 2.63	20.03 ± 1.12	n = 9	[OL1] Beckman Coulter AU Series
17.55 ± 1.00	11.50 ± 0.85	7.78 ± 0.72	27.10 ± 0.87	20.79 ± 0.69	n = 6	[MG1] Microgenics CEDIA
16.05 ± 0.78	9.99 ± 0.40	7.09 ± 0.39	24.12 ± 1.21	17.86 ± 0.99	n = 34	[JJ1] Ortho Clinical Diagnostics
16.73 ± 0.77	11.53 ± 0.51	7.79 ± 0.30	25.50 ± 1.15	19.67 ± 1.07	n = 20	[RO4] Roche cobas c311/c501/c502/c701
16.89 ± 0.70	11.95 ± 0.35	7.91 ± 0.13	26.10 ± 0.43	20.01 ± 0.92	n = 6	[RO2] Roche Hitachi and Modular D/P
17.13 ± 0.58	11.48 ± 0.30	7.91 ± 0.22	26.36 ± 0.70	20.07 ± 0.75	n = 15	[RO1] Roche Integra and MIRA
17.07 ± 0.73	11.61 ± 0.52	7.83 ± 0.54	25.81 ± 0.73	20.34 ± 0.65	n = 11	[RO6] Roche ONLINE
21.29 ± 1.14	14.48 ± 1.10	9.67 ± 0.88	33.39 ± 2.91	25.57 ± 2.04	n = 15	[BY1] Siemens ADVIA/ADVIA Centaur
17.06 ± 1.30	12.10 ± 1.05	8.42 ± 0.79	24.67 ± 1.57	19.08 ± 1.81	n = 10	[BY5] Siemens ADVIA/Syva Emit 2000
18.32 ± 0.92	12.19 ± 0.68	8.41 ± 0.58	27.30 ± 1.30	21.08 ± 0.97	n = 73	[DA5] Siemens Dimension
17.40 ± 0.96	11.83 ± 0.53	7.92 ± 0.66	26.56 ± 1.89	20.18 ± 0.35	n = 8	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

Free Phenytoin (mg/L)

Specimen: T61	Specimen: T62	Specimen: T63	Specimen: T64	Specimen: T65	Number	[Code] Instrument or Reagent System
2.51 ± 0.31	1.48 ± 0.13	1.15 ± 0.16	3.62 ± 0.34	2.63 ± 0.25	n = 20	[---] All Methods & Instruments
						<Instruments>
2.60 ± 0.19	1.56 ± 0.15	1.29 ± 0.11	3.65 ± 0.19	2.65 ± 0.27	n = 7	[OLC] Beckman Coulter AU Chemistry System
2.06 ± 0.39	1.37 ± 0.05	0.96 ± 0.10	3.26 ± 0.39	2.46 ± 0.10	n = 3	[BCH] Beckman Coulter UniCel DxC 800
2.57 ± 0.21	1.48 ± 0.09	1.10 ± 0.06	3.61 ± 0.32	2.61 ± 0.22	n = 6	[ROT] Roche Cobas INTEGRA 800
						<Reagents>
1.98 ± 0.31	1.38 ± 0.04	0.97 ± 0.09	3.22 ± 0.31	2.47 ± 0.09	n = 4	[BC1] Beckman Coulter
2.53 ± 0.21	1.46 ± 0.08	1.08 ± 0.07	3.59 ± 0.27	2.63 ± 0.20	n = 7	[RO1] Roche Integra and MIRA
2.62 ± 0.21	1.50 ± 0.07	1.26 ± 0.09	3.62 ± 0.12	2.58 ± 0.24	n = 6	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

Primidone (mg/L)

Specimen: T61	Specimen: T62	Specimen: T63	Specimen: T64	Specimen: T65	Number	[Code] Instrument or Reagent System
11.17 ± 0.44	8.78 ± 0.37	8.56 ± 0.35	16.59 ± 0.60	5.48 ± 0.35	n = 15	[---] All Methods & Instruments
11.4	8.3	8.7	17.0	5.0		[---] Weigh-in value
						<Instruments>
11.09 ± 0.57	8.96 ± 0.35	8.53 ± 0.33	16.39 ± 0.62	5.67 ± 0.17	n = 9	[OLC] Beckman Coulter AU Chemistry System
11.28 ± 0.21	8.63 ± 0.23	8.61 ± 0.20	16.66 ± 0.19	5.07 ± 0.09	n = 4	[ROT] Roche Cobas INTEGRA 800
						<Reagents>
11.32 ± 0.19	8.58 ± 0.19	8.69 ± 0.23	16.75 ± 0.48	5.04 ± 0.11	n = 5	[RO1] Roche Integra and MIRA
11.04 ± 0.59	8.94 ± 0.39	8.51 ± 0.41	16.52 ± 0.64	5.69 ± 0.17	n = 9	[SY2] Syva Emit

Summary of Participant Performance (Mean and Standard Deviation)

Procainamide (mg/L)

Specimen: T61	Specimen: T62	Specimen: T63	Specimen: T64	Specimen: T65	Number	[Code] Instrument or Reagent System
9.02 ± 0.46	5.19 ± 0.08	11.41 ± 0.64	13.98 ± 0.97	3.44 ± 0.09	n = 15	[---] All Methods & Instruments
9.6	5.1	11.6	14.4	3.4		[---] Weigh-in value
						<Instruments>
9.48 ± 0.32	5.43 ± 0.23	11.58 ± 0.59	14.26 ± 0.93	3.65 ± 0.19	n = 3	[OLC] Beckman Coulter AU Chemistry System
8.48 ± 0.15	5.23 ± 0.05	11.23 ± 0.60	12.78 ± 0.96	3.40 ± 0.09	n = 3	[ROC] Roche cobas c501
9.22 ± 0.21	5.16 ± 0.06	11.39 ± 0.48	14.34 ± 0.69	3.40 ± 0.06	n = 5	[ROT] Roche Cobas INTEGRA 800
						<Reagents>
8.48 ± 0.15	5.23 ± 0.05	11.23 ± 0.60	12.78 ± 0.96	3.40 ± 0.09	n = 3	[RO4] Roche cobas c311/c501/c502/c701
9.17 ± 0.21	5.15 ± 0.06	11.39 ± 0.43	14.29 ± 0.60	3.40 ± 0.06	n = 6	[RO1] Roche Integra and MIRA
9.26 ± 0.10	5.30 ± 0.09	11.63 ± 0.69	13.92 ± 0.32	3.53 ± 0.05	n = 3	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

N-Acetyl-Procainamide (mg/L)

Specimen: T61	Specimen: T62	Specimen: T63	Specimen: T64	Specimen: T65	Number	[Code] Instrument or Reagent System
8.70 ± 0.52	16.55 ± 0.49	20.23 ± 1.36	12.71 ± 0.72	8.21 ± 0.23	n = 15	[---] All Methods & Instruments
8.6	16.5	20.7	12.9	8.1		[---] Weigh-in value
						<Instruments>
8.35 ± 0.27	16.34 ± 0.39	19.74 ± 0.84	13.10 ± 0.54	8.17 ± 0.31	n = 3	[OLC] Beckman Coulter AU Chemistry System
9.58 ± 0.15	18.74 ± 1.48	20.15 ± 2.63	13.49 ± 1.63	8.07 ± 0.32	n = 3	[ROC] Roche cobas c501
8.67 ± 0.27	16.43 ± 0.28	20.35 ± 0.58	12.42 ± 0.24	8.30 ± 0.06	n = 5	[ROT] Roche Cobas INTEGRA 800
						<Reagents>
9.58 ± 0.15	18.74 ± 1.48	20.15 ± 2.63	13.49 ± 1.63	8.07 ± 0.32	n = 3	[RO4] Roche cobas c311/c501/c502/c701
8.69 ± 0.23	16.35 ± 0.32	20.43 ± 0.53	12.46 ± 0.23	8.28 ± 0.07	n = 6	[RO1] Roche Integra and MIRA
8.33 ± 0.23	16.45 ± 0.54	20.00 ± 1.26	13.00 ± 0.55	8.06 ± 0.10	n = 3	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

Quinidine (mg/L)

Specimen: T61	Specimen: T62	Specimen: T63	Specimen: T64	Specimen: T65	Number	[Code] Instrument or Reagent System
3.60 ± 0.09	6.26 ± 0.23	2.16 ± 0.09	5.30 ± 0.14	1.29 ± 0.07	n = 14	[---] All Methods & Instruments
3.7	6.7	2.3	5.6	1.5		[---] Weigh-in value
						<Instruments>
3.63 ± 0.10	6.37 ± 0.10	2.10 ± 0.00	5.34 ± 0.19	1.30 ± 0.06	n = 6	[ROT] Roche Cobas INTEGRA 800
						<Reagents>
3.57 ± 0.05	6.10 ± 0.09	2.23 ± 0.05	5.20 ± 0.09	1.27 ± 0.05	n = 3	[RO4] Roche cobas c311/c501/c502/c701
3.62 ± 0.09	6.39 ± 0.10	2.10 ± 0.00	5.33 ± 0.17	1.28 ± 0.07	n = 7	[RO1] Roche Integra and MIRA

Summary of Participant Performance (Mean and Standard Deviation)

Salicylate (mg/L)

Specimen: T61	Specimen: T62	Specimen: T63	Specimen: T64	Specimen: T65	Number	[Code] Instrument or Reagent System
27.14 ± 1.07	64.81 ± 2.51	43.95 ± 1.53	40.51 ± 1.37	78.49 ± 3.05	n = 213	[---] All Methods & Instruments
26.3	62.7	42.8	39.5	77.1		[---] Weigh-in value
						<Instruments>
27.14 ± 0.82	66.31 ± 1.90	44.35 ± 1.17	41.06 ± 1.08	80.54 ± 2.25	n = 8	[ABJ] Abbott Architect c System
25.31 ± 2.20	62.01 ± 4.11	41.87 ± 1.95	38.66 ± 1.75	73.62 ± 3.23	n = 10	[ABB] Abbott AxSym
27.45 ± 0.98	67.61 ± 2.34	44.24 ± 2.42	42.12 ± 2.03	80.69 ± 5.70	n = 10	[OLC] Beckman Coulter AU Chemistry System
27.89 ± 1.70	67.63 ± 3.34	44.98 ± 2.72	40.90 ± 1.29	80.38 ± 2.57	n = 5	[BCX] Beckman Coulter LX-20
28.43 ± 1.07	67.54 ± 2.00	45.30 ± 1.40	41.92 ± 0.91	82.23 ± 1.88	n = 11	[BCG] Beckman Coulter UniCel DxC 600
27.57 ± 0.64	66.50 ± 1.52	45.05 ± 0.91	41.22 ± 0.56	81.46 ± 1.50	n = 16	[BCH] Beckman Coulter UniCel DxC 800
26.72 ± 0.51	61.52 ± 2.74	43.00 ± 0.00	39.00 ± 0.90	75.20 ± 2.36	n = 3	[JJE] Ortho Vitros 250/350/950
27.50 ± 0.89	64.64 ± 1.46	44.28 ± 1.34	41.23 ± 1.36	78.72 ± 1.37	n = 18	[JJF] Ortho Vitros 5,1FS
26.90 ± 1.43	63.95 ± 1.21	44.36 ± 0.79	39.96 ± 1.66	78.49 ± 2.56	n = 14	[JJG] Ortho Vitros 5600
26.34 ± 0.54	67.17 ± 1.31	44.67 ± 0.84	40.68 ± 1.28	79.53 ± 3.32	n = 11	[ROC] Roche cobas c501
25.33 ± 0.37	61.34 ± 1.13	41.67 ± 0.51	38.46 ± 0.49	74.83 ± 1.16	n = 11	[ROT] Roche Cobas INTEGRA 800
26.69 ± 0.94	63.73 ± 1.86	43.50 ± 1.48	40.09 ± 1.11	78.24 ± 2.60	n = 10	[ROD] Roche MODULAR D/P
28.33 ± 0.97	68.56 ± 1.64	46.19 ± 1.37	42.19 ± 1.45	83.15 ± 1.47	n = 8	[BYE] Siemens ADVIA 1800
28.21 ± 0.72	67.86 ± 1.72	46.02 ± 0.96	43.32 ± 1.97	83.17 ± 2.89	n = 3	[BYB] Siemens ADVIA 2400
27.65 ± 0.42	64.02 ± 0.50	43.61 ± 0.55	40.57 ± 0.60	78.26 ± 1.46	n = 7	[DUE] Siemens Dimension EXL
27.33 ± 0.41	63.91 ± 0.98	43.59 ± 0.52	40.35 ± 0.48	77.44 ± 0.90	n = 19	[DUR] Siemens Dimension RxL
27.05 ± 0.49	63.92 ± 0.88	43.49 ± 0.86	40.21 ± 0.50	77.28 ± 1.31	n = 33	[DUT] Siemens Dimension Vista
27.28 ± 0.29	63.84 ± 0.48	43.54 ± 0.41	40.30 ± 0.30	77.90 ± 0.89	n = 9	[DUX] Siemens Dimension Xpand
						<Reagents>
26.30 ± 1.90	64.23 ± 3.95	43.08 ± 2.12	39.77 ± 1.91	76.97 ± 4.69	n = 18	[AB1] Abbott
27.68 ± 1.09	66.68 ± 2.28	44.84 ± 1.38	41.27 ± 0.98	81.20 ± 2.32	n = 36	[BC1] Beckman Coulter
27.27 ± 1.32	68.37 ± 1.81	43.87 ± 2.85	42.23 ± 2.03	82.12 ± 6.70	n = 7	[OL1] Beckman Coulter AU Series
27.20 ± 1.15	64.31 ± 1.67	44.16 ± 1.04	40.53 ± 1.66	78.43 ± 2.19	n = 35	[JJ1] Ortho Clinical Diagnostics
26.35 ± 0.53	66.90 ± 1.58	44.51 ± 1.00	40.63 ± 1.30	79.39 ± 3.39	n = 11	[RO4] Roche cobas c311/c501/c502/c701
26.69 ± 0.94	63.73 ± 1.86	43.50 ± 1.48	40.09 ± 1.11	78.24 ± 2.60	n = 10	[RO2] Roche Hitachi and Modular D/P
25.33 ± 0.37	61.34 ± 1.13	41.67 ± 0.51	38.46 ± 0.49	74.83 ± 1.16	n = 11	[RO1] Roche Integra and MIRA
28.28 ± 0.80	68.37 ± 1.68	46.12 ± 1.25	42.37 ± 1.82	83.27 ± 1.93	n = 11	[BY1] Siemens ADVIA/ADVIA Centaur
27.23 ± 0.49	63.90 ± 0.83	43.53 ± 0.65	40.28 ± 0.49	77.48 ± 1.14	n = 67	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

Theophylline (mg/L)

Specimen: T61	Specimen: T62	Specimen: T63	Specimen: T64	Specimen: T65	Number	[Code] Instrument or Reagent System
15.55 ± 0.82	29.28 ± 1.69	6.50 ± 0.40	23.16 ± 1.39	12.34 ± 0.66	n = 219	[---] All Methods & Instruments
16.0	30.6	6.8	24.1	12.6		[---] Weigh-in value
						<Instruments>
15.67 ± 0.72	30.23 ± 0.52	6.33 ± 0.27	22.93 ± 1.26	11.99 ± 0.85	n = 4	[ABH] Abbott Architect i System
15.68 ± 0.35	29.88 ± 0.90	6.56 ± 0.21	24.26 ± 1.25	12.55 ± 0.21	n = 8	[ABB] Abbott AxSym
15.66 ± 0.92	29.35 ± 2.35	6.50 ± 0.28	23.68 ± 1.72	12.55 ± 0.67	n = 11	[OLC] Beckman Coulter AU Chemistry System
15.43 ± 0.41	29.18 ± 1.67	7.12 ± 0.15	22.75 ± 1.37	12.30 ± 0.45	n = 3	[BCS] Beckman Coulter CX
14.76 ± 0.48	28.22 ± 1.09	6.31 ± 0.35	22.52 ± 0.73	12.15 ± 0.55	n = 5	[BCX] Beckman Coulter LX-20
15.17 ± 0.65	28.61 ± 1.39	6.30 ± 0.40	22.49 ± 1.16	11.96 ± 0.43	n = 11	[BCG] Beckman Coulter UniCel DxC 600
15.21 ± 0.50	28.74 ± 0.80	6.42 ± 0.30	22.94 ± 0.67	12.18 ± 0.49	n = 17	[BCH] Beckman Coulter UniCel DxC 800
19.77 ± 1.42	38.82 ± 1.62	8.92 ± 0.76	30.50 ± 1.56	17.45 ± 1.08	n = 17	[JJF] Ortho Vitros 5,1FS
20.05 ± 1.46	39.77 ± 1.39	9.01 ± 0.85	30.96 ± 1.54	18.06 ± 1.49	n = 12	[JJG] Ortho Vitros 5600
15.50 ± 0.23	28.88 ± 0.80	6.48 ± 0.15	23.12 ± 0.56	12.32 ± 0.28	n = 15	[ROC] Roche cobas c501
15.51 ± 0.28	29.70 ± 0.76	6.71 ± 0.15	23.64 ± 0.97	12.59 ± 0.33	n = 11	[ROT] Roche Cobas INTEGRA 800
15.73 ± 0.31	29.57 ± 1.06	6.54 ± 0.24	23.58 ± 0.49	12.64 ± 0.47	n = 12	[ROD] Roche MODULAR D/P
15.65 ± 0.80	29.85 ± 2.66	6.83 ± 0.19	22.16 ± 1.34	12.93 ± 0.66	n = 6	[BYE] Siemens ADVIA 1800
14.87 ± 0.99	27.34 ± 1.48	5.78 ± 0.54	21.84 ± 1.54	11.03 ± 0.66	n = 13	[COB] Siemens ADVIA Centaur
15.67 ± 0.86	30.32 ± 2.25	6.55 ± 0.53	22.99 ± 1.53	12.74 ± 0.89	n = 4	[DUE] Siemens Dimension EXL
16.03 ± 0.86	30.47 ± 1.42	6.71 ± 0.27	23.60 ± 1.24	12.68 ± 0.55	n = 18	[DUR] Siemens Dimension RxL
15.32 ± 0.64	28.75 ± 1.27	6.33 ± 0.35	22.77 ± 1.23	12.17 ± 0.56	n = 34	[DUT] Siemens Dimension Vista
15.92 ± 0.56	30.50 ± 1.44	6.53 ± 0.21	24.29 ± 0.80	12.61 ± 0.43	n = 6	[DUX] Siemens Dimension Xpand
						<Reagents>
15.82 ± 0.53	30.22 ± 1.16	6.56 ± 0.28	24.16 ± 1.52	12.51 ± 0.52	n = 14	[AB1] Abbott
15.21 ± 0.55	28.72 ± 1.02	6.41 ± 0.37	22.77 ± 0.78	12.14 ± 0.49	n = 38	[BC1] Beckman Coulter
15.70 ± 1.00	31.13 ± 0.59	6.66 ± 0.26	24.98 ± 0.84	12.84 ± 0.34	n = 6	[OL1] Beckman Coulter AU Series
19.89 ± 1.45	39.25 ± 1.57	8.97 ± 0.80	30.71 ± 1.59	17.70 ± 1.31	n = 29	[JJ1] Ortho Clinical Diagnostics
15.50 ± 0.27	28.97 ± 0.88	6.50 ± 0.17	23.15 ± 0.59	12.33 ± 0.31	n = 17	[RO4] Roche cobas c311/c501/c502/c701
15.69 ± 0.20	30.10 ± 1.17	6.73 ± 0.14	23.83 ± 0.23	12.64 ± 0.26	n = 3	[RO2] Roche Hitachi and Modular D/P
15.51 ± 0.28	29.70 ± 0.76	6.71 ± 0.15	23.64 ± 0.97	12.59 ± 0.33	n = 11	[RO1] Roche Integra and MIRA
15.75 ± 0.36	29.39 ± 0.95	6.46 ± 0.24	23.45 ± 0.54	12.62 ± 0.54	n = 9	[RO6] Roche ONLINE
15.01 ± 1.08	27.52 ± 1.78	5.83 ± 0.64	22.01 ± 1.63	11.12 ± 0.74	n = 14	[BY1] Siemens ADVIA/ADVIA Centaur
15.75 ± 0.90	30.07 ± 2.88	6.78 ± 0.46	22.24 ± 2.03	12.77 ± 0.72	n = 7	[BY5] Siemens ADVIA/Syva Emit 2000
15.60 ± 0.80	29.50 ± 1.68	6.48 ± 0.37	23.19 ± 1.34	12.40 ± 0.62	n = 62	[DA5] Siemens Dimension
15.75 ± 0.68	28.48 ± 1.52	6.43 ± 0.27	22.68 ± 0.76	12.59 ± 0.91	n = 6	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

Tobramycin (mg/L)

Specimen: T61	Specimen: T62	Specimen: T63	Specimen: T64	Specimen: T65	Number	[Code] Instrument or Reagent System
2.84 ± 0.38	7.11 ± 0.73	8.24 ± 0.78	4.20 ± 0.51	9.74 ± 1.04	n = 83	[---] All Methods & Instruments
3.0	7.3	8.5	4.4	10.3		[---] Weigh-in value
						<Instruments>
3.33 ± 0.24	7.97 ± 0.49	9.15 ± 0.61	4.94 ± 0.50	11.45 ± 1.09	n = 7	[ABB] Abbott AxSym
2.59 ± 0.10	6.80 ± 0.16	7.95 ± 0.13	3.92 ± 0.13	9.32 ± 0.41	n = 7	[OLC] Beckman Coulter AU Chemistry System
3.47 ± 0.09	8.54 ± 0.19	9.82 ± 0.27	5.28 ± 0.13	11.78 ± 0.31	n = 4	[BCG] Beckman Coulter UniCel DxC 600
3.34 ± 0.11	8.54 ± 0.33	9.79 ± 0.24	5.31 ± 0.21	11.55 ± 0.47	n = 5	[BCH] Beckman Coulter UniCel DxC 800
2.60 ± 0.00	7.20 ± 0.09	8.33 ± 0.05	4.00 ± 0.09	9.77 ± 0.23	n = 3	[JJF] Ortho Vitros 5,1FS
2.63 ± 0.05	7.10 ± 0.00	8.30 ± 0.00	4.13 ± 0.05	9.73 ± 0.14	n = 3	[JJG] Ortho Vitros 5600
2.72 ± 0.07	6.91 ± 0.18	8.10 ± 0.19	3.98 ± 0.10	9.46 ± 0.21	n = 6	[ROC] Roche cobas c501
2.61 ± 0.08	6.65 ± 0.27	7.77 ± 0.28	3.98 ± 0.11	9.21 ± 0.21	n = 9	[ROT] Roche Cobas INTEGRA 800
2.73 ± 0.15	6.90 ± 0.23	8.01 ± 0.11	3.98 ± 0.13	9.15 ± 0.06	n = 4	[ROD] Roche MODULAR D/P
3.28 ± 0.09	7.60 ± 0.08	8.84 ± 0.40	4.66 ± 0.06	10.64 ± 0.40	n = 7	[COB] Siemens ADVIA Centaur
2.62 ± 0.20	6.58 ± 0.04	7.55 ± 0.12	3.97 ± 0.16	9.00 ± 0.33	n = 4	[DUR] Siemens Dimension RxL
2.66 ± 0.14	6.73 ± 0.37	7.83 ± 0.34	3.95 ± 0.17	9.17 ± 0.35	n = 15	[DUT] Siemens Dimension Vista
						<Reagents>
3.29 ± 0.35	7.87 ± 0.68	9.04 ± 0.95	4.82 ± 0.64	11.17 ± 1.36	n = 8	[AB1] Abbott
3.40 ± 0.16	8.53 ± 0.26	9.78 ± 0.25	5.29 ± 0.19	11.67 ± 0.43	n = 11	[BC1] Beckman Coulter
2.60 ± 0.00	7.13 ± 0.07	8.30 ± 0.00	4.07 ± 0.10	9.75 ± 0.19	n = 6	[JJ1] Ortho Clinical Diagnostics
2.72 ± 0.07	6.91 ± 0.18	8.10 ± 0.19	3.98 ± 0.10	9.46 ± 0.21	n = 6	[RO4] Roche cobas c311/c501/c502/c701
2.64 ± 0.10	6.68 ± 0.25	7.85 ± 0.30	3.99 ± 0.11	9.25 ± 0.25	n = 11	[RO1] Roche Integra and MIRA
2.73 ± 0.15	6.90 ± 0.23	8.01 ± 0.11	3.98 ± 0.13	9.15 ± 0.06	n = 4	[RO6] Roche ONLINE
3.28 ± 0.09	7.60 ± 0.08	8.84 ± 0.40	4.66 ± 0.06	10.64 ± 0.40	n = 7	[BY1] Siemens ADVIA/ADVIA Centaur
2.66 ± 0.14	6.65 ± 0.30	7.76 ± 0.31	3.96 ± 0.18	9.13 ± 0.33	n = 21	[DA5] Siemens Dimension
2.59 ± 0.13	6.76 ± 0.19	7.93 ± 0.14	3.90 ± 0.15	9.32 ± 0.36	n = 5	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

Valproic Acid (mg/L)

Specimen: T61	Specimen: T62	Specimen: T63	Specimen: T64	Specimen: T65	Number	[Code] Instrument or Reagent System
76.23 ± 4.45	143.68 ± 8.87	42.29 ± 3.14	112.79 ± 6.42	125.07 ± 7.85	n = 251	[---] All Methods & Instruments
74.8	143.6	40.6	112.2	124.9		[---] Weigh-in value
						<Instruments>
75.32 ± 1.33	144.52 ± 0.59	40.61 ± 2.24	113.99 ± 1.73	127.26 ± 1.89	n = 3	[ABJ] Abbott Architect c System
88.25 ± 4.34	163.05 ± 4.86	50.35 ± 1.61	125.46 ± 2.22	135.26 ± 4.07	n = 6	[ABH] Abbott Architect i System
74.00 ± 3.32	142.15 ± 6.86	39.61 ± 1.47	108.96 ± 5.08	123.17 ± 6.32	n = 12	[ABB] Abbott AxSym
79.88 ± 3.71	158.46 ± 9.31	44.38 ± 2.64	120.53 ± 6.35	134.44 ± 6.35	n = 22	[OLC] Beckman Coulter AU Chemistry System
73.13 ± 0.77	136.09 ± 2.56	41.20 ± 1.56	106.57 ± 4.75	116.04 ± 2.66	n = 3	[BCS] Beckman Coulter CX
74.67 ± 1.91	138.12 ± 7.30	40.90 ± 4.53	108.34 ± 2.56	119.52 ± 6.41	n = 7	[BCX] Beckman Coulter LX-20
75.68 ± 1.97	135.63 ± 5.30	40.81 ± 2.00	109.23 ± 5.55	121.43 ± 5.97	n = 9	[BCG] Beckman Coulter UniCel DxC 600
74.44 ± 2.05	136.38 ± 5.45	41.00 ± 2.48	108.22 ± 6.07	118.05 ± 4.79	n = 17	[BCH] Beckman Coulter UniCel DxC 800
76.39 ± 5.90	145.78 ± 7.01	41.73 ± 3.65	116.87 ± 6.50	130.84 ± 7.51	n = 13	[JJF] Ortho Vitros 5,1FS
76.10 ± 5.01	144.29 ± 7.78	40.82 ± 2.90	113.29 ± 5.07	127.07 ± 7.12	n = 13	[JJG] Ortho Vitros 5600
77.74 ± 4.53	145.58 ± 4.90	42.52 ± 2.70	113.28 ± 3.70	127.60 ± 6.49	n = 17	[ROC] Roche cobas c501
73.09 ± 1.82	141.51 ± 3.89	39.42 ± 0.68	111.70 ± 3.53	122.43 ± 2.42	n = 12	[ROT] Roche Cobas INTEGRA 800
76.00 ± 4.74	146.68 ± 8.44	42.53 ± 4.28	113.91 ± 8.03	128.61 ± 7.24	n = 13	[ROD] Roche MODULAR D/P
82.12 ± 3.61	152.53 ± 0.95	46.42 ± 2.31	116.90 ± 3.79	131.61 ± 4.49	n = 9	[BYE] Siemens ADVIA 1800
74.86 ± 3.90	142.00 ± 6.02	41.37 ± 2.36	110.75 ± 5.89	120.53 ± 4.76	n = 18	[COB] Siemens ADVIA Centaur
74.54 ± 2.58	139.59 ± 7.28	41.93 ± 0.09	108.53 ± 4.24	121.38 ± 7.47	n = 5	[DUE] Siemens Dimension EXL
73.48 ± 2.86	137.82 ± 6.18	42.15 ± 1.38	108.76 ± 3.91	121.14 ± 5.43	n = 20	[DUR] Siemens Dimension RxL
77.90 ± 3.04	143.02 ± 5.94	43.60 ± 2.36	113.15 ± 3.55	124.86 ± 5.91	n = 34	[DUT] Siemens Dimension Vista
75.46 ± 2.55	141.58 ± 5.26	43.05 ± 1.33	112.18 ± 2.24	124.41 ± 4.52	n = 7	[DUX] Siemens Dimension Xpand
						<Reagents>
77.47 ± 7.05	145.79 ± 9.99	42.37 ± 5.23	114.04 ± 9.35	126.86 ± 7.41	n = 21	[AB1] Abbott
74.66 ± 1.97	136.79 ± 5.75	41.16 ± 2.62	108.76 ± 5.79	119.02 ± 5.72	n = 38	[BC1] Beckman Coulter
80.12 ± 3.51	160.34 ± 11.20	43.97 ± 3.11	119.58 ± 6.36	135.15 ± 7.57	n = 10	[OL1] Beckman Coulter AU Series
76.21 ± 5.46	145.10 ± 7.36	41.22 ± 3.29	114.88 ± 5.97	128.87 ± 7.58	n = 26	[JJ1] Ortho Clinical Diagnostics
77.83 ± 4.12	145.85 ± 4.49	42.35 ± 2.54	113.25 ± 3.54	127.15 ± 6.90	n = 19	[RO4] Roche cobas c311/c501/c502/c701
75.86 ± 6.99	145.44 ± 5.84	42.58 ± 6.04	113.00 ± 9.64	124.22 ± 4.61	n = 4	[RO2] Roche Hitachi and Modular D/P
73.10 ± 1.70	141.86 ± 3.89	39.48 ± 0.68	111.77 ± 3.33	122.59 ± 2.36	n = 13	[RO1] Roche Integra and MIRA
76.47 ± 4.06	146.93 ± 9.51	42.79 ± 3.45	114.57 ± 6.60	130.91 ± 6.54	n = 9	[RO6] Roche ONLINE
74.80 ± 3.72	141.31 ± 5.64	41.23 ± 2.26	110.59 ± 5.37	120.01 ± 4.70	n = 20	[BY1] Siemens ADVIA/ADVIA Centaur
82.04 ± 4.14	152.73 ± 2.92	46.13 ± 2.96	118.98 ± 4.93	131.39 ± 4.66	n = 11	[BY5] Siemens ADVIA/Syva Emit 2000
76.01 ± 3.53	141.12 ± 6.44	42.87 ± 1.92	111.47 ± 4.16	123.40 ± 5.99	n = 66	[DA5] Siemens Dimension
81.20 ± 3.89	156.39 ± 7.07	45.32 ± 1.39	119.88 ± 6.72	134.78 ± 4.36	n = 10	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

Vancomycin (mg/L)

Specimen: T61	Specimen: T62	Specimen: T63	Specimen: T64	Specimen: T65	Number	[Code] Instrument or Reagent System
10.68 ± 1.00	5.37 ± 0.58	38.29 ± 3.63	16.24 ± 1.43	25.80 ± 2.47	n = 216	[---] All Methods & Instruments
11.8	5.9	41.2	17.8	28.4		[---] Weigh-in value
						<Instruments>
10.38 ± 0.24	5.15 ± 0.19	37.30 ± 0.55	16.27 ± 0.41	25.55 ± 0.72	n = 3	[ABJ] Abbott Architect c System
10.92 ± 0.19	5.38 ± 0.10	38.79 ± 0.80	16.47 ± 0.30	26.04 ± 0.51	n = 6	[ABH] Abbott Architect i System
11.28 ± 0.53	5.53 ± 0.53	38.21 ± 1.18	16.56 ± 0.67	26.07 ± 1.38	n = 10	[ABB] Abbott AxSym
9.39 ± 0.50	5.07 ± 0.07	34.70 ± 1.55	14.34 ± 0.38	23.48 ± 1.13	n = 12	[OLC] Beckman Coulter AU Chemistry System
11.37 ± 0.69	6.05 ± 0.63	41.15 ± 3.04	16.83 ± 0.87	26.86 ± 0.96	n = 5	[BCX] Beckman Coulter LX-20
11.16 ± 0.48	6.01 ± 0.64	42.45 ± 2.07	16.68 ± 1.02	27.68 ± 1.26	n = 10	[BCG] Beckman Coulter UniCel DxC 600
11.27 ± 0.68	5.76 ± 0.48	42.98 ± 1.66	17.05 ± 0.50	28.07 ± 1.32	n = 14	[BCH] Beckman Coulter UniCel DxC 800
10.04 ± 0.76	5.13 ± 0.18	35.85 ± 1.24	15.30 ± 0.79	24.15 ± 0.96	n = 11	[JJF] Ortho Vitros 5,1FS
10.29 ± 0.49	5.46 ± 0.28	36.09 ± 1.18	15.71 ± 0.48	24.79 ± 0.45	n = 12	[JJG] Ortho Vitros 5600
10.44 ± 0.72	5.07 ± 0.48	41.32 ± 2.01	16.60 ± 0.85	27.59 ± 1.70	n = 14	[ROC] Roche cobas c501
11.75 ± 0.24	5.83 ± 0.20	41.64 ± 0.51	18.21 ± 0.45	29.51 ± 0.69	n = 12	[ROT] Roche Cobas INTEGRA 800
10.88 ± 0.53	5.45 ± 0.58	40.63 ± 1.43	17.40 ± 1.01	27.83 ± 1.23	n = 11	[ROD] Roche MODULAR D/P
9.40 ± 0.45	4.33 ± 0.75	31.19 ± 0.74	14.01 ± 1.31	22.77 ± 2.57	n = 5	[BYE] Siemens ADVIA 1800
8.91 ± 0.55	4.43 ± 0.35	32.53 ± 1.22	13.42 ± 0.81	20.86 ± 1.24	n = 17	[COB] Siemens ADVIA Centaur
10.97 ± 0.08	5.22 ± 0.21	37.85 ± 0.63	16.09 ± 0.55	25.29 ± 0.58	n = 5	[DUE] Siemens Dimension EXL
10.59 ± 0.51	5.29 ± 0.30	37.98 ± 1.91	16.10 ± 0.61	25.46 ± 0.98	n = 17	[DUR] Siemens Dimension RxL
11.18 ± 0.58	5.61 ± 0.36	38.13 ± 1.80	16.60 ± 0.87	25.77 ± 1.08	n = 34	[DUT] Siemens Dimension Vista
10.74 ± 0.63	5.31 ± 0.45	38.16 ± 2.16	16.43 ± 0.61	25.35 ± 0.83	n = 7	[DUX] Siemens Dimension Xpand
						<Reagents>
10.99 ± 0.50	5.38 ± 0.36	38.23 ± 1.10	16.46 ± 0.52	25.90 ± 1.08	n = 19	[AB1] Abbott
11.25 ± 0.60	5.88 ± 0.64	42.42 ± 2.36	16.76 ± 0.89	27.55 ± 1.55	n = 31	[BC1] Beckman Coulter
9.46 ± 0.75	5.08 ± 0.08	34.70 ± 1.62	14.37 ± 0.45	23.73 ± 1.06	n = 6	[OL1] Beckman Coulter AU Series
10.15 ± 0.63	5.33 ± 0.34	35.98 ± 1.22	15.51 ± 0.66	24.54 ± 0.81	n = 23	[JJ1] Ortho Clinical Diagnostics
10.43 ± 0.66	5.07 ± 0.45	41.15 ± 1.77	16.53 ± 0.75	27.50 ± 1.59	n = 16	[RO4] Roche cobas c311/c501/c502/c701
10.88 ± 0.47	5.29 ± 0.30	39.79 ± 1.44	17.00 ± 0.74	27.42 ± 1.13	n = 5	[RO2] Roche Hitachi and Modular D/P
11.73 ± 0.23	5.75 ± 0.31	41.79 ± 0.88	18.23 ± 0.47	29.70 ± 0.90	n = 14	[RO1] Roche Integra and MIRA
11.07 ± 0.88	5.65 ± 0.78	41.15 ± 0.80	17.89 ± 1.16	28.59 ± 1.95	n = 6	[RO6] Roche ONLINE
8.81 ± 0.62	4.41 ± 0.34	32.33 ± 1.48	13.26 ± 0.92	20.67 ± 1.30	n = 19	[BY1] Siemens ADVIA/ADVIA Centaur
9.60 ± 0.22	4.49 ± 0.68	32.11 ± 1.51	14.28 ± 1.46	22.94 ± 2.52	n = 7	[BY5] Siemens ADVIA/Syva Emit 2000
10.94 ± 0.62	5.45 ± 0.38	38.07 ± 1.77	16.36 ± 0.72	25.58 ± 0.98	n = 63	[DA5] Siemens Dimension
9.39 ± 0.34	5.06 ± 0.06	34.74 ± 1.48	14.35 ± 0.34	23.19 ± 1.21	n = 6	[SY4] Syva Emit 2000