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HEALTH

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Commissioner

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Therapeutic Substance Monitoring/Quantitative Toxicology Proficiency Testing – May 7, 2012

Enclosed is a statistical summary of participant data for the five Therapeutic Substance Monitoring proficiency survey specimens **(T66, T67, T68, T69, T70)** shipped May 7, 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: T66	Specimen: T67	Specimen: T68	Specimen: T69	Specimen: T70	Number	[Code] Instrument or Reagent System
35.14 ± 4.03	127.53 ± 12.80	24.45 ± 3.26	63.48 ± 5.97	80.20 ± 9.91	n = 212	[---] All Methods & Instruments
33.9	121.8	23.6	60.9	75.2		[---] Weigh-in value
						<Instruments>
30.95 ± 0.51	114.64 ± 1.40	21.66 ± 0.83	56.54 ± 0.63	70.71 ± 0.70	n = 14	[ABJ] Abbott Architect c System
35.23 ± 2.20	130.02 ± 5.02	24.26 ± 0.77	64.44 ± 4.97	80.19 ± 4.31	n = 8	[ABB] Abbott AxSym
34.58 ± 1.48	120.66 ± 7.65	23.34 ± 0.69	60.34 ± 3.22	74.16 ± 2.95	n = 12	[OLC] Beckman Coulter AU Chemistry System
34.48 ± 2.24	125.24 ± 8.94	23.52 ± 1.13	64.61 ± 1.88	76.08 ± 3.51	n = 3	[BCX] Beckman Coulter LX-20
33.65 ± 1.86	124.39 ± 6.33	23.97 ± 1.78	62.39 ± 2.84	76.08 ± 3.40	n = 10	[BCG] Beckman Coulter UniCel DxC 600
34.10 ± 1.02	124.94 ± 2.76	23.21 ± 1.84	62.68 ± 2.75	76.44 ± 2.92	n = 12	[BCH] Beckman Coulter UniCel DxC 800
36.44 ± 1.02	141.20 ± 2.36	25.00 ± 0.00	67.72 ± 0.51	91.44 ± 1.02	n = 3	[JJE] Ortho Vitros 250/350/950
36.74 ± 0.71	140.84 ± 1.74	24.80 ± 0.77	67.23 ± 0.96	91.57 ± 1.49	n = 18	[JJF] Ortho Vitros 5,1FS
36.81 ± 0.69	140.97 ± 0.80	25.00 ± 0.00	67.37 ± 0.98	91.51 ± 1.19	n = 15	[JJG] Ortho Vitros 5600
22.70 ± 0.73	102.24 ± 2.46	14.26 ± 0.92	45.98 ± 0.72	63.87 ± 1.04	n = 11	[ROC] Roche cobas c501
26.93 ± 0.91	103.79 ± 2.29	18.52 ± 0.45	49.10 ± 1.02	64.07 ± 1.47	n = 11	[ROT] Roche Cobas INTEGRA 800
21.83 ± 1.04	92.67 ± 3.28	15.06 ± 3.36	43.60 ± 6.69	61.27 ± 6.13	n = 9	[ROD] Roche MODULAR D/P
35.99 ± 2.38	128.52 ± 7.03	25.37 ± 2.04	64.99 ± 3.13	79.81 ± 3.88	n = 8	[BYE] Siemens ADVIA 1800
35.33 ± 1.33	127.16 ± 7.22	24.28 ± 1.50	63.73 ± 3.65	77.62 ± 4.36	n = 3	[BYB] Siemens ADVIA 2400
36.13 ± 1.17	129.25 ± 1.83	25.59 ± 0.99	63.95 ± 1.02	83.12 ± 1.24	n = 8	[DUE] Siemens Dimension EXL
36.09 ± 1.50	130.04 ± 3.06	25.23 ± 1.23	63.57 ± 1.85	83.23 ± 1.89	n = 18	[DUR] Siemens Dimension RxL
39.13 ± 1.39	133.97 ± 3.01	28.28 ± 1.23	67.78 ± 1.59	86.99 ± 2.05	n = 34	[DUT] Siemens Dimension Vista
36.31 ± 0.80	130.11 ± 2.22	25.95 ± 0.78	64.39 ± 0.98	83.49 ± 2.01	n = 9	[DUX] Siemens Dimension Xpand
						<Reagents>
32.01 ± 2.32	119.20 ± 8.21	22.50 ± 1.63	57.60 ± 2.48	73.18 ± 4.86	n = 22	[AB1] Abbott
33.98 ± 1.57	125.14 ± 4.99	23.74 ± 1.70	63.13 ± 2.61	76.37 ± 3.22	n = 29	[BC1] Beckman Coulter
34.85 ± 1.86	123.48 ± 8.23	23.48 ± 0.89	60.80 ± 3.73	73.82 ± 2.51	n = 7	[OL1] Beckman Coulter AU Series
36.75 ± 0.73	140.85 ± 1.61	24.94 ± 0.59	67.34 ± 0.93	91.54 ± 1.35	n = 36	[JJ1] Ortho Clinical Diagnostics
22.79 ± 0.78	102.53 ± 2.48	14.34 ± 0.90	46.06 ± 0.66	63.99 ± 0.99	n = 12	[RO4] Roche cobas c311/c501/c502/c701
21.84 ± 1.04	92.67 ± 3.27	14.10 ± 1.11	42.10 ± 1.63	59.50 ± 2.43	n = 7	[RO2] Roche Hitachi and Modular D/P
26.93 ± 0.91	103.79 ± 2.29	18.52 ± 0.45	49.10 ± 1.02	64.07 ± 1.47	n = 11	[RO1] Roche Integra and MIRA
36.01 ± 2.19	129.15 ± 6.69	25.33 ± 1.87	65.17 ± 3.00	79.85 ± 3.77	n = 10	[BY1] Siemens ADVIA/ADVIA Centaur
37.60 ± 2.08	131.79 ± 3.48	26.84 ± 1.87	65.74 ± 2.65	85.00 ± 2.74	n = 69	[DA5] Siemens Dimension
34.38 ± 0.41	115.14 ± 3.95	23.11 ± 0.29	59.23 ± 3.02	73.57 ± 2.40	n = 3	[SY2] Syva Emit

Summary of Participant Performance (Mean and Standard Deviation)

Carbamazepine (mg/L)

Specimen: T66	Specimen: T67	Specimen: T68	Specimen: T69	Specimen: T70	Number	[Code] Instrument or Reagent System
13.17 ± 0.92	7.40 ± 0.58	4.88 ± 0.43	3.66 ± 0.36	11.19 ± 0.86	n = 233	[---] All Methods & Instruments
13.2	7.7	4.6	3.8	11.4		[---] Weigh-in value
						<Instruments>
13.86 ± 0.65	7.74 ± 0.22	5.20 ± 0.28	3.83 ± 0.15	11.56 ± 0.32	n = 13	[ABJ] Abbott Architect c System
13.07 ± 0.40	7.27 ± 0.26	4.96 ± 0.20	3.78 ± 0.15	11.11 ± 0.37	n = 11	[ABB] Abbott AxSym
13.86 ± 0.74	7.67 ± 0.35	5.10 ± 0.25	3.84 ± 0.18	11.67 ± 0.61	n = 14	[OLC] Beckman Coulter AU Chemistry System
13.05 ± 0.19	7.47 ± 0.34	5.05 ± 0.27	3.63 ± 0.14	11.42 ± 0.41	n = 3	[BCX] Beckman Coulter LX-20
12.45 ± 0.43	7.16 ± 0.33	4.64 ± 0.40	3.44 ± 0.20	11.12 ± 0.45	n = 8	[BCG] Beckman Coulter UniCel DxC 600
12.66 ± 0.58	7.31 ± 0.27	4.75 ± 0.14	3.53 ± 0.16	11.24 ± 0.43	n = 14	[BCH] Beckman Coulter UniCel DxC 800
11.60 ± 0.53	5.40 ± 0.32	3.58 ± 0.34	3.00 ± 0.00	9.30 ± 0.60	n = 15	[JJF] Ortho Vitros 5,1FS
11.78 ± 0.60	5.51 ± 0.36	3.66 ± 0.21	3.00 ± 0.00	9.34 ± 0.35	n = 14	[JJG] Ortho Vitros 5600
13.57 ± 0.61	7.65 ± 0.43	5.12 ± 0.30	3.86 ± 0.21	11.50 ± 0.28	n = 13	[ROC] Roche cobas c501
13.67 ± 0.66	7.46 ± 0.25	4.92 ± 0.18	3.69 ± 0.18	11.70 ± 0.51	n = 14	[ROT] Roche Cobas INTEGRA 800
13.93 ± 0.35	7.96 ± 0.30	5.36 ± 0.22	4.04 ± 0.26	12.10 ± 0.27	n = 12	[ROD] Roche MODULAR D/P
12.88 ± 0.65	7.36 ± 0.43	4.98 ± 0.30	3.83 ± 0.21	11.13 ± 0.41	n = 9	[BYE] Siemens ADVIA 1800
14.45 ± 0.85	7.87 ± 0.36	5.10 ± 0.33	3.83 ± 0.33	12.15 ± 0.81	n = 12	[COB] Siemens ADVIA Centaur
13.04 ± 0.66	7.33 ± 0.33	4.85 ± 0.28	3.75 ± 0.21	10.96 ± 0.33	n = 8	[DUE] Siemens Dimension EXL
13.30 ± 0.43	7.44 ± 0.30	4.93 ± 0.21	3.81 ± 0.29	11.19 ± 0.65	n = 19	[DUR] Siemens Dimension RxL
13.07 ± 0.58	7.18 ± 0.41	4.71 ± 0.24	3.58 ± 0.24	10.86 ± 0.45	n = 35	[DUT] Siemens Dimension Vista
13.08 ± 0.36	7.24 ± 0.20	4.76 ± 0.06	3.61 ± 0.19	11.15 ± 0.58	n = 5	[DUX] Siemens Dimension Xpand
						<Reagents>
13.45 ± 0.63	7.54 ± 0.36	5.08 ± 0.26	3.80 ± 0.15	11.38 ± 0.44	n = 24	[AB1] Abbott
12.71 ± 0.54	7.31 ± 0.32	4.77 ± 0.21	3.54 ± 0.20	11.21 ± 0.45	n = 29	[BC1] Beckman Coulter
14.02 ± 1.08	7.67 ± 0.42	5.08 ± 0.24	3.86 ± 0.14	11.65 ± 1.01	n = 5	[OL1] Beckman Coulter AU Series
13.68 ± 0.53	7.75 ± 0.35	5.20 ± 0.24	3.86 ± 0.20	11.87 ± 0.38	n = 7	[MG1] Microgenics CEDIA
11.68 ± 0.56	5.45 ± 0.34	3.62 ± 0.29	3.00 ± 0.00	9.33 ± 0.48	n = 29	[JJ1] Ortho Clinical Diagnostics
13.51 ± 0.63	7.61 ± 0.44	5.10 ± 0.30	3.84 ± 0.21	11.45 ± 0.30	n = 14	[RO4] Roche cobas c311/c501/c502/c701
13.94 ± 0.34	7.98 ± 0.30	5.41 ± 0.21	4.10 ± 0.25	12.05 ± 0.28	n = 10	[RO2] Roche Hitachi and Modular D/P
13.72 ± 0.61	7.48 ± 0.22	4.94 ± 0.18	3.70 ± 0.16	11.75 ± 0.49	n = 16	[RO1] Roche Integra and MIRA
14.53 ± 0.77	7.93 ± 0.41	5.16 ± 0.32	3.89 ± 0.33	12.19 ± 0.92	n = 14	[BY1] Siemens ADVIA/ADVIA Centaur
13.17 ± 0.69	7.47 ± 0.46	4.99 ± 0.29	3.82 ± 0.22	11.23 ± 0.24	n = 10	[BY5] Siemens ADVIA/Syva Emit 2000
13.11 ± 0.55	7.27 ± 0.37	4.78 ± 0.25	3.66 ± 0.26	10.96 ± 0.51	n = 66	[DA5] Siemens Dimension
13.51 ± 0.88	7.48 ± 0.34	4.95 ± 0.23	3.83 ± 0.16	11.49 ± 0.58	n = 5	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

Digoxin (µg/L)

Specimen: T66	Specimen: T67	Specimen: T68	Specimen: T69	Specimen: T70	Number	[Code] Instrument or Reagent System
2.175 ± 0.147	1.483 ± 0.122	3.617 ± 0.240	0.742 ± 0.108	1.428 ± 0.131	n = 282	[---] All Methods & Instruments
2.2	1.6	3.7	0.8	1.5		[---] Weigh-in value
						<Instruments>
2.264 ± 0.063	1.583 ± 0.052	3.660 ± 0.135	0.780 ± 0.024	1.526 ± 0.061	n = 5	[ABJ] Abbott Architect c System
2.047 ± 0.085	1.482 ± 0.033	3.389 ± 0.107	0.744 ± 0.060	1.408 ± 0.064	n = 14	[ABH] Abbott Architect i System
2.296 ± 0.052	1.497 ± 0.139	3.763 ± 0.170	0.779 ± 0.057	1.472 ± 0.071	n = 7	[ABB] Abbott AxSym
1.943 ± 0.256	1.486 ± 0.057	3.550 ± 0.138	0.744 ± 0.079	1.478 ± 0.054	n = 5	[SAA] Beckman Coulter ACCESS
2.027 ± 0.125	1.343 ± 0.118	3.427 ± 0.318	0.669 ± 0.126	1.227 ± 0.123	n = 16	[OLC] Beckman Coulter AU Chemistry System
2.040 ± 0.046	1.521 ± 0.217	3.534 ± 0.272	0.728 ± 0.051	1.379 ± 0.145	n = 3	[BCX] Beckman Coulter LX-20
2.089 ± 0.062	1.439 ± 0.094	3.485 ± 0.125	0.696 ± 0.065	1.322 ± 0.091	n = 14	[BCG] Beckman Coulter UniCel DxC 600
2.042 ± 0.109	1.405 ± 0.083	3.502 ± 0.081	0.703 ± 0.091	1.379 ± 0.099	n = 14	[BCH] Beckman Coulter UniCel DxC 800
2.070 ± 0.199	1.474 ± 0.145	3.410 ± 0.091	0.740 ± 0.135	1.463 ± 0.248	n = 3	[BCU] Beckman Coulter UniCel DxI 800
2.149 ± 0.138	1.340 ± 0.091	3.528 ± 0.108	0.555 ± 0.138	1.323 ± 0.105	n = 19	[JJF] Ortho Vitros 5,1FS
2.123 ± 0.183	1.307 ± 0.160	3.468 ± 0.141	0.583 ± 0.196	1.326 ± 0.171	n = 14	[JJG] Ortho Vitros 5600
2.135 ± 0.092	1.473 ± 0.104	3.549 ± 0.093	0.770 ± 0.094	1.383 ± 0.103	n = 17	[ROC] Roche cobas c501
2.177 ± 0.103	1.494 ± 0.068	3.670 ± 0.150	0.775 ± 0.044	1.415 ± 0.064	n = 8	[ROT] Roche Cobas INTEGRA 800
2.138 ± 0.055	1.494 ± 0.075	3.455 ± 0.136	0.763 ± 0.096	1.421 ± 0.075	n = 14	[ROD] Roche MODULAR D/P
2.483 ± 0.079	1.736 ± 0.080	4.166 ± 0.263	0.800 ± 0.075	1.700 ± 0.075	n = 4	[ROE] Roche MODULAR E
2.200 ± 0.000	1.500 ± 0.000	3.400 ± 0.000	0.626 ± 0.066	1.426 ± 0.081	n = 9	[BYE] Siemens ADVIA 1800
2.324 ± 0.110	1.588 ± 0.098	4.033 ± 0.222	0.815 ± 0.086	1.530 ± 0.107	n = 18	[COB] Siemens ADVIA Centaur
2.284 ± 0.065	1.552 ± 0.087	4.037 ± 0.243	0.692 ± 0.015	1.545 ± 0.045	n = 3	[BYP] Siemens ADVIA Centaur CP
2.302 ± 0.119	1.557 ± 0.126	3.808 ± 0.222	0.790 ± 0.109	1.532 ± 0.105	n = 10	[DUE] Siemens Dimension EXL
2.285 ± 0.078	1.545 ± 0.067	3.791 ± 0.163	0.774 ± 0.057	1.510 ± 0.083	n = 20	[DUR] Siemens Dimension RxL
2.157 ± 0.048	1.476 ± 0.042	3.706 ± 0.077	0.762 ± 0.035	1.401 ± 0.023	n = 36	[DUT] Siemens Dimension Vista
2.273 ± 0.077	1.576 ± 0.083	3.895 ± 0.177	0.814 ± 0.062	1.557 ± 0.084	n = 12	[DUX] Siemens Dimension Xpand
2.361 ± 0.216	1.616 ± 0.081	3.870 ± 0.154	0.832 ± 0.072	1.573 ± 0.068	n = 6	[DPD] Siemens Immulite 2000
						<Reagents>
2.163 ± 0.165	1.498 ± 0.094	3.523 ± 0.219	0.761 ± 0.056	1.452 ± 0.086	n = 26	[AB1] Abbott
2.072 ± 0.105	1.438 ± 0.105	3.493 ± 0.122	0.709 ± 0.082	1.385 ± 0.126	n = 42	[BC1] Beckman Coulter
2.060 ± 0.099	1.366 ± 0.104	3.506 ± 0.315	0.691 ± 0.118	1.229 ± 0.138	n = 9	[OL1] Beckman Coulter AU Series
1.916 ± 0.127	1.287 ± 0.113	3.316 ± 0.127	0.631 ± 0.090	1.231 ± 0.090	n = 4	[MG2] Microgenics DRI
2.139 ± 0.168	1.326 ± 0.130	3.498 ± 0.123	0.558 ± 0.149	1.321 ± 0.146	n = 35	[JJ1] Ortho Clinical Diagnostics
2.135 ± 0.112	1.473 ± 0.115	3.541 ± 0.118	0.788 ± 0.109	1.378 ± 0.117	n = 20	[RO4] Roche cobas c311/c501/c502/c701
2.513 ± 0.069	1.708 ± 0.077	4.269 ± 0.226	0.772 ± 0.051	1.700 ± 0.090	n = 3	[RO3] Roche Elecsys/Modular E/e601/e411
2.114 ± 0.026	1.503 ± 0.078	3.475 ± 0.115	0.751 ± 0.070	1.406 ± 0.057	n = 8	[RO2] Roche Hitachi and Modular D/P
2.163 ± 0.096	1.494 ± 0.063	3.674 ± 0.141	0.780 ± 0.041	1.425 ± 0.068	n = 9	[RO1] Roche Integra and MIRA
2.150 ± 0.057	1.500 ± 0.075	3.500 ± 0.150	0.769 ± 0.090	1.416 ± 0.127	n = 4	[RO5] Roche Tina-quant
2.280 ± 0.102	1.559 ± 0.087	3.885 ± 0.349	0.756 ± 0.112	1.510 ± 0.100	n = 29	[BY1] Siemens ADVIA/ADVIA Centaur
2.261 ± 0.096	1.537 ± 0.083	3.794 ± 0.174	0.780 ± 0.068	1.502 ± 0.099	n = 51	[DA5] Siemens Dimension
2.155 ± 0.053	1.474 ± 0.048	3.711 ± 0.083	0.762 ± 0.040	1.402 ± 0.022	n = 27	[DA6] Siemens Dimension LOCI
2.390 ± 0.201	1.613 ± 0.073	3.895 ± 0.149	0.825 ± 0.066	1.558 ± 0.072	n = 7	[DP5] Siemens Immulite
2.074 ± 0.162	1.412 ± 0.205	3.515 ± 0.492	0.763 ± 0.258	1.336 ± 0.259	n = 3	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

Ethanol (mg/dL)

Specimen: T66	Specimen: T67	Specimen: T68	Specimen: T69	Specimen: T70	Number	[Code] Instrument or Reagent System
105.84 ± 5.42	185.29 ± 8.93	136.71 ± 6.92	97.48 ± 4.49	155.75 ± 7.61	n = 222	[---] All Methods & Instruments
109.8	186.2	138.2	93.1	163.6		[---] Weigh-in value
						<Instruments>
107.69 ± 1.62	187.83 ± 2.60	139.72 ± 2.34	99.56 ± 1.88	158.56 ± 2.79	n = 15	[ABJ] Abbott Architect c System
104.83 ± 9.75	181.44 ± 14.42	132.13 ± 11.52	98.23 ± 7.15	160.00 ± 6.11	n = 3	[ABB] Abbott AxSym
105.52 ± 4.49	185.55 ± 6.97	136.39 ± 5.82	96.39 ± 3.84	154.26 ± 6.24	n = 11	[OLC] Beckman Coulter AU Chemistry System
102.93 ± 10.93	181.45 ± 13.14	132.98 ± 9.32	95.08 ± 6.08	151.45 ± 9.88	n = 3	[BCX] Beckman Coulter LX-20
106.56 ± 4.52	185.95 ± 3.15	137.94 ± 4.47	97.41 ± 1.87	155.41 ± 3.87	n = 11	[BCG] Beckman Coulter UniCel DxC 600
107.41 ± 2.84	183.40 ± 5.33	137.50 ± 4.07	97.50 ± 3.08	154.12 ± 4.51	n = 12	[BCH] Beckman Coulter UniCel DxC 800
106.85 ± 4.31	187.11 ± 5.77	138.07 ± 4.40	98.38 ± 1.76	159.64 ± 4.24	n = 11	[GCC] Gas Chromatograph
97.26 ± 2.26	167.68 ± 4.22	123.26 ± 4.06	88.78 ± 5.00	140.96 ± 6.37	n = 3	[JJE] Ortho Vitros 250/350/950
97.14 ± 3.91	168.06 ± 8.30	125.10 ± 5.12	91.94 ± 2.78	140.71 ± 7.16	n = 17	[JJF] Ortho Vitros 5,1FS
98.18 ± 3.18	170.59 ± 5.46	125.98 ± 4.33	91.35 ± 1.88	141.49 ± 4.48	n = 15	[JJG] Ortho Vitros 5600
109.36 ± 2.34	190.23 ± 5.35	141.24 ± 3.75	100.75 ± 3.74	159.34 ± 3.60	n = 12	[ROC] Roche cobas c501
105.01 ± 4.08	182.73 ± 5.65	134.00 ± 3.15	96.49 ± 2.84	153.85 ± 3.42	n = 8	[ROT] Roche Cobas INTEGRA 800
105.96 ± 2.61	187.29 ± 3.24	137.97 ± 2.84	98.48 ± 2.10	158.11 ± 3.46	n = 12	[ROD] Roche MODULAR D/P
109.50 ± 1.97	193.40 ± 3.17	142.24 ± 3.08	101.57 ± 1.93	162.43 ± 2.59	n = 9	[BYE] Siemens ADVIA 1800
112.74 ± 1.37	193.46 ± 5.40	144.00 ± 4.51	100.80 ± 2.36	162.74 ± 3.16	n = 3	[BYB] Siemens ADVIA 2400
103.30 ± 4.60	180.16 ± 8.18	133.88 ± 6.35	94.30 ± 4.25	150.56 ± 8.11	n = 8	[DUE] Siemens Dimension EXL
107.74 ± 4.58	189.40 ± 7.05	139.41 ± 5.94	99.20 ± 4.55	158.57 ± 6.50	n = 18	[DUR] Siemens Dimension RxL
106.13 ± 3.56	188.38 ± 5.27	137.79 ± 4.45	98.30 ± 3.11	157.21 ± 4.80	n = 34	[DUT] Siemens Dimension Vista
108.68 ± 2.78	189.56 ± 4.06	140.21 ± 2.82	99.75 ± 1.83	159.07 ± 3.14	n = 10	[DUX] Siemens Dimension Xpand
						<Reagents>
107.60 ± 1.86	187.25 ± 5.09	139.06 ± 4.41	99.75 ± 2.16	158.81 ± 3.58	n = 19	[AB1] Abbott
106.79 ± 4.39	184.50 ± 5.33	137.18 ± 4.51	97.09 ± 3.13	154.92 ± 4.95	n = 30	[BC1] Beckman Coulter
105.77 ± 3.64	188.46 ± 3.06	136.63 ± 5.38	96.71 ± 3.72	154.87 ± 6.25	n = 6	[OL1] Beckman Coulter AU Series
107.31 ± 4.37	187.51 ± 4.67	138.51 ± 3.73	98.29 ± 2.19	159.34 ± 5.09	n = 9	[IH1] In-House
97.57 ± 3.51	169.07 ± 7.09	125.31 ± 4.81	91.50 ± 2.73	141.12 ± 6.21	n = 35	[JJ1] Ortho Clinical Diagnostics
109.39 ± 2.22	190.34 ± 5.10	141.03 ± 3.55	101.36 ± 4.28	159.36 ± 3.42	n = 13	[RO4] Roche cobas c311/c501/c502/c701
105.96 ± 2.61	187.29 ± 3.24	137.97 ± 2.84	98.48 ± 2.10	158.11 ± 3.46	n = 12	[RO2] Roche Hitachi and Modular D/P
105.01 ± 4.08	182.73 ± 5.65	134.00 ± 3.15	96.49 ± 2.84	153.85 ± 3.42	n = 8	[RO1] Roche Integra and MIRA
110.03 ± 2.05	193.77 ± 3.61	141.97 ± 3.62	101.58 ± 2.02	162.92 ± 2.20	n = 7	[BY1] Siemens ADVIA/ADVIA Centaur
110.84 ± 3.04	193.53 ± 4.15	144.16 ± 2.68	101.69 ± 1.99	162.98 ± 2.64	n = 4	[BY5] Siemens ADVIA/Syva Emit 2000
106.62 ± 4.24	188.05 ± 6.41	138.16 ± 5.24	98.46 ± 3.70	157.36 ± 5.67	n = 70	[DA5] Siemens Dimension
106.19 ± 5.39	185.98 ± 7.79	137.67 ± 6.30	97.34 ± 4.68	155.46 ± 7.07	n = 6	[SY2] Syva Emit

Summary of Participant Performance (Mean and Standard Deviation)

Ethosuximide (mg/L)

Specimen: T66	Specimen: T67	Specimen: T68	Specimen: T69	Specimen: T70	Number	[Code] Instrument or Reagent System
37.47 ± 1.46	122.14 ± 3.64	179.13 ± 14.97	61.35 ± 2.35	82.92 ± 4.93	n = 6	[---] All Methods & Instruments
36.5	117.5	175.4	58.8	79.9		[---] Weigh-in value
						<Instruments>
37.47 ± 1.86	124.20 ± 2.36	190.57 ± 8.23	62.60 ± 2.56	86.20 ± 2.36	n = 3	[OLC] Beckman Coulter AU Chemistry System
						<Reagents>
37.28 ± 1.61	123.16 ± 3.17	180.59 ± 16.45	61.91 ± 2.20	82.98 ± 5.66	n = 5	[SY2] Syva Emit

Summary of Participant Performance (Mean and Standard Deviation)

Gentamicin (mg/L)

Specimen: T66	Specimen: T67	Specimen: T68	Specimen: T69	Specimen: T70	Number	[Code] Instrument or Reagent System
4.45 ± 0.36	7.60 ± 0.69	12.12 ± 1.29	3.82 ± 0.31	13.54 ± 1.56	n = 181	[---] All Methods & Instruments
4.2	7.3	12.1	3.7	13.2		[---] Weigh-in value
						<Instruments>
3.77 ± 0.20	6.48 ± 0.28	10.29 ± 0.45	3.28 ± 0.24	11.02 ± 0.73	n = 5	[ABJ] Abbott Architect c System
4.27 ± 0.15	7.40 ± 0.15	11.52 ± 0.89	3.54 ± 0.17	12.42 ± 1.15	n = 6	[ABH] Abbott Architect i System
4.08 ± 0.15	7.27 ± 0.32	11.22 ± 0.87	3.49 ± 0.12	12.72 ± 0.60	n = 7	[ABB] Abbott AxSym
4.67 ± 0.17	8.09 ± 0.58	13.55 ± 1.61	4.03 ± 0.11	14.91 ± 1.85	n = 8	[OLC] Beckman Coulter AU Chemistry System
4.63 ± 0.16	8.38 ± 0.26	12.41 ± 0.58	4.01 ± 0.11	13.88 ± 0.83	n = 4	[BCX] Beckman Coulter LX-20
4.55 ± 0.12	7.93 ± 0.29	12.07 ± 0.80	3.80 ± 0.16	13.93 ± 0.79	n = 9	[BCG] Beckman Coulter UniCel DxC 600
4.63 ± 0.14	8.09 ± 0.26	12.32 ± 0.82	3.92 ± 0.17	13.68 ± 0.86	n = 12	[BCH] Beckman Coulter UniCel DxC 800
4.93 ± 0.24	8.27 ± 0.56	14.29 ± 0.99	4.27 ± 0.17	15.61 ± 1.01	n = 10	[JJF] Ortho Vitros 5,1FS
4.98 ± 0.28	8.41 ± 0.50	13.71 ± 1.09	4.27 ± 0.21	15.01 ± 0.99	n = 13	[JJG] Ortho Vitros 5600
3.81 ± 0.23	6.41 ± 0.38	9.55 ± 0.88	3.18 ± 0.28	10.61 ± 1.05	n = 5	[ROC] Roche cobas c501
4.20 ± 0.09	6.65 ± 0.36	11.03 ± 0.86	3.60 ± 0.09	12.69 ± 0.85	n = 3	[ROS] Roche Cobas INTEGRA 400
4.22 ± 0.18	6.71 ± 0.46	11.47 ± 0.83	3.73 ± 0.21	12.19 ± 0.90	n = 15	[ROT] Roche Cobas INTEGRA 800
4.33 ± 0.35	7.24 ± 0.31	11.42 ± 0.82	3.69 ± 0.09	12.68 ± 1.51	n = 8	[ROD] Roche MODULAR D/P
4.50 ± 0.43	7.63 ± 0.53	13.18 ± 0.15	3.91 ± 0.29	13.68 ± 1.19	n = 5	[BYE] Siemens ADVIA 1800
4.73 ± 0.38	7.87 ± 0.88	12.42 ± 1.69	4.06 ± 0.30	14.36 ± 2.17	n = 12	[COB] Siemens ADVIA Centaur
4.54 ± 0.14	7.52 ± 0.04	12.42 ± 0.23	3.82 ± 0.08	13.72 ± 0.32	n = 5	[DUE] Siemens Dimension EXL
4.42 ± 0.17	7.53 ± 0.25	12.15 ± 0.44	3.83 ± 0.14	13.73 ± 0.60	n = 13	[DUR] Siemens Dimension RxL
4.31 ± 0.21	7.51 ± 0.36	11.95 ± 0.72	3.73 ± 0.17	13.49 ± 0.88	n = 34	[DUT] Siemens Dimension Vista
						<Reagents>
4.08 ± 0.26	7.06 ± 0.53	11.01 ± 0.95	3.47 ± 0.18	12.22 ± 1.27	n = 18	[AB1] Abbott
4.60 ± 0.14	8.10 ± 0.35	12.34 ± 0.85	3.91 ± 0.18	13.85 ± 0.87	n = 28	[BC1] Beckman Coulter
4.93 ± 0.48	8.53 ± 0.78	14.67 ± 2.52	4.24 ± 0.35	16.18 ± 2.35	n = 4	[OL1] Beckman Coulter AU Series
4.95 ± 0.27	8.34 ± 0.54	13.99 ± 1.04	4.27 ± 0.19	15.27 ± 1.03	n = 23	[JJ1] Ortho Clinical Diagnostics
3.84 ± 0.25	6.49 ± 0.48	9.93 ± 1.40	3.03 ± 0.43	10.82 ± 1.28	n = 5	[RO4] Roche cobas c311/c501/c502/c701
4.24 ± 0.30	7.18 ± 0.34	10.93 ± 0.82	3.63 ± 0.14	11.69 ± 0.67	n = 6	[RO2] Roche Hitachi and Modular D/P
4.22 ± 0.17	6.70 ± 0.44	11.39 ± 0.86	3.70 ± 0.20	12.28 ± 0.92	n = 18	[RO1] Roche Integra and MIRA
4.73 ± 0.38	7.87 ± 0.88	12.42 ± 1.69	4.06 ± 0.30	14.36 ± 2.17	n = 12	[BY1] Siemens ADVIA/ADVIA Centaur
4.52 ± 0.39	7.61 ± 0.46	12.45 ± 1.38	3.85 ± 0.21	13.31 ± 1.38	n = 6	[BY5] Siemens ADVIA/Syva Emit 2000
4.37 ± 0.21	7.54 ± 0.31	12.07 ± 0.60	3.76 ± 0.16	13.61 ± 0.70	n = 54	[DA5] Siemens Dimension
4.65 ± 0.12	7.88 ± 0.15	13.14 ± 0.35	3.97 ± 0.09	14.18 ± 0.47	n = 4	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

Lithium (mmol/L)

Specimen: T66	Specimen: T67	Specimen: T68	Specimen: T69	Specimen: T70	Number	[Code] Instrument or Reagent System
2.172 ± 0.140	0.746 ± 0.076	1.163 ± 0.094	0.356 ± 0.057	1.576 ± 0.157	n = 200	[---] All Methods & Instruments
2.4	0.8	1.2	0.4	1.7		[---] Weigh-in value
						<Instruments>
2.163 ± 0.085	0.767 ± 0.041	1.180 ± 0.057	0.369 ± 0.025	1.591 ± 0.059	n = 13	[ABJ] Abbott Architect c System
2.112 ± 0.055	0.717 ± 0.030	1.120 ± 0.033	0.334 ± 0.042	1.530 ± 0.044	n = 14	[OLC] Beckman Coulter AU Chemistry System
2.094 ± 0.048	0.695 ± 0.054	1.132 ± 0.047	0.300 ± 0.055	1.524 ± 0.072	n = 7	[BCG] Beckman Coulter UniCel DxC 600
2.104 ± 0.052	0.667 ± 0.055	1.077 ± 0.042	0.307 ± 0.032	1.514 ± 0.046	n = 11	[BCH] Beckman Coulter UniCel DxC 800
2.441 ± 0.144	0.898 ± 0.131	1.229 ± 0.061	0.380 ± 0.018	1.617 ± 0.032	n = 3	[ICP] ICP/MS
2.319 ± 0.116	0.800 ± 0.000	1.226 ± 0.067	0.343 ± 0.054	1.808 ± 0.072	n = 17	[JJF] Ortho Vitros 5,1FS
2.335 ± 0.084	0.774 ± 0.084	1.231 ± 0.053	0.352 ± 0.065	1.838 ± 0.064	n = 14	[JJG] Ortho Vitros 5600
2.260 ± 0.121	0.812 ± 0.032	1.300 ± 0.008	0.441 ± 0.052	1.608 ± 0.127	n = 5	[ROY] Roche 9180/9181
2.149 ± 0.071	0.781 ± 0.040	1.200 ± 0.000	0.400 ± 0.000	1.584 ± 0.066	n = 14	[ROC] Roche cobas c501
2.249 ± 0.090	0.828 ± 0.049	1.236 ± 0.054	0.430 ± 0.047	1.607 ± 0.036	n = 11	[ROT] Roche Cobas INTEGRA 800
2.142 ± 0.100	0.855 ± 0.113	1.233 ± 0.086	0.436 ± 0.070	1.573 ± 0.097	n = 8	[ROD] Roche MODULAR D/P
2.348 ± 0.064	0.808 ± 0.019	1.248 ± 0.057	0.400 ± 0.000	1.689 ± 0.058	n = 11	[BYE] Siemens ADVIA 1800
1.981 ± 0.055	0.636 ± 0.041	1.010 ± 0.032	0.318 ± 0.040	1.337 ± 0.047	n = 15	[DUR] Siemens Dimension RxL
2.140 ± 0.052	0.711 ± 0.022	1.119 ± 0.033	0.341 ± 0.032	1.491 ± 0.039	n = 33	[DUT] Siemens Dimension Vista
						<Reagents>
2.168 ± 0.088	0.769 ± 0.042	1.186 ± 0.055	0.372 ± 0.024	1.594 ± 0.061	n = 12	[AB1] Abbott
2.303 ± 0.045	0.809 ± 0.029	1.300 ± 0.006	0.432 ± 0.049	1.605 ± 0.112	n = 6	[AV1] AVL Scientific
2.098 ± 0.051	0.677 ± 0.052	1.093 ± 0.040	0.304 ± 0.038	1.508 ± 0.047	n = 19	[BC1] Beckman Coulter
2.107 ± 0.065	0.700 ± 0.000	1.100 ± 0.000	0.332 ± 0.044	1.529 ± 0.042	n = 11	[OL1] Beckman Coulter AU Series
2.213 ± 0.210	0.794 ± 0.137	1.168 ± 0.046	0.374 ± 0.018	1.562 ± 0.061	n = 4	[IH1] In-House
2.323 ± 0.103	0.773 ± 0.062	1.224 ± 0.060	0.342 ± 0.061	1.826 ± 0.073	n = 35	[JJ1] Ortho Clinical Diagnostics
2.158 ± 0.069	0.800 ± 0.000	1.196 ± 0.009	0.400 ± 0.000	1.593 ± 0.057	n = 15	[RO4] Roche cobas c311/c501/c502/c701
2.249 ± 0.090	0.828 ± 0.049	1.236 ± 0.054	0.430 ± 0.047	1.607 ± 0.036	n = 11	[RO1] Roche Integra and MIRA
2.356 ± 0.064	0.806 ± 0.017	1.256 ± 0.061	0.397 ± 0.010	1.688 ± 0.055	n = 12	[BY1] Siemens ADVIA/ADVIA Centaur
2.087 ± 0.105	0.687 ± 0.050	1.077 ± 0.070	0.330 ± 0.037	1.434 ± 0.094	n = 53	[DA5] Siemens Dimension
2.121 ± 0.060	0.766 ± 0.060	1.182 ± 0.067	0.373 ± 0.057	1.571 ± 0.048	n = 12	[TH1] Thermo Scientific

Summary of Participant Performance (Mean and Standard Deviation)

Phenobarbital (mg/L)

Specimen: T66	Specimen: T67	Specimen: T68	Specimen: T69	Specimen: T70	Number	[Code] Instrument or Reagent System
29.89 ± 1.95	48.25 ± 3.57	13.61 ± 1.14	23.93 ± 1.64	17.07 ± 1.15	n = 230	[---] All Methods & Instruments
30.6	48.6	13.5	24.3	17.1		[---] Weigh-in value
						<Instruments>
29.92 ± 1.06	49.65 ± 1.95	13.82 ± 0.70	24.29 ± 0.81	17.47 ± 0.66	n = 4	[ABJ] Abbott Architect c System
31.70 ± 1.35	50.85 ± 1.92	14.01 ± 0.52	25.46 ± 1.00	18.10 ± 0.85	n = 10	[ABH] Abbott Architect i System
28.06 ± 0.82	47.01 ± 2.34	12.79 ± 0.57	22.18 ± 0.76	16.59 ± 0.71	n = 9	[ABB] Abbott AxSym
29.17 ± 2.08	47.58 ± 4.58	12.77 ± 0.85	23.49 ± 1.50	16.47 ± 1.25	n = 14	[OLC] Beckman Coulter AU Chemistry System
31.99 ± 2.15	48.74 ± 2.76	15.97 ± 1.77	25.56 ± 2.31	18.67 ± 1.77	n = 3	[BCX] Beckman Coulter LX-20
28.00 ± 1.20	43.86 ± 2.48	14.65 ± 0.80	22.84 ± 0.82	16.33 ± 0.69	n = 10	[BCG] Beckman Coulter UniCel DxC 600
27.82 ± 0.72	43.32 ± 1.78	14.49 ± 0.33	22.93 ± 0.55	16.68 ± 0.45	n = 13	[BCH] Beckman Coulter UniCel DxC 800
30.62 ± 1.70	52.66 ± 3.20	13.17 ± 1.20	23.50 ± 1.89	17.28 ± 1.31	n = 18	[JJF] Ortho Vitros 5,1FS
31.86 ± 1.97	55.04 ± 5.08	13.76 ± 0.95	24.48 ± 1.91	17.82 ± 1.69	n = 14	[JJG] Ortho Vitros 5600
29.36 ± 1.08	47.76 ± 1.20	13.01 ± 0.75	23.83 ± 1.19	16.54 ± 0.79	n = 16	[ROC] Roche cobas c501
28.65 ± 0.73	46.86 ± 1.01	12.53 ± 0.29	22.73 ± 0.52	16.10 ± 0.20	n = 13	[ROT] Roche Cobas INTEGRA 800
29.42 ± 1.38	47.24 ± 1.99	12.69 ± 0.59	23.67 ± 1.13	16.51 ± 0.80	n = 13	[ROD] Roche MODULAR D/P
29.44 ± 1.73	45.35 ± 1.19	12.42 ± 1.03	22.62 ± 1.12	16.73 ± 0.70	n = 8	[BYE] Siemens ADVIA 1800
30.78 ± 2.28	51.48 ± 2.46	14.29 ± 1.01	25.63 ± 1.23	18.17 ± 1.10	n = 12	[COB] Siemens ADVIA Centaur
30.29 ± 0.98	47.60 ± 1.06	13.65 ± 0.42	23.44 ± 1.37	16.38 ± 0.37	n = 5	[DUE] Siemens Dimension EXL
31.36 ± 1.64	50.58 ± 2.21	14.37 ± 1.16	25.10 ± 1.52	17.86 ± 1.22	n = 17	[DUR] Siemens Dimension RxL
30.49 ± 1.86	47.56 ± 2.13	14.09 ± 0.91	24.86 ± 1.50	17.69 ± 1.04	n = 35	[DUT] Siemens Dimension Vista
31.22 ± 1.30	48.87 ± 2.66	14.60 ± 0.17	25.47 ± 1.23	17.58 ± 1.06	n = 5	[DUX] Siemens Dimension Xpand
						<Reagents>
29.85 ± 2.11	49.28 ± 2.86	13.52 ± 0.83	23.92 ± 1.86	17.38 ± 1.03	n = 23	[AB1] Abbott
28.04 ± 1.11	43.83 ± 2.29	14.56 ± 0.45	23.04 ± 0.73	16.63 ± 0.64	n = 29	[BC1] Beckman Coulter
28.61 ± 2.17	47.04 ± 5.11	12.79 ± 0.78	23.53 ± 1.65	16.27 ± 1.15	n = 6	[OL1] Beckman Coulter AU Series
30.72 ± 1.05	50.72 ± 1.25	13.70 ± 0.72	24.41 ± 1.16	17.16 ± 0.79	n = 3	[MG1] Microgenics CEDIA
31.11 ± 1.84	53.44 ± 3.99	13.47 ± 1.14	23.93 ± 1.92	17.48 ± 1.46	n = 32	[JJ1] Ortho Clinical Diagnostics
29.43 ± 1.07	47.61 ± 1.20	12.94 ± 0.75	23.73 ± 1.14	16.50 ± 0.78	n = 18	[RO4] Roche cobas c311/c501/c502/c701
29.15 ± 1.38	46.40 ± 1.42	12.53 ± 0.74	23.33 ± 1.62	16.84 ± 0.61	n = 4	[RO2] Roche Hitachi and Modular D/P
28.67 ± 0.71	46.77 ± 1.02	12.56 ± 0.31	22.76 ± 0.51	16.13 ± 0.23	n = 14	[RO1] Roche Integra and MIRA
29.54 ± 1.40	47.78 ± 2.06	12.73 ± 0.47	23.67 ± 1.03	16.33 ± 0.80	n = 9	[RO6] Roche ONLINE
30.61 ± 2.12	50.97 ± 2.81	14.07 ± 1.19	25.38 ± 1.37	17.94 ± 1.14	n = 14	[BY1] Siemens ADVIA/ADVIA Centaur
29.11 ± 1.20	45.37 ± 1.33	12.55 ± 0.93	22.95 ± 1.32	16.91 ± 0.89	n = 8	[BY5] Siemens ADVIA/Syva Emit 2000
30.76 ± 1.74	48.38 ± 2.55	14.13 ± 0.94	24.87 ± 1.54	17.60 ± 1.14	n = 62	[DA5] Siemens Dimension
29.08 ± 2.92	46.20 ± 7.48	12.05 ± 0.56	23.00 ± 0.48	16.46 ± 1.69	n = 5	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

Phenytoin (mg/L)

Specimen: T66	Specimen: T67	Specimen: T68	Specimen: T69	Specimen: T70	Number	[Code] Instrument or Reagent System
8.84 ± 0.65	28.34 ± 2.16	18.87 ± 1.33	14.29 ± 1.04	11.49 ± 0.80	n = 267	[---] All Methods & Instruments
9.0	28.7	19.0	14.3	11.5		[---] Weigh-in value
						<Instruments>
8.66 ± 0.53	29.30 ± 3.40	18.82 ± 1.37	14.39 ± 0.76	11.55 ± 0.48	n = 5	[ABJ] Abbott Architect c System
8.85 ± 0.32	28.61 ± 1.19	19.28 ± 1.02	14.60 ± 0.79	11.79 ± 0.43	n = 12	[ABH] Abbott Architect i System
9.09 ± 0.32	28.57 ± 1.43	18.83 ± 0.90	14.72 ± 0.66	11.87 ± 0.40	n = 8	[ABB] Abbott AxSym
8.40 ± 0.53	27.89 ± 1.52	18.11 ± 1.16	13.84 ± 0.94	11.22 ± 0.67	n = 24	[OLC] Beckman Coulter AU Chemistry System
8.65 ± 0.45	27.62 ± 0.50	17.90 ± 1.00	14.21 ± 1.01	11.53 ± 0.50	n = 3	[BCX] Beckman Coulter LX-20
8.65 ± 0.32	27.33 ± 1.06	18.47 ± 0.66	14.09 ± 0.34	11.52 ± 0.34	n = 12	[BCG] Beckman Coulter UniCel DxC 600
8.49 ± 0.22	27.17 ± 1.46	18.05 ± 0.72	13.84 ± 0.44	11.30 ± 0.36	n = 14	[BCH] Beckman Coulter UniCel DxC 800
8.78 ± 0.33	26.29 ± 1.04	18.64 ± 0.51	13.45 ± 0.55	10.82 ± 0.44	n = 20	[JJF] Ortho Vitros 5,1FS
8.66 ± 0.51	25.82 ± 0.91	18.15 ± 0.71	13.32 ± 0.53	10.67 ± 0.56	n = 14	[JJG] Ortho Vitros 5600
8.71 ± 0.41	28.40 ± 1.50	18.36 ± 0.95	13.82 ± 0.61	11.43 ± 0.50	n = 15	[ROC] Roche cobas c501
8.50 ± 0.24	28.05 ± 1.07	18.19 ± 0.43	13.91 ± 0.29	10.95 ± 0.51	n = 15	[ROT] Roche Cobas INTEGRA 800
8.67 ± 0.51	28.15 ± 1.79	18.71 ± 1.18	14.22 ± 0.83	11.72 ± 0.76	n = 15	[ROD] Roche MODULAR D/P
9.09 ± 0.89	27.29 ± 2.58	19.23 ± 1.57	14.28 ± 1.75	11.46 ± 0.80	n = 9	[BYE] Siemens ADVIA 1800
10.09 ± 0.48	36.22 ± 2.49	23.16 ± 0.89	17.36 ± 1.07	13.98 ± 0.68	n = 13	[COB] Siemens ADVIA Centaur
8.84 ± 0.66	30.28 ± 1.83	19.80 ± 1.35	14.82 ± 0.80	11.60 ± 0.68	n = 9	[DUE] Siemens Dimension EXL
9.18 ± 0.76	30.49 ± 1.75	20.18 ± 1.19	14.95 ± 0.81	11.81 ± 0.79	n = 19	[DUR] Siemens Dimension RxL
9.33 ± 0.59	29.43 ± 1.36	19.49 ± 0.92	14.89 ± 0.72	11.94 ± 0.72	n = 36	[DUT] Siemens Dimension Vista
9.09 ± 0.51	29.62 ± 0.52	19.39 ± 0.87	14.98 ± 0.31	11.80 ± 0.87	n = 10	[DUX] Siemens Dimension Xpand
						<Reagents>
8.91 ± 0.40	28.56 ± 1.52	19.04 ± 1.10	14.61 ± 0.75	11.77 ± 0.45	n = 25	[AB1] Abbott
8.55 ± 0.30	27.38 ± 1.29	18.23 ± 0.76	13.98 ± 0.50	11.42 ± 0.41	n = 33	[BC1] Beckman Coulter
8.32 ± 0.61	27.61 ± 1.53	17.78 ± 0.98	13.76 ± 0.85	11.08 ± 0.54	n = 10	[OL1] Beckman Coulter AU Series
8.52 ± 0.56	28.64 ± 0.96	18.87 ± 0.86	14.21 ± 0.97	11.87 ± 0.82	n = 5	[MG1] Microgenics CEDIA
8.71 ± 0.44	26.13 ± 1.08	18.43 ± 0.69	13.38 ± 0.54	10.78 ± 0.48	n = 35	[JJ1] Ortho Clinical Diagnostics
8.60 ± 0.46	28.36 ± 1.42	18.40 ± 0.98	13.82 ± 0.63	11.35 ± 0.50	n = 18	[RO4] Roche cobas c311/c501/c502/c701
8.49 ± 0.46	27.63 ± 1.17	18.26 ± 1.08	13.99 ± 0.82	11.54 ± 0.40	n = 5	[RO2] Roche Hitachi and Modular D/P
8.51 ± 0.23	28.15 ± 1.12	18.23 ± 0.44	13.94 ± 0.35	10.98 ± 0.49	n = 16	[RO1] Roche Integra and MIRA
8.76 ± 0.52	28.62 ± 2.04	18.94 ± 1.19	14.33 ± 0.81	11.84 ± 0.91	n = 10	[RO6] Roche ONLINE
10.15 ± 0.49	36.66 ± 2.55	23.24 ± 0.92	17.55 ± 1.09	14.05 ± 0.64	n = 15	[BY1] Siemens ADVIA/ADVIA Centaur
9.45 ± 0.92	27.85 ± 2.44	19.63 ± 1.93	14.92 ± 1.61	11.80 ± 1.03	n = 10	[BY5] Siemens ADVIA/Syva Emit 2000
9.19 ± 0.64	29.79 ± 1.52	19.65 ± 1.07	14.90 ± 0.69	11.83 ± 0.76	n = 73	[DA5] Siemens Dimension
8.42 ± 0.48	27.25 ± 2.14	18.29 ± 1.13	13.73 ± 1.14	11.14 ± 0.56	n = 8	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

Free Phenytoin (mg/L)

Specimen: T66	Specimen: T67	Specimen: T68	Specimen: T69	Specimen: T70	Number	[Code] Instrument or Reagent System
1.24 ± 0.14	3.49 ± 0.27	2.34 ± 0.19	1.64 ± 0.18	1.63 ± 0.17	n = 21	[---] All Methods & Instruments
						<Instruments>
1.30 ± 0.15	3.62 ± 0.37	2.48 ± 0.24	1.73 ± 0.21	1.71 ± 0.24	n = 7	[OLC] Beckman Coulter AU Chemistry System
1.06 ± 0.10	3.28 ± 0.15	2.18 ± 0.24	1.64 ± 0.26	1.63 ± 0.14	n = 3	[BCH] Beckman Coulter UniCel DxC 800
1.30 ± 0.09	3.55 ± 0.19	2.38 ± 0.20	1.63 ± 0.10	1.63 ± 0.10	n = 6	[ROT] Roche Cobas INTEGRA 800
						<Reagents>
1.03 ± 0.08	3.39 ± 0.24	2.18 ± 0.20	1.58 ± 0.20	1.58 ± 0.13	n = 4	[BC1] Beckman Coulter
1.28 ± 0.09	3.52 ± 0.18	2.36 ± 0.18	1.62 ± 0.09	1.62 ± 0.09	n = 7	[RO1] Roche Integra and MIRA
1.30 ± 0.15	3.74 ± 0.56	2.36 ± 0.09	1.73 ± 0.21	1.71 ± 0.24	n = 7	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

Primidone (mg/L)

Specimen: T66	Specimen: T67	Specimen: T68	Specimen: T69	Specimen: T70	Number	[Code] Instrument or Reagent System
15.67 ± 0.63	13.55 ± 0.46	7.22 ± 0.36	7.01 ± 0.25	5.09 ± 0.19	n = 14	[---] All Methods & Instruments
16.1	13.4	7.1	6.8	4.8		[---] Weigh-in value
						<Instruments>
15.34 ± 0.56	13.58 ± 0.24	7.28 ± 0.30	7.12 ± 0.29	5.14 ± 0.14	n = 9	[OLC] Beckman Coulter AU Chemistry System
16.16 ± 0.26	13.13 ± 0.34	6.97 ± 0.23	6.80 ± 0.09	4.90 ± 0.09	n = 3	[ROT] Roche Cobas INTEGRA 800
						<Reagents>
16.26 ± 0.26	13.19 ± 0.30	7.02 ± 0.20	6.83 ± 0.09	4.93 ± 0.09	n = 4	[RO1] Roche Integra and MIRA
15.51 ± 0.45	13.78 ± 0.48	7.38 ± 0.37	7.14 ± 0.19	5.19 ± 0.17	n = 9	[SY2] Syva Emit

Summary of Participant Performance (Mean and Standard Deviation)

Procainamide (mg/L)

Specimen: T66	Specimen: T67	Specimen: T68	Specimen: T69	Specimen: T70	Number	[Code] Instrument or Reagent System
8.18 ± 0.50	13.50 ± 1.10	10.75 ± 0.71	6.67 ± 0.37	3.49 ± 0.17	n = 14	[---] All Methods & Instruments
8.6	13.5	10.9	6.8	3.3		[---] Weigh-in value
						<Instruments>
8.29 ± 0.52	13.63 ± 0.50	10.97 ± 0.67	6.70 ± 0.46	3.66 ± 0.10	n = 3	[OLC] Beckman Coulter AU Chemistry System
7.89 ± 0.66	14.36 ± 0.98	9.75 ± 0.54	6.50 ± 0.55	3.32 ± 0.24	n = 3	[ROC] Roche cobas c501
8.42 ± 0.39	13.13 ± 0.75	10.99 ± 0.11	6.81 ± 0.19	3.41 ± 0.11	n = 4	[ROT] Roche Cobas INTEGRA 800
						<Reagents>
7.89 ± 0.66	14.36 ± 0.98	9.75 ± 0.54	6.50 ± 0.55	3.32 ± 0.24	n = 3	[RO4] Roche cobas c311/c501/c502/c701
8.41 ± 0.34	13.11 ± 0.65	11.00 ± 0.09	6.75 ± 0.22	3.38 ± 0.11	n = 5	[RO1] Roche Integra and MIRA
8.10 ± 0.18	14.08 ± 1.33	10.89 ± 0.52	6.57 ± 0.23	3.60 ± 0.00	n = 3	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

N-Acetyl-Procainamide (mg/L)

Specimen: T66	Specimen: T67	Specimen: T68	Specimen: T69	Specimen: T70	Number	[Code] Instrument or Reagent System
8.08 ± 0.23	10.99 ± 0.40	13.69 ± 0.94	5.65 ± 0.34	20.19 ± 1.28	n = 14	[---] All Methods & Instruments
8.0	10.8	14.0	5.4	20.7		[---] Weigh-in value
						<Instruments>
7.87 ± 0.34	11.00 ± 0.46	13.88 ± 1.40	5.46 ± 0.26	19.92 ± 1.25	n = 3	[OLC] Beckman Coulter AU Chemistry System
8.57 ± 0.76	12.13 ± 1.13	14.37 ± 1.56	5.99 ± 0.74	21.99 ± 3.14	n = 3	[ROC] Roche cobas c501
8.03 ± 0.08	10.80 ± 0.18	13.35 ± 0.34	5.67 ± 0.16	19.95 ± 0.23	n = 4	[ROT] Roche Cobas INTEGRA 800
						<Reagents>
8.57 ± 0.76	12.13 ± 1.13	14.37 ± 1.56	5.99 ± 0.74	21.99 ± 3.14	n = 3	[RO4] Roche cobas c311/c501/c502/c701
8.09 ± 0.14	10.86 ± 0.20	13.46 ± 0.36	5.70 ± 0.15	19.91 ± 0.21	n = 5	[RO1] Roche Integra and MIRA
7.90 ± 0.36	11.00 ± 0.46	13.93 ± 1.40	5.49 ± 0.29	20.14 ± 1.55	n = 3	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

Quinidine (mg/L)

Specimen: T66	Specimen: T67	Specimen: T68	Specimen: T69	Specimen: T70	Number	[Code] Instrument or Reagent System
1.29 ± 0.10	4.03 ± 0.11	5.60 ± 0.28	1.85 ± 0.13	3.48 ± 0.22	n = 13	[---] All Methods & Instruments
1.5	4.2	5.8	2.1	3.7		[---] Weigh-in value
						<Instruments>
1.30 ± 0.06	4.04 ± 0.06	5.61 ± 0.13	1.80 ± 0.00	3.45 ± 0.08	n = 5	[ROT] Roche Cobas INTEGRA 800
						<Reagents>
1.17 ± 0.14	4.10 ± 0.09	5.50 ± 0.36	1.90 ± 0.09	3.75 ± 0.19	n = 3	[RO4] Roche cobas c311/c501/c502/c701
1.33 ± 0.10	4.03 ± 0.05	5.63 ± 0.12	1.79 ± 0.06	3.42 ± 0.10	n = 6	[RO1] Roche Integra and MIRA

Summary of Participant Performance (Mean and Standard Deviation)

Salicylate (mg/L)

Specimen: T66	Specimen: T67	Specimen: T68	Specimen: T69	Specimen: T70	Number	[Code] Instrument or Reagent System
20.67 ± 0.88	87.59 ± 3.77	35.83 ± 1.22	43.93 ± 1.48	61.73 ± 2.41	n = 210	[---] All Methods & Instruments
20.0	85.5	34.4	42.8	59.8		[---] Weigh-in value
						<Instruments>
20.40 ± 0.62	88.44 ± 1.99	35.87 ± 0.73	44.05 ± 0.85	61.62 ± 1.46	n = 14	[ABJ] Abbott Architect c System
18.47 ± 1.29	81.44 ± 5.07	33.03 ± 2.56	41.10 ± 2.92	58.90 ± 4.18	n = 7	[ABB] Abbott AxSym
20.71 ± 1.77	91.48 ± 9.85	35.20 ± 3.42	44.58 ± 3.41	63.43 ± 6.43	n = 10	[OLC] Beckman Coulter AU Chemistry System
21.03 ± 0.23	92.75 ± 3.34	37.10 ± 0.55	45.76 ± 1.38	64.43 ± 1.40	n = 3	[BCX] Beckman Coulter LX-20
20.37 ± 0.72	90.41 ± 2.25	36.02 ± 1.03	44.97 ± 0.91	62.73 ± 1.22	n = 10	[BCG] Beckman Coulter UniCel DxC 600
20.59 ± 0.58	91.01 ± 2.09	36.73 ± 0.84	44.75 ± 0.37	62.76 ± 1.20	n = 12	[BCH] Beckman Coulter UniCel DxC 800
22.00 ± 0.00	81.96 ± 3.58	35.44 ± 1.02	43.00 ± 0.00	59.52 ± 3.63	n = 3	[JJE] Ortho Vitros 250/350/950
21.49 ± 0.44	88.80 ± 1.77	36.65 ± 0.58	43.62 ± 0.92	63.28 ± 0.96	n = 18	[JJF] Ortho Vitros 5,1FS
21.62 ± 0.61	88.77 ± 6.21	36.63 ± 1.03	44.38 ± 1.02	63.38 ± 0.77	n = 15	[JJG] Ortho Vitros 5600
19.66 ± 0.48	89.21 ± 3.84	35.78 ± 0.75	44.69 ± 1.16	64.39 ± 2.05	n = 11	[ROC] Roche cobas c501
19.29 ± 0.41	83.36 ± 1.38	33.55 ± 0.53	41.56 ± 0.77	58.65 ± 0.87	n = 11	[ROT] Roche Cobas INTEGRA 800
19.99 ± 0.81	85.49 ± 0.99	34.83 ± 0.59	42.70 ± 0.74	60.10 ± 0.80	n = 9	[ROD] Roche MODULAR D/P
21.38 ± 0.51	92.75 ± 1.14	37.93 ± 0.53	46.26 ± 0.55	64.69 ± 0.76	n = 8	[BYE] Siemens ADVIA 1800
21.09 ± 0.74	91.07 ± 3.87	37.23 ± 1.69	45.48 ± 1.33	63.77 ± 2.57	n = 3	[BYB] Siemens ADVIA 2400
21.03 ± 0.42	87.01 ± 0.89	35.68 ± 0.33	43.75 ± 0.33	60.94 ± 0.08	n = 8	[DUE] Siemens Dimension EXL
20.93 ± 0.30	86.35 ± 1.18	35.57 ± 0.53	43.68 ± 0.71	60.73 ± 0.71	n = 17	[DUR] Siemens Dimension RxL
20.40 ± 0.43	85.24 ± 1.22	35.20 ± 0.54	43.21 ± 0.69	59.91 ± 0.91	n = 35	[DUT] Siemens Dimension Vista
20.89 ± 0.22	86.55 ± 0.42	35.71 ± 0.30	43.79 ± 0.29	60.96 ± 0.51	n = 8	[DUX] Siemens Dimension Xpand
						<Reagents>
19.96 ± 1.22	87.18 ± 3.93	35.52 ± 1.54	43.53 ± 2.21	61.24 ± 2.51	n = 21	[AB1] Abbott
20.55 ± 0.69	90.92 ± 2.61	36.58 ± 1.07	45.06 ± 1.06	63.03 ± 1.51	n = 29	[BC1] Beckman Coulter
21.12 ± 0.54	94.63 ± 8.69	36.18 ± 1.60	45.42 ± 2.12	66.10 ± 4.34	n = 7	[OL1] Beckman Coulter AU Series
21.60 ± 0.52	88.41 ± 3.60	36.55 ± 0.81	43.85 ± 1.04	63.35 ± 0.91	n = 36	[JJ1] Ortho Clinical Diagnostics
19.63 ± 0.49	89.10 ± 3.78	35.65 ± 0.80	44.74 ± 1.14	63.99 ± 2.50	n = 11	[RO4] Roche cobas c311/c501/c502/c701
19.99 ± 0.81	85.49 ± 0.99	34.83 ± 0.59	42.70 ± 0.74	60.10 ± 0.80	n = 9	[RO2] Roche Hitachi and Modular D/P
19.29 ± 0.41	83.36 ± 1.38	33.55 ± 0.53	41.56 ± 0.77	58.65 ± 0.87	n = 11	[RO1] Roche Integra and MIRA
21.33 ± 0.57	92.39 ± 2.18	37.76 ± 0.97	46.11 ± 0.87	64.48 ± 1.38	n = 11	[BY1] Siemens ADVIA/ADVIA Centaur
20.67 ± 0.47	85.93 ± 1.39	35.42 ± 0.54	43.48 ± 0.68	60.40 ± 0.97	n = 67	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

Theophylline (mg/L)

Specimen: T66	Specimen: T67	Specimen: T68	Specimen: T69	Specimen: T70	Number	[Code] Instrument or Reagent System
26.82 ± 2.74	17.89 ± 1.03	11.35 ± 0.60	8.98 ± 0.50	7.44 ± 0.45	n = 213	[---] All Methods & Instruments
27.4	18.2	11.7	9.1	7.7		[---] Weigh-in value
						<Instruments>
26.30 ± 0.58	17.45 ± 1.01	11.28 ± 0.65	8.80 ± 0.67	7.45 ± 0.42	n = 9	[ABH] Abbott Architect i System
26.85 ± 1.57	18.35 ± 0.49	11.71 ± 0.28	9.25 ± 0.23	7.58 ± 0.28	n = 7	[ABB] Abbott AxSym
26.06 ± 1.64	18.08 ± 0.77	11.32 ± 0.41	8.70 ± 0.50	7.31 ± 0.22	n = 11	[OLC] Beckman Coulter AU Chemistry System
26.59 ± 0.53	17.83 ± 0.42	11.37 ± 0.15	9.12 ± 0.13	7.79 ± 0.11	n = 4	[BCX] Beckman Coulter LX-20
24.86 ± 0.49	17.18 ± 0.31	11.03 ± 0.31	8.78 ± 0.32	7.50 ± 0.23	n = 10	[BCG] Beckman Coulter UniCel DxC 600
25.49 ± 0.79	17.31 ± 0.69	11.02 ± 0.27	8.74 ± 0.21	7.43 ± 0.17	n = 14	[BCH] Beckman Coulter UniCel DxC 800
33.55 ± 1.66	26.85 ± 1.92	15.48 ± 0.97	12.72 ± 1.03	11.86 ± 0.98	n = 17	[JJF] Ortho Vitros 5,1FS
33.46 ± 1.35	26.93 ± 1.47	15.27 ± 0.86	12.79 ± 0.86	11.81 ± 0.84	n = 13	[JJG] Ortho Vitros 5600
26.61 ± 0.70	17.91 ± 0.46	11.28 ± 0.23	8.94 ± 0.14	7.38 ± 0.17	n = 14	[ROC] Roche cobas c501
26.95 ± 0.70	18.43 ± 0.49	11.68 ± 0.24	9.34 ± 0.26	7.74 ± 0.19	n = 11	[ROT] Roche Cobas INTEGRA 800
26.83 ± 1.89	18.63 ± 0.50	11.63 ± 0.36	9.17 ± 0.30	7.68 ± 0.24	n = 11	[ROD] Roche MODULAR D/P
29.78 ± 4.20	19.11 ± 2.63	11.91 ± 1.52	9.62 ± 1.38	8.11 ± 1.23	n = 6	[BYE] Siemens ADVIA 1800
25.48 ± 1.99	15.99 ± 1.58	10.23 ± 1.29	8.35 ± 0.83	6.11 ± 0.61	n = 13	[COB] Siemens ADVIA Centaur
27.87 ± 1.72	18.67 ± 1.08	11.99 ± 0.79	9.40 ± 0.43	7.72 ± 0.32	n = 5	[DUE] Siemens Dimension EXL
28.03 ± 0.71	18.87 ± 0.66	11.82 ± 0.38	9.43 ± 0.33	7.66 ± 0.41	n = 14	[DUR] Siemens Dimension RxL
25.38 ± 1.64	17.50 ± 0.95	11.09 ± 0.50	8.81 ± 0.40	7.15 ± 0.41	n = 36	[DUT] Siemens Dimension Vista
27.05 ± 1.57	18.38 ± 0.47	11.39 ± 0.55	8.67 ± 0.35	7.52 ± 0.51	n = 5	[DUX] Siemens Dimension Xpand
						<Reagents>
26.38 ± 1.14	18.06 ± 1.02	11.57 ± 0.53	9.15 ± 0.43	7.59 ± 0.35	n = 18	[AB1] Abbott
25.41 ± 0.95	17.33 ± 0.58	11.09 ± 0.30	8.81 ± 0.28	7.50 ± 0.23	n = 32	[BC1] Beckman Coulter
26.28 ± 0.96	18.02 ± 0.77	11.51 ± 0.28	8.87 ± 0.61	7.33 ± 0.36	n = 6	[OL1] Beckman Coulter AU Series
33.48 ± 1.53	26.86 ± 1.74	15.38 ± 0.93	12.74 ± 0.96	11.82 ± 0.93	n = 30	[JJ1] Ortho Clinical Diagnostics
26.66 ± 0.66	17.96 ± 0.43	11.32 ± 0.26	8.96 ± 0.15	7.41 ± 0.18	n = 16	[RO4] Roche cobas c311/c501/c502/c701
25.99 ± 2.09	18.30 ± 0.46	11.47 ± 0.32	9.17 ± 0.14	7.73 ± 0.14	n = 3	[RO2] Roche Hitachi and Modular D/P
26.95 ± 0.70	18.43 ± 0.49	11.68 ± 0.24	9.34 ± 0.26	7.74 ± 0.19	n = 11	[RO1] Roche Integra and MIRA
27.14 ± 1.68	18.77 ± 0.44	11.70 ± 0.37	9.18 ± 0.35	7.65 ± 0.28	n = 8	[RO6] Roche ONLINE
25.69 ± 2.28	16.18 ± 1.74	10.36 ± 1.35	8.44 ± 0.86	6.17 ± 0.64	n = 14	[BY1] Siemens ADVIA/ADVIA Centaur
28.42 ± 2.74	19.22 ± 2.04	12.16 ± 1.15	9.96 ± 1.01	7.92 ± 0.59	n = 7	[BY5] Siemens ADVIA/Syva Emit 2000
26.37 ± 2.02	18.01 ± 1.06	11.35 ± 0.64	8.98 ± 0.50	7.33 ± 0.49	n = 60	[DA5] Siemens Dimension
26.57 ± 3.52	17.82 ± 1.08	10.89 ± 0.52	8.46 ± 0.47	7.28 ± 0.22	n = 6	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

Tobramycin (mg/L)

Specimen: T66	Specimen: T67	Specimen: T68	Specimen: T69	Specimen: T70	Number	[Code] Instrument or Reagent System
10.34 ± 1.17	6.30 ± 0.70	7.57 ± 0.90	3.08 ± 0.45	6.69 ± 0.81	n = 80	[---] All Methods & Instruments
10.8	6.4	7.8	3.2	7.0		[---] Weigh-in value
						<Instruments>
13.42 ± 1.38	7.26 ± 0.46	8.94 ± 0.47	3.74 ± 0.23	8.90 ± 0.18	n = 5	[ABB] Abbott AxSym
9.91 ± 0.12	6.21 ± 0.15	7.57 ± 0.22	2.81 ± 0.10	6.71 ± 0.12	n = 7	[OLC] Beckman Coulter AU Chemistry System
12.50 ± 0.42	7.90 ± 0.08	9.27 ± 0.09	3.88 ± 0.04	8.27 ± 0.33	n = 4	[BCG] Beckman Coulter UniCel DxC 600
13.43 ± 1.44	7.85 ± 0.22	9.09 ± 0.38	3.98 ± 0.13	8.21 ± 0.34	n = 4	[BCH] Beckman Coulter UniCel DxC 800
10.17 ± 0.31	6.17 ± 0.05	7.40 ± 0.09	2.77 ± 0.05	6.58 ± 0.24	n = 3	[JJF] Ortho Vitros 5,1FS
10.61 ± 0.34	6.37 ± 0.09	7.75 ± 0.12	2.93 ± 0.09	6.80 ± 0.08	n = 4	[JJG] Ortho Vitros 5600
9.90 ± 0.10	6.27 ± 0.24	7.65 ± 0.32	2.96 ± 0.11	6.70 ± 0.34	n = 5	[ROC] Roche cobas c501
9.82 ± 0.21	5.90 ± 0.20	6.95 ± 0.18	3.01 ± 0.27	6.13 ± 0.14	n = 9	[ROT] Roche Cobas INTEGRA 800
10.08 ± 0.21	6.52 ± 0.21	7.90 ± 0.24	3.05 ± 0.06	6.83 ± 0.31	n = 4	[ROD] Roche MODULAR D/P
12.13 ± 0.76	6.92 ± 0.45	8.44 ± 0.91	3.64 ± 0.20	7.20 ± 0.36	n = 7	[COB] Siemens ADVIA Centaur
9.41 ± 0.29	5.70 ± 0.18	6.67 ± 0.34	2.75 ± 0.12	5.79 ± 0.31	n = 4	[DUR] Siemens Dimension RxL
9.78 ± 0.28	5.90 ± 0.24	6.97 ± 0.27	2.85 ± 0.16	6.28 ± 0.27	n = 16	[DUT] Siemens Dimension Vista
						<Reagents>
12.92 ± 2.10	7.05 ± 0.81	8.72 ± 0.90	3.66 ± 0.41	8.50 ± 0.96	n = 6	[AB1] Abbott
12.76 ± 0.32	7.91 ± 0.18	9.24 ± 0.28	3.94 ± 0.11	8.26 ± 0.33	n = 9	[BC1] Beckman Coulter
10.43 ± 0.39	6.28 ± 0.13	7.60 ± 0.22	2.85 ± 0.11	6.73 ± 0.19	n = 7	[JJ1] Ortho Clinical Diagnostics
9.90 ± 0.10	6.27 ± 0.24	7.65 ± 0.32	2.96 ± 0.11	6.70 ± 0.34	n = 5	[RO4] Roche cobas c311/c501/c502/c701
9.87 ± 0.31	5.93 ± 0.20	7.00 ± 0.21	3.00 ± 0.23	6.18 ± 0.17	n = 11	[RO1] Roche Integra and MIRA
10.08 ± 0.21	6.52 ± 0.21	7.90 ± 0.24	3.05 ± 0.06	6.83 ± 0.31	n = 4	[RO6] Roche ONLINE
12.13 ± 0.76	6.92 ± 0.45	8.44 ± 0.91	3.64 ± 0.20	7.20 ± 0.36	n = 7	[BY1] Siemens ADVIA/ADVIA Centaur
9.77 ± 0.37	5.86 ± 0.24	6.95 ± 0.33	2.83 ± 0.15	6.21 ± 0.31	n = 22	[DA5] Siemens Dimension
9.89 ± 0.13	6.19 ± 0.14	7.47 ± 0.20	2.80 ± 0.09	6.69 ± 0.14	n = 5	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

Valproic Acid (mg/L)

Specimen: T66	Specimen: T67	Specimen: T68	Specimen: T69	Specimen: T70	Number	[Code] Instrument or Reagent System
90.19 ± 5.86	146.44 ± 9.84	112.25 ± 6.89	76.06 ± 4.76	48.57 ± 4.26	n = 247	[---] All Methods & Instruments
87.1	143.9	109.5	71.9	46.4		[---] Weigh-in value
						<Instruments>
85.56 ± 1.57	147.28 ± 0.94	109.32 ± 1.03	72.77 ± 1.30	46.14 ± 1.26	n = 3	[ABJ] Abbott Architect c System
100.05 ± 6.18	169.95 ± 16.40	128.38 ± 6.39	88.63 ± 3.70	58.54 ± 3.61	n = 10	[ABH] Abbott Architect i System
90.46 ± 4.41	146.65 ± 4.85	112.10 ± 6.83	74.90 ± 3.90	47.82 ± 1.52	n = 11	[ABB] Abbott AxSym
94.21 ± 3.55	159.13 ± 8.27	116.69 ± 4.85	78.33 ± 2.92	50.60 ± 1.91	n = 21	[OLC] Beckman Coulter AU Chemistry System
86.48 ± 2.20	140.65 ± 5.67	109.99 ± 2.75	74.07 ± 1.99	39.74 ± 2.41	n = 4	[BCX] Beckman Coulter LX-20
85.83 ± 5.29	133.51 ± 5.55	106.18 ± 4.37	72.81 ± 4.54	38.55 ± 4.00	n = 9	[BCG] Beckman Coulter UniCel DxC 600
84.69 ± 2.05	140.13 ± 6.61	105.37 ± 3.84	73.11 ± 3.13	39.73 ± 2.24	n = 14	[BCH] Beckman Coulter UniCel DxC 800
94.21 ± 6.65	167.02 ± 16.73	118.56 ± 7.87	79.98 ± 5.81	50.96 ± 4.21	n = 13	[JJF] Ortho Vitros 5,1FS
92.72 ± 5.29	151.94 ± 7.58	116.65 ± 6.40	77.55 ± 4.66	49.82 ± 2.73	n = 14	[JJG] Ortho Vitros 5600
94.35 ± 4.23	148.79 ± 6.03	115.71 ± 6.35	77.11 ± 4.09	48.36 ± 2.16	n = 16	[ROC] Roche cobas c501
87.37 ± 4.47	146.37 ± 4.11	110.65 ± 2.85	72.40 ± 1.26	46.23 ± 0.66	n = 12	[ROT] Roche Cobas INTEGRA 800
86.83 ± 4.54	143.47 ± 6.03	108.45 ± 4.37	72.47 ± 3.26	45.87 ± 2.06	n = 12	[ROD] Roche MODULAR D/P
98.16 ± 3.87	152.12 ± 9.24	118.40 ± 5.39	81.70 ± 5.25	53.73 ± 1.20	n = 9	[BYE] Siemens ADVIA 1800
85.89 ± 4.20	143.98 ± 5.56	107.59 ± 4.19	72.71 ± 3.67	47.16 ± 2.19	n = 18	[COB] Siemens ADVIA Centaur
88.00 ± 1.75	140.20 ± 5.72	109.05 ± 0.67	75.14 ± 1.69	48.20 ± 1.50	n = 7	[DUE] Siemens Dimension EXL
87.24 ± 3.95	140.76 ± 5.15	110.05 ± 4.02	75.80 ± 2.44	49.16 ± 2.31	n = 20	[DUR] Siemens Dimension RxL
91.01 ± 2.85	145.21 ± 4.46	111.87 ± 3.87	77.22 ± 2.74	50.08 ± 2.25	n = 36	[DUT] Siemens Dimension Vista
89.03 ± 2.52	143.25 ± 3.69	111.70 ± 2.84	76.52 ± 2.89	49.01 ± 1.86	n = 6	[DUX] Siemens Dimension Xpand
						<Reagents>
93.63 ± 7.55	155.67 ± 15.44	118.33 ± 11.00	80.06 ± 8.73	51.63 ± 6.61	n = 24	[AB1] Abbott
85.01 ± 3.77	137.63 ± 6.88	106.66 ± 4.20	73.36 ± 3.42	39.42 ± 3.10	n = 30	[BC1] Beckman Coulter
95.27 ± 4.78	160.82 ± 8.64	117.29 ± 5.75	77.30 ± 3.59	51.41 ± 2.37	n = 10	[OL1] Beckman Coulter AU Series
93.42 ± 6.07	157.82 ± 14.41	117.53 ± 7.27	78.57 ± 5.30	50.20 ± 3.42	n = 27	[JJ1] Ortho Clinical Diagnostics
93.49 ± 4.73	148.85 ± 5.78	116.14 ± 5.95	76.89 ± 4.18	48.29 ± 1.97	n = 18	[RO4] Roche cobas c311/c501/c502/c701
87.26 ± 5.87	142.90 ± 8.89	107.65 ± 4.97	73.51 ± 2.50	45.93 ± 1.55	n = 4	[RO2] Roche Hitachi and Modular D/P
87.32 ± 4.15	146.20 ± 3.86	110.39 ± 2.54	72.33 ± 1.16	46.20 ± 0.59	n = 13	[RO1] Roche Integra and MIRA
86.59 ± 3.87	143.98 ± 4.53	108.66 ± 4.05	71.91 ± 3.56	45.86 ± 2.30	n = 8	[RO6] Roche ONLINE
85.89 ± 4.39	144.38 ± 5.07	107.48 ± 4.19	72.85 ± 3.44	47.00 ± 2.05	n = 20	[BY1] Siemens ADVIA/ADVIA Centaur
97.45 ± 4.24	157.48 ± 11.18	120.66 ± 2.94	82.68 ± 5.02	54.07 ± 1.74	n = 11	[BY5] Siemens ADVIA/Syva Emit 2000
89.57 ± 3.40	143.34 ± 5.12	110.94 ± 3.84	76.49 ± 2.69	49.51 ± 2.25	n = 69	[DA5] Siemens Dimension
93.27 ± 1.83	155.39 ± 7.78	116.06 ± 3.93	79.01 ± 2.15	50.56 ± 1.55	n = 10	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

Vancomycin (mg/L)

Specimen: T66	Specimen: T67	Specimen: T68	Specimen: T69	Specimen: T70	Number	[Code] Instrument or Reagent System
20.26 ± 2.01	31.29 ± 3.51	6.63 ± 0.76	15.38 ± 1.38	36.01 ± 4.00	n = 213	[---] All Methods & Instruments
22.2	31.7	6.8	15.8	39.4		[---] Weigh-in value
						<Instruments>
20.95 ± 0.55	31.95 ± 1.06	7.20 ± 0.62	16.10 ± 0.43	37.36 ± 1.14	n = 4	[ABJ] Abbott Architect c System
20.38 ± 0.67	31.16 ± 1.24	6.93 ± 0.17	15.62 ± 0.43	37.10 ± 1.17	n = 9	[ABH] Abbott Architect i System
20.42 ± 1.22	31.56 ± 1.95	7.07 ± 0.64	15.49 ± 0.95	35.45 ± 2.14	n = 8	[ABB] Abbott AxSym
18.37 ± 0.68	28.16 ± 1.06	5.92 ± 0.32	13.89 ± 0.82	33.93 ± 1.01	n = 12	[OLC] Beckman Coulter AU Chemistry System
21.25 ± 0.55	36.63 ± 1.43	6.58 ± 0.94	15.60 ± 0.42	39.10 ± 1.73	n = 4	[BCX] Beckman Coulter LX-20
21.10 ± 1.29	35.74 ± 1.52	6.87 ± 0.72	15.69 ± 0.90	38.46 ± 2.07	n = 10	[BCG] Beckman Coulter UniCel DxC 600
21.42 ± 0.73	35.68 ± 1.22	7.12 ± 0.38	15.82 ± 0.57	38.87 ± 1.51	n = 12	[BCH] Beckman Coulter UniCel DxC 800
18.57 ± 0.69	28.00 ± 0.97	5.95 ± 0.40	14.04 ± 0.49	32.73 ± 1.00	n = 11	[JJF] Ortho Vitros 5,1FS
18.92 ± 0.70	29.04 ± 1.25	6.17 ± 0.36	14.32 ± 0.52	34.03 ± 1.76	n = 13	[JJG] Ortho Vitros 5600
22.32 ± 1.34	33.53 ± 2.17	6.63 ± 0.63	16.33 ± 0.75	41.16 ± 2.82	n = 13	[ROC] Roche cobas c501
23.50 ± 0.09	36.70 ± 0.46	7.38 ± 0.41	17.28 ± 0.15	43.29 ± 0.52	n = 3	[ROS] Roche Cobas INTEGRA 400
23.11 ± 0.60	36.00 ± 0.74	7.29 ± 0.27	17.28 ± 0.44	40.88 ± 1.25	n = 11	[ROT] Roche Cobas INTEGRA 800
22.22 ± 1.73	34.30 ± 2.58	6.76 ± 0.74	16.54 ± 1.30	40.62 ± 3.23	n = 10	[ROD] Roche MODULAR D/P
19.19 ± 1.78	29.98 ± 1.88	5.72 ± 1.86	14.98 ± 1.31	34.81 ± 2.65	n = 5	[BYE] Siemens ADVIA 1800
15.77 ± 0.73	25.81 ± 1.51	5.44 ± 0.54	12.52 ± 0.76	27.09 ± 1.82	n = 17	[COB] Siemens ADVIA Centaur
20.80 ± 0.60	31.10 ± 1.17	6.84 ± 0.39	15.49 ± 0.57	35.82 ± 0.92	n = 6	[DUE] Siemens Dimension EXL
20.36 ± 0.63	31.28 ± 1.05	6.77 ± 0.27	15.70 ± 0.66	35.97 ± 1.31	n = 15	[DUR] Siemens Dimension RxL
20.09 ± 0.95	30.60 ± 1.36	6.85 ± 0.51	15.62 ± 0.85	34.61 ± 1.91	n = 36	[DUT] Siemens Dimension Vista
20.61 ± 0.39	31.15 ± 0.86	6.96 ± 0.40	15.87 ± 0.57	35.92 ± 1.17	n = 6	[DUX] Siemens Dimension Xpand
						<Reagents>
20.53 ± 0.89	31.42 ± 1.53	7.04 ± 0.48	15.68 ± 0.68	36.67 ± 1.66	n = 21	[AB1] Abbott
21.29 ± 0.96	35.77 ± 1.51	7.05 ± 0.67	15.75 ± 0.68	38.75 ± 1.97	n = 28	[BC1] Beckman Coulter
18.51 ± 0.68	28.11 ± 0.97	6.04 ± 0.36	14.09 ± 0.72	33.61 ± 1.25	n = 6	[OL1] Beckman Coulter AU Series
18.75 ± 0.71	28.52 ± 1.24	6.07 ± 0.40	14.18 ± 0.51	33.35 ± 1.60	n = 24	[JJ1] Ortho Clinical Diagnostics
22.24 ± 1.23	33.72 ± 2.03	6.63 ± 0.58	16.19 ± 0.87	40.97 ± 2.64	n = 15	[RO4] Roche cobas c311/c501/c502/c701
21.90 ± 1.07	33.97 ± 1.88	6.61 ± 0.52	16.44 ± 0.87	40.47 ± 1.93	n = 5	[RO2] Roche Hitachi and Modular D/P
23.22 ± 0.55	36.17 ± 0.75	7.33 ± 0.36	17.28 ± 0.33	41.45 ± 1.59	n = 14	[RO1] Roche Integra and MIRA
22.71 ± 2.19	34.95 ± 3.21	7.19 ± 1.10	16.97 ± 1.78	41.37 ± 4.87	n = 5	[RO6] Roche ONLINE
15.81 ± 0.92	25.69 ± 1.59	5.43 ± 0.55	12.53 ± 0.87	26.99 ± 1.88	n = 19	[BY1] Siemens ADVIA/ADVIA Centaur
18.86 ± 1.50	29.09 ± 2.05	5.73 ± 1.45	14.45 ± 1.38	34.15 ± 2.53	n = 7	[BY5] Siemens ADVIA/Syva Emit 2000
20.30 ± 0.82	30.88 ± 1.29	6.85 ± 0.45	15.65 ± 0.76	35.25 ± 1.79	n = 63	[DA5] Siemens Dimension
18.23 ± 0.66	28.19 ± 1.19	5.83 ± 0.25	13.70 ± 0.82	34.14 ± 0.73	n = 6	[SY4] Syva Emit 2000