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HEALTH

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Therapeutic Substance Monitoring/Quantitative Toxicology Proficiency Testing – January 28, 2013

Enclosed is a statistical summary of participant data for the five Therapeutic Substance Monitoring proficiency survey specimens **(T76, T77, T78, T79, T80)** shipped January 28, 2013. 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: T76	Specimen: T77	Specimen: T78	Specimen: T79	Specimen: T80	Number	[Code] Instrument or Reagent System
159.61 ± 18.65	64.96 ± 8.21	29.41 ± 5.86	130.38 ± 15.24	193.08 ± 18.16	n = 212	[---] All Methods & Instruments
153.1	63.3	29.5	126.6	190.0		[---] Weigh-in value
						<Instruments>
145.30 ± 1.37	57.54 ± 0.85	24.91 ± 0.73	117.38 ± 1.03	178.04 ± 1.74	n = 17	[ABJ] Abbott Architect c System
148.14 ± 9.92	60.18 ± 4.01	26.25 ± 1.82	120.18 ± 8.83	182.33 ± 9.23	n = 26	[OLC] Beckman Coulter AU Chemistry System
167.71 ± 3.95	65.01 ± 4.83	29.18 ± 2.64	135.63 ± 5.59	194.05 ± 15.48	n = 3	[BCX] Beckman Coulter LX-20
159.54 ± 5.10	64.59 ± 2.00	27.20 ± 2.40	131.51 ± 6.21	195.00 ± 6.28	n = 8	[BCG] Beckman Coulter UniCel DxC 600
157.12 ± 10.97	63.62 ± 3.52	27.31 ± 2.31	130.07 ± 7.78	194.10 ± 12.74	n = 7	[BCH] Beckman Coulter UniCel DxC 800
176.52 ± 11.83	72.00 ± 0.90	31.28 ± 0.51	149.26 ± 1.37	208.01 ± 45.47	n = 3	[JJE] Ortho Vitros 250/350/950
184.44 ± 4.24	71.67 ± 1.29	31.24 ± 0.79	148.84 ± 2.32	206.81 ± 8.86	n = 15	[JJF] Ortho Vitros 5,1FS
185.80 ± 1.87	72.34 ± 0.95	31.04 ± 0.34	149.59 ± 1.63	212.76 ± 3.12	n = 17	[JJG] Ortho Vitros 5600
133.42 ± 4.07	49.18 ± 1.43	18.85 ± 0.67	107.06 ± 2.63	165.14 ± 6.78	n = 12	[ROC] Roche cobas c501
132.12 ± 3.54	50.33 ± 1.00	20.89 ± 1.04	105.65 ± 1.76	163.96 ± 4.47	n = 10	[ROT] Roche Cobas INTEGRA 800
126.15 ± 12.01	47.45 ± 4.95	20.45 ± 3.21	100.45 ± 5.27	157.10 ± 12.02	n = 9	[ROD] Roche MODULAR D/P
152.00 ± 5.24	61.97 ± 1.92	27.35 ± 1.15	123.73 ± 3.95	186.03 ± 6.31	n = 8	[BYE] Siemens ADVIA 1800
152.95 ± 12.03	66.51 ± 4.63	29.76 ± 2.62	126.80 ± 8.13	184.51 ± 15.71	n = 3	[BYB] Siemens ADVIA 2400
165.92 ± 1.97	68.76 ± 0.88	34.37 ± 0.75	134.98 ± 1.86	202.65 ± 2.38	n = 9	[DUE] Siemens Dimension EXL
166.36 ± 2.57	68.12 ± 1.06	34.28 ± 0.75	135.51 ± 2.68	201.74 ± 3.11	n = 14	[DUR] Siemens Dimension RxL
168.12 ± 2.45	71.23 ± 1.42	36.11 ± 0.91	138.16 ± 2.14	204.23 ± 2.83	n = 38	[DUT] Siemens Dimension Vista
166.39 ± 2.43	68.40 ± 1.28	34.04 ± 0.74	134.92 ± 1.67	201.88 ± 2.46	n = 9	[DUX] Siemens Dimension Xpand
						<Reagents>
145.30 ± 1.37	57.54 ± 0.85	24.91 ± 0.73	117.38 ± 1.03	178.04 ± 1.74	n = 17	[AB1] Abbott
159.49 ± 8.92	63.83 ± 3.13	27.24 ± 2.50	130.18 ± 7.93	194.54 ± 11.96	n = 21	[BC1] Beckman Coulter
147.53 ± 9.26	60.12 ± 4.21	26.30 ± 2.16	119.46 ± 7.57	182.64 ± 10.64	n = 18	[OL1] Beckman Coulter AU Series
185.26 ± 2.76	72.07 ± 1.10	31.16 ± 0.61	149.37 ± 1.74	210.36 ± 6.96	n = 35	[JJ1] Ortho Clinical Diagnostics
133.00 ± 3.12	49.26 ± 1.38	18.87 ± 0.63	107.08 ± 2.44	164.52 ± 5.28	n = 12	[RO4] Roche cobas c311/c501/c502/c701
121.84 ± 4.15	45.51 ± 1.75	18.76 ± 0.71	98.94 ± 2.78	153.06 ± 4.87	n = 6	[RO2] Roche Hitachi and Modular D/P
131.68 ± 3.58	50.33 ± 1.00	20.79 ± 0.75	105.65 ± 1.76	163.28 ± 4.18	n = 9	[RO1] Roche Integra and MIRA
152.22 ± 6.73	62.99 ± 3.31	27.93 ± 1.87	124.52 ± 4.78	185.36 ± 10.46	n = 10	[BY1] Siemens ADVIA/ADVIA Centaur
167.23 ± 2.54	69.82 ± 2.04	35.20 ± 1.34	136.83 ± 2.61	203.21 ± 3.01	n = 70	[DA5] Siemens Dimension
146.56 ± 14.09	59.08 ± 2.45	25.44 ± 1.24	125.49 ± 11.82	177.85 ± 7.09	n = 4	[SY2] Syva Emit
151.29 ± 6.18	59.75 ± 2.85	25.87 ± 1.55	119.07 ± 9.32	185.41 ± 5.00	n = 4	[SY5] Syva Emit tox

Summary of Participant Performance (Mean and Standard Deviation)

Carbamazepine (mg/L)

Specimen: T76	Specimen: T77	Specimen: T78	Specimen: T79	Specimen: T80	Number	[Code] Instrument or Reagent System
11.15 ± 1.05	7.78 ± 0.66	8.63 ± 0.82	15.40 ± 1.41	3.63 ± 0.42	n = 231	[---] All Methods & Instruments
11.4	7.9	8.8	15.8	3.7		[---] Weigh-in value
						<Instruments>
11.77 ± 0.66	8.12 ± 0.38	8.99 ± 0.47	16.16 ± 0.68	3.70 ± 0.09	n = 14	[ABJ] Abbott Architect c System
11.65 ± 0.19	8.28 ± 0.24	8.87 ± 0.14	15.93 ± 0.67	3.83 ± 0.14	n = 3	[ABH] Abbott Architect i System
10.80 ± 0.52	7.52 ± 0.09	8.54 ± 0.22	15.19 ± 0.64	3.60 ± 0.16	n = 7	[ABB] Abbott AxSym
11.24 ± 0.51	7.73 ± 0.37	8.56 ± 0.49	15.72 ± 0.87	3.69 ± 0.30	n = 21	[OLC] Beckman Coulter AU Chemistry System
11.00 ± 0.45	7.97 ± 0.05	8.80 ± 0.18	15.52 ± 0.87	3.33 ± 0.51	n = 3	[BCX] Beckman Coulter LX-20
10.90 ± 0.33	7.98 ± 0.34	8.74 ± 0.27	15.17 ± 0.48	3.57 ± 0.29	n = 8	[BCG] Beckman Coulter UniCel DxC 600
11.47 ± 0.37	8.09 ± 0.28	9.03 ± 0.25	15.67 ± 0.52	3.71 ± 0.27	n = 8	[BCH] Beckman Coulter UniCel DxC 800
8.89 ± 0.60	6.34 ± 0.47	6.75 ± 0.65	13.02 ± 1.08	3.00 ± 0.00	n = 13	[JJF] Ortho Vitros 5,1FS
8.96 ± 0.24	6.45 ± 0.35	6.85 ± 0.24	12.54 ± 0.46	3.00 ± 0.00	n = 17	[JJG] Ortho Vitros 5600
11.85 ± 0.53	8.31 ± 0.47	9.23 ± 0.58	16.17 ± 0.66	4.24 ± 0.41	n = 13	[ROC] Roche cobas c501
12.00 ± 0.49	7.92 ± 0.25	9.11 ± 0.25	17.17 ± 0.41	3.75 ± 0.14	n = 12	[ROT] Roche Cobas INTEGRA 800
12.20 ± 0.35	8.62 ± 0.30	9.58 ± 0.19	16.41 ± 0.40	4.43 ± 0.26	n = 12	[ROD] Roche MODULAR D/P
11.54 ± 0.90	7.93 ± 0.61	8.73 ± 0.58	16.09 ± 1.49	3.78 ± 0.49	n = 8	[BYE] Siemens ADVIA 1800
12.34 ± 1.09	8.24 ± 0.40	9.66 ± 0.61	16.87 ± 1.02	3.86 ± 0.29	n = 12	[COB] Siemens ADVIA Centaur
10.99 ± 1.15	7.92 ± 0.24	8.65 ± 0.83	14.78 ± 1.67	3.79 ± 0.29	n = 3	[BYP] Siemens ADVIA Centaur CP
10.76 ± 0.45	7.67 ± 0.30	8.31 ± 0.44	14.87 ± 0.65	3.59 ± 0.26	n = 8	[DUE] Siemens Dimension EXL
11.02 ± 0.45	7.76 ± 0.26	8.56 ± 0.28	15.24 ± 0.68	3.62 ± 0.20	n = 15	[DUR] Siemens Dimension RxL
10.90 ± 0.55	7.53 ± 0.42	8.38 ± 0.41	14.97 ± 0.74	3.54 ± 0.23	n = 39	[DUT] Siemens Dimension Vista
11.29 ± 0.23	7.97 ± 0.20	8.51 ± 0.27	15.45 ± 0.60	3.65 ± 0.06	n = 4	[DUX] Siemens Dimension Xpand
						<Reagents>
11.48 ± 0.72	8.00 ± 0.46	8.82 ± 0.43	15.90 ± 0.82	3.70 ± 0.14	n = 24	[AB1] Abbott
11.10 ± 0.48	7.99 ± 0.28	8.85 ± 0.28	15.41 ± 0.64	3.64 ± 0.34	n = 21	[BC1] Beckman Coulter
11.18 ± 0.44	7.68 ± 0.21	8.44 ± 0.39	15.68 ± 0.92	3.66 ± 0.25	n = 12	[OL1] Beckman Coulter AU Series
11.95 ± 0.14	8.41 ± 0.17	9.28 ± 0.42	15.98 ± 0.48	4.16 ± 0.29	n = 7	[MG1] Microgenics CEDIA
8.94 ± 0.41	6.40 ± 0.41	6.79 ± 0.39	12.69 ± 0.76	3.00 ± 0.00	n = 30	[JJ1] Ortho Clinical Diagnostics
11.88 ± 0.53	8.35 ± 0.48	9.29 ± 0.54	16.20 ± 0.74	4.28 ± 0.39	n = 14	[RO4] Roche cobas c311/c501/c502/c701
12.24 ± 0.38	8.66 ± 0.33	9.57 ± 0.25	16.44 ± 0.45	4.44 ± 0.31	n = 10	[RO2] Roche Hitachi and Modular D/P
11.95 ± 0.42	7.95 ± 0.29	9.13 ± 0.27	17.10 ± 0.45	3.74 ± 0.13	n = 14	[RO1] Roche Integra and MIRA
12.11 ± 1.23	8.14 ± 0.37	9.51 ± 0.72	16.58 ± 1.60	3.84 ± 0.28	n = 15	[BY1] Siemens ADVIA/ADVIA Centaur
11.37 ± 0.92	7.90 ± 0.57	8.91 ± 0.49	16.00 ± 1.20	3.77 ± 0.42	n = 9	[BY5] Siemens ADVIA/Syva Emit 2000
10.95 ± 0.51	7.64 ± 0.39	8.43 ± 0.38	15.05 ± 0.72	3.57 ± 0.22	n = 66	[DA5] Siemens Dimension
10.95 ± 0.23	7.43 ± 0.20	8.29 ± 0.51	14.94 ± 1.13	3.45 ± 0.27	n = 5	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

Digoxin (µg/L)

Specimen: T76	Specimen: T77	Specimen: T78	Specimen: T79	Specimen: T80	Number	[Code] Instrument or Reagent System
3.197 ± 0.220	0.943 ± 0.102	2.614 ± 0.201	1.928 ± 0.167	0.599 ± 0.081	n = 280	[---] All Methods & Instruments
3.2	1.0	2.7	2.0	0.7		[---] Weigh-in value
						<Instruments>
3.228 ± 0.028	0.987 ± 0.082	2.700 ± 0.038	2.028 ± 0.031	0.599 ± 0.006	n = 6	[ABJ] Abbott Architect c System
3.137 ± 0.104	0.963 ± 0.052	2.609 ± 0.082	1.962 ± 0.080	0.600 ± 0.000	n = 15	[ABH] Abbott Architect i System
3.564 ± 0.146	0.968 ± 0.062	2.842 ± 0.126	1.986 ± 0.069	0.634 ± 0.070	n = 5	[ABB] Abbott AxSym
3.246 ± 0.071	0.995 ± 0.025	2.692 ± 0.013	1.974 ± 0.055	0.675 ± 0.059	n = 6	[SAA] Beckman Coulter ACCESS
2.995 ± 0.161	0.867 ± 0.100	2.436 ± 0.170	1.761 ± 0.107	0.546 ± 0.083	n = 26	[OLC] Beckman Coulter AU Chemistry System
3.113 ± 0.100	0.943 ± 0.091	2.524 ± 0.098	1.848 ± 0.095	0.599 ± 0.098	n = 12	[BCG] Beckman Coulter UniCel DxC 600
3.020 ± 0.251	0.917 ± 0.092	2.513 ± 0.262	1.915 ± 0.186	0.567 ± 0.074	n = 7	[BCH] Beckman Coulter UniCel DxC 800
3.224 ± 0.316	0.990 ± 0.073	2.709 ± 0.200	2.045 ± 0.171	0.642 ± 0.077	n = 3	[BCU] Beckman Coulter UniCel DxI 800
3.173 ± 0.150	0.889 ± 0.067	2.625 ± 0.113	1.922 ± 0.125	0.583 ± 0.068	n = 17	[JJF] Ortho Vitros 5,1FS
3.078 ± 0.092	0.855 ± 0.090	2.544 ± 0.094	1.866 ± 0.100	0.570 ± 0.060	n = 17	[JJG] Ortho Vitros 5600
3.041 ± 0.138	0.890 ± 0.077	2.441 ± 0.088	1.797 ± 0.118	0.588 ± 0.096	n = 17	[ROC] Roche cobas c501
3.113 ± 0.140	0.881 ± 0.071	2.509 ± 0.181	1.715 ± 0.175	0.586 ± 0.055	n = 7	[ROT] Roche Cobas INTEGRA 800
2.949 ± 0.120	0.928 ± 0.074	2.385 ± 0.124	1.820 ± 0.083	0.555 ± 0.097	n = 14	[ROD] Roche MODULAR D/P
3.900 ± 0.000	1.072 ± 0.051	3.156 ± 0.102	2.272 ± 0.051	0.628 ± 0.051	n = 3	[ROE] Roche MODULAR E
3.135 ± 0.051	0.939 ± 0.067	2.629 ± 0.061	2.030 ± 0.054	0.466 ± 0.068	n = 9	[BYE] Siemens ADVIA 1800
3.378 ± 0.106	1.107 ± 0.066	2.860 ± 0.112	2.143 ± 0.107	0.712 ± 0.091	n = 18	[COB] Siemens ADVIA Centaur
3.330 ± 0.198	0.995 ± 0.057	2.707 ± 0.163	2.033 ± 0.075	0.574 ± 0.023	n = 4	[BYP] Siemens ADVIA Centaur CP
3.415 ± 0.145	1.022 ± 0.054	2.814 ± 0.089	2.066 ± 0.108	0.645 ± 0.065	n = 11	[DUE] Siemens Dimension EXL
3.443 ± 0.165	0.999 ± 0.077	2.824 ± 0.146	2.064 ± 0.100	0.626 ± 0.058	n = 16	[DUR] Siemens Dimension RxL
3.242 ± 0.073	0.943 ± 0.048	2.577 ± 0.054	1.878 ± 0.056	0.601 ± 0.015	n = 41	[DUT] Siemens Dimension Vista
3.457 ± 0.171	0.938 ± 0.084	2.782 ± 0.142	2.039 ± 0.130	0.607 ± 0.070	n = 11	[DUX] Siemens Dimension Xpand
3.602 ± 0.282	1.208 ± 0.074	3.119 ± 0.147	2.258 ± 0.150	0.839 ± 0.068	n = 6	[DPD] Siemens Immulite 2000
						<Reagents>
3.228 ± 0.178	0.969 ± 0.059	2.658 ± 0.109	1.979 ± 0.081	0.600 ± 0.000	n = 26	[AB1] Abbott
3.122 ± 0.170	0.952 ± 0.094	2.574 ± 0.163	1.904 ± 0.150	0.613 ± 0.090	n = 32	[BC1] Beckman Coulter
2.983 ± 0.186	0.886 ± 0.107	2.434 ± 0.192	1.773 ± 0.115	0.571 ± 0.085	n = 18	[OL1] Beckman Coulter AU Series
3.031 ± 0.090	0.831 ± 0.090	2.487 ± 0.113	1.770 ± 0.082	0.515 ± 0.041	n = 4	[MG2] Microgenics DRI
3.121 ± 0.135	0.867 ± 0.082	2.578 ± 0.121	1.886 ± 0.118	0.578 ± 0.062	n = 36	[JJ1] Ortho Clinical Diagnostics
3.040 ± 0.129	0.895 ± 0.080	2.450 ± 0.084	1.822 ± 0.144	0.594 ± 0.091	n = 20	[RO4] Roche cobas c311/c501/c502/c701
2.930 ± 0.135	0.928 ± 0.089	2.400 ± 0.141	1.845 ± 0.088	0.561 ± 0.094	n = 8	[RO2] Roche Hitachi and Modular D/P
3.113 ± 0.140	0.881 ± 0.071	2.509 ± 0.181	1.715 ± 0.175	0.586 ± 0.055	n = 7	[RO1] Roche Integra and MIRA
2.944 ± 0.136	0.945 ± 0.082	2.347 ± 0.124	1.808 ± 0.053	0.547 ± 0.121	n = 4	[RO5] Roche Tina-quant
3.305 ± 0.157	1.049 ± 0.103	2.778 ± 0.153	2.095 ± 0.107	0.628 ± 0.134	n = 31	[BY1] Siemens ADVIA/ADVIA Centaur
3.395 ± 0.166	0.980 ± 0.075	2.764 ± 0.159	2.021 ± 0.123	0.617 ± 0.055	n = 48	[DA5] Siemens Dimension
3.235 ± 0.078	0.938 ± 0.055	2.572 ± 0.059	1.867 ± 0.062	0.602 ± 0.007	n = 31	[DA6] Siemens Dimension LOCI
3.640 ± 0.270	1.224 ± 0.076	3.115 ± 0.134	2.284 ± 0.149	0.851 ± 0.064	n = 7	[DP5] Siemens Immulite
2.974 ± 0.119	0.811 ± 0.037	2.413 ± 0.140	1.663 ± 0.130	0.464 ± 0.067	n = 3	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

Ethanol (mg/dL)

Specimen: T76	Specimen: T77	Specimen: T78	Specimen: T79	Specimen: T80	Number	[Code] Instrument or Reagent System
242.83 ± 13.22	74.75 ± 3.86	102.04 ± 5.50	148.24 ± 7.39	199.80 ± 10.47	n = 221	[---] All Methods & Instruments
249.0	76.1	105.4	152.1	205.7		[---] Weigh-in value
						<Instruments>
242.62 ± 4.99	75.57 ± 2.43	103.08 ± 3.03	149.53 ± 3.87	200.95 ± 4.77	n = 15	[ABJ] Abbott Architect c System
246.41 ± 9.84	75.73 ± 5.11	102.91 ± 5.72	149.94 ± 6.66	202.82 ± 8.78	n = 22	[OLC] Beckman Coulter AU Chemistry System
239.01 ± 11.07	74.13 ± 2.12	99.64 ± 4.46	144.88 ± 7.27	193.41 ± 11.15	n = 3	[BCX] Beckman Coulter LX-20
244.86 ± 6.91	75.50 ± 2.61	103.70 ± 2.87	150.09 ± 4.61	202.77 ± 6.89	n = 9	[BCG] Beckman Coulter UniCel DxC 600
246.28 ± 12.87	76.52 ± 1.70	103.67 ± 2.44	147.68 ± 5.93	201.75 ± 5.12	n = 6	[BCH] Beckman Coulter UniCel DxC 800
250.78 ± 10.54	77.28 ± 3.79	104.79 ± 5.52	152.60 ± 7.15	205.55 ± 6.73	n = 11	[GCC] Gas Chromatograph
214.16 ± 6.95	69.00 ± 0.90	90.88 ± 2.05	135.57 ± 7.34	177.78 ± 3.23	n = 3	[JJE] Ortho Vitros 250/350/950
213.61 ± 5.41	69.14 ± 0.90	93.47 ± 2.26	135.45 ± 5.27	179.90 ± 5.52	n = 15	[JJF] Ortho Vitros 5,1FS
215.97 ± 9.62	70.49 ± 2.35	94.08 ± 3.50	136.70 ± 7.07	181.58 ± 8.01	n = 17	[JJG] Ortho Vitros 5600
242.94 ± 2.27	75.03 ± 1.24	102.13 ± 2.03	147.65 ± 4.07	203.11 ± 4.83	n = 12	[ROC] Roche cobas c501
237.09 ± 3.35	71.64 ± 2.12	100.06 ± 1.75	145.21 ± 1.70	195.85 ± 2.89	n = 6	[ROT] Roche Cobas INTEGRA 800
240.18 ± 4.11	73.91 ± 1.03	100.93 ± 1.87	147.31 ± 1.94	198.67 ± 3.73	n = 11	[ROD] Roche MODULAR D/P
254.04 ± 3.87	77.66 ± 1.53	105.97 ± 1.60	155.19 ± 2.33	208.02 ± 3.48	n = 9	[BYE] Siemens ADVIA 1800
247.26 ± 4.96	77.72 ± 0.51	105.26 ± 1.37	151.26 ± 2.26	202.84 ± 6.95	n = 3	[BYB] Siemens ADVIA 2400
248.08 ± 6.50	76.52 ± 1.44	103.89 ± 4.81	148.44 ± 6.45	202.12 ± 10.19	n = 9	[DUE] Siemens Dimension EXL
247.09 ± 9.18	76.13 ± 3.95	103.70 ± 4.68	151.91 ± 6.19	202.53 ± 7.55	n = 14	[DUR] Siemens Dimension RxL
245.30 ± 8.58	74.82 ± 3.62	102.82 ± 5.09	149.15 ± 4.92	201.68 ± 6.68	n = 38	[DUT] Siemens Dimension Vista
246.64 ± 8.64	74.87 ± 2.46	103.17 ± 4.25	149.30 ± 4.48	202.44 ± 5.09	n = 10	[DUX] Siemens Dimension Xpand
						<Reagents>
243.43 ± 6.31	76.05 ± 2.57	103.66 ± 3.74	150.39 ± 4.48	201.93 ± 5.36	n = 18	[AB1] Abbott
245.33 ± 9.41	75.19 ± 2.61	103.02 ± 3.27	148.39 ± 5.67	199.70 ± 9.26	n = 21	[BC1] Beckman Coulter
247.18 ± 12.17	76.69 ± 5.81	103.55 ± 6.56	150.59 ± 7.64	203.95 ± 9.86	n = 16	[OL1] Beckman Coulter AU Series
250.05 ± 11.73	76.93 ± 3.26	103.56 ± 3.33	153.58 ± 8.24	206.39 ± 7.43	n = 9	[IH1] In-House
214.77 ± 8.64	69.65 ± 1.89	93.45 ± 3.03	136.05 ± 6.76	180.40 ± 6.79	n = 35	[JJ1] Ortho Clinical Diagnostics
242.25 ± 5.06	75.17 ± 1.48	102.03 ± 1.92	147.28 ± 4.04	202.42 ± 5.52	n = 13	[RO4] Roche cobas c311/c501/c502/c701
240.74 ± 4.09	74.05 ± 1.05	101.22 ± 1.54	147.59 ± 1.83	199.19 ± 3.61	n = 10	[RO2] Roche Hitachi and Modular D/P
237.09 ± 3.35	71.64 ± 2.12	100.06 ± 1.75	145.21 ± 1.70	195.85 ± 2.89	n = 6	[RO1] Roche Integra and MIRA
253.87 ± 4.43	77.61 ± 1.11	105.99 ± 1.15	155.28 ± 2.80	208.29 ± 4.69	n = 7	[BY1] Siemens ADVIA/ADVIA Centaur
252.60 ± 3.39	77.81 ± 1.92	105.90 ± 2.35	153.59 ± 3.01	206.46 ± 4.16	n = 4	[BY5] Siemens ADVIA/Syva Emit 2000
246.26 ± 8.39	75.43 ± 3.25	103.21 ± 4.82	149.61 ± 5.38	202.08 ± 7.02	n = 71	[DA5] Siemens Dimension
247.07 ± 1.97	74.84 ± 3.13	103.69 ± 2.91	151.34 ± 1.78	202.80 ± 4.52	n = 6	[SY2] Syva Emit

Summary of Participant Performance (Mean and Standard Deviation)

Ethosuximide (mg/L)

Specimen: T76	Specimen: T77	Specimen: T78	Specimen: T79	Specimen: T80	Number	[Code] Instrument or Reagent System
81.98 ± 8.55	88.98 ± 6.14	119.78 ± 10.21	185.96 ± 5.59	41.24 ± 4.03	n = 6	[---] All Methods & Instruments
79.7	94.6	119.1	189.3	40.4		[---] Weigh-in value
						<Instruments>
82.19 ± 3.80	89.00 ± 1.50	120.00 ± 5.05	184.50 ± 5.09	41.13 ± 1.13	n = 4	[OLC] Beckman Coulter AU Chemistry System
						<Reagents>
81.98 ± 8.55	88.98 ± 6.14	119.78 ± 10.21	185.96 ± 5.59	41.24 ± 4.03	n = 6	[SY2] Syva Emit

Summary of Participant Performance (Mean and Standard Deviation)

Gentamicin (mg/L)

Specimen: T76	Specimen: T77	Specimen: T78	Specimen: T79	Specimen: T80	Number	[Code] Instrument or Reagent System
3.55 ± 0.25	6.41 ± 0.51	8.93 ± 0.70	12.86 ± 1.28	11.75 ± 1.14	n = 175	[---] All Methods & Instruments
3.4	6.5	9.1	13.0	11.7		[---] Weigh-in value
						<Instruments>
3.13 ± 0.21	5.55 ± 0.27	7.70 ± 0.50	11.57 ± 0.23	10.39 ± 0.63	n = 5	[ABJ] Abbott Architect c System
3.32 ± 0.15	6.08 ± 0.11	8.90 ± 0.44	12.02 ± 1.25	11.07 ± 1.15	n = 8	[ABH] Abbott Architect i System
3.45 ± 0.06	6.42 ± 0.32	9.07 ± 0.33	12.99 ± 0.84	12.23 ± 0.59	n = 4	[ABB] Abbott AxSym
3.81 ± 0.23	6.93 ± 0.57	9.38 ± 0.82	13.81 ± 1.36	12.86 ± 1.17	n = 14	[OLC] Beckman Coulter AU Chemistry System
3.53 ± 0.05	6.45 ± 0.19	9.30 ± 0.09	12.78 ± 0.15	12.11 ± 0.37	n = 3	[BCX] Beckman Coulter LX-20
3.61 ± 0.09	6.54 ± 0.30	9.21 ± 0.34	12.71 ± 0.98	11.93 ± 0.55	n = 9	[BCG] Beckman Coulter UniCel DxC 600
3.66 ± 0.16	6.63 ± 0.33	9.38 ± 0.26	13.00 ± 0.90	11.87 ± 0.81	n = 7	[BCH] Beckman Coulter UniCel DxC 800
3.85 ± 0.09	6.79 ± 0.22	9.25 ± 0.43	14.35 ± 1.01	13.63 ± 0.53	n = 9	[JJF] Ortho Vitros 5,1FS
3.84 ± 0.22	6.93 ± 0.37	9.34 ± 0.66	13.95 ± 1.01	12.81 ± 0.80	n = 13	[JJG] Ortho Vitros 5600
3.02 ± 0.21	5.58 ± 0.20	7.59 ± 0.56	10.19 ± 0.77	9.55 ± 0.76	n = 4	[ROC] Roche cobas c501
3.45 ± 0.19	5.63 ± 0.14	8.12 ± 0.24	12.05 ± 0.27	11.73 ± 1.34	n = 3	[ROS] Roche Cobas INTEGRA 400
3.43 ± 0.12	5.65 ± 0.27	8.07 ± 0.56	11.76 ± 0.53	10.86 ± 0.59	n = 15	[ROT] Roche Cobas INTEGRA 800
3.52 ± 0.17	6.28 ± 0.33	8.60 ± 0.40	11.89 ± 0.63	10.80 ± 0.57	n = 7	[ROD] Roche MODULAR D/P
3.28 ± 0.13	5.88 ± 0.15	8.22 ± 0.37	12.31 ± 1.64	10.43 ± 0.16	n = 4	[BYE] Siemens ADVIA 1800
3.72 ± 0.30	6.56 ± 0.62	8.62 ± 0.69	13.17 ± 1.77	11.67 ± 0.89	n = 12	[COB] Siemens ADVIA Centaur
3.47 ± 0.05	6.40 ± 0.09	8.85 ± 0.19	12.62 ± 0.49	11.78 ± 0.59	n = 3	[DUE] Siemens Dimension EXL
3.57 ± 0.07	6.40 ± 0.08	8.82 ± 0.39	13.00 ± 0.66	11.65 ± 0.54	n = 10	[DUR] Siemens Dimension RxL
3.51 ± 0.16	6.55 ± 0.27	9.18 ± 0.47	13.04 ± 1.00	11.78 ± 0.68	n = 40	[DUT] Siemens Dimension Vista
						<Reagents>
3.32 ± 0.18	6.05 ± 0.44	8.64 ± 0.72	12.23 ± 1.18	11.12 ± 1.15	n = 17	[AB1] Abbott
3.60 ± 0.15	6.59 ± 0.33	9.32 ± 0.31	12.88 ± 0.94	12.00 ± 0.66	n = 21	[BC1] Beckman Coulter
3.84 ± 0.26	7.07 ± 0.55	9.49 ± 0.73	13.75 ± 1.70	13.05 ± 1.38	n = 9	[OL1] Beckman Coulter AU Series
3.83 ± 0.18	6.85 ± 0.33	9.29 ± 0.55	14.12 ± 1.03	13.15 ± 0.89	n = 22	[JJ1] Ortho Clinical Diagnostics
3.30 ± 0.18	5.97 ± 0.41	8.55 ± 0.81	11.65 ± 1.44	10.94 ± 1.27	n = 3	[RO4] Roche cobas c311/c501/c502/c701
3.48 ± 0.30	6.31 ± 0.39	8.75 ± 1.01	11.46 ± 1.16	10.67 ± 0.87	n = 5	[RO2] Roche Hitachi and Modular D/P
3.43 ± 0.13	5.65 ± 0.25	8.08 ± 0.51	11.82 ± 0.50	10.89 ± 0.56	n = 18	[RO1] Roche Integra and MIRA
3.72 ± 0.30	6.56 ± 0.62	8.62 ± 0.69	13.17 ± 1.77	11.67 ± 0.89	n = 12	[BY1] Siemens ADVIA/ADVIA Centaur
3.25 ± 0.11	5.93 ± 0.16	8.22 ± 0.33	11.86 ± 1.64	10.43 ± 0.16	n = 5	[BY5] Siemens ADVIA/Syva Emit 2000
3.51 ± 0.15	6.49 ± 0.26	9.07 ± 0.47	13.00 ± 0.88	11.75 ± 0.63	n = 55	[DA5] Siemens Dimension
3.70 ± 0.08	6.48 ± 0.20	8.80 ± 0.57	13.48 ± 0.56	12.31 ± 0.31	n = 4	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

Lithium (mmol/L)

Specimen: T76	Specimen: T77	Specimen: T78	Specimen: T79	Specimen: T80	Number	[Code] Instrument or Reagent System
0.790 ± 0.116	0.714 ± 0.098	1.327 ± 0.147	1.467 ± 0.151	0.406 ± 0.102	n = 201	[---] All Methods & Instruments
0.8	0.7	1.4	1.5	0.5		[---] Weigh-in value
						<Instruments>
0.847 ± 0.038	0.749 ± 0.043	1.370 ± 0.071	1.497 ± 0.048	0.461 ± 0.039	n = 14	[ABJ] Abbott Architect c System
0.800 ± 0.000	0.701 ± 0.006	1.301 ± 0.014	1.421 ± 0.032	0.408 ± 0.014	n = 20	[OLC] Beckman Coulter AU Chemistry System
0.776 ± 0.037	0.690 ± 0.028	1.296 ± 0.018	1.414 ± 0.033	0.393 ± 0.011	n = 7	[BCG] Beckman Coulter UniCel DxC 600
0.801 ± 0.043	0.701 ± 0.039	1.306 ± 0.056	1.425 ± 0.087	0.409 ± 0.032	n = 7	[BCH] Beckman Coulter UniCel DxC 800
0.813 ± 0.077	0.720 ± 0.072	1.337 ± 0.122	1.454 ± 0.161	0.440 ± 0.045	n = 3	[ICP] ICP/MS
0.905 ± 0.055	0.800 ± 0.000	1.548 ± 0.063	1.698 ± 0.065	0.473 ± 0.049	n = 15	[JJF] Ortho Vitros 5,1FS
0.897 ± 0.071	0.798 ± 0.055	1.539 ± 0.089	1.651 ± 0.059	0.455 ± 0.077	n = 16	[JJG] Ortho Vitros 5600
0.584 ± 0.326	0.654 ± 0.349	1.145 ± 0.617	1.321 ± 0.723	0.212 ± 0.243	n = 4	[ROY] Roche 9180/9181
0.815 ± 0.059	0.700 ± 0.000	1.316 ± 0.046	1.472 ± 0.057	0.432 ± 0.052	n = 15	[ROC] Roche cobas c501
0.847 ± 0.039	0.799 ± 0.013	1.416 ± 0.045	1.591 ± 0.014	0.513 ± 0.031	n = 9	[ROT] Roche Cobas INTEGRA 800
0.901 ± 0.046	0.783 ± 0.092	1.357 ± 0.106	1.475 ± 0.104	0.523 ± 0.022	n = 7	[ROD] Roche MODULAR D/P
0.845 ± 0.053	0.759 ± 0.040	1.402 ± 0.013	1.555 ± 0.055	0.459 ± 0.048	n = 11	[BYE] Siemens ADVIA 1800
0.602 ± 0.027	0.577 ± 0.024	1.123 ± 0.030	1.235 ± 0.028	0.270 ± 0.042	n = 4	[DUE] Siemens Dimension EXL
0.592 ± 0.066	0.538 ± 0.050	1.091 ± 0.054	1.219 ± 0.052	0.250 ± 0.050	n = 11	[DUR] Siemens Dimension RxL
0.680 ± 0.065	0.619 ± 0.057	1.226 ± 0.063	1.372 ± 0.063	0.303 ± 0.072	n = 38	[DUT] Siemens Dimension Vista
						<Reagents>
0.848 ± 0.034	0.753 ± 0.042	1.377 ± 0.060	1.500 ± 0.040	0.464 ± 0.035	n = 13	[AB1] Abbott
0.703 ± 0.095	0.761 ± 0.094	1.352 ± 0.158	1.548 ± 0.190	0.262 ± 0.230	n = 5	[AV1] AVL Scientific
0.767 ± 0.056	0.682 ± 0.043	1.280 ± 0.055	1.404 ± 0.061	0.393 ± 0.032	n = 16	[BC1] Beckman Coulter
0.800 ± 0.000	0.700 ± 0.000	1.300 ± 0.009	1.423 ± 0.035	0.407 ± 0.014	n = 16	[OL1] Beckman Coulter AU Series
0.800 ± 0.053	0.706 ± 0.039	1.313 ± 0.074	1.409 ± 0.072	0.430 ± 0.032	n = 4	[IH1] In-House
0.905 ± 0.063	0.800 ± 0.000	1.548 ± 0.074	1.672 ± 0.064	0.462 ± 0.063	n = 34	[JJ1] Ortho Clinical Diagnostics
0.811 ± 0.057	0.716 ± 0.040	1.316 ± 0.044	1.500 ± 0.000	0.433 ± 0.051	n = 16	[RO4] Roche cobas c311/c501/c502/c701
0.847 ± 0.039	0.799 ± 0.013	1.416 ± 0.045	1.591 ± 0.014	0.513 ± 0.031	n = 9	[RO1] Roche Integra and MIRA
0.852 ± 0.064	0.764 ± 0.048	1.407 ± 0.040	1.566 ± 0.070	0.464 ± 0.060	n = 12	[BY1] Siemens ADVIA/ADVIA Centaur
0.653 ± 0.077	0.597 ± 0.063	1.190 ± 0.091	1.330 ± 0.095	0.283 ± 0.066	n = 55	[DA5] Siemens Dimension
0.832 ± 0.074	0.740 ± 0.063	1.323 ± 0.068	1.437 ± 0.055	0.441 ± 0.062	n = 11	[TH1] Thermo Scientific

Summary of Participant Performance (Mean and Standard Deviation)

Phenobarbital (mg/L)

Specimen: T76	Specimen: T77	Specimen: T78	Specimen: T79	Specimen: T80	Number	[Code] Instrument or Reagent System
12.94 ± 1.06	25.10 ± 1.96	34.76 ± 2.83	50.23 ± 4.62	45.11 ± 4.14	n = 221	[---] All Methods & Instruments
12.9	25.3	34.7	50.6	45.1		[---] Weigh-in value
						<Instruments>
13.33 ± 0.32	25.30 ± 1.05	35.11 ± 1.18	52.99 ± 3.65	46.76 ± 2.25	n = 4	[ABJ] Abbott Architect c System
13.77 ± 0.43	25.98 ± 0.67	35.54 ± 1.18	52.51 ± 1.38	46.42 ± 1.03	n = 12	[ABH] Abbott Architect i System
12.69 ± 0.28	23.39 ± 0.66	32.58 ± 0.95	46.29 ± 2.31	42.31 ± 0.29	n = 6	[ABB] Abbott AxSym
12.32 ± 0.49	24.02 ± 0.92	33.05 ± 1.69	48.82 ± 2.56	43.44 ± 2.01	n = 22	[OLC] Beckman Coulter AU Chemistry System
12.79 ± 0.93	24.11 ± 0.44	32.41 ± 0.81	45.04 ± 0.97	40.89 ± 1.30	n = 3	[BCX] Beckman Coulter LX-20
12.60 ± 0.42	23.33 ± 0.47	31.35 ± 0.84	45.11 ± 1.01	39.62 ± 1.03	n = 10	[BCG] Beckman Coulter UniCel DxC 600
12.14 ± 0.81	22.67 ± 0.64	30.88 ± 1.02	44.09 ± 1.21	39.30 ± 1.40	n = 7	[BCH] Beckman Coulter UniCel DxC 800
13.55 ± 1.69	27.57 ± 1.88	39.11 ± 1.85	60.26 ± 3.09	54.18 ± 2.57	n = 16	[JJF] Ortho Vitros 5,1FS
13.35 ± 1.63	27.66 ± 2.16	39.75 ± 2.34	60.11 ± 3.58	54.79 ± 2.88	n = 16	[JJG] Ortho Vitros 5600
12.23 ± 0.49	23.82 ± 0.69	33.14 ± 1.01	47.62 ± 1.48	43.24 ± 1.38	n = 16	[ROC] Roche cobas c501
12.59 ± 0.34	23.56 ± 0.48	32.97 ± 1.02	48.03 ± 1.52	42.61 ± 1.20	n = 12	[ROT] Roche Cobas INTEGRA 800
12.87 ± 0.72	24.69 ± 1.23	34.21 ± 1.21	48.90 ± 1.35	44.28 ± 1.70	n = 12	[ROD] Roche MODULAR D/P
13.99 ± 0.96	26.97 ± 1.22	37.45 ± 1.65	53.43 ± 2.54	48.86 ± 2.23	n = 13	[COB] Siemens ADVIA Centaur
13.49 ± 1.34	25.73 ± 1.88	35.30 ± 1.80	50.47 ± 3.27	45.70 ± 1.65	n = 5	[DUE] Siemens Dimension EXL
13.07 ± 1.23	25.40 ± 1.86	35.23 ± 2.15	50.73 ± 1.55	45.38 ± 2.10	n = 13	[DUR] Siemens Dimension RxL
13.49 ± 1.07	26.16 ± 1.31	35.56 ± 1.64	50.90 ± 2.12	45.68 ± 2.11	n = 39	[DUT] Siemens Dimension Vista
13.38 ± 1.56	25.26 ± 2.03	34.83 ± 1.78	49.97 ± 2.49	44.97 ± 1.98	n = 5	[DUX] Siemens Dimension Xpand
						<Reagents>
13.39 ± 0.62	25.24 ± 1.40	34.77 ± 1.79	51.25 ± 3.50	45.57 ± 2.24	n = 22	[AB1] Abbott
12.47 ± 0.65	23.27 ± 0.72	31.32 ± 0.97	44.86 ± 1.14	39.89 ± 1.37	n = 23	[BC1] Beckman Coulter
12.48 ± 0.45	24.08 ± 0.79	33.29 ± 2.14	48.76 ± 3.01	43.27 ± 2.37	n = 13	[OL1] Beckman Coulter AU Series
11.67 ± 0.50	24.02 ± 0.86	33.13 ± 0.41	50.59 ± 1.15	44.23 ± 0.76	n = 3	[MG1] Microgenics CEDIA
13.45 ± 1.66	27.61 ± 2.02	39.41 ± 2.13	60.21 ± 3.36	54.49 ± 2.78	n = 32	[JJ1] Ortho Clinical Diagnostics
12.18 ± 0.48	23.77 ± 0.68	33.13 ± 0.92	47.64 ± 1.43	43.28 ± 1.43	n = 19	[RO4] Roche cobas c311/c501/c502/c701
12.72 ± 1.01	24.18 ± 1.41	34.27 ± 0.77	49.01 ± 0.80	43.96 ± 0.56	n = 4	[RO2] Roche Hitachi and Modular D/P
12.60 ± 0.32	23.61 ± 0.48	32.90 ± 0.98	48.14 ± 1.47	42.72 ± 1.20	n = 13	[RO1] Roche Integra and MIRA
12.85 ± 0.69	24.89 ± 1.21	34.25 ± 1.39	48.77 ± 1.57	44.56 ± 2.14	n = 8	[RO6] Roche ONLINE
13.90 ± 0.95	26.83 ± 1.28	37.27 ± 1.75	53.40 ± 2.37	48.59 ± 2.34	n = 14	[BY1] Siemens ADVIA/ADVIA Centaur
13.39 ± 1.19	25.93 ± 1.59	35.41 ± 1.79	50.80 ± 2.12	45.55 ± 2.09	n = 62	[DA5] Siemens Dimension
12.32 ± 0.38	24.52 ± 1.12	32.91 ± 1.70	48.60 ± 1.18	43.76 ± 1.35	n = 4	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

Phenytoin (mg/L)

Specimen: T76	Specimen: T77	Specimen: T78	Specimen: T79	Specimen: T80	Number	[Code] Instrument or Reagent System
8.46 ± 0.67	13.98 ± 1.06	20.56 ± 1.50	28.02 ± 1.97	15.32 ± 0.93	n = 264	[---] All Methods & Instruments
8.5	14.3	21.0	28.7	16.0		[---] Weigh-in value
						<Instruments>
8.50 ± 0.15	14.09 ± 0.71	20.94 ± 1.06	27.70 ± 0.48	15.22 ± 0.71	n = 5	[ABJ] Abbott Architect c System
8.54 ± 0.33	14.27 ± 0.51	20.91 ± 1.05	28.88 ± 0.97	15.74 ± 0.46	n = 14	[ABH] Abbott Architect i System
8.88 ± 0.35	14.27 ± 0.52	20.69 ± 0.85	27.94 ± 0.69	15.44 ± 0.31	n = 7	[ABB] Abbott AxSym
8.65 ± 0.46	14.16 ± 1.02	21.21 ± 1.34	28.70 ± 2.08	15.72 ± 0.91	n = 33	[OLC] Beckman Coulter AU Chemistry System
8.60 ± 0.18	14.15 ± 0.27	20.27 ± 0.05	26.60 ± 0.64	15.49 ± 0.20	n = 3	[BCX] Beckman Coulter LX-20
8.43 ± 0.23	13.54 ± 0.35	19.81 ± 0.79	26.69 ± 1.36	14.87 ± 0.16	n = 10	[BCG] Beckman Coulter UniCel DxC 600
8.41 ± 0.40	13.56 ± 0.67	19.85 ± 0.78	26.32 ± 1.19	14.83 ± 0.81	n = 7	[BCH] Beckman Coulter UniCel DxC 800
7.58 ± 0.34	12.62 ± 0.53	18.83 ± 0.74	26.22 ± 1.06	14.53 ± 0.41	n = 17	[JJF] Ortho Vitros 5,1FS
7.61 ± 0.43	12.53 ± 0.44	18.90 ± 0.84	25.78 ± 1.23	14.38 ± 0.64	n = 17	[JJG] Ortho Vitros 5600
8.25 ± 0.41	13.88 ± 0.62	20.08 ± 0.88	27.67 ± 1.44	15.21 ± 0.85	n = 15	[ROC] Roche cobas c501
8.08 ± 0.24	13.60 ± 0.50	20.22 ± 0.92	27.83 ± 1.16	14.75 ± 0.59	n = 13	[ROT] Roche Cobas INTEGRA 800
8.50 ± 0.53	13.98 ± 0.34	20.51 ± 0.91	28.07 ± 0.79	15.38 ± 0.38	n = 14	[ROD] Roche MODULAR D/P
8.90 ± 0.59	13.84 ± 0.82	19.85 ± 1.58	26.82 ± 1.97	15.54 ± 0.93	n = 8	[BYE] Siemens ADVIA 1800
10.08 ± 0.71	17.27 ± 1.12	25.58 ± 1.99	34.38 ± 3.01	19.00 ± 1.66	n = 13	[COB] Siemens ADVIA Centaur
11.45 ± 0.54	20.28 ± 0.15	29.73 ± 0.68	42.55 ± 5.64	21.69 ± 0.74	n = 3	[BYP] Siemens ADVIA Centaur CP
8.16 ± 0.50	13.95 ± 0.64	20.37 ± 0.94	28.24 ± 0.99	15.08 ± 0.54	n = 9	[DUE] Siemens Dimension EXL
8.30 ± 0.41	14.23 ± 0.59	20.83 ± 1.09	28.96 ± 1.26	15.04 ± 1.08	n = 15	[DUR] Siemens Dimension RxL
8.94 ± 0.41	14.88 ± 0.73	21.63 ± 1.02	29.23 ± 1.24	16.02 ± 0.69	n = 40	[DUT] Siemens Dimension Vista
8.20 ± 0.72	14.57 ± 0.83	21.62 ± 0.96	29.29 ± 1.09	15.68 ± 0.89	n = 9	[DUX] Siemens Dimension Xpand
						<Reagents>
8.61 ± 0.31	14.23 ± 0.57	20.86 ± 0.99	28.41 ± 1.10	15.57 ± 0.52	n = 26	[AB1] Abbott
8.43 ± 0.37	13.62 ± 0.62	19.87 ± 0.82	26.51 ± 1.28	14.94 ± 0.70	n = 23	[BC1] Beckman Coulter
8.65 ± 0.51	14.42 ± 0.96	21.50 ± 1.28	29.58 ± 2.58	16.05 ± 0.97	n = 18	[OL1] Beckman Coulter AU Series
8.87 ± 0.46	14.76 ± 0.83	21.34 ± 0.61	28.55 ± 0.98	15.76 ± 0.88	n = 5	[MG1] Microgenics CEDIA
7.62 ± 0.40	12.59 ± 0.49	18.88 ± 0.77	25.96 ± 1.23	14.49 ± 0.54	n = 35	[JJ1] Ortho Clinical Diagnostics
8.25 ± 0.44	13.68 ± 0.76	19.94 ± 1.03	27.29 ± 1.61	15.06 ± 0.82	n = 18	[RO4] Roche cobas c311/c501/c502/c701
8.26 ± 0.47	13.77 ± 0.09	20.17 ± 0.39	27.85 ± 0.50	15.02 ± 0.13	n = 5	[RO2] Roche Hitachi and Modular D/P
8.09 ± 0.21	13.62 ± 0.49	20.15 ± 0.96	27.67 ± 1.26	14.83 ± 0.53	n = 15	[RO1] Roche Integra and MIRA
8.65 ± 0.53	14.12 ± 0.30	20.83 ± 1.07	28.26 ± 0.88	15.45 ± 0.17	n = 9	[RO6] Roche ONLINE
10.32 ± 0.87	17.74 ± 1.72	26.28 ± 2.53	35.25 ± 4.10	19.54 ± 2.00	n = 16	[BY1] Siemens ADVIA/ADVIA Centaur
8.99 ± 0.48	14.21 ± 0.79	19.98 ± 1.48	27.02 ± 1.87	15.70 ± 0.69	n = 9	[BY5] Siemens ADVIA/Syva Emit 2000
8.65 ± 0.60	14.58 ± 0.80	21.32 ± 1.14	29.07 ± 1.25	15.71 ± 0.87	n = 73	[DA5] Siemens Dimension
8.49 ± 0.39	13.48 ± 0.46	20.52 ± 1.47	27.74 ± 1.08	15.25 ± 0.42	n = 8	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

Free Phenytoin (mg/L)

Specimen: T76	Specimen: T77	Specimen: T78	Specimen: T79	Specimen: T80	Number	[Code] Instrument or Reagent System
1.19 ± 0.14	1.82 ± 0.17	2.83 ± 0.33	3.72 ± 0.37	2.45 ± 0.29	n = 22	[---] All Methods & Instruments
						<Instruments>
1.21 ± 0.14	1.80 ± 0.18	2.86 ± 0.36	3.76 ± 0.38	2.38 ± 0.34	n = 10	[OLC] Beckman Coulter AU Chemistry System
1.18 ± 0.07	1.79 ± 0.06	2.83 ± 0.10	3.68 ± 0.12	2.50 ± 0.06	n = 6	[ROT] Roche Cobas INTEGRA 800
						<Reagents>
1.20 ± 0.09	1.76 ± 0.10	2.86 ± 0.10	3.93 ± 0.23	2.23 ± 0.05	n = 3	[OL1] Beckman Coulter AU Series
1.19 ± 0.09	1.82 ± 0.09	2.86 ± 0.12	3.70 ± 0.12	2.52 ± 0.09	n = 8	[RO1] Roche Integra and MIRA
1.20 ± 0.17	1.83 ± 0.23	2.82 ± 0.49	3.71 ± 0.40	2.39 ± 0.42	n = 7	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

Primidone (mg/L)

Specimen: T76	Specimen: T77	Specimen: T78	Specimen: T79	Specimen: T80	Number	[Code] Instrument or Reagent System
10.69 ± 0.50	9.42 ± 0.36	11.87 ± 0.32	18.51 ± 0.86	5.49 ± 0.28	n = 14	[---] All Methods & Instruments
11.1	9.5	11.9	18.9	4.7		[---] Weigh-in value
						<Instruments>
10.58 ± 0.57	9.40 ± 0.49	11.75 ± 0.25	18.29 ± 0.81	5.58 ± 0.15	n = 9	[OLC] Beckman Coulter AU Chemistry System
11.04 ± 0.10	9.38 ± 0.15	11.84 ± 0.10	19.05 ± 0.54	5.05 ± 0.19	n = 3	[ROT] Roche Cobas INTEGRA 800
						<Reagents>
11.04 ± 0.10	9.38 ± 0.15	11.84 ± 0.10	19.05 ± 0.54	5.05 ± 0.19	n = 3	[RO1] Roche Integra and MIRA
10.55 ± 0.57	9.40 ± 0.49	11.85 ± 0.37	18.20 ± 0.87	5.63 ± 0.17	n = 9	[SY2] Syva Emit

Summary of Participant Performance (Mean and Standard Deviation)

Procainamide (mg/L)

Specimen: T76	Specimen: T77	Specimen: T78	Specimen: T79	Specimen: T80	Number	[Code] Instrument or Reagent System
9.47 ± 0.52	7.56 ± 0.53	4.29 ± 0.14	14.93 ± 0.92	12.19 ± 0.93	n = 14	[---] All Methods & Instruments
9.6	7.7	4.1	15.5	12.4		[---] Weigh-in value
						<Instruments>
9.61 ± 0.59	7.43 ± 0.57	4.38 ± 0.13	14.94 ± 1.60	12.53 ± 0.94	n = 4	[OLC] Beckman Coulter AU Chemistry System
9.47 ± 0.16	7.55 ± 0.19	4.27 ± 0.09	14.75 ± 0.28	12.14 ± 0.35	n = 4	[ROT] Roche Cobas INTEGRA 800
						<Reagents>
9.47 ± 0.16	7.55 ± 0.19	4.27 ± 0.09	14.75 ± 0.28	12.14 ± 0.35	n = 4	[RO1] Roche Integra and MIRA
9.67 ± 0.32	7.58 ± 0.59	4.27 ± 0.14	15.43 ± 0.31	12.70 ± 0.73	n = 3	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

N-Acetyl-Procainamide (mg/L)

Specimen: T76	Specimen: T77	Specimen: T78	Specimen: T79	Specimen: T80	Number	[Code] Instrument or Reagent System
7.00 ± 0.43	9.01 ± 0.50	12.20 ± 0.86	17.66 ± 1.23	15.85 ± 0.88	n = 14	[---] All Methods & Instruments
6.7	9.1	12.3	18.1	16.1		[---] Weigh-in value
						<Instruments>
7.12 ± 0.32	9.01 ± 0.29	12.15 ± 0.55	17.56 ± 1.35	16.28 ± 0.70	n = 4	[OLC] Beckman Coulter AU Chemistry System
7.09 ± 0.24	9.03 ± 0.27	11.86 ± 0.23	17.40 ± 0.15	15.39 ± 0.57	n = 4	[ROT] Roche Cobas INTEGRA 800
						<Reagents>
7.09 ± 0.24	9.03 ± 0.27	11.86 ± 0.23	17.40 ± 0.15	15.39 ± 0.57	n = 4	[RO1] Roche Integra and MIRA
7.05 ± 0.19	8.87 ± 0.05	12.20 ± 0.64	18.08 ± 0.94	15.93 ± 0.42	n = 3	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

Quinidine (mg/L)

Specimen: T76	Specimen: T77	Specimen: T78	Specimen: T79	Specimen: T80	Number	[Code] Instrument or Reagent System
1.57 ± 0.11	3.22 ± 0.18	2.76 ± 0.17	6.18 ± 0.32	4.33 ± 0.23	n = 13	[---] All Methods & Instruments
1.7	3.1	2.7	6.2	4.3		[---] Weigh-in value
						<Instruments>
1.50 ± 0.09	3.01 ± 0.20	2.65 ± 0.19	6.14 ± 0.47	4.11 ± 0.29	n = 3	[OLC] Beckman Coulter AU Chemistry System
1.58 ± 0.08	3.21 ± 0.13	2.68 ± 0.08	6.07 ± 0.16	4.25 ± 0.08	n = 5	[ROT] Roche Cobas INTEGRA 800
						<Reagents>
1.58 ± 0.08	3.21 ± 0.13	2.68 ± 0.08	6.07 ± 0.16	4.25 ± 0.08	n = 5	[RO1] Roche Integra and MIRA

Summary of Participant Performance (Mean and Standard Deviation)

Salicylate (mg/L)

Specimen: T76	Specimen: T77	Specimen: T78	Specimen: T79	Specimen: T80	Number	[Code] Instrument or Reagent System
51.61 ± 2.07	34.22 ± 1.56	77.28 ± 3.09	69.13 ± 3.20	23.87 ± 1.33	n = 208	[---] All Methods & Instruments
49.9	33.3	74.3	66.9	22.8		[---] Weigh-in value
						<Instruments>
51.44 ± 1.08	33.85 ± 0.70	77.58 ± 1.67	69.28 ± 1.19	23.24 ± 0.55	n = 17	[ABJ] Abbott Architect c System
54.34 ± 3.99	35.79 ± 2.37	80.41 ± 5.38	72.29 ± 4.38	24.72 ± 1.36	n = 23	[OLC] Beckman Coulter AU Chemistry System
52.59 ± 1.10	33.05 ± 0.27	79.38 ± 1.12	70.00 ± 2.18	22.48 ± 0.15	n = 3	[BCX] Beckman Coulter LX-20
53.18 ± 2.21	34.61 ± 1.37	80.59 ± 2.47	70.91 ± 2.83	23.41 ± 1.01	n = 8	[BCG] Beckman Coulter UniCel DxC 600
52.61 ± 1.48	33.83 ± 1.06	78.92 ± 1.63	69.97 ± 1.24	22.77 ± 1.27	n = 7	[BCH] Beckman Coulter UniCel DxC 800
51.53 ± 1.86	35.84 ± 1.54	78.74 ± 3.16	72.91 ± 4.38	26.47 ± 1.86	n = 3	[JJE] Ortho Vitros 250/350/950
52.21 ± 1.77	35.31 ± 3.41	75.84 ± 4.48	69.47 ± 5.41	26.26 ± 1.34	n = 15	[JJF] Ortho Vitros 5,1FS
53.67 ± 0.87	36.87 ± 3.00	79.11 ± 4.31	73.06 ± 5.23	26.75 ± 1.13	n = 17	[JJG] Ortho Vitros 5600
52.52 ± 1.32	33.66 ± 0.83	79.49 ± 1.97	70.73 ± 2.10	22.60 ± 0.65	n = 12	[ROC] Roche cobas c501
48.50 ± 0.58	32.23 ± 0.43	73.66 ± 2.45	65.32 ± 0.46	22.52 ± 0.35	n = 10	[ROT] Roche Cobas INTEGRA 800
50.57 ± 1.35	33.76 ± 0.88	76.19 ± 1.42	67.66 ± 1.37	23.35 ± 0.62	n = 8	[ROD] Roche MODULAR D/P
53.74 ± 1.09	35.49 ± 1.20	80.46 ± 1.01	71.64 ± 1.42	24.19 ± 1.04	n = 8	[BYE] Siemens ADVIA 1800
55.11 ± 1.44	36.99 ± 1.90	81.64 ± 3.49	73.61 ± 2.16	25.28 ± 0.59	n = 3	[BYB] Siemens ADVIA 2400
51.03 ± 0.44	34.23 ± 0.45	76.21 ± 0.41	67.94 ± 0.58	23.95 ± 0.18	n = 9	[DUE] Siemens Dimension EXL
51.02 ± 0.69	34.30 ± 0.39	76.11 ± 0.87	68.03 ± 0.94	23.96 ± 0.42	n = 14	[DUR] Siemens Dimension RxL
50.45 ± 0.86	34.02 ± 0.56	75.53 ± 1.02	67.36 ± 1.04	23.66 ± 0.40	n = 38	[DUT] Siemens Dimension Vista
50.94 ± 0.63	34.18 ± 0.51	75.85 ± 1.50	68.02 ± 1.03	23.99 ± 0.44	n = 8	[DUX] Siemens Dimension Xpand
						<Reagents>
51.44 ± 1.08	33.85 ± 0.70	77.58 ± 1.67	69.28 ± 1.19	23.24 ± 0.55	n = 17	[AB1] Abbott
52.78 ± 2.54	33.84 ± 1.28	79.51 ± 2.77	70.14 ± 2.39	23.01 ± 1.08	n = 22	[BC1] Beckman Coulter
54.00 ± 3.88	35.58 ± 2.28	79.57 ± 4.95	72.30 ± 4.81	24.57 ± 1.05	n = 17	[OL1] Beckman Coulter AU Series
52.81 ± 1.91	36.13 ± 3.18	77.74 ± 4.56	71.55 ± 5.46	26.54 ± 1.30	n = 35	[JJ1] Ortho Clinical Diagnostics
52.60 ± 1.20	33.67 ± 0.71	79.63 ± 1.51	71.07 ± 1.78	22.62 ± 0.63	n = 12	[RO4] Roche cobas c311/c501/c502/c701
50.57 ± 1.35	33.76 ± 0.88	76.19 ± 1.42	67.66 ± 1.37	23.35 ± 0.62	n = 8	[RO2] Roche Hitachi and Modular D/P
48.50 ± 0.58	32.23 ± 0.43	73.66 ± 2.45	65.32 ± 0.46	22.52 ± 0.35	n = 10	[RO1] Roche Integra and MIRA
54.07 ± 1.34	35.79 ± 1.48	81.09 ± 2.27	72.23 ± 2.03	24.55 ± 1.09	n = 11	[BY1] Siemens ADVIA/ADVIA Centaur
50.72 ± 0.80	34.14 ± 0.51	75.79 ± 1.02	67.67 ± 1.02	23.80 ± 0.41	n = 69	[DA5] Siemens Dimension
55.44 ± 3.44	36.66 ± 1.82	83.22 ± 3.74	72.51 ± 3.97	25.91 ± 0.98	n = 3	[SY5] Syva Emit tox

Summary of Participant Performance (Mean and Standard Deviation)

Theophylline (mg/L)

Specimen: T76	Specimen: T77	Specimen: T78	Specimen: T79	Specimen: T80	Number	[Code] Instrument or Reagent System
20.87 ± 1.37	14.79 ± 0.87	13.75 ± 0.75	29.81 ± 3.06	7.06 ± 0.39	n = 210	[---] All Methods & Instruments
21.8	15.4	14.1	30.8	7.2		[---] Weigh-in value
						<Instruments>
20.40 ± 1.36	14.53 ± 0.85	13.70 ± 0.57	29.37 ± 2.55	7.00 ± 0.27	n = 12	[ABH] Abbott Architect i System
21.12 ± 1.23	14.94 ± 0.84	13.87 ± 0.68	29.96 ± 2.23	7.03 ± 0.26	n = 21	[OLC] Beckman Coulter AU Chemistry System
20.50 ± 0.27	14.55 ± 0.19	13.43 ± 0.32	29.47 ± 1.14	7.10 ± 0.09	n = 3	[BCX] Beckman Coulter LX-20
20.72 ± 0.52	14.62 ± 0.62	13.38 ± 0.38	29.31 ± 0.68	6.85 ± 0.34	n = 9	[BCG] Beckman Coulter UniCel DxC 600
20.58 ± 0.66	14.43 ± 0.32	13.50 ± 0.26	29.57 ± 0.51	7.03 ± 0.30	n = 8	[BCH] Beckman Coulter UniCel DxC 800
31.14 ± 1.27	21.36 ± 0.90	22.16 ± 0.74	39.82 ± 1.37	10.59 ± 0.42	n = 14	[JJF] Ortho Vitros 5,1FS
31.17 ± 1.71	21.43 ± 0.98	22.02 ± 0.84	40.87 ± 1.94	10.75 ± 0.48	n = 16	[JJG] Ortho Vitros 5600
21.25 ± 0.72	14.92 ± 0.55	13.97 ± 0.52	30.13 ± 1.16	7.15 ± 0.34	n = 14	[ROC] Roche cobas c501
21.96 ± 0.25	15.19 ± 0.42	14.40 ± 0.38	30.74 ± 0.91	7.38 ± 0.14	n = 10	[ROT] Roche Cobas INTEGRA 800
22.14 ± 0.45	15.35 ± 0.38	14.27 ± 0.17	30.86 ± 0.87	7.25 ± 0.18	n = 11	[ROD] Roche MODULAR D/P
21.97 ± 1.07	14.88 ± 1.16	14.20 ± 0.15	28.86 ± 1.56	7.03 ± 0.14	n = 5	[BYE] Siemens ADVIA 1800
18.58 ± 1.06	13.47 ± 1.39	11.93 ± 1.35	26.15 ± 1.17	6.25 ± 0.76	n = 13	[COB] Siemens ADVIA Centaur
20.31 ± 1.96	14.39 ± 0.80	13.50 ± 0.75	28.07 ± 3.19	6.71 ± 0.61	n = 5	[DUE] Siemens Dimension EXL
21.07 ± 0.98	14.71 ± 0.30	13.72 ± 0.54	29.72 ± 1.41	7.12 ± 0.40	n = 11	[DUR] Siemens Dimension RxL
20.55 ± 1.20	14.74 ± 0.84	13.67 ± 0.71	28.86 ± 1.89	7.05 ± 0.39	n = 40	[DUT] Siemens Dimension Vista
20.77 ± 1.94	14.63 ± 1.01	13.70 ± 1.19	27.66 ± 2.69	6.84 ± 0.57	n = 4	[DUX] Siemens Dimension Xpand
						<Reagents>
20.70 ± 1.45	14.75 ± 0.98	13.84 ± 0.65	29.93 ± 2.69	7.07 ± 0.34	n = 14	[AB1] Abbott
20.59 ± 0.59	14.54 ± 0.47	13.43 ± 0.35	29.45 ± 0.74	7.00 ± 0.32	n = 23	[BC1] Beckman Coulter
21.26 ± 1.15	14.99 ± 0.82	13.88 ± 0.80	30.39 ± 2.34	7.09 ± 0.28	n = 15	[OL1] Beckman Coulter AU Series
31.16 ± 1.51	21.40 ± 0.94	22.09 ± 0.79	40.29 ± 1.79	10.67 ± 0.46	n = 30	[JJ1] Ortho Clinical Diagnostics
21.28 ± 0.70	14.96 ± 0.55	13.98 ± 0.51	30.20 ± 1.16	7.15 ± 0.33	n = 16	[RO4] Roche cobas c311/c501/c502/c701
22.27 ± 0.41	15.50 ± 0.73	16.14 ± 2.43	30.93 ± 1.22	7.40 ± 0.18	n = 3	[RO2] Roche Hitachi and Modular D/P
21.99 ± 0.22	15.25 ± 0.50	14.44 ± 0.39	30.86 ± 0.92	7.40 ± 0.16	n = 11	[RO1] Roche Integra and MIRA
22.06 ± 0.51	15.37 ± 0.21	14.26 ± 0.19	31.00 ± 0.60	7.16 ± 0.13	n = 7	[RO6] Roche ONLINE
18.95 ± 1.40	13.76 ± 1.45	12.18 ± 1.39	26.51 ± 1.55	6.40 ± 0.79	n = 15	[BY1] Siemens ADVIA/ADVIA Centaur
21.27 ± 1.08	15.30 ± 0.88	13.92 ± 0.50	29.53 ± 2.40	7.04 ± 0.23	n = 6	[BY5] Siemens ADVIA/Syva Emit 2000
20.59 ± 1.33	14.73 ± 0.82	13.68 ± 0.74	28.88 ± 2.08	7.03 ± 0.44	n = 60	[DA5] Siemens Dimension
20.72 ± 1.15	14.47 ± 0.69	13.79 ± 0.28	28.35 ± 0.80	6.89 ± 0.11	n = 6	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

Tobramycin (mg/L)

Specimen: T76	Specimen: T77	Specimen: T78	Specimen: T79	Specimen: T80	Number	[Code] Instrument or Reagent System
7.97 ± 0.56	6.05 ± 0.62	2.63 ± 0.28	11.94 ± 1.35	10.80 ± 1.06	n = 81	[---] All Methods & Instruments
8.4	6.3	2.4	12.7	11.2		[---] Weigh-in value
						<Instruments>
7.14 ± 0.31	4.95 ± 0.18	2.20 ± 0.10	9.99 ± 0.45	9.31 ± 0.44	n = 5	[ABJ] Abbott Architect c System
7.89 ± 0.15	5.92 ± 0.13	2.54 ± 0.08	11.48 ± 0.68	10.04 ± 0.24	n = 11	[OLC] Beckman Coulter AU Chemistry System
9.71 ± 0.34	7.48 ± 0.20	3.35 ± 0.19	15.54 ± 0.62	13.37 ± 0.89	n = 4	[BCG] Beckman Coulter UniCel DxC 600
9.51 ± 0.29	7.24 ± 0.26	3.06 ± 0.10	13.98 ± 0.68	12.30 ± 0.55	n = 3	[BCH] Beckman Coulter UniCel DxC 800
8.14 ± 0.10	5.97 ± 0.14	2.60 ± 0.09	13.12 ± 1.23	11.98 ± 0.50	n = 3	[JJF] Ortho Vitros 5,1FS
7.96 ± 0.19	6.00 ± 0.17	2.63 ± 0.09	12.53 ± 0.25	11.22 ± 0.36	n = 4	[JJG] Ortho Vitros 5600
8.07 ± 0.25	6.27 ± 0.15	2.87 ± 0.09	11.16 ± 1.21	10.42 ± 0.72	n = 4	[ROC] Roche cobas c501
7.95 ± 0.27	5.86 ± 0.10	2.52 ± 0.09	12.39 ± 0.67	11.06 ± 0.51	n = 10	[ROT] Roche Cobas INTEGRA 800
8.29 ± 0.26	6.52 ± 0.20	2.77 ± 0.09	11.81 ± 0.99	10.73 ± 0.58	n = 4	[ROD] Roche MODULAR D/P
8.88 ± 0.80	6.69 ± 0.40	3.09 ± 0.18	13.23 ± 1.23	12.18 ± 0.91	n = 6	[COB] Siemens ADVIA Centaur
7.51 ± 0.44	5.52 ± 0.32	2.37 ± 0.34	11.39 ± 0.56	10.44 ± 0.39	n = 3	[DUR] Siemens Dimension RxL
7.85 ± 0.31	5.92 ± 0.33	2.56 ± 0.13	11.50 ± 0.58	10.46 ± 0.49	n = 17	[DUT] Siemens Dimension Vista
						<Reagents>
7.19 ± 0.30	4.98 ± 0.17	2.22 ± 0.10	10.15 ± 0.55	9.36 ± 0.40	n = 6	[AB1] Abbott
9.58 ± 0.29	7.39 ± 0.24	3.19 ± 0.20	14.78 ± 0.99	12.81 ± 0.83	n = 8	[BC1] Beckman Coulter
7.94 ± 0.14	6.00 ± 0.10	2.52 ± 0.08	10.90 ± 0.94	10.72 ± 1.03	n = 5	[OL1] Beckman Coulter AU Series
8.06 ± 0.14	5.99 ± 0.15	2.62 ± 0.09	12.67 ± 0.80	11.50 ± 0.55	n = 7	[JJ1] Ortho Clinical Diagnostics
8.07 ± 0.25	6.27 ± 0.15	2.87 ± 0.09	11.16 ± 1.21	10.42 ± 0.72	n = 4	[RO4] Roche cobas c311/c501/c502/c701
7.94 ± 0.26	5.85 ± 0.11	2.54 ± 0.09	12.34 ± 0.60	11.04 ± 0.44	n = 12	[RO1] Roche Integra and MIRA
8.29 ± 0.26	6.52 ± 0.20	2.77 ± 0.09	11.81 ± 0.99	10.73 ± 0.58	n = 4	[RO6] Roche ONLINE
8.88 ± 0.80	6.69 ± 0.40	3.09 ± 0.18	13.23 ± 1.23	12.18 ± 0.91	n = 6	[BY1] Siemens ADVIA/ADVIA Centaur
7.75 ± 0.42	5.81 ± 0.39	2.53 ± 0.14	11.44 ± 0.62	10.39 ± 0.50	n = 22	[DA5] Siemens Dimension
7.80 ± 0.07	5.85 ± 0.10	2.56 ± 0.08	11.66 ± 0.26	10.06 ± 0.29	n = 6	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

Valproic Acid **(mg/L)**

Specimen: T76	Specimen: T77	Specimen: T78	Specimen: T79	Specimen: T80	Number	[Code] Instrument or Reagent System
35.19 ± 3.36	69.40 ± 5.70	73.60 ± 5.84	135.89 ± 11.01	96.46 ± 7.25	n = 243	[---] All Methods & Instruments
33.8	67.5	70.9	134.9	94.2		[---] Weigh-in value
						<Instruments>
31.63 ± 1.95	65.07 ± 1.40	69.29 ± 1.29	129.16 ± 1.55	92.16 ± 2.63	n = 3	[ABJ] Abbott Architect c System
43.81 ± 2.44	81.47 ± 4.08	85.46 ± 5.01	150.59 ± 10.57	110.49 ± 4.90	n = 15	[ABH] Abbott Architect i System
33.02 ± 1.09	67.77 ± 1.88	73.77 ± 2.56	132.90 ± 3.40	97.75 ± 4.61	n = 5	[ABB] Abbott AxSym
37.08 ± 1.60	72.84 ± 2.78	76.50 ± 3.59	142.91 ± 4.93	100.16 ± 4.01	n = 27	[OLC] Beckman Coulter AU Chemistry System
28.66 ± 2.63	57.40 ± 0.46	61.68 ± 0.78	111.25 ± 2.00	77.96 ± 0.71	n = 3	[BCX] Beckman Coulter LX-20
27.43 ± 2.99	57.41 ± 1.96	61.06 ± 1.68	109.73 ± 2.91	78.95 ± 1.94	n = 9	[BCG] Beckman Coulter UniCel DxC 600
27.59 ± 4.76	55.01 ± 3.00	59.44 ± 4.14	106.44 ± 4.04	78.80 ± 3.91	n = 8	[BCH] Beckman Coulter UniCel DxC 800
31.35 ± 4.72	66.32 ± 6.53	71.69 ± 5.59	142.44 ± 13.25	96.77 ± 7.66	n = 11	[JJF] Ortho Vitros 5,1FS
33.68 ± 2.35	67.48 ± 3.05	72.58 ± 4.29	140.25 ± 5.32	96.52 ± 4.35	n = 16	[JJG] Ortho Vitros 5600
35.40 ± 2.78	69.94 ± 5.70	74.55 ± 4.90	140.70 ± 5.70	96.35 ± 5.09	n = 17	[ROC] Roche cobas c501
33.42 ± 0.82	67.42 ± 1.29	71.54 ± 1.32	134.33 ± 3.04	95.84 ± 2.29	n = 10	[ROT] Roche Cobas INTEGRA 800
34.71 ± 1.07	70.51 ± 3.56	74.21 ± 1.57	133.31 ± 5.62	97.53 ± 2.67	n = 12	[ROD] Roche MODULAR D/P
35.41 ± 2.60	71.79 ± 3.69	74.34 ± 5.80	136.02 ± 11.38	101.19 ± 6.75	n = 8	[BYE] Siemens ADVIA 1800
34.67 ± 1.37	67.22 ± 2.74	72.77 ± 3.50	129.71 ± 4.88	93.16 ± 3.20	n = 18	[COB] Siemens ADVIA Centaur
33.65 ± 2.98	67.36 ± 3.62	68.37 ± 6.63	127.59 ± 6.25	90.43 ± 6.70	n = 3	[BYP] Siemens ADVIA Centaur CP
35.12 ± 0.69	71.17 ± 3.12	73.36 ± 1.53	135.55 ± 7.09	96.27 ± 3.65	n = 7	[DUE] Siemens Dimension EXL
35.82 ± 1.72	68.67 ± 2.49	72.44 ± 2.06	133.47 ± 8.44	92.49 ± 4.46	n = 15	[DUR] Siemens Dimension RxL
36.02 ± 1.81	70.34 ± 2.91	74.92 ± 4.08	134.61 ± 5.99	96.70 ± 3.64	n = 41	[DUT] Siemens Dimension Vista
35.19 ± 1.36	69.43 ± 2.32	72.85 ± 2.22	132.70 ± 4.32	94.39 ± 3.64	n = 5	[DUX] Siemens Dimension Xpand
						<Reagents>
40.28 ± 6.44	76.53 ± 8.47	80.91 ± 8.38	142.77 ± 13.87	105.59 ± 8.95	n = 23	[AB1] Abbott
27.59 ± 4.09	56.19 ± 2.81	60.60 ± 2.83	108.52 ± 3.66	78.76 ± 3.20	n = 23	[BC1] Beckman Coulter
37.36 ± 1.39	73.16 ± 2.32	76.58 ± 3.86	144.04 ± 4.14	101.19 ± 3.65	n = 16	[OL1] Beckman Coulter AU Series
33.18 ± 3.24	67.16 ± 4.55	72.23 ± 4.88	141.43 ± 9.14	96.52 ± 5.49	n = 27	[JJ1] Ortho Clinical Diagnostics
35.39 ± 2.60	69.77 ± 5.29	74.14 ± 4.84	140.12 ± 5.72	96.48 ± 4.70	n = 19	[RO4] Roche cobas c311/c501/c502/c701
35.00 ± 0.84	71.10 ± 2.51	72.72 ± 2.80	132.75 ± 4.68	100.14 ± 3.68	n = 4	[RO2] Roche Hitachi and Modular D/P
33.36 ± 0.78	67.50 ± 1.24	71.58 ± 1.23	134.54 ± 2.88	95.72 ± 2.16	n = 11	[RO1] Roche Integra and MIRA
34.34 ± 1.42	69.55 ± 2.89	74.39 ± 1.23	132.02 ± 4.55	96.75 ± 1.38	n = 7	[RO6] Roche ONLINE
34.59 ± 1.68	67.26 ± 2.89	72.50 ± 3.96	129.48 ± 5.08	93.09 ± 3.51	n = 21	[BY1] Siemens ADVIA/ADVIA Centaur
36.06 ± 2.62	72.25 ± 3.61	76.59 ± 4.38	140.38 ± 2.65	103.37 ± 5.83	n = 10	[BY5] Siemens ADVIA/Syva Emit 2000
35.85 ± 1.74	69.95 ± 2.86	73.85 ± 3.43	134.40 ± 6.62	95.72 ± 4.04	n = 68	[DA5] Siemens Dimension
35.90 ± 1.61	70.92 ± 3.87	75.37 ± 3.36	140.26 ± 3.69	96.61 ± 4.59	n = 10	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

Vancomycin (mg/L)

Specimen: T76	Specimen: T77	Specimen: T78	Specimen: T79	Specimen: T80	Number	[Code] Instrument or Reagent System
7.13 ± 0.78	17.06 ± 1.71	23.26 ± 2.39	34.22 ± 3.66	10.80 ± 1.06	n = 214	[---] All Methods & Instruments
7.8	18.6	24.8	37.1	11.6		[---] Weigh-in value
						<Instruments>
6.70 ± 0.08	17.45 ± 0.66	23.68 ± 0.62	35.20 ± 0.40	11.04 ± 0.53	n = 5	[ABJ] Abbott Architect c System
7.40 ± 0.17	17.58 ± 0.31	23.60 ± 0.63	34.68 ± 0.90	11.38 ± 0.25	n = 13	[ABH] Abbott Architect i System
7.97 ± 0.14	18.61 ± 1.24	24.47 ± 0.50	36.11 ± 0.80	11.44 ± 0.62	n = 3	[ABB] Abbott AxSym
6.46 ± 0.31	15.44 ± 0.68	21.12 ± 0.56	31.36 ± 1.41	9.86 ± 0.45	n = 20	[OLC] Beckman Coulter AU Chemistry System
7.75 ± 0.27	17.28 ± 0.96	24.13 ± 0.34	37.43 ± 0.67	11.41 ± 0.81	n = 3	[BCX] Beckman Coulter LX-20
7.11 ± 0.53	17.72 ± 0.97	24.78 ± 1.18	38.47 ± 0.99	10.88 ± 0.70	n = 8	[BCG] Beckman Coulter UniCel DxC 600
7.82 ± 0.45	18.34 ± 1.25	26.95 ± 1.37	39.01 ± 1.67	11.71 ± 0.99	n = 7	[BCH] Beckman Coulter UniCel DxC 800
6.81 ± 0.39	16.09 ± 0.42	21.79 ± 0.54	31.99 ± 0.87	10.17 ± 0.37	n = 9	[JJF] Ortho Vitros 5,1FS
6.90 ± 0.42	16.51 ± 0.75	22.34 ± 0.92	32.30 ± 1.37	10.41 ± 0.52	n = 16	[JJG] Ortho Vitros 5600
7.45 ± 0.51	17.90 ± 0.83	24.78 ± 0.80	36.46 ± 0.95	11.11 ± 0.51	n = 13	[ROC] Roche cobas c501
8.21 ± 0.36	20.10 ± 0.85	27.24 ± 0.65	40.27 ± 1.02	12.03 ± 0.28	n = 11	[ROT] Roche Cobas INTEGRA 800
8.23 ± 0.76	19.72 ± 1.20	27.64 ± 1.57	40.55 ± 2.63	12.80 ± 0.92	n = 9	[ROD] Roche MODULAR D/P
6.78 ± 0.38	16.87 ± 0.09	22.72 ± 1.18	32.81 ± 0.90	10.57 ± 0.56	n = 5	[BYE] Siemens ADVIA 1800
5.57 ± 0.42	13.51 ± 0.81	18.51 ± 1.22	27.79 ± 2.17	8.56 ± 0.52	n = 17	[COB] Siemens ADVIA Centaur
5.36 ± 0.47	13.44 ± 0.93	16.96 ± 1.28	27.12 ± 0.95	8.35 ± 0.36	n = 3	[BYP] Siemens ADVIA Centaur CP
7.01 ± 0.19	17.01 ± 0.34	23.10 ± 0.77	33.77 ± 1.01	10.38 ± 0.44	n = 6	[DUE] Siemens Dimension EXL
7.03 ± 0.57	17.26 ± 0.88	23.35 ± 1.18	34.64 ± 1.50	10.85 ± 0.59	n = 11	[DUR] Siemens Dimension RxL
7.32 ± 0.38	17.08 ± 1.07	23.23 ± 1.08	33.79 ± 1.64	10.96 ± 0.62	n = 41	[DUT] Siemens Dimension Vista
7.13 ± 0.18	17.22 ± 0.58	22.95 ± 0.63	34.31 ± 0.95	10.77 ± 0.14	n = 7	[DUX] Siemens Dimension Xpand
						<Reagents>
7.38 ± 0.41	17.56 ± 0.52	23.74 ± 0.68	35.00 ± 0.91	11.32 ± 0.37	n = 21	[AB1] Abbott
7.50 ± 0.67	17.80 ± 1.16	25.18 ± 1.79	38.38 ± 1.36	11.26 ± 1.00	n = 20	[BC1] Beckman Coulter
6.52 ± 0.29	15.54 ± 0.62	21.08 ± 0.63	31.59 ± 1.59	9.87 ± 0.44	n = 13	[OL1] Beckman Coulter AU Series
6.87 ± 0.40	16.31 ± 0.65	22.09 ± 0.81	32.14 ± 1.16	10.30 ± 0.46	n = 25	[JJ1] Ortho Clinical Diagnostics
7.49 ± 0.49	18.04 ± 0.84	24.83 ± 0.73	36.61 ± 0.93	11.23 ± 0.58	n = 15	[RO4] Roche cobas c311/c501/c502/c701
8.42 ± 0.71	19.86 ± 0.78	27.86 ± 0.95	40.77 ± 1.76	12.81 ± 0.58	n = 5	[RO2] Roche Hitachi and Modular D/P
8.26 ± 0.42	20.08 ± 0.81	27.29 ± 0.60	40.28 ± 1.00	11.97 ± 0.33	n = 13	[RO1] Roche Integra and MIRA
7.96 ± 0.75	19.52 ± 1.62	27.11 ± 2.12	39.83 ± 3.26	12.84 ± 1.26	n = 4	[RO6] Roche ONLINE
5.54 ± 0.44	13.51 ± 0.83	18.31 ± 1.33	27.65 ± 2.03	8.52 ± 0.50	n = 20	[BY1] Siemens ADVIA/ADVIA Centaur
6.63 ± 0.37	16.47 ± 0.57	22.12 ± 1.38	32.55 ± 0.99	10.33 ± 0.63	n = 7	[BY5] Siemens ADVIA/Syva Emit 2000
7.22 ± 0.42	17.12 ± 0.93	23.19 ± 1.01	34.00 ± 1.53	10.86 ± 0.57	n = 65	[DA5] Siemens Dimension
6.28 ± 0.34	14.98 ± 0.31	21.24 ± 0.59	30.82 ± 0.73	9.80 ± 0.54	n = 6	[SY4] Syva Emit 2000