

Therapeutic Substance Monitoring/Quantitative Toxicology Proficiency Test Program

Statistical Summary - September 2013 (Event 13-3)

This statistical report summarizes participant data for the five Therapeutic Substance Monitoring proficiency survey specimens shipped 9 September 2013. Test samples (Vials T86, T87, T88, T89, T90) were prepared by the quantitative transfer of constituents to pooled human serum. The material was subsequently sterile filtered, dispensed into aliquots, stored at -80°C, and distributed to participants for analysis.

Results for individual instrument and reagent systems where the number of laboratories using those systems is three or greater are provided. Mean and Standard Deviation (± 1 SD) values are calculated by a robust statistical technique that does not assume a Gaussian distribution.

Disclaimer:

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

Should you have any questions regarding this report, please contact the Therapeutic Substance Monitoring Section at (518) 474-0005.

Summary of Participant Performance (Mean and Standard Deviation)

Acetaminophen (mg/L)

Specimen: T86	Specimen: T87	Specimen: T88	Specimen: T89	Specimen: T90	Number	[Code] Instrument or Reagent System
112.21 ± 11.39 109.8	93.08 ± 9.51 90.2	46.85 ± 5.34 45.1	29.02 ± 4.85 27.9	84.40 ± 8.96 81.4	n = 214	[---] All Methods & Instruments [---] Weigh-in value
<Instruments>						
102.20 ± 1.03	84.39 ± 0.89	42.12 ± 0.63	25.41 ± 0.70	76.00 ± 0.76	n = 16	[ABJ] Abbott Architect c System
104.92 ± 6.17	87.47 ± 5.16	44.08 ± 2.34	26.90 ± 1.46	79.66 ± 4.29	n = 25	[OLC] Beckman Coulter AU Chemistry System
116.01 ± 4.25	95.38 ± 4.19	49.59 ± 1.34	29.07 ± 1.33	86.34 ± 3.17	n = 8	[BCG] Beckman Coulter UniCel DxC 600
117.16 ± 2.34	95.44 ± 0.87	47.87 ± 2.10	28.36 ± 1.65	87.19 ± 1.78	n = 8	[BCH] Beckman Coulter UniCel DxC 800
127.65 ± 3.37	104.65 ± 3.37	50.72 ± 0.51	30.44 ± 1.02	95.74 ± 3.16	n = 3	[JJE] Ortho Vitros 250/350/950
124.84 ± 1.96	102.62 ± 1.63	50.08 ± 0.97	30.08 ± 0.65	93.25 ± 1.66	n = 14	[JJF] Ortho Vitros 5,1FS
125.21 ± 2.74	103.05 ± 2.52	49.96 ± 1.33	30.21 ± 0.74	93.36 ± 2.18	n = 17	[JJG] Ortho Vitros 5600
95.57 ± 2.39	77.76 ± 2.31	35.26 ± 1.02	19.08 ± 0.40	69.02 ± 1.84	n = 15	[ROC] Roche cobas c501
95.02 ± 0.72	78.49 ± 1.19	37.45 ± 1.56	21.99 ± 0.13	70.68 ± 0.69	n = 8	[ROT] Roche Cobas INTEGRA 800
91.24 ± 5.18	73.61 ± 2.65	34.97 ± 2.94	19.16 ± 0.76	65.57 ± 3.14	n = 10	[ROD] Roche MODULAR D/P
105.80 ± 2.76	87.30 ± 1.84	44.04 ± 0.72	26.20 ± 0.48	78.54 ± 1.61	n = 9	[BYE] Siemens ADVIA 1800
108.77 ± 3.29	89.81 ± 2.47	45.14 ± 0.91	26.77 ± 0.23	80.64 ± 1.26	n = 3	[BYB] Siemens ADVIA 2400
116.41 ± 1.35	97.29 ± 1.71	49.84 ± 1.27	33.40 ± 0.92	88.39 ± 1.25	n = 14	[DUE] Siemens Dimension EXL
116.88 ± 1.70	97.25 ± 0.84	49.95 ± 0.75	33.05 ± 0.93	88.75 ± 0.99	n = 10	[DUR] Siemens Dimension RxL
117.24 ± 1.64	97.69 ± 1.59	50.35 ± 1.12	33.34 ± 0.92	89.03 ± 1.61	n = 39	[DUT] Siemens Dimension Vista
116.98 ± 1.31	97.13 ± 1.55	49.66 ± 0.77	33.63 ± 0.64	88.29 ± 0.70	n = 7	[DUX] Siemens Dimension Xpand
<Reagents>						
102.08 ± 1.14	84.30 ± 0.95	42.05 ± 0.68	25.38 ± 0.68	75.91 ± 0.89	n = 17	[AB1] Abbott
116.03 ± 3.63	95.57 ± 3.29	48.92 ± 2.15	28.85 ± 1.97	86.14 ± 2.76	n = 19	[BC1] Beckman Coulter
104.54 ± 6.18	87.22 ± 4.71	43.63 ± 2.07	26.75 ± 1.31	79.39 ± 3.77	n = 19	[OL1] Beckman Coulter AU Series
125.22 ± 2.68	103.02 ± 2.30	50.11 ± 1.10	30.18 ± 0.74	93.49 ± 2.09	n = 35	[JJ1] Ortho Clinical Diagnostics
95.67 ± 2.17	77.87 ± 2.40	35.28 ± 1.01	19.07 ± 0.41	69.06 ± 1.84	n = 16	[RO4] Roche cobas c311/c501/c502/c701/c702
89.79 ± 3.01	73.28 ± 2.00	34.30 ± 1.34	19.16 ± 0.75	65.12 ± 2.24	n = 8	[RO2] Roche Hitachi and Modular D/P
95.03 ± 0.72	78.23 ± 1.06	37.27 ± 0.99	21.99 ± 0.13	70.68 ± 0.69	n = 6	[RO1] Roche Integra and MIRA
106.22 ± 3.18	87.66 ± 2.19	44.16 ± 0.85	26.32 ± 0.50	79.02 ± 1.87	n = 10	[BY1] Siemens ADVIA/ADVIA Centaur
116.98 ± 1.59	97.49 ± 1.54	50.12 ± 1.10	33.35 ± 0.91	88.76 ± 1.39	n = 70	[DA5] Siemens Dimension
106.29 ± 5.19	85.96 ± 3.98	45.13 ± 2.80	28.11 ± 4.55	80.23 ± 7.86	n = 3	[SY2] Syva Emit
103.42 ± 1.23	92.98 ± 9.20	44.55 ± 2.94	26.92 ± 1.44	81.50 ± 4.11	n = 5	[SY5] Syva Emit tox

Summary of Participant Performance (Mean and Standard Deviation)

Carbamazepine (mg/L)

Specimen: T86	Specimen: T87	Specimen: T88	Specimen: T89	Specimen: T90	Number	[Code] Instrument or Reagent System
3.76 ± 0.47	11.11 ± 1.03	5.65 ± 0.59	9.47 ± 0.88	14.09 ± 1.22	n = 224	[---] All Methods & Instruments
4.0	11.5	5.7	9.9	14.8		[---] Weigh-in value
<Instruments>						
4.02 ± 0.23	11.81 ± 0.62	5.92 ± 0.25	10.09 ± 0.41	15.04 ± 0.90	n = 13	[ABJ] Abbott Architect c System
3.57 ± 0.26	11.05 ± 0.15	5.66 ± 0.05	9.40 ± 0.30	14.06 ± 0.97	n = 7	[ABH] Abbott Architect i System
3.97 ± 0.28	11.48 ± 0.46	5.78 ± 0.29	9.81 ± 0.46	14.76 ± 0.74	n = 19	[OLC] Beckman Coulter AU Chemistry System
3.53 ± 0.28	10.63 ± 0.62	5.42 ± 0.33	9.15 ± 0.65	13.11 ± 1.02	n = 8	[BCG] Beckman Coulter UniCel DxC 600
3.53 ± 0.20	11.13 ± 0.18	5.49 ± 0.11	9.22 ± 0.11	14.01 ± 0.32	n = 9	[BCH] Beckman Coulter UniCel DxC 800
3.00 ± 0.00	8.97 ± 0.26	4.43 ± 0.34	7.79 ± 0.41	11.99 ± 0.31	n = 12	[JJF] Ortho Vitros 5,1FS
3.00 ± 0.00	8.93 ± 0.41	4.46 ± 0.32	7.68 ± 0.50	11.95 ± 0.73	n = 17	[JJG] Ortho Vitros 5600
4.22 ± 0.54	11.65 ± 0.58	6.11 ± 0.40	10.01 ± 0.52	14.54 ± 0.68	n = 14	[ROC] Roche cobas c501
3.86 ± 0.10	11.83 ± 0.56	5.72 ± 0.27	9.93 ± 0.65	15.87 ± 1.01	n = 10	[ROT] Roche Cobas INTEGRA 800
4.43 ± 0.21	11.97 ± 0.31	6.35 ± 0.29	10.40 ± 0.33	14.93 ± 0.36	n = 12	[ROD] Roche MODULAR D/P
4.05 ± 0.28	12.01 ± 0.75	6.13 ± 0.36	9.89 ± 0.33	14.45 ± 0.99	n = 9	[BYE] Siemens ADVIA 1800
4.14 ± 0.33	12.48 ± 1.42	6.18 ± 0.62	10.62 ± 1.03	15.76 ± 1.80	n = 12	[COB] Siemens ADVIA Centaur
4.15 ± 0.46	11.73 ± 0.15	6.14 ± 0.52	9.87 ± 0.25	14.28 ± 0.43	n = 4	[BYP] Siemens ADVIA Centaur CP
3.67 ± 0.12	10.85 ± 0.24	5.63 ± 0.14	9.36 ± 0.25	14.18 ± 0.38	n = 9	[DUE] Siemens Dimension EXL
3.72 ± 0.14	10.87 ± 0.29	5.64 ± 0.26	9.16 ± 0.32	13.92 ± 0.34	n = 11	[DUR] Siemens Dimension RxL
3.65 ± 0.20	10.80 ± 0.48	5.49 ± 0.28	9.17 ± 0.45	13.62 ± 0.57	n = 40	[DUT] Siemens Dimension Vista
3.81 ± 0.11	10.95 ± 0.39	5.68 ± 0.20	9.43 ± 0.24	14.10 ± 0.42	n = 4	[DUX] Siemens Dimension Xpand
<Reagents>						
3.88 ± 0.32	11.50 ± 0.69	5.81 ± 0.28	9.85 ± 0.56	14.72 ± 0.99	n = 20	[AB1] Abbott
3.49 ± 0.25	11.00 ± 0.26	5.42 ± 0.30	9.22 ± 0.54	13.77 ± 0.83	n = 20	[BC1] Beckman Coulter
3.96 ± 0.07	11.41 ± 0.41	5.75 ± 0.21	9.80 ± 0.47	15.04 ± 0.67	n = 10	[OL1] Beckman Coulter AU Series
4.50 ± 0.30	12.03 ± 0.43	6.37 ± 0.40	10.27 ± 0.39	15.14 ± 0.51	n = 8	[MG1] Microgenics CEDIA
3.00 ± 0.00	8.95 ± 0.33	4.44 ± 0.33	7.73 ± 0.46	11.96 ± 0.56	n = 29	[JJ1] Ortho Clinical Diagnostics
4.24 ± 0.44	11.69 ± 0.42	6.15 ± 0.26	9.99 ± 0.42	14.61 ± 0.60	n = 17	[RO4] Roche cobas c311/c501/c502/c701/c702
4.38 ± 0.20	11.88 ± 0.23	6.29 ± 0.25	10.32 ± 0.28	14.83 ± 0.21	n = 10	[RO2] Roche Hitachi and Modular D/P
3.85 ± 0.11	11.83 ± 0.60	5.75 ± 0.26	9.89 ± 0.58	15.74 ± 0.95	n = 12	[RO1] Roche Integra and MIRA
4.13 ± 0.35	11.89 ± 0.50	6.17 ± 0.59	10.35 ± 0.91	14.96 ± 1.02	n = 16	[BY1] Siemens ADVIA/ADVIA Centaur
4.04 ± 0.29	11.96 ± 0.69	6.14 ± 0.34	9.74 ± 0.29	14.33 ± 0.74	n = 10	[BY5] Siemens ADVIA/Syva Emit 2000
3.68 ± 0.19	10.84 ± 0.38	5.55 ± 0.26	9.23 ± 0.40	13.81 ± 0.55	n = 64	[DA5] Siemens Dimension
3.72 ± 0.11	11.55 ± 0.68	5.69 ± 0.20	9.68 ± 0.54	14.52 ± 0.87	n = 4	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

Digoxin (µg/L)

Specimen: T86	Specimen: T87	Specimen: T88	Specimen: T89	Specimen: T90	Number	[Code] Instrument or Reagent System
1.643 ± 0.111	3.486 ± 0.203	1.756 ± 0.123	3.017 ± 0.184	2.237 ± 0.144	n = 275	[---] All Methods & Instruments
1.7	3.5	1.7	3.0	2.2		[---] Weigh-in value
<Instruments>						
1.676 ± 0.080	3.521 ± 0.106	1.818 ± 0.073	3.041 ± 0.078	2.298 ± 0.050	n = 5	[ABJ] Abbott Architect c System
1.604 ± 0.042	3.310 ± 0.109	1.673 ± 0.059	2.829 ± 0.069	2.144 ± 0.075	n = 16	[ABH] Abbott Architect i System
1.746 ± 0.080	3.719 ± 0.212	1.876 ± 0.094	3.174 ± 0.091	2.403 ± 0.100	n = 6	[SAA] Beckman Coulter ACCESS
1.602 ± 0.142	3.454 ± 0.191	1.704 ± 0.131	3.024 ± 0.204	2.192 ± 0.144	n = 24	[OLC] Beckman Coulter AU Chemistry System
1.587 ± 0.050	3.363 ± 0.127	1.690 ± 0.077	2.909 ± 0.070	2.157 ± 0.079	n = 10	[BCG] Beckman Coulter UniCel DxC 600
1.600 ± 0.000	3.359 ± 0.186	1.667 ± 0.074	2.888 ± 0.173	2.140 ± 0.130	n = 8	[BCH] Beckman Coulter UniCel DxC 800
1.781 ± 0.136	3.575 ± 0.164	1.785 ± 0.156	3.049 ± 0.197	2.282 ± 0.208	n = 4	[BCU] Beckman Coulter UniCel DxI 800
1.641 ± 0.073	3.328 ± 0.126	1.726 ± 0.104	2.932 ± 0.149	2.186 ± 0.136	n = 16	[JJF] Ortho Vitros 5,1FS
1.626 ± 0.110	3.360 ± 0.101	1.711 ± 0.101	2.938 ± 0.144	2.170 ± 0.116	n = 17	[JJG] Ortho Vitros 5600
1.587 ± 0.005	3.398 ± 0.041	1.676 ± 0.026	2.871 ± 0.044	2.145 ± 0.036	n = 3	[ROJ] Roche cobas c311
1.569 ± 0.089	3.372 ± 0.091	1.698 ± 0.077	2.890 ± 0.110	2.137 ± 0.079	n = 18	[ROC] Roche cobas c501
1.600 ± 0.008	3.591 ± 0.045	1.711 ± 0.067	3.036 ± 0.109	2.193 ± 0.084	n = 5	[ROT] Roche Cobas INTEGRA 800
1.585 ± 0.100	3.342 ± 0.127	1.686 ± 0.044	2.876 ± 0.110	2.143 ± 0.101	n = 14	[ROD] Roche MODULAR D/P
1.665 ± 0.068	3.347 ± 0.070	1.767 ± 0.071	2.917 ± 0.056	2.200 ± 0.000	n = 9	[BYE] Siemens ADVIA 1800
1.823 ± 0.071	3.662 ± 0.221	1.986 ± 0.100	3.225 ± 0.142	2.436 ± 0.090	n = 18	[COB] Siemens ADVIA Centaur
1.759 ± 0.029	3.712 ± 0.059	1.913 ± 0.058	3.209 ± 0.073	2.361 ± 0.036	n = 5	[BYP] Siemens ADVIA Centaur CP
1.701 ± 0.085	3.665 ± 0.132	1.845 ± 0.108	3.211 ± 0.118	2.403 ± 0.123	n = 16	[DUE] Siemens Dimension EXL
1.711 ± 0.097	3.635 ± 0.161	1.839 ± 0.080	3.201 ± 0.216	2.340 ± 0.129	n = 12	[DUR] Siemens Dimension RxL
1.621 ± 0.034	3.585 ± 0.077	1.746 ± 0.049	3.061 ± 0.059	2.230 ± 0.047	n = 42	[DUT] Siemens Dimension Vista
1.625 ± 0.072	3.664 ± 0.146	1.831 ± 0.090	3.169 ± 0.128	2.387 ± 0.097	n = 8	[DUX] Siemens Dimension Xpand
1.836 ± 0.138	3.807 ± 0.275	1.998 ± 0.091	3.213 ± 0.112	2.514 ± 0.144	n = 6	[DPD] Siemens Immulite 2000
<Reagents>						
1.616 ± 0.058	3.350 ± 0.140	1.701 ± 0.086	2.874 ± 0.116	2.180 ± 0.100	n = 21	[AB1] Abbott
1.613 ± 0.121	3.439 ± 0.220	1.717 ± 0.113	2.956 ± 0.180	2.194 ± 0.160	n = 30	[BC1] Beckman Coulter
1.624 ± 0.136	3.512 ± 0.182	1.738 ± 0.124	3.070 ± 0.145	2.222 ± 0.127	n = 17	[OL1] Beckman Coulter AU Series
1.474 ± 0.110	3.254 ± 0.107	1.576 ± 0.080	2.783 ± 0.107	2.049 ± 0.083	n = 5	[MG2] Microgenics DRI
1.633 ± 0.091	3.341 ± 0.111	1.717 ± 0.098	2.936 ± 0.141	2.180 ± 0.122	n = 35	[JJ1] Ortho Clinical Diagnostics
1.567 ± 0.072	3.378 ± 0.089	1.699 ± 0.071	2.886 ± 0.103	2.139 ± 0.072	n = 24	[RO4] Roche cobas c311/c501/c502/c701/c702
1.592 ± 0.121	3.353 ± 0.113	1.685 ± 0.055	2.902 ± 0.146	2.169 ± 0.133	n = 8	[RO2] Roche Hitachi and Modular D/P
1.600 ± 0.006	3.590 ± 0.045	1.709 ± 0.059	3.009 ± 0.113	2.174 ± 0.085	n = 6	[RO1] Roche Integra and MIRA
1.553 ± 0.050	3.285 ± 0.130	1.697 ± 0.008	2.837 ± 0.055	2.100 ± 0.000	n = 5	[RO5] Roche Tina-quant
1.777 ± 0.088	3.582 ± 0.228	1.918 ± 0.125	3.138 ± 0.181	2.369 ± 0.120	n = 32	[BY1] Siemens ADVIA/ADVIA Centaur
1.673 ± 0.086	3.640 ± 0.135	1.822 ± 0.092	3.165 ± 0.144	2.346 ± 0.126	n = 45	[DA5] Siemens Dimension
1.618 ± 0.032	3.580 ± 0.075	1.741 ± 0.048	3.054 ± 0.054	2.228 ± 0.044	n = 33	[DA6] Siemens Dimension LOCI
1.877 ± 0.168	3.902 ± 0.355	2.021 ± 0.116	3.224 ± 0.136	2.583 ± 0.213	n = 7	[DP5] Siemens Immulite

Summary of Participant Performance (Mean and Standard Deviation)

Ethanol (mg/dL)

Specimen: T86	Specimen: T87	Specimen: T88	Specimen: T89	Specimen: T90	Number	[Code] Instrument or Reagent System
215.80 ± 9.55	143.56 ± 6.18	73.69 ± 3.37	119.72 ± 5.51	131.42 ± 5.86	n = 219	[---] All Methods & Instruments
224.9	149.5	74.9	123.4	138.8		[---] Weigh-in value
<Instruments>						
214.88 ± 4.05	143.89 ± 3.36	74.35 ± 2.42	120.91 ± 2.76	132.51 ± 3.18	n = 15	[ABJ] Abbott Architect c System
220.48 ± 6.90	145.86 ± 4.94	74.94 ± 4.17	122.07 ± 4.61	133.64 ± 4.86	n = 19	[OLC] Beckman Coulter AU Chemistry System
214.05 ± 7.09	141.47 ± 5.33	73.26 ± 2.50	118.69 ± 3.69	130.87 ± 4.29	n = 9	[BCG] Beckman Coulter UniCel DxC 600
219.60 ± 10.36	145.87 ± 7.59	73.98 ± 4.45	120.56 ± 7.61	131.83 ± 8.11	n = 7	[BCH] Beckman Coulter UniCel DxC 800
217.58 ± 9.73	143.80 ± 6.48	73.19 ± 3.19	119.09 ± 4.91	131.68 ± 6.00	n = 10	[GCC] Gas Chromatograph
204.30 ± 9.53	141.02 ± 7.24	71.53 ± 1.86	114.78 ± 3.23	123.46 ± 5.40	n = 3	[JJE] Ortho Vitros 250/350/950
199.67 ± 7.03	133.28 ± 2.50	70.10 ± 1.90	110.54 ± 2.51	121.39 ± 3.56	n = 14	[JJF] Ortho Vitros 5,1FS
202.06 ± 9.69	137.07 ± 5.74	70.80 ± 2.34	112.44 ± 4.62	123.62 ± 5.18	n = 17	[JJG] Ortho Vitros 5600
219.84 ± 5.33	146.12 ± 2.87	75.06 ± 1.94	122.62 ± 3.41	133.93 ± 2.23	n = 14	[ROC] Roche cobas c501
211.52 ± 5.34	141.15 ± 4.26	71.74 ± 2.04	117.54 ± 2.95	129.58 ± 3.35	n = 6	[ROT] Roche Cobas INTEGRA 800
215.90 ± 6.87	144.18 ± 5.49	73.68 ± 2.99	120.62 ± 3.90	132.73 ± 4.59	n = 12	[ROD] Roche MODULAR D/P
223.65 ± 4.09	147.58 ± 5.80	76.40 ± 2.85	124.69 ± 4.03	136.82 ± 4.25	n = 10	[BYE] Siemens ADVIA 1800
226.09 ± 4.38	150.28 ± 0.51	77.44 ± 1.02	126.28 ± 0.51	137.72 ± 0.51	n = 3	[BYB] Siemens ADVIA 2400
220.09 ± 6.82	147.03 ± 4.83	74.99 ± 2.88	121.06 ± 3.50	133.44 ± 4.25	n = 14	[DUE] Siemens Dimension EXL
221.59 ± 6.62	145.11 ± 6.12	74.98 ± 3.70	121.05 ± 4.71	133.49 ± 5.49	n = 10	[DUR] Siemens Dimension RxL
215.71 ± 6.49	143.17 ± 4.85	73.70 ± 3.09	119.56 ± 4.48	130.88 ± 4.30	n = 39	[DUT] Siemens Dimension Vista
218.79 ± 8.32	143.53 ± 2.54	74.00 ± 1.67	121.51 ± 3.84	133.53 ± 4.60	n = 8	[DUX] Siemens Dimension Xpand
<Reagents>						
214.77 ± 3.66	143.94 ± 3.20	74.48 ± 2.39	120.97 ± 2.63	132.62 ± 3.08	n = 16	[AB1] Abbott
215.46 ± 9.32	143.88 ± 6.49	73.49 ± 3.48	119.42 ± 4.94	131.17 ± 5.41	n = 19	[BC1] Beckman Coulter
222.35 ± 5.03	147.10 ± 4.10	75.69 ± 3.98	122.87 ± 4.03	134.72 ± 4.07	n = 16	[OL1] Beckman Coulter AU Series
216.88 ± 10.44	143.60 ± 6.90	73.05 ± 3.43	118.77 ± 5.16	131.33 ± 6.30	n = 9	[IH1] In-House
201.11 ± 8.67	135.58 ± 5.55	70.53 ± 2.18	111.79 ± 4.12	122.72 ± 4.70	n = 35	[JJ1] Ortho Clinical Diagnostics
219.13 ± 5.64	145.82 ± 2.96	74.85 ± 1.80	122.26 ± 3.19	133.54 ± 2.35	n = 16	[RO4] Roche cobas c311/c501/c502/c701/c702
215.90 ± 6.87	144.18 ± 5.49	73.68 ± 2.99	120.62 ± 3.90	132.73 ± 4.59	n = 12	[RO2] Roche Hitachi and Modular D/P
211.52 ± 5.34	141.15 ± 4.26	71.74 ± 2.04	117.54 ± 2.95	129.58 ± 3.35	n = 6	[RO1] Roche Integra and MIRA
223.52 ± 2.99	146.00 ± 2.20	76.03 ± 2.29	124.18 ± 3.34	136.21 ± 3.20	n = 7	[BY1] Siemens ADVIA/ADVIA Centaur
228.13 ± 5.42	150.58 ± 3.65	75.97 ± 5.03	124.70 ± 7.26	136.16 ± 7.99	n = 5	[BY5] Siemens ADVIA/Syva Emit 2000
217.57 ± 7.31	144.34 ± 5.15	74.22 ± 3.11	120.36 ± 4.31	132.02 ± 4.64	n = 71	[DA5] Siemens Dimension
212.18 ± 4.84	141.21 ± 4.12	72.42 ± 3.37	118.87 ± 4.95	129.50 ± 5.61	n = 4	[SY2] Syva Emit

Summary of Participant Performance (Mean and Standard Deviation)

Ethosuximide (mg/L)

Specimen: T86	Specimen: T87	Specimen: T88	Specimen: T89	Specimen: T90	Number	[Code] Instrument or Reagent System
58.79 ± 4.26 53.5	83.59 ± 6.52 78.9	44.21 ± 5.32 39.5	120.60 ± 3.10 117.0	93.95 ± 6.46 85.3	n = 6	[---] All Methods & Instruments [---] Weigh-in value
58.14 ± 5.43	82.93 ± 7.91	42.75 ± 5.24	124.28 ± 10.03	91.93 ± 6.19	n = 4	<Instruments> [OLC] Beckman Coulter AU Chemistry System
58.79 ± 4.26	83.59 ± 6.52	44.21 ± 5.32	120.60 ± 3.10	93.95 ± 6.46	n = 6	<Reagents> [SY2] Syva Emit

Summary of Participant Performance (Mean and Standard Deviation)

Gentamicin (mg/L)

Specimen: T86	Specimen: T87	Specimen: T88	Specimen: T89	Specimen: T90	Number	[Code] Instrument or Reagent System
3.40 ± 0.31	13.05 ± 1.54	6.61 ± 0.62	10.58 ± 1.05	7.94 ± 0.73	n = 171	[---] All Methods & Instruments
3.5	13.2	6.6	10.9	7.9		[---] Weigh-in value
<Instruments>						
3.13 ± 0.25	11.89 ± 0.62	5.97 ± 0.25	9.40 ± 0.23	7.02 ± 0.27	n = 4	[ABJ] Abbott Architect c System
3.42 ± 0.12	12.35 ± 1.62	6.56 ± 0.37	10.27 ± 0.63	8.04 ± 0.63	n = 11	[ABH] Abbott Architect i System
3.69 ± 0.19	14.39 ± 1.14	7.34 ± 0.49	11.49 ± 0.78	8.67 ± 0.43	n = 14	[OLC] Beckman Coulter AU Chemistry System
3.67 ± 0.16	13.94 ± 0.99	7.28 ± 0.24	11.58 ± 0.25	8.73 ± 0.32	n = 9	[BCG] Beckman Coulter UniCel DxC 600
3.71 ± 0.18	14.03 ± 0.40	7.16 ± 0.28	11.46 ± 0.51	8.69 ± 0.25	n = 7	[BCH] Beckman Coulter UniCel DxC 800
3.73 ± 0.14	15.21 ± 0.59	7.21 ± 0.29	12.73 ± 0.55	8.49 ± 0.37	n = 9	[JJF] Ortho Vitros 5,1FS
3.79 ± 0.12	15.01 ± 1.02	7.35 ± 0.27	12.35 ± 0.68	8.81 ± 0.47	n = 13	[JJG] Ortho Vitros 5600
3.00 ± 0.26	11.63 ± 1.12	6.03 ± 0.25	9.01 ± 0.11	7.11 ± 0.19	n = 7	[ROC] Roche cobas c501
3.22 ± 0.15	11.79 ± 0.74	5.97 ± 0.34	9.97 ± 0.34	6.34 ± 1.00	n = 3	[ROS] Roche Cobas INTEGRA 400
3.30 ± 0.00	12.37 ± 1.58	6.05 ± 0.30	10.01 ± 0.43	7.35 ± 0.59	n = 12	[ROT] Roche Cobas INTEGRA 800
3.21 ± 0.23	11.86 ± 0.36	6.23 ± 0.26	9.84 ± 0.35	7.51 ± 0.32	n = 8	[ROD] Roche MODULAR D/P
3.42 ± 0.13	13.26 ± 1.34	6.97 ± 0.23	10.34 ± 0.59	8.12 ± 0.53	n = 4	[BYE] Siemens ADVIA 1800
3.35 ± 0.26	13.46 ± 1.02	6.54 ± 0.51	10.70 ± 0.79	7.93 ± 0.51	n = 12	[COB] Siemens ADVIA Centaur
3.42 ± 0.04	12.74 ± 0.45	6.58 ± 0.15	10.43 ± 0.09	7.86 ± 0.18	n = 4	[DUE] Siemens Dimension EXL
3.34 ± 0.08	12.85 ± 0.79	6.50 ± 0.07	10.36 ± 0.30	7.79 ± 0.28	n = 6	[DUR] Siemens Dimension RxL
3.19 ± 0.19	12.18 ± 0.82	6.34 ± 0.32	10.15 ± 0.43	7.58 ± 0.36	n = 41	[DUT] Siemens Dimension Vista
<Reagents>						
3.34 ± 0.22	12.21 ± 1.40	6.36 ± 0.48	9.99 ± 0.72	7.71 ± 0.78	n = 15	[AB1] Abbott
3.67 ± 0.17	13.99 ± 0.76	7.23 ± 0.32	11.53 ± 0.36	8.70 ± 0.29	n = 18	[BC1] Beckman Coulter
3.66 ± 0.23	14.15 ± 1.24	7.51 ± 0.46	11.25 ± 0.92	8.66 ± 0.43	n = 9	[OL1] Beckman Coulter AU Series
3.77 ± 0.13	15.12 ± 0.84	7.29 ± 0.29	12.53 ± 0.62	8.67 ± 0.48	n = 22	[JJ1] Ortho Clinical Diagnostics
3.07 ± 0.31	12.53 ± 1.52	5.98 ± 0.24	10.01 ± 1.19	7.33 ± 0.42	n = 3	[RO4] Roche cobas c311/c501/c502/c701/c702
3.14 ± 0.22	11.72 ± 0.64	6.15 ± 0.26	9.70 ± 0.43	7.40 ± 0.34	n = 6	[RO2] Roche Hitachi and Modular D/P
3.30 ± 0.00	12.22 ± 1.43	6.04 ± 0.30	9.99 ± 0.40	7.25 ± 0.69	n = 15	[RO1] Roche Integra and MIRA
3.33 ± 0.25	13.58 ± 1.06	6.54 ± 0.51	10.72 ± 0.76	7.95 ± 0.56	n = 13	[BY1] Siemens ADVIA/ADVIA Centaur
3.36 ± 0.15	12.90 ± 1.34	6.90 ± 0.24	10.22 ± 0.50	7.99 ± 0.53	n = 5	[BY5] Siemens ADVIA/Syva Emit 2000
3.23 ± 0.19	12.34 ± 0.82	6.38 ± 0.29	10.21 ± 0.39	7.63 ± 0.34	n = 53	[DA5] Siemens Dimension
3.68 ± 0.04	14.70 ± 0.89	7.02 ± 0.28	11.82 ± 0.34	8.69 ± 0.42	n = 5	[SY4] Syva Emit 2000
2.96 ± 0.23	11.82 ± 0.40	6.07 ± 0.25	9.05 ± 0.12	7.19 ± 0.11	n = 4	[TH1] Thermo Scientific

Summary of Participant Performance (Mean and Standard Deviation)

Lithium (mmol/L)

Specimen: T86	Specimen: T87	Specimen: T88	Specimen: T89	Specimen: T90	Number	[Code] Instrument or Reagent System
0.514 ± 0.050 0.6	1.723 ± 0.089 1.9	0.872 ± 0.056 0.9	1.148 ± 0.073 1.3	1.907 ± 0.099 2.0	n = 201	[---] All Methods & Instruments [---] Weigh-in value
<Instruments>						
0.541 ± 0.040	1.736 ± 0.076	0.885 ± 0.056	1.176 ± 0.055	1.914 ± 0.073	n = 14	[ABJ] Abbott Architect c System
0.497 ± 0.006	1.694 ± 0.039	0.832 ± 0.039	1.105 ± 0.017	1.859 ± 0.056	n = 19	[OLC] Beckman Coulter AU Chemistry System
0.500 ± 0.006	1.700 ± 0.000	0.800 ± 0.000	1.098 ± 0.013	1.893 ± 0.047	n = 7	[BCG] Beckman Coulter UniCel DxC 600
0.515 ± 0.047	1.686 ± 0.026	0.818 ± 0.028	1.105 ± 0.028	1.859 ± 0.056	n = 7	[BCH] Beckman Coulter UniCel DxC 800
0.521 ± 0.020	1.644 ± 0.079	0.877 ± 0.041	1.148 ± 0.049	1.863 ± 0.122	n = 3	[ICP] ICP/MS
0.516 ± 0.066	1.820 ± 0.093	0.886 ± 0.063	1.216 ± 0.040	1.990 ± 0.066	n = 15	[JJF] Ortho Vitros 5,1FS
0.531 ± 0.059	1.817 ± 0.068	0.900 ± 0.000	1.239 ± 0.077	2.031 ± 0.095	n = 17	[JJG] Ortho Vitros 5600
0.622 ± 0.041	1.910 ± 0.109	0.911 ± 0.020	1.287 ± 0.069	2.086 ± 0.026	n = 3	[ROY] Roche 9180/9181
0.500 ± 0.000	1.727 ± 0.064	0.885 ± 0.044	1.135 ± 0.060	1.895 ± 0.061	n = 16	[ROC] Roche cobas c501
0.557 ± 0.086	1.734 ± 0.084	0.872 ± 0.044	1.144 ± 0.048	1.920 ± 0.059	n = 8	[ROT] Roche Cobas INTEGRA 800
0.528 ± 0.050	1.688 ± 0.068	0.886 ± 0.043	1.133 ± 0.072	1.871 ± 0.078	n = 8	[ROD] Roche MODULAR D/P
0.514 ± 0.023	1.791 ± 0.061	0.900 ± 0.000	1.194 ± 0.014	1.986 ± 0.058	n = 12	[BYE] Siemens ADVIA 1800
0.435 ± 0.035	1.610 ± 0.082	0.785 ± 0.037	1.011 ± 0.042	1.784 ± 0.087	n = 6	[DUE] Siemens Dimension EXL
0.450 ± 0.045	1.651 ± 0.071	0.804 ± 0.035	1.065 ± 0.048	1.805 ± 0.090	n = 7	[DUR] Siemens Dimension RxL
0.512 ± 0.030	1.699 ± 0.034	0.877 ± 0.030	1.131 ± 0.037	1.880 ± 0.049	n = 39	[DUT] Siemens Dimension Vista
<Reagents>						
0.544 ± 0.039	1.741 ± 0.063	0.890 ± 0.051	1.181 ± 0.051	1.920 ± 0.060	n = 13	[AB1] Abbott
0.612 ± 0.033	1.856 ± 0.136	0.906 ± 0.016	1.241 ± 0.105	2.037 ± 0.121	n = 4	[AV1] AVL Scientific
0.499 ± 0.038	1.672 ± 0.043	0.815 ± 0.033	1.100 ± 0.014	1.859 ± 0.057	n = 15	[BC1] Beckman Coulter
0.498 ± 0.005	1.699 ± 0.005	0.826 ± 0.034	1.108 ± 0.020	1.865 ± 0.051	n = 16	[OL1] Beckman Coulter AU Series
0.515 ± 0.030	1.652 ± 0.089	0.866 ± 0.049	1.139 ± 0.059	1.868 ± 0.115	n = 4	[IH1] In-House
0.526 ± 0.062	1.826 ± 0.080	0.906 ± 0.058	1.230 ± 0.065	2.013 ± 0.083	n = 34	[JJ1] Ortho Clinical Diagnostics
0.500 ± 0.000	1.722 ± 0.065	0.900 ± 0.000	1.136 ± 0.054	1.888 ± 0.059	n = 19	[RO4] Roche cobas c311/c501/c502/c701/c702
0.557 ± 0.086	1.734 ± 0.084	0.872 ± 0.044	1.144 ± 0.048	1.920 ± 0.059	n = 8	[RO1] Roche Integra and MIRA
0.515 ± 0.024	1.791 ± 0.062	0.905 ± 0.023	1.196 ± 0.022	1.986 ± 0.037	n = 12	[BY1] Siemens ADVIA/ADVIA Centaur
0.497 ± 0.046	1.690 ± 0.044	0.857 ± 0.052	1.112 ± 0.058	1.861 ± 0.070	n = 54	[DA5] Siemens Dimension
0.513 ± 0.033	1.670 ± 0.068	0.849 ± 0.061	1.115 ± 0.056	1.865 ± 0.076	n = 11	[TH1] Thermo Scientific

Summary of Participant Performance (Mean and Standard Deviation)

Phenobarbital (mg/L)

Specimen: T86	Specimen: T87	Specimen: T88	Specimen: T89	Specimen: T90	Number	[Code] Instrument or Reagent System
14.55 ± 1.09	36.80 ± 2.40	18.59 ± 1.34	24.22 ± 1.39	45.10 ± 2.82	n = 193	[---] All Methods & Instruments
14.3	36.8	18.4	24.3	45.6		[---] Weigh-in value
<Instruments>						
14.05 ± 1.17	35.79 ± 3.88	18.09 ± 1.01	23.01 ± 1.72	45.56 ± 5.37	n = 3	[ABJ] Abbott Architect c System
14.80 ± 0.46	38.04 ± 1.48	19.14 ± 0.77	24.85 ± 0.77	46.39 ± 1.01	n = 18	[ABH] Abbott Architect i System
13.93 ± 0.71	35.67 ± 2.01	17.73 ± 0.86	23.30 ± 1.06	43.83 ± 2.32	n = 20	[OLC] Beckman Coulter AU Chemistry System
14.63 ± 0.79	33.46 ± 0.86	17.79 ± 0.88	23.84 ± 0.44	40.34 ± 1.49	n = 10	[BCG] Beckman Coulter UniCel DxC 600
14.40 ± 1.26	33.80 ± 2.40	17.98 ± 1.34	23.78 ± 1.37	40.61 ± 2.39	n = 9	[BCH] Beckman Coulter UniCel DxC 800
13.49 ± 0.55	35.26 ± 0.72	17.55 ± 0.72	22.98 ± 0.73	44.10 ± 1.28	n = 4	[ROJ] Roche cobas c311
13.85 ± 0.55	36.45 ± 0.62	17.99 ± 0.72	23.47 ± 0.65	44.63 ± 1.04	n = 15	[ROC] Roche cobas c501
13.57 ± 0.26	35.70 ± 0.97	17.63 ± 0.49	22.81 ± 0.40	44.41 ± 1.34	n = 10	[ROT] Roche Cobas INTEGRA 800
14.24 ± 0.74	37.18 ± 1.36	18.45 ± 0.71	24.17 ± 0.87	45.71 ± 1.80	n = 12	[ROD] Roche MODULAR D/P
15.50 ± 1.10	40.64 ± 3.36	20.77 ± 1.63	26.76 ± 2.30	48.91 ± 3.59	n = 15	[COB] Siemens ADVIA Centaur
15.54 ± 1.08	38.00 ± 1.33	19.12 ± 0.99	24.94 ± 1.12	46.61 ± 1.20	n = 8	[DUE] Siemens Dimension EXL
15.60 ± 0.85	37.99 ± 2.08	18.89 ± 1.17	24.79 ± 1.13	46.47 ± 1.71	n = 10	[DUR] Siemens Dimension RxL
15.05 ± 1.10	37.15 ± 1.76	19.36 ± 1.48	24.86 ± 1.28	45.12 ± 1.99	n = 40	[DUT] Siemens Dimension Vista
14.87 ± 1.10	37.87 ± 2.58	19.43 ± 1.34	25.71 ± 2.27	47.67 ± 3.45	n = 4	[DUX] Siemens Dimension Xpand
<Reagents>						
14.79 ± 0.62	38.11 ± 1.71	19.03 ± 0.89	24.73 ± 0.80	46.33 ± 1.06	n = 20	[AB1] Abbott
14.54 ± 0.96	33.47 ± 1.41	17.94 ± 1.01	23.83 ± 0.66	40.35 ± 1.53	n = 22	[BC1] Beckman Coulter
14.01 ± 0.54	36.18 ± 2.23	18.01 ± 0.83	23.72 ± 1.08	44.11 ± 3.17	n = 12	[OL1] Beckman Coulter AU Series
13.34 ± 0.90	35.25 ± 1.54	16.65 ± 0.78	22.35 ± 0.95	43.95 ± 0.87	n = 4	[MG1] Microgenics CEDIA
13.78 ± 0.53	36.32 ± 0.90	17.97 ± 0.77	23.46 ± 0.67	44.65 ± 1.10	n = 21	[RO4] Roche cobas c311/c501/c502/c701/c702
14.27 ± 0.42	37.61 ± 1.14	18.60 ± 0.32	24.39 ± 0.48	46.51 ± 1.36	n = 4	[RO2] Roche Hitachi and Modular D/P
13.63 ± 0.29	35.57 ± 0.90	17.71 ± 0.47	22.86 ± 0.37	44.25 ± 1.39	n = 12	[RO1] Roche Integra and MIRA
14.25 ± 0.91	36.97 ± 1.41	18.27 ± 0.87	24.00 ± 1.03	45.24 ± 1.87	n = 8	[RO6] Roche ONLINE
15.50 ± 1.03	40.97 ± 3.20	20.60 ± 1.59	26.67 ± 2.18	49.47 ± 3.72	n = 17	[BY1] Siemens ADVIA/ADVIA Centaur
15.20 ± 1.10	37.42 ± 1.84	19.23 ± 1.37	24.88 ± 1.30	45.67 ± 2.08	n = 62	[DA5] Siemens Dimension
13.54 ± 0.48	35.99 ± 2.66	17.65 ± 0.55	23.50 ± 0.85	44.43 ± 2.02	n = 4	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

Phenytoin (mg/L)

Specimen: T86	Specimen: T87	Specimen: T88	Specimen: T89	Specimen: T90	Number	[Code] Instrument or Reagent System
21.49 ± 1.69 20.0	32.65 ± 2.58 33.3	16.48 ± 1.20 16.7	9.63 ± 0.72 9.0	19.79 ± 1.27 19.0	n = 259	[---] All Methods & Instruments [---] Weigh-in value
<Instruments>						
21.38 ± 1.19	35.57 ± 2.44	15.99 ± 0.94	9.86 ± 0.33	19.90 ± 0.87	n = 4	[ABJ] Abbott Architect c System
21.28 ± 0.90	31.96 ± 1.93	16.62 ± 0.65	9.69 ± 0.35	19.75 ± 0.95	n = 17	[ABH] Abbott Architect i System
21.67 ± 1.74	32.76 ± 2.69	16.14 ± 1.36	9.63 ± 0.64	19.76 ± 1.51	n = 29	[OLC] Beckman Coulter AU Chemistry System
19.97 ± 0.78	30.66 ± 1.41	15.77 ± 0.67	9.40 ± 0.34	18.55 ± 0.88	n = 10	[BCG] Beckman Coulter UniCel DxC 600
20.46 ± 0.86	30.82 ± 1.23	16.13 ± 0.53	9.60 ± 0.23	19.00 ± 0.68	n = 9	[BCH] Beckman Coulter UniCel DxC 800
20.05 ± 0.89	31.33 ± 2.17	15.70 ± 0.56	9.11 ± 0.42	19.51 ± 0.67	n = 16	[JJF] Ortho Vitros 5,1FS
19.82 ± 0.94	29.71 ± 2.03	15.45 ± 0.79	9.09 ± 0.45	19.35 ± 0.90	n = 17	[JJG] Ortho Vitros 5600
20.57 ± 0.67	31.29 ± 0.29	15.90 ± 0.18	9.37 ± 0.14	18.99 ± 0.52	n = 3	[ROJ] Roche cobas c311
20.98 ± 1.05	32.53 ± 1.44	16.41 ± 0.71	9.64 ± 0.66	19.56 ± 1.37	n = 16	[ROC] Roche cobas c501
21.50 ± 1.06	32.88 ± 1.49	16.08 ± 0.37	9.26 ± 0.33	19.27 ± 0.61	n = 11	[ROT] Roche Cobas INTEGRA 800
21.48 ± 1.41	32.07 ± 2.38	16.07 ± 0.90	9.40 ± 0.40	19.49 ± 1.13	n = 14	[ROD] Roche MODULAR D/P
23.16 ± 2.21	34.50 ± 2.44	16.92 ± 1.05	10.79 ± 0.86	20.20 ± 1.38	n = 9	[BYE] Siemens ADVIA 1800
25.14 ± 2.05	39.37 ± 3.31	19.27 ± 1.81	11.17 ± 1.05	23.29 ± 2.58	n = 13	[COB] Siemens ADVIA Centaur
25.88 ± 2.31	37.96 ± 2.69	19.12 ± 1.00	11.13 ± 0.58	23.92 ± 2.42	n = 4	[BYP] Siemens ADVIA Centaur CP
21.66 ± 0.91	33.18 ± 1.28	16.77 ± 0.80	9.59 ± 0.50	19.94 ± 0.69	n = 15	[DUE] Siemens Dimension EXL
21.41 ± 0.90	32.59 ± 2.03	16.60 ± 0.77	9.41 ± 0.55	19.62 ± 0.80	n = 11	[DUR] Siemens Dimension RxL
22.79 ± 1.29	34.03 ± 1.60	17.61 ± 1.12	10.19 ± 0.70	20.75 ± 1.18	n = 41	[DUT] Siemens Dimension Vista
21.24 ± 0.19	33.04 ± 1.68	16.60 ± 0.41	9.34 ± 0.21	19.64 ± 0.46	n = 6	[DUX] Siemens Dimension Xpand
<Reagents>						
21.28 ± 0.94	32.49 ± 2.29	16.50 ± 0.78	9.73 ± 0.35	19.78 ± 0.93	n = 21	[AB1] Abbott
20.13 ± 0.79	30.79 ± 1.19	15.97 ± 0.61	9.47 ± 0.35	18.80 ± 0.81	n = 22	[BC1] Beckman Coulter
21.74 ± 1.97	33.12 ± 3.55	16.09 ± 1.48	9.60 ± 0.50	19.52 ± 1.71	n = 17	[OL1] Beckman Coulter AU Series
22.08 ± 1.08	32.52 ± 1.26	16.79 ± 1.04	9.89 ± 0.92	20.69 ± 1.11	n = 6	[MG1] Microgenics CEDIA
19.95 ± 1.01	30.52 ± 2.39	15.56 ± 0.75	9.10 ± 0.47	19.41 ± 0.85	n = 35	[JJ1] Ortho Clinical Diagnostics
21.00 ± 1.11	32.28 ± 1.38	16.21 ± 0.66	9.53 ± 0.55	19.39 ± 1.22	n = 22	[RO4] Roche cobas c311/c501/c502/c701/c702
21.35 ± 1.94	32.32 ± 2.29	16.36 ± 0.42	9.66 ± 0.48	19.82 ± 0.60	n = 5	[RO2] Roche Hitachi and Modular D/P
21.43 ± 0.96	32.68 ± 1.41	16.06 ± 0.33	9.25 ± 0.30	19.16 ± 0.56	n = 13	[RO1] Roche Integra and MIRA
21.48 ± 1.20	31.94 ± 2.40	16.45 ± 1.13	9.29 ± 0.27	19.22 ± 1.32	n = 9	[RO6] Roche ONLINE
25.30 ± 2.15	38.95 ± 3.30	19.20 ± 1.64	11.18 ± 0.96	23.44 ± 2.55	n = 17	[BY1] Siemens ADVIA/ADVIA Centaur
22.96 ± 1.99	34.54 ± 2.70	17.14 ± 1.22	10.82 ± 0.91	20.64 ± 1.70	n = 10	[BY5] Siemens ADVIA/Syva Emit 2000
22.20 ± 1.29	33.59 ± 1.68	17.16 ± 1.06	9.85 ± 0.71	20.25 ± 1.09	n = 73	[DA5] Siemens Dimension
22.30 ± 0.33	33.74 ± 1.64	16.25 ± 1.05	9.89 ± 0.39	20.04 ± 0.19	n = 5	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

Free Phenytoin (mg/L)

Specimen: T86	Specimen: T87	Specimen: T88	Specimen: T89	Specimen: T90	Number	[Code] Instrument or Reagent System
3.57 ± 0.50	5.48 ± 1.01	2.62 ± 0.39	1.55 ± 0.24	3.59 ± 0.50	n = 21	[---] All Methods & Instruments
3.40 ± 0.66	5.00 ± 1.16	2.62 ± 0.65	1.47 ± 0.36	3.32 ± 0.62	n = 9	<Instruments> [OLC] Beckman Coulter AU Chemistry System
3.82 ± 0.31	6.00 ± 0.45	2.79 ± 0.21	1.63 ± 0.16	3.81 ± 0.27	n = 6	[ROT] Roche Cobas INTEGRA 800
2.80 ± 0.09	4.20 ± 0.09	1.93 ± 0.14	1.23 ± 0.05	2.70 ± 0.09	n = 3	<Reagents> [OL1] Beckman Coulter AU Series
3.72 ± 0.36	5.91 ± 0.57	2.72 ± 0.24	1.59 ± 0.16	3.76 ± 0.30	n = 8	[RO1] Roche Integra and MIRA
3.86 ± 0.11	5.64 ± 1.15	2.74 ± 0.17	1.70 ± 0.18	3.72 ± 0.44	n = 6	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

Primidone (mg/L)

Specimen: T86	Specimen: T87	Specimen: T88	Specimen: T89	Specimen: T90	Number	[Code] Instrument or Reagent System
7.29 ± 0.26 7.1	16.79 ± 0.38 16.8	8.72 ± 0.33 8.4	5.92 ± 0.24 5.4	11.92 ± 0.35 11.6	n = 13	[---] All Methods & Instruments [---] Weigh-in value
7.32 ± 0.34	16.67 ± 0.49	8.67 ± 0.43	5.91 ± 0.29	11.80 ± 0.31	n = 7	<Instruments> [OLC] Beckman Coulter AU Chemistry System
7.30 ± 0.09	16.88 ± 0.24	8.83 ± 0.23	5.92 ± 0.15	11.85 ± 0.19	n = 3	[ROT] Roche Cobas INTEGRA 800
7.30 ± 0.09	16.88 ± 0.24	8.83 ± 0.23	5.92 ± 0.15	11.85 ± 0.19	n = 3	<Reagents> [RO1] Roche Integra and MIRA
7.33 ± 0.33	16.67 ± 0.44	8.69 ± 0.39	5.92 ± 0.28	11.86 ± 0.39	n = 8	[SY2] Syva Emit

Summary of Participant Performance (Mean and Standard Deviation)

Procainamide (mg/L)

Specimen: T86	Specimen: T87	Specimen: T88	Specimen: T89	Specimen: T90	Number	[Code] Instrument or Reagent System
7.26 ± 0.35 7.3	10.98 ± 0.60 10.8	5.63 ± 0.32 5.4	13.69 ± 0.46 13.6	7.32 ± 0.45 7.3	n = 11	[---] All Methods & Instruments [---] Weigh-in value
7.40 ± 0.55	10.83 ± 0.51	5.70 ± 0.18	13.56 ± 0.65	7.33 ± 0.34	n = 3	<Instruments> [OLC] Beckman Coulter AU Chemistry System
7.22 ± 0.24	11.22 ± 1.21	5.78 ± 0.32	13.56 ± 0.65	7.42 ± 0.49	n = 3	<Reagents> [SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

N-Acetyl-Procaïnamide (mg/L)

Specimen: T86	Specimen: T87	Specimen: T88	Specimen: T89	Specimen: T90	Number	[Code] Instrument or Reagent System
8.36 ± 0.36 8.2	14.63 ± 1.00 14.3	7.38 ± 0.29 7.1	12.22 ± 0.82 11.9	18.56 ± 1.23 18.7	n = 11	[---] All Methods & Instruments [---] Weigh-in value
8.13 ± 0.42	14.18 ± 0.86	7.13 ± 0.23	12.04 ± 0.39	17.40 ± 1.44	n = 3	<Instruments> [OLC] Beckman Coulter AU Chemistry System
8.13 ± 0.42	14.04 ± 0.74	7.10 ± 0.18	12.46 ± 1.11	17.35 ± 1.35	n = 3	<Reagents> [SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

Quinidine (mg/L)

Specimen: T86	Specimen: T87	Specimen: T88	Specimen: T89	Specimen: T90	Number	[Code] Instrument or Reagent System
6.00 ± 0.22 6.3	4.21 ± 0.18 4.2	2.01 ± 0.15 2.1	3.18 ± 0.22 3.3	5.28 ± 0.09 5.3	n = 11	[---] All Methods & Instruments [---] Weigh-in value
5.90 ± 0.09	4.23 ± 0.05	1.90 ± 0.00	3.07 ± 0.05	5.26 ± 0.10	n = 3	<Instruments> [ROT] Roche Cobas INTEGRA 800
6.10 ± 0.18	4.37 ± 0.14	2.09 ± 0.08	3.36 ± 0.23	5.30 ± 0.09	n = 3	<Reagents> [R04] Roche cobas c311/c501/c502/c701/c702
5.90 ± 0.09	4.23 ± 0.05	1.90 ± 0.00	3.07 ± 0.05	5.26 ± 0.10	n = 3	[R01] Roche Integra and MIRA

Summary of Participant Performance (Mean and Standard Deviation)

Salicylate (mg/L)

Specimen: T86	Specimen: T87	Specimen: T88	Specimen: T89	Specimen: T90	Number	[Code] Instrument or Reagent System
73.18 ± 2.61	45.59 ± 1.58	22.99 ± 0.95	38.04 ± 1.17	20.27 ± 0.96	n = 209	[---] All Methods & Instruments
71.5	43.8	21.9	37.1	19.5		[---] Weigh-in value
<Instruments>						
73.23 ± 1.27	44.92 ± 0.84	22.05 ± 0.60	37.28 ± 0.67	19.44 ± 0.57	n = 16	[ABJ] Abbott Architect c System
77.52 ± 5.60	48.39 ± 1.98	24.21 ± 1.08	40.02 ± 2.29	21.56 ± 0.99	n = 21	[OLC] Beckman Coulter AU Chemistry System
75.45 ± 1.43	45.61 ± 1.53	22.19 ± 0.52	37.59 ± 0.96	18.99 ± 0.55	n = 8	[BCG] Beckman Coulter UniCel DxC 600
76.32 ± 2.94	46.48 ± 1.36	22.47 ± 0.80	38.48 ± 1.31	19.84 ± 0.79	n = 8	[BCH] Beckman Coulter UniCel DxC 800
69.04 ± 3.58	42.84 ± 1.54	23.28 ± 0.51	37.20 ± 2.36	20.28 ± 0.51	n = 3	[JJE] Ortho Vitros 250/350/950
70.96 ± 1.33	44.88 ± 1.13	23.24 ± 0.68	38.42 ± 0.85	20.79 ± 0.43	n = 14	[JJF] Ortho Vitros 5,1FS
72.32 ± 1.65	45.94 ± 1.16	23.44 ± 0.64	38.97 ± 0.92	21.01 ± 0.53	n = 17	[JJG] Ortho Vitros 5600
73.50 ± 2.96	45.69 ± 1.19	21.87 ± 0.53	37.66 ± 1.09	19.14 ± 0.44	n = 15	[ROC] Roche cobas c501
68.91 ± 0.24	43.12 ± 0.40	21.37 ± 0.31	35.98 ± 0.79	19.19 ± 0.14	n = 7	[ROT] Roche Cobas INTEGRA 800
71.86 ± 0.97	44.65 ± 0.31	22.39 ± 0.22	37.03 ± 0.42	19.38 ± 0.19	n = 9	[ROD] Roche MODULAR D/P
77.88 ± 1.06	47.53 ± 0.65	23.30 ± 0.55	39.45 ± 0.70	20.63 ± 0.55	n = 9	[BYE] Siemens ADVIA 1800
77.47 ± 1.69	48.43 ± 0.41	23.86 ± 0.10	39.51 ± 0.37	21.32 ± 0.68	n = 3	[BYB] Siemens ADVIA 2400
73.30 ± 0.69	45.56 ± 0.46	23.47 ± 0.34	38.37 ± 0.36	20.75 ± 0.40	n = 14	[DUE] Siemens Dimension EXL
72.84 ± 0.77	45.52 ± 0.55	23.29 ± 0.27	37.93 ± 0.44	20.67 ± 0.36	n = 10	[DUR] Siemens Dimension RxL
72.96 ± 1.20	45.37 ± 0.73	23.24 ± 0.48	37.86 ± 0.53	20.36 ± 0.36	n = 39	[DUT] Siemens Dimension Vista
72.27 ± 0.61	45.30 ± 0.28	23.27 ± 0.51	37.69 ± 0.23	20.51 ± 0.18	n = 6	[DUX] Siemens Dimension Xpand
<Reagents>						
73.27 ± 1.23	44.91 ± 0.80	22.03 ± 0.58	37.22 ± 0.68	19.50 ± 0.63	n = 17	[AB1] Abbott
75.94 ± 1.92	46.25 ± 1.46	22.44 ± 0.84	37.98 ± 1.15	19.56 ± 0.88	n = 20	[BC1] Beckman Coulter
76.29 ± 4.80	48.16 ± 1.82	24.12 ± 1.13	39.74 ± 2.27	21.52 ± 1.06	n = 17	[OL1] Beckman Coulter AU Series
71.56 ± 1.66	45.19 ± 1.56	23.32 ± 0.66	38.65 ± 0.96	20.82 ± 0.55	n = 35	[JJ1] Ortho Clinical Diagnostics
73.21 ± 3.25	45.51 ± 1.31	21.86 ± 0.51	37.58 ± 1.12	19.14 ± 0.42	n = 16	[RO4] Roche cobas c311/c501/c502/c701/c702
71.86 ± 0.97	44.65 ± 0.31	22.39 ± 0.22	37.03 ± 0.42	19.38 ± 0.19	n = 9	[RO2] Roche Hitachi and Modular D/P
68.91 ± 0.24	43.12 ± 0.40	21.37 ± 0.31	35.98 ± 0.79	19.19 ± 0.14	n = 7	[RO1] Roche Integra and MIRA
77.76 ± 1.26	47.71 ± 0.74	23.41 ± 0.53	39.41 ± 0.57	20.78 ± 0.70	n = 11	[BY1] Siemens ADVIA/ADVIA Centaur
72.96 ± 1.00	45.43 ± 0.60	23.32 ± 0.42	37.98 ± 0.51	20.50 ± 0.40	n = 69	[DA5] Siemens Dimension
81.08 ± 4.40	48.76 ± 1.55	24.31 ± 0.81	40.40 ± 0.27	21.60 ± 0.82	n = 3	[SY5] Syva Emit tox

Summary of Participant Performance (Mean and Standard Deviation)

Theophylline (mg/L)

Specimen: T86	Specimen: T87	Specimen: T88	Specimen: T89	Specimen: T90	Number	[Code] Instrument or Reagent System
26.20 ± 1.85	12.71 ± 0.76	6.46 ± 0.43	16.83 ± 1.34	24.56 ± 2.04	n = 201	[---] All Methods & Instruments
26.9	12.9	6.5	17.4	24.6		[---] Weigh-in value
<Instruments>						
26.15 ± 0.77	12.80 ± 0.50	6.50 ± 0.17	16.64 ± 0.59	24.34 ± 0.87	n = 12	[ABH] Abbott Architect i System
26.47 ± 1.79	12.60 ± 0.47	6.29 ± 0.22	16.46 ± 0.88	24.32 ± 1.74	n = 18	[OLC] Beckman Coulter AU Chemistry System
25.19 ± 0.65	12.39 ± 0.18	6.29 ± 0.24	16.26 ± 0.33	23.41 ± 0.72	n = 9	[BCG] Beckman Coulter UniCel DxC 600
25.39 ± 0.73	12.24 ± 0.67	6.20 ± 0.24	16.09 ± 0.67	23.44 ± 0.39	n = 9	[BCH] Beckman Coulter UniCel DxC 800
35.58 ± 2.06	16.71 ± 1.01	7.92 ± 0.61	21.86 ± 1.24	30.20 ± 1.70	n = 14	[JFF] Ortho Vitros 5,1FS
34.72 ± 1.52	16.39 ± 0.72	7.58 ± 0.57	21.45 ± 0.73	29.51 ± 0.99	n = 16	[JJG] Ortho Vitros 5600
26.62 ± 0.37	12.73 ± 0.31	6.38 ± 0.12	16.76 ± 0.28	24.52 ± 0.55	n = 13	[ROC] Roche cobas c501
27.21 ± 0.63	13.13 ± 0.23	6.61 ± 0.11	17.02 ± 0.17	24.49 ± 0.39	n = 7	[ROT] Roche Cobas INTEGRA 800
26.74 ± 0.97	12.83 ± 0.41	6.49 ± 0.30	17.10 ± 0.47	24.53 ± 0.95	n = 11	[ROD] Roche MODULAR D/P
27.03 ± 0.94	12.79 ± 0.54	6.06 ± 0.54	16.74 ± 0.42	24.03 ± 1.51	n = 4	[BYE] Siemens ADVIA 1800
23.41 ± 0.81	11.43 ± 0.79	5.86 ± 0.55	15.20 ± 1.07	22.60 ± 1.05	n = 13	[COB] Siemens ADVIA Centaur
26.77 ± 1.48	12.98 ± 0.51	6.53 ± 0.32	16.89 ± 1.07	24.18 ± 1.52	n = 7	[DUE] Siemens Dimension EXL
26.51 ± 1.63	12.64 ± 0.55	6.40 ± 0.16	16.89 ± 1.33	24.20 ± 1.41	n = 8	[DUR] Siemens Dimension RxL
26.08 ± 1.53	12.89 ± 0.68	6.48 ± 0.32	17.00 ± 0.93	24.30 ± 1.43	n = 41	[DUT] Siemens Dimension Vista
26.57 ± 2.12	12.27 ± 0.59	6.53 ± 0.31	16.90 ± 0.72	24.32 ± 1.22	n = 3	[DUX] Siemens Dimension Xpand
<Reagents>						
26.24 ± 0.91	12.82 ± 0.47	6.52 ± 0.19	16.73 ± 0.65	24.46 ± 1.02	n = 13	[AB1] Abbott
25.33 ± 0.57	12.35 ± 0.37	6.24 ± 0.23	16.21 ± 0.47	23.46 ± 0.64	n = 21	[BC1] Beckman Coulter
26.55 ± 1.95	12.54 ± 0.54	6.27 ± 0.20	16.34 ± 0.92	24.51 ± 1.99	n = 14	[OL1] Beckman Coulter AU Series
35.06 ± 1.77	16.50 ± 0.84	7.74 ± 0.60	21.57 ± 0.96	29.73 ± 1.28	n = 30	[JJ1] Ortho Clinical Diagnostics
26.63 ± 0.30	12.72 ± 0.30	6.37 ± 0.13	16.76 ± 0.37	24.50 ± 0.43	n = 16	[RO4] Roche cobas c311/c501/c502/c701/c702
26.83 ± 0.86	12.84 ± 0.32	6.48 ± 0.21	17.18 ± 0.20	24.55 ± 0.28	n = 4	[RO2] Roche Hitachi and Modular D/P
27.12 ± 0.54	13.08 ± 0.28	6.58 ± 0.14	17.02 ± 0.21	24.59 ± 0.47	n = 9	[RO1] Roche Integra and MIRA
26.71 ± 1.03	12.85 ± 0.48	6.48 ± 0.36	17.10 ± 0.67	24.67 ± 1.40	n = 7	[RO6] Roche ONLINE
23.48 ± 0.84	11.55 ± 0.90	5.91 ± 0.60	15.31 ± 1.20	22.78 ± 1.23	n = 15	[BY1] Siemens ADVIA/ADVIA Centaur
27.14 ± 2.63	13.19 ± 0.94	6.40 ± 0.20	16.62 ± 0.83	24.61 ± 1.66	n = 5	[BY5] Siemens ADVIA/Syva Emit 2000
26.24 ± 1.60	12.84 ± 0.66	6.48 ± 0.30	16.96 ± 1.01	24.28 ± 1.42	n = 59	[DA5] Siemens Dimension
26.59 ± 1.14	12.76 ± 0.30	6.22 ± 0.53	16.83 ± 0.53	24.05 ± 0.38	n = 5	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

Tobramycin (mg/L)

Specimen: T86	Specimen: T87	Specimen: T88	Specimen: T89	Specimen: T90	Number	[Code] Instrument or Reagent System
9.18 ± 0.49 9.5	6.21 ± 0.50 6.6	3.00 ± 0.14 3.3	12.04 ± 1.27 12.6	6.74 ± 0.39 7.0	n = 78	[---] All Methods & Instruments [---] Weigh-in value
<Instruments>						
9.26 ± 0.31	6.09 ± 0.22	3.06 ± 0.06	12.01 ± 0.64	6.57 ± 0.20	n = 7	[ABJ] Abbott Architect c System
8.95 ± 0.37	6.28 ± 0.11	2.94 ± 0.08	11.43 ± 0.69	6.72 ± 0.23	n = 10	[OLC] Beckman Coulter AU Chemistry System
11.58 ± 0.24	7.95 ± 0.36	4.17 ± 0.14	14.81 ± 0.66	8.56 ± 0.26	n = 3	[BCG] Beckman Coulter UniCel DxC 600
9.79 ± 4.68	6.65 ± 3.18	3.45 ± 1.65	12.15 ± 5.88	7.22 ± 3.45	n = 4	[BCH] Beckman Coulter UniCel DxC 800
9.34 ± 0.36	6.44 ± 0.24	3.02 ± 0.11	13.86 ± 0.81	6.99 ± 0.22	n = 3	[JJF] Ortho Vitros 5,1FS
9.29 ± 0.45	6.53 ± 0.09	2.95 ± 0.06	12.69 ± 0.92	6.94 ± 0.18	n = 4	[JJG] Ortho Vitros 5600
9.16 ± 0.35	6.38 ± 0.29	3.10 ± 0.08	11.36 ± 0.83	6.87 ± 0.16	n = 4	[ROC] Roche cobas c501
9.19 ± 0.12	5.98 ± 0.11	3.00 ± 0.00	12.13 ± 0.63	6.64 ± 0.09	n = 7	[ROT] Roche Cobas INTEGRA 800
9.52 ± 0.27	6.55 ± 0.19	3.13 ± 0.09	11.73 ± 0.58	7.02 ± 0.15	n = 4	[ROD] Roche MODULAR D/P
10.59 ± 1.01	6.99 ± 0.28	3.73 ± 0.17	13.21 ± 0.29	7.68 ± 0.28	n = 6	[COB] Siemens ADVIA Centaur
8.97 ± 0.45	5.82 ± 0.32	2.92 ± 0.16	11.22 ± 0.43	6.49 ± 0.31	n = 17	[DUT] Siemens Dimension Vista
<Reagents>						
9.26 ± 0.31	6.09 ± 0.22	3.06 ± 0.06	12.01 ± 0.64	6.57 ± 0.20	n = 7	[AB1] Abbott
11.50 ± 0.25	7.88 ± 0.27	4.11 ± 0.12	14.45 ± 0.38	8.55 ± 0.19	n = 8	[BC1] Beckman Coulter
9.04 ± 0.43	6.22 ± 0.04	2.93 ± 0.09	11.06 ± 0.86	6.60 ± 0.18	n = 4	[OL1] Beckman Coulter AU Series
9.31 ± 0.41	6.55 ± 0.07	2.97 ± 0.08	13.22 ± 1.04	6.96 ± 0.20	n = 7	[JJ1] Ortho Clinical Diagnostics
9.16 ± 0.35	6.38 ± 0.29	3.10 ± 0.08	11.36 ± 0.83	6.87 ± 0.16	n = 4	[RO4] Roche cobas c311/c501/c502/c701/c702
9.25 ± 0.30	5.97 ± 0.09	3.05 ± 0.07	12.19 ± 0.56	6.65 ± 0.10	n = 9	[RO1] Roche Integra and MIRA
9.52 ± 0.27	6.55 ± 0.19	3.13 ± 0.09	11.73 ± 0.58	7.02 ± 0.15	n = 4	[RO6] Roche ONLINE
10.59 ± 1.01	6.99 ± 0.28	3.73 ± 0.17	13.21 ± 0.29	7.68 ± 0.28	n = 6	[BY1] Siemens ADVIA/ADVIA Centaur
9.02 ± 0.43	5.84 ± 0.30	2.93 ± 0.16	11.28 ± 0.45	6.51 ± 0.32	n = 22	[DA5] Siemens Dimension
8.92 ± 0.30	6.34 ± 0.09	2.94 ± 0.08	11.55 ± 0.53	6.82 ± 0.22	n = 6	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

Valproic Acid (mg/L)

Specimen: T86	Specimen: T87	Specimen: T88	Specimen: T89	Specimen: T90	Number	[Code] Instrument or Reagent System
69.57 ± 5.88	99.58 ± 8.68	51.18 ± 4.45	131.11 ± 11.33	119.66 ± 10.98	n = 239	[---] All Methods & Instruments
66.6	96.5	48.2	130.6	116.9		[---] Weigh-in value
<Instruments>						
63.33 ± 0.51	92.10 ± 0.90	46.57 ± 1.04	127.21 ± 5.59	112.12 ± 0.15	n = 3	[ABJ] Abbott Architect c System
83.01 ± 3.36	117.18 ± 6.62	62.21 ± 3.60	146.50 ± 5.11	135.83 ± 7.14	n = 17	[ABH] Abbott Architect i System
72.57 ± 2.09	104.13 ± 2.77	52.94 ± 1.97	135.79 ± 3.82	124.67 ± 3.45	n = 24	[OLC] Beckman Coulter AU Chemistry System
56.36 ± 2.12	81.89 ± 3.44	42.68 ± 2.37	106.24 ± 4.20	97.25 ± 2.36	n = 9	[BCG] Beckman Coulter UniCel DxC 600
56.20 ± 4.26	80.24 ± 5.21	40.00 ± 2.86	103.58 ± 4.36	97.10 ± 3.55	n = 9	[BCH] Beckman Coulter UniCel DxC 800
71.71 ± 3.49	103.17 ± 2.32	51.33 ± 1.83	137.72 ± 3.72	126.05 ± 4.22	n = 10	[JJF] Ortho Vitros 5,1FS
74.16 ± 1.91	105.70 ± 2.34	54.00 ± 1.57	140.75 ± 5.19	128.70 ± 3.35	n = 17	[JJG] Ortho Vitros 5600
70.42 ± 3.79	102.91 ± 6.34	50.29 ± 4.31	138.02 ± 8.37	124.50 ± 9.05	n = 17	[ROC] Roche cobas c501
65.61 ± 1.50	97.12 ± 3.47	48.03 ± 1.48	129.57 ± 4.42	118.43 ± 3.36	n = 8	[ROT] Roche Cobas INTEGRA 800
67.40 ± 2.82	98.32 ± 4.19	48.65 ± 2.16	131.13 ± 5.77	118.12 ± 6.16	n = 12	[ROD] Roche MODULAR D/P
72.60 ± 2.40	107.46 ± 4.69	52.97 ± 2.15	132.96 ± 9.06	129.18 ± 6.50	n = 8	[BYE] Siemens ADVIA 1800
66.58 ± 2.66	94.92 ± 2.80	48.91 ± 2.01	122.58 ± 3.72	112.70 ± 4.34	n = 17	[COB] Siemens ADVIA Centaur
68.41 ± 4.15	99.73 ± 6.67	49.99 ± 2.19	126.47 ± 2.82	117.23 ± 8.30	n = 4	[BYP] Siemens ADVIA Centaur CP
66.13 ± 1.90	93.19 ± 3.04	49.95 ± 1.34	123.46 ± 3.29	112.02 ± 4.85	n = 10	[DUE] Siemens Dimension EXL
65.57 ± 2.28	92.12 ± 4.09	49.13 ± 1.37	121.35 ± 6.41	110.99 ± 5.02	n = 12	[DUR] Siemens Dimension RxL
70.29 ± 2.86	97.93 ± 3.54	52.92 ± 2.60	130.46 ± 5.77	117.48 ± 5.11	n = 42	[DUT] Siemens Dimension Vista
66.50 ± 1.87	94.46 ± 2.28	50.26 ± 0.96	121.12 ± 5.26	109.12 ± 3.32	n = 5	[DUX] Siemens Dimension Xpand
<Reagents>						
81.98 ± 6.97	115.00 ± 10.64	61.22 ± 5.90	145.56 ± 11.45	132.89 ± 12.36	n = 20	[AB1] Abbott
55.89 ± 3.02	81.11 ± 4.03	41.18 ± 3.03	105.13 ± 4.69	97.03 ± 2.87	n = 21	[BC1] Beckman Coulter
72.77 ± 2.11	103.75 ± 2.84	52.68 ± 1.62	134.49 ± 3.23	124.70 ± 3.65	n = 15	[OL1] Beckman Coulter AU Series
73.23 ± 3.01	104.66 ± 2.80	53.13 ± 2.46	139.38 ± 5.59	127.56 ± 4.09	n = 28	[JJ1] Ortho Clinical Diagnostics
70.32 ± 3.31	102.91 ± 6.01	50.74 ± 3.88	136.94 ± 8.27	124.05 ± 9.57	n = 21	[RO4] Roche cobas c311/c501/c502/c701/c702
68.15 ± 2.41	97.31 ± 4.31	47.59 ± 1.52	131.16 ± 7.13	114.17 ± 6.71	n = 4	[RO2] Roche Hitachi and Modular D/P
65.70 ± 1.82	97.12 ± 3.43	48.23 ± 1.46	130.31 ± 4.32	118.42 ± 3.25	n = 10	[RO1] Roche Integra and MIRA
66.75 ± 3.01	98.24 ± 4.26	48.93 ± 1.76	128.69 ± 2.00	120.09 ± 6.00	n = 7	[RO6] Roche ONLINE
66.74 ± 2.99	95.28 ± 2.99	49.10 ± 2.03	123.36 ± 3.90	113.08 ± 4.68	n = 21	[BY1] Siemens ADVIA/ADVIA Centaur
72.91 ± 2.09	107.49 ± 3.41	53.64 ± 2.24	136.05 ± 8.66	129.47 ± 5.36	n = 10	[BY5] Siemens ADVIA/Syva Emit 2000
68.54 ± 3.43	96.06 ± 4.32	51.54 ± 2.75	127.39 ± 7.11	115.23 ± 6.30	n = 69	[DA5] Siemens Dimension
71.83 ± 2.50	104.08 ± 3.69	53.45 ± 2.39	138.74 ± 3.76	123.75 ± 4.33	n = 9	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

Vancomycin (mg/L)

Specimen: T86	Specimen: T87	Specimen: T88	Specimen: T89	Specimen: T90	Number	[Code] Instrument or Reagent System
6.53 ± 0.74 6.7	28.72 ± 3.32 29.1	14.49 ± 1.50 14.6	22.42 ± 2.53 24.8	9.60 ± 1.04 9.7	n = 214	[---] All Methods & Instruments [---] Weigh-in value
<Instruments>						
6.83 ± 0.31	31.65 ± 1.19	15.41 ± 0.58	24.61 ± 1.21	10.30 ± 0.40	n = 4	[ABJ] Abbott Architect c System
6.94 ± 0.20	29.58 ± 0.85	15.17 ± 0.54	23.39 ± 0.97	10.14 ± 0.36	n = 16	[ABH] Abbott Architect i System
6.25 ± 0.28	27.35 ± 1.10	13.88 ± 0.56	21.20 ± 0.80	9.03 ± 0.43	n = 19	[OLC] Beckman Coulter AU Chemistry System
7.01 ± 0.44	33.09 ± 1.29	15.28 ± 0.97	25.32 ± 1.69	10.02 ± 0.72	n = 8	[BCG] Beckman Coulter UniCel DxC 600
7.05 ± 0.36	33.94 ± 0.93	15.54 ± 0.69	25.17 ± 1.06	10.05 ± 0.50	n = 8	[BCH] Beckman Coulter UniCel DxC 800
6.18 ± 0.33	27.51 ± 0.82	13.83 ± 0.43	21.43 ± 0.31	9.08 ± 0.35	n = 8	[JJF] Ortho Vitros 5,1FS
6.34 ± 0.35	27.77 ± 0.98	13.90 ± 0.48	21.66 ± 0.80	9.33 ± 0.41	n = 16	[JJG] Ortho Vitros 5600
7.20 ± 0.44	33.32 ± 1.81	16.14 ± 0.31	25.60 ± 1.65	10.82 ± 0.55	n = 15	[ROC] Roche cobas c501
7.59 ± 0.35	34.45 ± 1.73	17.23 ± 0.69	27.47 ± 0.97	10.91 ± 0.57	n = 8	[ROT] Roche Cobas INTEGRA 800
7.41 ± 0.76	32.92 ± 1.85	16.82 ± 1.01	26.03 ± 1.51	10.92 ± 0.75	n = 10	[ROD] Roche MODULAR D/P
6.25 ± 0.44	27.87 ± 0.92	14.35 ± 0.60	21.80 ± 1.08	9.52 ± 0.62	n = 6	[BYE] Siemens ADVIA 1800
5.10 ± 0.35	23.69 ± 1.26	11.63 ± 0.76	18.44 ± 1.19	7.51 ± 0.59	n = 17	[COB] Siemens ADVIA Centaur
5.18 ± 0.50	22.37 ± 0.72	11.89 ± 0.26	17.63 ± 0.79	7.45 ± 0.42	n = 4	[BYP] Siemens ADVIA Centaur CP
5.75 ± 0.36	27.92 ± 1.26	13.79 ± 0.44	21.57 ± 0.76	8.79 ± 0.30	n = 11	[DUE] Siemens Dimension EXL
6.13 ± 0.27	28.19 ± 0.73	14.10 ± 0.48	21.78 ± 0.77	8.92 ± 0.39	n = 7	[DUR] Siemens Dimension RxL
6.58 ± 0.42	27.33 ± 1.36	14.22 ± 0.79	21.55 ± 0.96	9.59 ± 0.58	n = 42	[DUT] Siemens Dimension Vista
6.22 ± 0.23	28.09 ± 1.14	14.12 ± 0.34	22.30 ± 0.60	9.37 ± 0.37	n = 5	[DUX] Siemens Dimension Xpand
<Reagents>						
6.91 ± 0.24	29.86 ± 1.14	15.22 ± 0.55	23.60 ± 1.11	10.18 ± 0.39	n = 20	[AB1] Abbott
6.94 ± 0.46	33.04 ± 1.67	15.34 ± 0.91	25.04 ± 1.44	9.98 ± 0.58	n = 18	[BC1] Beckman Coulter
6.26 ± 0.34	27.28 ± 1.20	13.83 ± 0.55	21.16 ± 0.84	9.01 ± 0.48	n = 12	[OL1] Beckman Coulter AU Series
6.28 ± 0.33	27.67 ± 0.91	13.86 ± 0.44	21.55 ± 0.62	9.23 ± 0.40	n = 25	[JJ1] Ortho Clinical Diagnostics
7.14 ± 0.32	33.19 ± 1.59	16.20 ± 0.47	25.49 ± 1.39	10.84 ± 0.49	n = 18	[RO4] Roche cobas c311/c501/c502/c701/c702
7.51 ± 0.60	32.29 ± 0.97	16.68 ± 0.78	26.02 ± 1.05	10.80 ± 0.65	n = 5	[RO2] Roche Hitachi and Modular D/P
7.68 ± 0.36	34.95 ± 1.81	17.33 ± 0.68	27.55 ± 0.87	11.06 ± 0.55	n = 10	[RO1] Roche Integra and MIRA
7.32 ± 0.92	33.64 ± 2.36	16.90 ± 1.26	26.10 ± 2.05	11.05 ± 0.82	n = 5	[RO6] Roche ONLINE
5.11 ± 0.39	23.41 ± 1.28	11.70 ± 0.66	18.24 ± 1.19	7.50 ± 0.55	n = 21	[BY1] Siemens ADVIA/ADVIA Centaur
6.29 ± 0.38	28.20 ± 1.12	14.22 ± 0.53	21.46 ± 0.58	9.50 ± 0.52	n = 8	[BY5] Siemens ADVIA/Syva Emit 2000
6.38 ± 0.50	27.59 ± 1.32	14.09 ± 0.66	21.64 ± 0.91	9.35 ± 0.60	n = 65	[DA5] Siemens Dimension
6.24 ± 0.19	27.41 ± 0.90	13.98 ± 0.58	21.27 ± 0.73	9.06 ± 0.34	n = 7	[SY4] Syva Emit 2000