

Summary of Participant Performance (Mean and Standard Deviation)

Acetaminophen (mg/L)

Specimen: T46	Specimen: T47	Specimen: T48	Specimen: T49	Specimen: T50	Number	[Code] Instrument or Reagent System
107.24 ± 4.99 102.0	32.67 ± 1.88 31.2	168.56 ± 13.38 165.2	71.99 ± 3.50 68.0	65.93 ± 2.93 62.3	n = 215	[---] All Methods & Instruments [---] Weigh-in value
<Instruments>						
95.49 ± 0.83	28.37 ± 0.55	153.83 ± 1.07	63.49 ± 0.83	58.00 ± 0.00	n = 5	[ABJ] Abbott Architect c System
108.03 ± 4.77	30.96 ± 1.77	171.32 ± 9.91	68.68 ± 1.29	64.33 ± 2.26	n = 10	[ABB] Abbott AxSym
98.82 ± 7.95	30.18 ± 0.98	157.44 ± 7.09	65.64 ± 0.84	59.89 ± 2.96	n = 11	[OLC] Beckman Coulter AU Chemistry System
111.35 ± 3.94	35.70 ± 2.62	178.80 ± 4.91	77.05 ± 4.85	69.27 ± 2.02	n = 8	[BCX] Beckman Coulter LX-20
109.75 ± 6.49	33.60 ± 2.82	173.98 ± 10.65	73.53 ± 4.87	66.74 ± 4.84	n = 12	[BCG] Beckman Coulter UniCel DxC 600
110.63 ± 3.35	33.79 ± 1.77	174.59 ± 7.88	74.69 ± 3.56	68.27 ± 4.17	n = 17	[BCH] Beckman Coulter UniCel DxC 800
111.45 ± 0.82	32.31 ± 0.43	178.28 ± 1.89	74.71 ± 0.88	68.07 ± 0.56	n = 4	[JJE] Ortho Vitros 250/350/950
110.82 ± 1.11	32.16 ± 0.71	178.02 ± 1.82	73.99 ± 1.15	67.53 ± 0.80	n = 23	[JJF] Ortho Vitros 5,1FS
111.10 ± 1.83	32.00 ± 1.00	179.14 ± 2.61	74.43 ± 1.37	67.48 ± 1.62	n = 5	[JJG] Ortho Vitros 5600
80.78 ± 2.66	20.04 ± 0.07	131.36 ± 5.06	50.55 ± 1.70	46.43 ± 1.18	n = 9	[ROC] Roche cobas c501
78.55 ± 2.09	21.43 ± 0.55	127.32 ± 2.61	50.58 ± 1.16	46.07 ± 1.15	n = 13	[ROT] Roche Cobas INTEGRA
68.83 ± 2.20	17.32 ± 0.40	113.34 ± 3.86	43.75 ± 0.68	39.74 ± 1.21	n = 12	[ROD] Roche MODULAR D/P
108.49 ± 3.40	33.71 ± 0.81	170.95 ± 8.54	73.48 ± 0.86	66.99 ± 0.66	n = 7	[BYE] Siemens ADVIA 1800
102.25 ± 6.28	33.31 ± 2.96	155.23 ± 15.57	70.74 ± 4.78	64.64 ± 4.16	n = 3	[BYB] Siemens ADVIA 2400
103.77 ± 0.80	32.62 ± 1.00	165.24 ± 1.84	70.39 ± 0.68	64.49 ± 1.03	n = 6	[DUE] Siemens Dimension EXL
105.08 ± 1.94	32.62 ± 1.01	167.40 ± 3.14	71.18 ± 1.63	65.17 ± 1.15	n = 36	[DUR] Siemens Dimension RxL
105.70 ± 2.24	34.07 ± 1.32	167.83 ± 3.78	72.10 ± 1.47	66.15 ± 1.19	n = 17	[DUT] Siemens Dimension Vista
104.88 ± 1.14	33.14 ± 1.23	166.54 ± 0.98	70.22 ± 1.19	64.19 ± 1.34	n = 10	[DUX] Siemens Dimension Xpand
<Reagents>						
102.89 ± 8.25	29.98 ± 1.95	164.27 ± 12.30	67.28 ± 3.34	62.27 ± 3.74	n = 15	[AB1] Abbott
110.75 ± 4.12	34.15 ± 2.41	175.91 ± 8.13	74.89 ± 4.07	68.13 ± 3.89	n = 41	[BC1] Beckman Coulter
99.05 ± 5.49	30.04 ± 0.93	157.20 ± 8.51	63.20 ± 4.65	58.97 ± 2.48	n = 6	[OL1] Beckman Coulter AU Series
110.93 ± 1.21	32.17 ± 0.73	178.22 ± 2.01	74.15 ± 1.16	67.56 ± 0.85	n = 32	[JJ1] Ortho Clinical Diagnostics
80.78 ± 2.66	20.04 ± 0.07	131.36 ± 5.06	50.55 ± 1.70	46.43 ± 1.18	n = 9	[RO4] Roche cobas c311/c501/c502/c701
68.82 ± 2.20	17.32 ± 0.40	113.09 ± 3.28	43.75 ± 0.68	39.74 ± 1.21	n = 11	[RO2] Roche Hitachi and Modular D/P
78.55 ± 2.09	21.43 ± 0.55	127.32 ± 2.61	50.58 ± 1.16	46.07 ± 1.15	n = 13	[RO1] Roche Integra and MIRA
108.34 ± 3.67	33.68 ± 0.97	174.45 ± 2.08	73.19 ± 1.60	66.76 ± 1.28	n = 11	[BY1] Siemens ADVIA/ADVIA Centaur
105.00 ± 1.89	33.00 ± 1.26	167.03 ± 3.01	71.17 ± 1.62	65.23 ± 1.35	n = 69	[DA5] Siemens Dimension
97.67 ± 6.90	29.93 ± 0.94	149.68 ± 12.72	65.88 ± 0.33	60.36 ± 1.89	n = 4	[SY5] Syva Emit tox

Summary of Participant Performance (Mean and Standard Deviation)

Carbamazepine (mg/L)

Specimen: T46	Specimen: T47	Specimen: T48	Specimen: T49	Specimen: T50	Number	[Code] Instrument or Reagent System
14.40 ± 0.98 15.1	3.62 ± 0.38 3.9	10.66 ± 0.82 11.7	9.93 ± 0.80 10.2	7.41 ± 0.69 7.7	n = 243	[---] All Methods & Instruments [---] Weigh-in value
<Instruments>						
15.10 ± 1.77	3.87 ± 0.25	11.22 ± 0.66	10.31 ± 0.43	7.71 ± 0.34	n = 4	[ABJ] Abbott Architect c System
14.14 ± 0.80	3.69 ± 0.12	10.44 ± 0.54	9.80 ± 0.49	7.35 ± 0.35	n = 15	[ABB] Abbott AxSym
14.54 ± 0.71	3.84 ± 0.44	10.95 ± 0.72	10.12 ± 0.71	7.58 ± 0.60	n = 14	[OLC] Beckman Coulter AU Chemistry System
14.95 ± 0.19	3.87 ± 0.14	11.27 ± 0.41	10.87 ± 0.32	8.05 ± 0.36	n = 3	[BCS] Beckman Coulter CX
14.43 ± 0.50	3.52 ± 0.30	10.72 ± 0.44	9.96 ± 0.60	7.54 ± 0.32	n = 7	[BCX] Beckman Coulter LX-20
14.33 ± 0.32	3.53 ± 0.23	10.49 ± 0.52	9.96 ± 0.38	7.37 ± 0.39	n = 11	[BCG] Beckman Coulter UniCel Dx C 600
14.15 ± 0.52	3.55 ± 0.14	10.53 ± 0.30	9.91 ± 0.34	7.40 ± 0.34	n = 20	[BCH] Beckman Coulter UniCel Dx C 800
10.74 ± 0.45	3.00 ± 0.00	7.64 ± 0.44	7.46 ± 0.49	5.17 ± 0.37	n = 18	[JFF] Ortho Vitros 5,1FS
10.72 ± 0.47	3.00 ± 0.00	7.71 ± 0.46	7.36 ± 0.39	5.17 ± 0.16	n = 5	[JJG] Ortho Vitros 5600
15.23 ± 1.16	4.12 ± 0.59	11.43 ± 0.82	10.61 ± 0.82	8.08 ± 0.71	n = 13	[ROC] Roche cobas c501
14.46 ± 0.37	3.61 ± 0.08	10.26 ± 0.27	9.62 ± 0.15	7.17 ± 0.17	n = 17	[ROT] Roche Cobas INTEGRA
15.48 ± 0.50	4.52 ± 0.20	11.76 ± 0.38	11.13 ± 0.29	8.45 ± 0.28	n = 15	[ROD] Roche MODULAR D/P
14.14 ± 0.62	3.69 ± 0.23	10.45 ± 0.23	9.87 ± 0.41	7.47 ± 0.27	n = 4	[BYE] Siemens ADVIA 1800
15.50 ± 0.98	3.88 ± 0.27	11.57 ± 0.76	10.77 ± 0.77	8.01 ± 0.60	n = 16	[COB] Siemens ADVIA Centaur
13.91 ± 0.34	3.51 ± 0.11	10.15 ± 0.34	9.42 ± 0.24	6.87 ± 0.21	n = 6	[DUE] Siemens Dimension EXL
14.11 ± 0.56	3.54 ± 0.19	10.41 ± 0.38	9.70 ± 0.33	7.09 ± 0.24	n = 38	[DUR] Siemens Dimension RxL
14.34 ± 0.46	3.63 ± 0.16	10.67 ± 0.33	9.88 ± 0.23	7.41 ± 0.26	n = 19	[DUT] Siemens Dimension Vista
13.96 ± 0.53	3.51 ± 0.11	10.30 ± 0.28	9.56 ± 0.06	7.13 ± 0.14	n = 6	[DUX] Siemens Dimension Xpand
<Reagents>						
14.17 ± 0.98	3.72 ± 0.13	10.58 ± 0.60	9.96 ± 0.55	7.41 ± 0.36	n = 20	[AB1] Abbott
14.33 ± 0.50	3.56 ± 0.21	10.61 ± 0.45	9.97 ± 0.43	7.47 ± 0.37	n = 43	[BC1] Beckman Coulter
14.36 ± 0.32	3.83 ± 0.24	11.08 ± 0.48	10.27 ± 0.39	7.56 ± 0.33	n = 5	[OL1] Beckman Coulter AU Series
15.25 ± 0.40	4.48 ± 0.27	11.67 ± 0.43	10.92 ± 0.39	8.34 ± 0.36	n = 9	[MG1] Microgenics CEDIA
10.74 ± 0.45	3.00 ± 0.00	7.65 ± 0.44	7.44 ± 0.47	5.17 ± 0.32	n = 23	[JJ1] Ortho Clinical Diagnostics
15.00 ± 1.23	3.99 ± 0.60	11.27 ± 0.88	10.43 ± 0.90	7.92 ± 0.76	n = 12	[RO4] Roche cobas c311/c501/c502/c701
15.60 ± 0.43	4.51 ± 0.19	11.82 ± 0.28	11.17 ± 0.25	8.50 ± 0.20	n = 11	[RO2] Roche Hitachi and Modular D/P
14.46 ± 0.37	3.61 ± 0.08	10.26 ± 0.27	9.62 ± 0.15	7.17 ± 0.17	n = 17	[RO1] Roche Integra and MIRA
15.57 ± 0.96	3.93 ± 0.30	11.64 ± 0.77	10.84 ± 0.80	8.09 ± 0.64	n = 18	[BY1] Siemens ADVIA/ADVIA Centaur
14.61 ± 0.75	3.67 ± 0.21	10.48 ± 0.25	10.11 ± 0.33	7.73 ± 0.50	n = 7	[BY5] Siemens ADVIA/Syva Emit 2000
14.13 ± 0.53	3.56 ± 0.18	10.44 ± 0.39	9.72 ± 0.33	7.16 ± 0.28	n = 68	[DA5] Siemens Dimension
13.93 ± 1.19	3.54 ± 0.40	10.26 ± 0.82	9.53 ± 0.79	7.13 ± 0.59	n = 5	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

Digoxin (µg/L)

Specimen: T46	Specimen: T47	Specimen: T48	Specimen: T49	Specimen: T50	Number	[Code] Instrument or Reagent System
3.267 ± 0.205 3.3	0.563 ± 0.098 0.6	1.361 ± 0.132 1.5	2.269 ± 0.166 2.2	1.121 ± 0.126 1.1	n = 290	[---] All Methods & Instruments [---] Weigh-in value
<Instruments>						
3.300 ± 0.064	0.547 ± 0.054	1.492 ± 0.031	2.361 ± 0.052	1.207 ± 0.034	n = 4	[ABJ] Abbott Architect c System
3.179 ± 0.029	0.561 ± 0.029	1.367 ± 0.059	2.207 ± 0.095	1.122 ± 0.041	n = 3	[ABH] Abbott Architect i System
3.395 ± 0.233	0.597 ± 0.047	1.315 ± 0.085	2.292 ± 0.086	1.098 ± 0.145	n = 12	[ABB] Abbott AxSym
3.137 ± 0.161	0.666 ± 0.054	1.450 ± 0.065	2.271 ± 0.107	1.205 ± 0.032	n = 13	[SAA] Beckman Coulter ACCESS
3.117 ± 0.184	0.513 ± 0.055	1.256 ± 0.115	2.092 ± 0.141	1.013 ± 0.131	n = 16	[OLC] Beckman Coulter AU Chemistry System
3.213 ± 0.113	0.630 ± 0.082	1.300 ± 0.114	2.150 ± 0.057	1.015 ± 0.041	n = 4	[BCS] Beckman Coulter CX
3.186 ± 0.109	0.559 ± 0.067	1.294 ± 0.083	2.199 ± 0.161	1.048 ± 0.142	n = 7	[BCX] Beckman Coulter LX-20
3.217 ± 0.159	0.521 ± 0.128	1.294 ± 0.147	2.206 ± 0.180	1.053 ± 0.137	n = 13	[BCG] Beckman Coulter UniCel DxI 800
3.183 ± 0.146	0.530 ± 0.102	1.313 ± 0.124	2.219 ± 0.174	1.093 ± 0.121	n = 17	[BCH] Beckman Coulter UniCel DxI 800
3.267 ± 0.102	0.666 ± 0.094	1.457 ± 0.066	2.291 ± 0.101	1.244 ± 0.062	n = 4	[BCU] Beckman Coulter UniCel DxI 800
3.084 ± 0.127	0.500 ± 0.075	1.165 ± 0.158	1.985 ± 0.041	0.921 ± 0.146	n = 4	[JJE] Ortho Vitros 250/350/950
2.996 ± 0.150	0.457 ± 0.074	1.098 ± 0.154	2.019 ± 0.160	0.876 ± 0.143	n = 23	[JJF] Ortho Vitros 5,1FS
2.963 ± 0.055	0.400 ± 0.000	1.057 ± 0.137	2.015 ± 0.128	0.895 ± 0.093	n = 5	[JJG] Ortho Vitros 5600
3.329 ± 0.086	0.600 ± 0.000	1.391 ± 0.057	2.285 ± 0.063	1.139 ± 0.058	n = 15	[ROC] Roche cobas c501
3.346 ± 0.181	0.615 ± 0.052	1.386 ± 0.122	2.341 ± 0.105	1.157 ± 0.090	n = 11	[ROT] Roche Cobas INTEGRA
3.211 ± 0.113	0.653 ± 0.054	1.383 ± 0.051	2.262 ± 0.109	1.200 ± 0.000	n = 16	[ROD] Roche MODULAR D/P
3.150 ± 0.057	0.500 ± 0.000	1.450 ± 0.057	2.315 ± 0.041	1.200 ± 0.000	n = 4	[BYE] Siemens ADVIA 1800
3.347 ± 0.141	0.583 ± 0.076	1.422 ± 0.078	2.389 ± 0.105	1.184 ± 0.090	n = 20	[COB] Siemens ADVIA Centaur
3.527 ± 0.156	0.528 ± 0.078	1.390 ± 0.011	2.250 ± 0.039	1.125 ± 0.053	n = 4	[BYP] Siemens ADVIA Centaur CP
3.470 ± 0.061	0.586 ± 0.079	1.403 ± 0.082	2.367 ± 0.055	1.100 ± 0.007	n = 7	[DUE] Siemens Dimension EXL
3.397 ± 0.120	0.541 ± 0.087	1.378 ± 0.087	2.330 ± 0.085	1.142 ± 0.070	n = 38	[DUR] Siemens Dimension RxL
3.279 ± 0.204	0.558 ± 0.094	1.363 ± 0.150	2.251 ± 0.211	1.114 ± 0.134	n = 19	[DUT] Siemens Dimension Vista
3.371 ± 0.104	0.524 ± 0.077	1.384 ± 0.069	2.357 ± 0.067	1.119 ± 0.078	n = 14	[DUX] Siemens Dimension Xpand
3.465 ± 0.253	0.632 ± 0.028	1.496 ± 0.044	2.397 ± 0.135	1.209 ± 0.069	n = 6	[DPD] Siemens Immulite 2000
<Reagents>						
3.326 ± 0.192	0.581 ± 0.052	1.364 ± 0.107	2.297 ± 0.093	1.133 ± 0.124	n = 19	[AB1] Abbott
3.192 ± 0.143	0.581 ± 0.113	1.349 ± 0.129	2.226 ± 0.149	1.115 ± 0.134	n = 59	[BC1] Beckman Coulter
3.172 ± 0.103	0.507 ± 0.065	1.262 ± 0.137	2.091 ± 0.175	0.993 ± 0.141	n = 10	[OL1] Beckman Coulter AU Series
3.100 ± 0.075	0.500 ± 0.000	1.250 ± 0.057	2.100 ± 0.000	1.031 ± 0.090	n = 4	[MG2] Microgenics DRI
3.000 ± 0.135	0.454 ± 0.073	1.099 ± 0.153	2.011 ± 0.143	0.884 ± 0.135	n = 32	[JJ1] Ortho Clinical Diagnostics
3.339 ± 0.089	0.618 ± 0.036	1.391 ± 0.057	2.285 ± 0.063	1.130 ± 0.056	n = 15	[RO4] Roche cobas c311/c501/c502/c701
3.811 ± 0.169	0.565 ± 0.067	1.497 ± 0.092	2.563 ± 0.118	1.188 ± 0.087	n = 5	[RO3] Roche Elecsys/Modular E/e601/e411
3.182 ± 0.083	0.655 ± 0.049	1.387 ± 0.061	2.300 ± 0.000	1.200 ± 0.000	n = 7	[RO2] Roche Hitachi and Modular D/P
3.346 ± 0.181	0.615 ± 0.052	1.386 ± 0.122	2.341 ± 0.105	1.157 ± 0.090	n = 11	[RO1] Roche Integra and MIRA
3.200 ± 0.123	0.628 ± 0.051	1.372 ± 0.052	2.201 ± 0.142	1.172 ± 0.052	n = 7	[RO5] Roche Tina-quant
3.323 ± 0.175	0.557 ± 0.085	1.421 ± 0.074	2.354 ± 0.110	1.181 ± 0.082	n = 30	[BY1] Siemens ADVIA/ADVIA Centaur
3.399 ± 0.113	0.554 ± 0.090	1.394 ± 0.092	2.347 ± 0.089	1.142 ± 0.079	n = 71	[DA5] Siemens Dimension
3.054 ± 0.102	0.501 ± 0.007	1.222 ± 0.047	2.038 ± 0.047	0.996 ± 0.026	n = 7	[DA6] Siemens Dimension LOCI
3.529 ± 0.288	0.640 ± 0.036	1.507 ± 0.057	2.416 ± 0.132	1.224 ± 0.073	n = 7	[DP5] Siemens Immulite
2.795 ± 0.219	0.658 ± 0.179	1.274 ± 0.137	2.081 ± 0.148	1.096 ± 0.147	n = 3	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

Ethanol (mg/dL)

Specimen: T46	Specimen: T47	Specimen: T48	Specimen: T49	Specimen: T50	Number	[Code] Instrument or Reagent System
216.74 ± 8.55 219.4	68.00 ± 3.10 68.0	157.36 ± 6.32 165.3	146.72 ± 6.25 146.3	133.72 ± 5.43 136.0	n = 230	[---] All Methods & Instruments [---] Weigh-in value
<Instruments>						
215.21 ± 4.32	67.96 ± 1.54	156.80 ± 3.69	146.55 ± 3.15	133.73 ± 3.36	n = 7	[ABJ] Abbott Architect c System
219.96 ± 9.72	67.27 ± 4.82	155.75 ± 1.53	145.58 ± 7.04	133.19 ± 3.45	n = 3	[ABB] Abbott AxSym
219.81 ± 4.98	68.53 ± 1.87	159.60 ± 4.06	148.20 ± 3.41	135.13 ± 2.67	n = 9	[OLC] Beckman Coulter AU Chemistry System
203.00 ± 14.55	63.15 ± 2.11	142.63 ± 7.72	131.53 ± 8.37	120.19 ± 6.61	n = 4	[BCS] Beckman Coulter CX
217.12 ± 5.82	68.09 ± 2.30	154.71 ± 5.09	146.08 ± 4.49	131.90 ± 4.88	n = 10	[BCX] Beckman Coulter LX-20
219.65 ± 8.07	69.30 ± 2.65	156.89 ± 5.88	145.55 ± 7.55	133.31 ± 6.98	n = 14	[BCG] Beckman Coulter UniCel Dx C 600
217.05 ± 6.08	68.32 ± 3.14	155.55 ± 5.29	145.05 ± 6.06	132.62 ± 5.18	n = 15	[BCH] Beckman Coulter UniCel Dx C 800
215.16 ± 7.91	67.14 ± 2.73	155.75 ± 5.13	146.83 ± 5.41	133.28 ± 4.05	n = 12	[GCC] Gas Chromatograph
210.72 ± 2.33	65.32 ± 4.07	156.38 ± 2.61	141.19 ± 1.97	133.57 ± 5.39	n = 4	[JJE] Ortho Vitros 250/350/950
208.04 ± 8.96	64.35 ± 2.94	152.61 ± 6.85	140.37 ± 6.57	127.72 ± 7.03	n = 22	[JJF] Ortho Vitros 5,1FS
213.38 ± 9.19	63.57 ± 2.91	151.50 ± 6.27	141.22 ± 4.67	130.50 ± 1.94	n = 4	[JJG] Ortho Vitros 5600
213.09 ± 8.54	67.51 ± 2.35	156.44 ± 5.84	147.16 ± 5.32	132.35 ± 4.87	n = 11	[ROC] Roche cobas c501
210.97 ± 8.20	68.01 ± 3.19	153.92 ± 6.02	144.03 ± 5.04	131.86 ± 4.32	n = 10	[ROT] Roche Cobas INTEGRA
218.66 ± 9.41	68.16 ± 2.85	158.13 ± 7.25	147.56 ± 6.42	134.35 ± 5.00	n = 16	[ROD] Roche MODULAR D/P
221.36 ± 2.04	70.17 ± 1.05	162.04 ± 2.66	151.44 ± 2.27	138.24 ± 1.69	n = 8	[BYE] Siemens ADVIA 1800
221.18 ± 8.85	70.08 ± 1.67	161.23 ± 4.56	150.74 ± 3.24	138.10 ± 2.83	n = 3	[BYB] Siemens ADVIA 2400
219.76 ± 5.22	69.12 ± 1.33	160.76 ± 5.98	148.49 ± 2.82	136.55 ± 5.26	n = 6	[DUE] Siemens Dimension EXL
217.38 ± 10.22	68.25 ± 2.67	158.79 ± 5.95	148.10 ± 6.23	134.61 ± 5.10	n = 37	[DUR] Siemens Dimension RxL
220.75 ± 5.39	69.50 ± 3.00	161.56 ± 6.17	149.65 ± 5.12	136.43 ± 4.32	n = 18	[DUT] Siemens Dimension Vista
218.33 ± 4.47	68.96 ± 1.91	158.01 ± 5.15	148.90 ± 5.17	134.09 ± 4.84	n = 11	[DUX] Siemens Dimension Xpand
<Reagents>						
216.49 ± 6.67	67.72 ± 2.58	156.32 ± 3.08	146.79 ± 4.01	133.58 ± 3.37	n = 10	[AB1] Abbott
217.42 ± 6.67	68.24 ± 3.07	155.70 ± 6.00	145.26 ± 6.51	132.13 ± 6.22	n = 44	[BC1] Beckman Coulter
219.60 ± 4.66	69.52 ± 1.81	159.64 ± 4.57	148.36 ± 4.14	135.28 ± 4.09	n = 5	[OL1] Beckman Coulter AU Series
214.35 ± 9.04	66.62 ± 2.87	154.96 ± 5.47	145.96 ± 6.10	132.39 ± 4.48	n = 10	[IH1] In-House
209.16 ± 8.31	64.30 ± 3.04	153.17 ± 6.35	140.79 ± 5.45	129.15 ± 6.31	n = 30	[JJ1] Ortho Clinical Diagnostics
213.09 ± 8.54	67.51 ± 2.35	156.44 ± 5.84	147.16 ± 5.32	132.35 ± 4.87	n = 11	[RO4] Roche cobas c311/c501/c502/c701
218.66 ± 9.41	68.16 ± 2.85	158.13 ± 7.25	147.56 ± 6.42	134.35 ± 5.00	n = 16	[RO2] Roche Hitachi and Modular D/P
210.97 ± 8.20	68.01 ± 3.19	153.92 ± 6.02	144.03 ± 5.04	131.86 ± 4.32	n = 10	[RO1] Roche Integra and MIRA
221.37 ± 2.08	70.41 ± 1.41	162.70 ± 3.33	151.87 ± 2.43	138.56 ± 2.19	n = 9	[BY1] Siemens ADVIA/ADVIA Centaur
223.17 ± 7.05	69.61 ± 1.75	162.11 ± 3.49	150.74 ± 3.24	137.72 ± 3.05	n = 3	[BY5] Siemens ADVIA/Syva Emit 2000
218.96 ± 7.54	68.73 ± 2.51	159.45 ± 5.97	148.63 ± 5.59	135.17 ± 4.94	n = 72	[DA5] Siemens Dimension
220.08 ± 4.93	67.94 ± 1.70	159.67 ± 3.72	148.08 ± 2.83	135.19 ± 1.48	n = 4	[SY2] Syva Emit

Summary of Participant Performance (Mean and Standard Deviation)

Ethosuximide (mg/L)

Specimen: T46	Specimen: T47	Specimen: T48	Specimen: T49	Specimen: T50	Number	[Code] Instrument or Reagent System
54.42 ± 0.70 54.0	85.80 ± 3.78 84.4	112.63 ± 3.71 109.9	37.91 ± 1.79 36.0	180.13 ± 6.16 171.0	n = 6	[---] All Methods & Instruments [---] Weigh-in value
55.14 ± 2.42	87.10 ± 3.38	110.85 ± 3.44	38.57 ± 2.68	181.69 ± 4.37	n = 4	<Instruments> [OLC] Beckman Coulter AU Chemistry System
55.25 ± 1.98	85.46 ± 4.19	113.54 ± 3.47	37.52 ± 1.05	179.14 ± 6.73	n = 5	<Reagents> [SY2] Syva Emit

Summary of Participant Performance (Mean and Standard Deviation)

Gentamicin (mg/L)

Specimen: T46	Specimen: T47	Specimen: T48	Specimen: T49	Specimen: T50	Number	[Code] Instrument or Reagent System
7.18 ± 0.57 7.0	6.91 ± 0.51 6.8	9.46 ± 0.82 9.5	4.92 ± 0.37 4.7	13.59 ± 1.33 13.7	n = 184	[---] All Methods & Instruments [---] Weigh-in value
<Instruments>						
6.22 ± 0.04	5.97 ± 0.09	8.22 ± 0.15	4.22 ± 0.13	11.90 ± 0.42	n = 4	[ABJ] Abbott Architect c System
6.72 ± 0.18	6.52 ± 0.28	8.72 ± 0.46	4.62 ± 0.25	13.10 ± 0.49	n = 10	[ABB] Abbott AxSym
7.63 ± 0.70	7.36 ± 0.55	9.47 ± 0.71	5.15 ± 0.40	14.09 ± 1.59	n = 6	[OLC] Beckman Coulter AU Chemistry System
7.55 ± 0.29	7.10 ± 0.31	9.91 ± 0.38	5.04 ± 0.23	14.01 ± 0.98	n = 10	[BCX] Beckman Coulter LX-20
7.53 ± 0.34	7.13 ± 0.27	10.07 ± 0.39	5.02 ± 0.33	13.87 ± 0.88	n = 11	[BCG] Beckman Coulter UniCel DxC 600
7.54 ± 0.24	7.23 ± 0.29	10.06 ± 0.32	5.00 ± 0.21	14.20 ± 1.18	n = 18	[BCH] Beckman Coulter UniCel DxC 800
7.39 ± 0.52	7.11 ± 0.43	9.41 ± 1.16	5.33 ± 0.36	15.30 ± 0.91	n = 14	[JJF] Ortho Vitros 5,1FS
7.85 ± 0.49	7.49 ± 0.45	10.03 ± 0.99	5.40 ± 0.29	14.70 ± 1.52	n = 4	[JJG] Ortho Vitros 5600
6.33 ± 0.43	5.90 ± 0.47	8.24 ± 0.83	4.42 ± 0.27	12.06 ± 0.89	n = 17	[ROT] Roche Cobas INTEGRA
7.04 ± 0.34	6.83 ± 0.29	8.81 ± 0.87	4.88 ± 0.19	13.03 ± 1.46	n = 10	[ROD] Roche MODULAR D/P
7.25 ± 0.27	6.81 ± 0.37	9.41 ± 0.44	4.93 ± 0.23	13.28 ± 1.41	n = 3	[BYE] Siemens ADVIA 1800
7.71 ± 0.47	7.36 ± 0.52	10.22 ± 0.75	5.27 ± 0.36	14.48 ± 1.19	n = 20	[COB] Siemens ADVIA Centaur
6.89 ± 0.29	6.90 ± 0.09	9.50 ± 0.18	4.87 ± 0.05	13.72 ± 0.41	n = 3	[DUE] Siemens Dimension EXL
7.08 ± 0.32	6.84 ± 0.20	9.47 ± 0.33	4.91 ± 0.14	13.77 ± 0.60	n = 26	[DUR] Siemens Dimension RxL
6.92 ± 0.25	6.72 ± 0.26	9.25 ± 0.32	4.71 ± 0.20	12.80 ± 0.58	n = 17	[DUT] Siemens Dimension Vista
7.15 ± 0.27	6.73 ± 0.23	9.48 ± 0.15	4.98 ± 0.15	13.93 ± 0.41	n = 3	[DUX] Siemens Dimension Xpand
<Reagents>						
6.60 ± 0.28	6.36 ± 0.34	8.53 ± 0.41	4.53 ± 0.30	12.70 ± 0.72	n = 16	[AB1] Abbott
7.56 ± 0.29	7.19 ± 0.31	10.03 ± 0.37	5.03 ± 0.26	14.07 ± 1.04	n = 41	[BC1] Beckman Coulter
7.90 ± 0.73	7.53 ± 0.60	10.03 ± 0.77	5.21 ± 0.29	14.19 ± 1.30	n = 3	[OL1] Beckman Coulter AU Series
7.06 ± 0.30	6.81 ± 0.19	8.95 ± 0.81	4.85 ± 0.12	12.96 ± 1.30	n = 4	[MG1] Microgenics CEDIA
7.49 ± 0.55	7.19 ± 0.46	9.57 ± 1.17	5.35 ± 0.34	15.17 ± 1.13	n = 18	[JJ1] Ortho Clinical Diagnostics
7.12 ± 0.27	6.91 ± 0.24	8.92 ± 0.84	4.95 ± 0.16	13.32 ± 1.66	n = 5	[RO2] Roche Hitachi and Modular D/P
6.37 ± 0.41	5.94 ± 0.46	8.29 ± 0.84	4.42 ± 0.27	12.13 ± 0.88	n = 16	[RO1] Roche Integra and MIRA
7.71 ± 0.47	7.36 ± 0.52	10.22 ± 0.75	5.27 ± 0.36	14.48 ± 1.19	n = 20	[BY1] Siemens ADVIA/ADVIA Centaur
7.23 ± 0.22	6.75 ± 0.31	9.43 ± 0.50	4.88 ± 0.17	12.67 ± 1.39	n = 5	[BY5] Siemens ADVIA/Syva Emit 2000
7.01 ± 0.30	6.81 ± 0.22	9.40 ± 0.32	4.86 ± 0.17	13.47 ± 0.74	n = 49	[DA5] Siemens Dimension
7.37 ± 0.59	7.22 ± 0.50	9.12 ± 0.32	5.06 ± 0.47	14.14 ± 1.90	n = 3	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

Lithium (mmol/L)

Specimen: T46	Specimen: T47	Specimen: T48	Specimen: T49	Specimen: T50	Number	[Code] Instrument or Reagent System
2.358 ± 0.118 2.4	0.369 ± 0.057 0.4	1.079 ± 0.073 1.1	1.583 ± 0.084 1.6	0.754 ± 0.068 0.8	n = 203	[---] All Methods & Instruments [---] Weigh-in value
<Instruments>						
2.377 ± 0.020	0.393 ± 0.022	1.116 ± 0.030	1.616 ± 0.031	0.788 ± 0.022	n = 6	[ABJ] Abbott Architect c System
2.343 ± 0.172	0.397 ± 0.020	1.080 ± 0.049	1.583 ± 0.043	0.772 ± 0.020	n = 4	[AAS] Atomic Absorption Spectrometer
2.247 ± 0.061	0.375 ± 0.043	1.051 ± 0.052	1.558 ± 0.062	0.723 ± 0.052	n = 13	[OLC] Beckman Coulter AU Chemistry System
2.335 ± 0.075	0.317 ± 0.045	1.038 ± 0.040	1.537 ± 0.040	0.705 ± 0.032	n = 7	[BCX] Beckman Coulter LX-20
2.371 ± 0.094	0.349 ± 0.060	1.041 ± 0.069	1.590 ± 0.066	0.746 ± 0.096	n = 7	[BCG] Beckman Coulter UniCel DxC 600
2.301 ± 0.057	0.338 ± 0.066	1.027 ± 0.060	1.528 ± 0.050	0.708 ± 0.043	n = 15	[BCH] Beckman Coulter UniCel DxC 800
2.749 ± 0.108	0.403 ± 0.005	1.136 ± 0.047	1.786 ± 0.026	0.903 ± 0.005	n = 3	[NOS] NOVA 13
2.455 ± 0.123	0.355 ± 0.063	1.126 ± 0.085	1.660 ± 0.128	0.743 ± 0.109	n = 4	[JJE] Ortho Vitros 250/350/950
2.489 ± 0.065	0.400 ± 0.000	1.168 ± 0.065	1.677 ± 0.064	0.800 ± 0.000	n = 20	[JJF] Ortho Vitros 5,1FS
2.500 ± 0.100	0.363 ± 0.055	1.163 ± 0.055	1.700 ± 0.000	0.800 ± 0.000	n = 5	[JJG] Ortho Vitros 5600
2.364 ± 0.085	0.404 ± 0.035	1.022 ± 0.052	1.567 ± 0.106	0.767 ± 0.055	n = 7	[ROY] Roche 9180/9181
2.309 ± 0.093	0.387 ± 0.067	1.073 ± 0.055	1.558 ± 0.058	0.755 ± 0.055	n = 12	[ROC] Roche cobas c501
2.383 ± 0.049	0.393 ± 0.010	1.054 ± 0.049	1.597 ± 0.025	0.765 ± 0.040	n = 12	[ROT] Roche Cobas INTEGRA
2.293 ± 0.055	0.428 ± 0.048	1.115 ± 0.057	1.600 ± 0.040	0.799 ± 0.044	n = 10	[ROD] Roche MODULAR D/P
2.519 ± 0.067	0.379 ± 0.037	1.170 ± 0.045	1.683 ± 0.025	0.802 ± 0.014	n = 8	[BYE] Siemens ADVIA 1800
2.303 ± 0.063	0.305 ± 0.040	1.039 ± 0.052	1.516 ± 0.055	0.691 ± 0.057	n = 31	[DUR] Siemens Dimension RxL
2.389 ± 0.063	0.371 ± 0.028	1.108 ± 0.035	1.595 ± 0.018	0.760 ± 0.047	n = 19	[DUT] Siemens Dimension Vista
2.269 ± 0.056	0.297 ± 0.005	0.997 ± 0.005	1.500 ± 0.000	0.700 ± 0.000	n = 3	[DUX] Siemens Dimension Xpand
<Reagents>						
2.380 ± 0.023	0.388 ± 0.026	1.118 ± 0.020	1.624 ± 0.023	0.792 ± 0.020	n = 4	[AB1] Abbott
2.392 ± 0.092	0.408 ± 0.041	1.038 ± 0.055	1.615 ± 0.123	0.778 ± 0.055	n = 9	[AV1] AVL Scientific
2.318 ± 0.073	0.319 ± 0.044	1.021 ± 0.045	1.534 ± 0.047	0.705 ± 0.037	n = 23	[BC1] Beckman Coulter
2.252 ± 0.061	0.391 ± 0.032	1.057 ± 0.051	1.564 ± 0.061	0.741 ± 0.065	n = 12	[OL1] Beckman Coulter AU Series
2.314 ± 0.062	0.380 ± 0.018	1.100 ± 0.082	1.579 ± 0.029	0.770 ± 0.027	n = 3	[FI1] Fisher
2.283 ± 0.207	0.389 ± 0.037	1.072 ± 0.065	1.556 ± 0.089	0.773 ± 0.016	n = 5	[IH1] In-House
2.733 ± 0.086	0.408 ± 0.013	1.132 ± 0.038	1.785 ± 0.022	0.900 ± 0.008	n = 4	[NO1] NOVA Biomedical
2.486 ± 0.078	0.387 ± 0.048	1.159 ± 0.070	1.674 ± 0.075	0.800 ± 0.000	n = 30	[JJ1] Ortho Clinical Diagnostics
2.308 ± 0.093	0.377 ± 0.077	1.061 ± 0.061	1.544 ± 0.061	0.745 ± 0.059	n = 12	[RO4] Roche cobas c311/c501/c502/c701
2.383 ± 0.049	0.393 ± 0.010	1.054 ± 0.049	1.597 ± 0.025	0.765 ± 0.040	n = 12	[RO1] Roche Integra and MIRA
2.514 ± 0.080	0.380 ± 0.040	1.165 ± 0.054	1.681 ± 0.038	0.800 ± 0.023	n = 11	[BY1] Siemens ADVIA/ADVIA Centaur
2.326 ± 0.079	0.331 ± 0.050	1.062 ± 0.060	1.543 ± 0.063	0.715 ± 0.061	n = 54	[DA5] Siemens Dimension
2.301 ± 0.077	0.403 ± 0.032	1.098 ± 0.060	1.590 ± 0.055	0.776 ± 0.077	n = 16	[TA1] Thermo Electron Corp

Summary of Participant Performance (Mean and Standard Deviation)

Phenobarbital (mg/L)

Specimen: T46	Specimen: T47	Specimen: T48	Specimen: T49	Specimen: T50	Number	[Code] Instrument or Reagent System
52.81 ± 3.75 55.2	13.03 ± 1.06 13.1	38.72 ± 2.47 41.0	35.51 ± 2.51 36.8	26.17 ± 1.71 26.2	n = 241	[---] All Methods & Instruments [---] Weigh-in value
<Instruments>						
54.01 ± 5.74	12.48 ± 1.04	38.43 ± 2.94	34.97 ± 2.51	24.89 ± 1.01	n = 3	[ABJ] Abbott Architect c System
51.62 ± 3.20	12.75 ± 0.38	36.28 ± 1.57	34.60 ± 2.25	25.19 ± 0.96	n = 13	[ABB] Abbott AxSym
53.25 ± 3.23	12.34 ± 0.65	38.32 ± 2.10	35.25 ± 2.51	25.51 ± 1.32	n = 13	[OLC] Beckman Coulter AU Chemistry System
48.36 ± 2.43	13.88 ± 1.61	37.31 ± 1.97	33.88 ± 1.95	26.78 ± 1.69	n = 4	[BCS] Beckman Coulter CX
48.51 ± 3.68	13.82 ± 1.18	37.71 ± 2.46	33.51 ± 2.53	26.48 ± 1.29	n = 9	[BCX] Beckman Coulter LX-20
47.01 ± 2.09	13.49 ± 0.62	35.58 ± 1.80	32.06 ± 1.44	25.98 ± 1.21	n = 13	[BCG] Beckman Coulter UniCel Dx C 600
46.82 ± 3.14	13.47 ± 0.97	35.67 ± 2.18	32.02 ± 1.97	25.56 ± 1.52	n = 19	[BCH] Beckman Coulter UniCel Dx C 800
53.80 ± 2.46	12.33 ± 1.23	38.80 ± 1.52	35.39 ± 1.45	27.31 ± 1.71	n = 22	[JJF] Ortho Vitros 5,1FS
55.00 ± 3.28	12.20 ± 0.76	39.17 ± 1.91	35.35 ± 1.41	27.47 ± 0.95	n = 5	[JJG] Ortho Vitros 5600
52.49 ± 1.36	12.07 ± 0.48	38.57 ± 1.30	35.53 ± 1.06	25.23 ± 0.88	n = 14	[ROC] Roche cobas c501
53.01 ± 1.56	12.36 ± 0.26	37.86 ± 0.78	35.04 ± 0.80	24.59 ± 0.36	n = 16	[ROT] Roche Cobas INTEGRA
52.38 ± 1.63	12.38 ± 0.66	38.60 ± 1.58	35.52 ± 1.42	25.09 ± 1.18	n = 16	[ROD] Roche MODULAR D/P
50.97 ± 1.59	13.04 ± 0.65	39.55 ± 0.63	35.87 ± 0.86	26.82 ± 1.25	n = 3	[BYE] Siemens ADVIA 1800
56.62 ± 3.79	13.82 ± 0.68	41.29 ± 1.71	38.76 ± 2.82	27.74 ± 1.85	n = 14	[COB] Siemens ADVIA Centaur
55.96 ± 1.87	14.10 ± 0.36	40.16 ± 0.84	36.65 ± 0.36	27.26 ± 0.74	n = 3	[DUE] Siemens Dimension EXL
54.97 ± 2.33	13.52 ± 0.85	40.40 ± 1.62	37.20 ± 1.76	26.76 ± 1.30	n = 34	[DUR] Siemens Dimension RxL
54.67 ± 1.83	13.90 ± 1.13	40.57 ± 1.79	37.57 ± 1.79	27.87 ± 1.14	n = 19	[DUT] Siemens Dimension Vista
55.08 ± 2.17	13.87 ± 0.98	40.63 ± 1.16	37.58 ± 0.97	27.19 ± 1.19	n = 6	[DUX] Siemens Dimension Xpand
<Reagents>						
51.76 ± 4.06	12.80 ± 0.52	36.68 ± 1.92	34.81 ± 2.34	25.20 ± 1.05	n = 18	[AB1] Abbott
47.41 ± 2.98	13.60 ± 0.97	36.20 ± 2.29	32.44 ± 1.96	25.99 ± 1.46	n = 47	[BC1] Beckman Coulter
52.59 ± 4.21	12.44 ± 0.73	38.11 ± 1.69	34.47 ± 2.78	24.86 ± 0.75	n = 6	[OL1] Beckman Coulter AU Series
56.11 ± 1.87	12.52 ± 1.03	41.64 ± 1.85	37.16 ± 2.01	27.93 ± 1.43	n = 4	[MG1] Microgenics CEDIA
53.98 ± 2.61	12.32 ± 1.11	38.87 ± 1.59	35.46 ± 1.47	27.45 ± 1.46	n = 28	[JJ1] Ortho Clinical Diagnostics
52.41 ± 1.32	12.06 ± 0.44	38.47 ± 1.26	35.44 ± 1.08	25.15 ± 0.88	n = 15	[RO4] Roche cobas c311/c501/c502/c701
52.15 ± 0.37	12.50 ± 0.23	38.48 ± 0.73	35.67 ± 0.62	25.51 ± 0.66	n = 4	[RO2] Roche Hitachi and Modular D/P
53.01 ± 1.56	12.36 ± 0.26	37.86 ± 0.78	35.04 ± 0.80	24.59 ± 0.36	n = 16	[RO1] Roche Integra and MIRA
52.69 ± 2.12	12.42 ± 0.94	38.68 ± 1.79	35.54 ± 1.70	24.93 ± 1.26	n = 13	[RO6] Roche ONLINE
55.70 ± 3.78	13.62 ± 0.84	40.89 ± 1.85	38.10 ± 3.12	27.28 ± 1.88	n = 17	[BY1] Siemens ADVIA/ADVIA Centaur
50.37 ± 0.33	12.55 ± 0.78	39.33 ± 0.97	35.04 ± 1.26	25.62 ± 1.72	n = 5	[BY5] Siemens ADVIA/Syva Emit 2000
54.94 ± 2.16	13.69 ± 0.95	40.48 ± 1.60	37.31 ± 1.65	27.15 ± 1.36	n = 62	[DA5] Siemens Dimension
52.38 ± 2.14	12.31 ± 0.20	36.68 ± 0.50	37.68 ± 4.51	25.94 ± 0.56	n = 3	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

Phenytoin (mg/L)

Specimen: T46	Specimen: T47	Specimen: T48	Specimen: T49	Specimen: T50	Number	[Code] Instrument or Reagent System
11.28 ± 1.12 11.4	12.12 ± 1.15 12.6	17.64 ± 1.81 19.0	7.70 ± 0.81 7.6	24.43 ± 2.36 25.3	n = 278	[---] All Methods & Instruments [---] Weigh-in value
<Instruments>						
11.17 ± 0.32	12.02 ± 0.32	17.14 ± 0.71	7.62 ± 0.15	23.96 ± 1.09	n = 3	[ABJ] Abbott Architect c System
11.07 ± 0.05	12.19 ± 1.08	17.35 ± 0.83	7.84 ± 0.79	24.07 ± 0.59	n = 3	[ABH] Abbott Architect i System
11.64 ± 0.25	12.36 ± 0.19	17.59 ± 0.52	8.15 ± 0.14	24.30 ± 0.47	n = 14	[ABB] Abbott AxSym
11.32 ± 1.04	12.13 ± 0.92	17.70 ± 1.42	7.66 ± 0.77	24.43 ± 1.70	n = 23	[OLC] Beckman Coulter AU Chemistry System
10.79 ± 1.02	11.69 ± 1.07	16.65 ± 1.80	7.58 ± 0.57	23.36 ± 2.63	n = 4	[BCS] Beckman Coulter CX
10.81 ± 0.27	11.76 ± 0.33	17.14 ± 0.35	7.46 ± 0.36	23.47 ± 0.72	n = 9	[BCX] Beckman Coulter LX-20
10.89 ± 0.40	11.71 ± 0.36	16.63 ± 0.76	7.36 ± 0.40	22.95 ± 1.80	n = 14	[BCG] Beckman Coulter UniCel DxC 600
10.86 ± 0.45	11.72 ± 0.36	16.89 ± 0.62	7.48 ± 0.24	23.27 ± 1.01	n = 20	[BCH] Beckman Coulter UniCel DxC 800
9.11 ± 0.39	10.32 ± 0.38	13.74 ± 0.64	6.46 ± 0.35	19.84 ± 0.96	n = 23	[JJF] Ortho Vitros 5,1FS
9.36 ± 0.53	10.63 ± 0.62	14.21 ± 0.80	6.59 ± 0.39	20.26 ± 0.68	n = 5	[JJG] Ortho Vitros 5600
11.10 ± 0.75	11.78 ± 0.92	17.11 ± 0.98	7.47 ± 0.43	23.41 ± 1.06	n = 15	[ROC] Roche cobas c501
11.25 ± 0.30	11.99 ± 0.38	17.58 ± 0.53	7.62 ± 0.28	24.58 ± 0.90	n = 17	[ROT] Roche Cobas INTEGRA
10.94 ± 0.75	11.94 ± 0.68	17.66 ± 0.76	7.61 ± 0.46	24.10 ± 0.84	n = 19	[ROD] Roche MODULAR D/P
11.73 ± 0.65	12.67 ± 1.16	17.80 ± 1.06	7.89 ± 0.85	25.75 ± 0.67	n = 4	[BYE] Siemens ADVIA 1800
12.94 ± 0.88	14.39 ± 1.04	21.26 ± 0.84	9.16 ± 0.57	29.12 ± 2.08	n = 14	[COB] Siemens ADVIA Centaur
14.43 ± 1.23	15.25 ± 0.27	23.93 ± 1.22	9.46 ± 0.56	31.74 ± 2.53	n = 3	[BYP] Siemens ADVIA Centaur CP
11.54 ± 0.31	12.54 ± 1.32	17.82 ± 0.60	7.82 ± 0.71	25.80 ± 0.23	n = 6	[DUE] Siemens Dimension EXL
12.01 ± 0.80	12.88 ± 0.91	18.92 ± 1.02	8.09 ± 0.64	26.26 ± 1.29	n = 37	[DUR] Siemens Dimension RxL
12.08 ± 0.39	13.00 ± 0.52	18.75 ± 0.58	8.37 ± 0.33	25.72 ± 0.83	n = 19	[DUT] Siemens Dimension Vista
11.38 ± 0.49	12.51 ± 0.58	18.24 ± 0.40	7.77 ± 0.69	25.47 ± 0.77	n = 12	[DUX] Siemens Dimension Xpand
<Reagents>						
11.51 ± 0.42	12.30 ± 0.44	17.54 ± 0.69	8.08 ± 0.38	24.29 ± 0.67	n = 21	[AB1] Abbott
10.90 ± 0.43	11.77 ± 0.35	16.96 ± 0.67	7.48 ± 0.32	23.36 ± 1.31	n = 49	[BC1] Beckman Coulter
11.10 ± 0.99	11.93 ± 0.89	17.47 ± 1.23	7.40 ± 0.50	24.17 ± 1.53	n = 10	[OL1] Beckman Coulter AU Series
12.35 ± 0.93	13.03 ± 0.81	18.99 ± 1.12	8.79 ± 0.62	25.98 ± 0.87	n = 6	[MG1] Microgenics CEDIA
9.16 ± 0.42	10.37 ± 0.46	13.80 ± 0.67	6.46 ± 0.35	19.98 ± 0.83	n = 30	[JJ1] Ortho Clinical Diagnostics
11.12 ± 0.67	11.80 ± 0.81	17.14 ± 0.93	7.49 ± 0.42	23.46 ± 1.00	n = 16	[RO4] Roche cobas c311/c501/c502/c701
10.85 ± 0.67	11.93 ± 0.74	17.55 ± 0.86	7.77 ± 0.14	24.20 ± 0.34	n = 6	[RO2] Roche Hitachi and Modular D/P
11.25 ± 0.30	11.99 ± 0.38	17.58 ± 0.53	7.62 ± 0.28	24.58 ± 0.90	n = 17	[RO1] Roche Integra and MIRA
11.12 ± 0.88	12.02 ± 0.70	17.73 ± 0.68	7.62 ± 0.49	24.25 ± 0.95	n = 14	[RO6] Roche ONLINE
12.90 ± 1.13	14.24 ± 1.32	21.12 ± 1.83	9.04 ± 0.83	28.86 ± 2.57	n = 20	[BY1] Siemens ADVIA/ADVIA Centaur
12.15 ± 0.62	13.64 ± 0.31	18.53 ± 1.20	8.35 ± 0.77	25.99 ± 1.22	n = 5	[BY5] Siemens ADVIA/Syva Emit 2000
11.91 ± 0.70	12.83 ± 0.83	18.69 ± 0.87	8.13 ± 0.61	25.91 ± 1.10	n = 73	[DA5] Siemens Dimension
10.72 ± 0.87	11.24 ± 0.79	16.67 ± 1.40	7.09 ± 0.52	23.21 ± 2.09	n = 3	[DP5] Siemens Immulite
10.70 ± 1.11	11.66 ± 0.95	17.11 ± 1.79	7.27 ± 0.74	23.43 ± 1.94	n = 6	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

Free Phenytoin (mg/L)

Specimen: T46	Specimen: T47	Specimen: T48	Specimen: T49	Specimen: T50	Number	[Code] Instrument or Reagent System
1.94 ± 0.26	2.12 ± 0.29	3.04 ± 0.41	1.30 ± 0.20	4.06 ± 0.84	n = 31	[---] All Methods & Instruments
<Instruments>						
1.91 ± 0.12	2.09 ± 0.15	3.04 ± 0.24	1.30 ± 0.09	3.98 ± 0.22	n = 11	[ABG] Abbott TDX FLX
1.96 ± 0.23	2.23 ± 0.24	3.08 ± 0.33	1.27 ± 0.19	4.23 ± 0.61	n = 6	[OLC] Beckman Coulter AU Chemistry System
2.06 ± 0.17	2.16 ± 0.21	3.15 ± 0.34	1.41 ± 0.11	4.55 ± 0.96	n = 6	[ROT] Roche Cobas INTEGRA
<Reagents>						
1.92 ± 0.12	2.10 ± 0.14	3.04 ± 0.21	1.31 ± 0.08	3.99 ± 0.21	n = 14	[AB1] Abbott
1.18 ± 0.04	1.20 ± 0.00	1.77 ± 0.09	0.80 ± 0.00	2.48 ± 0.15	n = 4	[BC1] Beckman Coulter
2.06 ± 0.17	2.16 ± 0.21	3.15 ± 0.34	1.41 ± 0.11	4.55 ± 0.96	n = 6	[RO1] Roche Integra and MIRA
2.07 ± 0.27	2.36 ± 0.32	3.22 ± 0.41	1.36 ± 0.16	4.41 ± 0.74	n = 6	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

Primidone (mg/L)

Specimen: T46	Specimen: T47	Specimen: T48	Specimen: T49	Specimen: T50	Number	[Code] Instrument or Reagent System
8.03 ± 0.29 7.5	9.30 ± 0.34 9.3	12.56 ± 0.31 12.9	5.48 ± 0.23 5.0	17.93 ± 0.89 18.2	n = 15	[---] All Methods & Instruments [---] Weigh-in value
8.13 ± 0.31 7.80 ± 0.08	9.25 ± 0.28 9.47 ± 0.29	12.62 ± 0.28 12.56 ± 0.38	5.58 ± 0.12 5.26 ± 0.17	17.81 ± 0.74 18.44 ± 1.10	n = 9 n = 5	<Instruments> [OLC] Beckman Coulter AU Chemistry System [ROT] Roche Cobas INTEGRA
7.80 ± 0.08 8.10 ± 0.31	9.47 ± 0.29 9.23 ± 0.35	12.56 ± 0.38 12.62 ± 0.27	5.26 ± 0.17 5.58 ± 0.12	18.44 ± 1.10 17.82 ± 0.73	n = 5 n = 9	<Reagents> [RO1] Roche Integra and MIRA [SY2] Syva Emit

Summary of Participant Performance (Mean and Standard Deviation)

Procainamide (mg/L)

Specimen: T46	Specimen: T47	Specimen: T48	Specimen: T49	Specimen: T50	Number	[Code] Instrument or Reagent System
15.75 ± 1.30 16.5	7.38 ± 0.31 7.6	3.97 ± 0.20 3.7	10.67 ± 0.84 10.9	14.87 ± 0.73 15.3	n = 20	[---] All Methods & Instruments [---] Weigh-in value
15.68 ± 0.46	7.19 ± 0.19	3.77 ± 0.09	10.45 ± 0.92	14.68 ± 0.70	n = 4	<Instruments> [ABB] Abbott AxSym
15.84 ± 0.65	7.53 ± 0.05	4.07 ± 0.14	10.33 ± 0.50	14.60 ± 0.45	n = 3	[OLC] Beckman Coulter AU Chemistry System
15.67 ± 1.83	7.23 ± 0.32	4.04 ± 0.10	10.74 ± 0.79	15.62 ± 1.84	n = 3	[ROC] Roche cobas c501
15.87 ± 1.41	7.39 ± 0.26	3.90 ± 0.21	10.52 ± 0.75	15.05 ± 0.68	n = 6	[ROT] Roche Cobas INTEGRA
15.68 ± 0.46	7.19 ± 0.19	3.77 ± 0.09	10.45 ± 0.92	14.68 ± 0.70	n = 4	<Reagents> [AB1] Abbott
15.67 ± 1.83	7.23 ± 0.32	4.04 ± 0.10	10.74 ± 0.79	15.62 ± 1.84	n = 3	[RO4] Roche cobas c311/c501/c502/c701
15.87 ± 1.41	7.39 ± 0.26	3.90 ± 0.21	10.52 ± 0.75	15.05 ± 0.68	n = 6	[RO1] Roche Integra and MIRA
15.55 ± 0.45	7.60 ± 0.09	4.17 ± 0.05	10.46 ± 0.73	14.68 ± 0.59	n = 3	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

N-Acetyl-Procaïnamide (mg/L)

Specimen: T46	Specimen: T47	Specimen: T48	Specimen: T49	Specimen: T50	Number	[Code] Instrument or Reagent System
19.02 ± 1.18 18.7	4.47 ± 0.29 4.3	10.49 ± 0.94 10.1	12.79 ± 1.05 12.5	8.87 ± 0.66 8.6	n = 20	[---] All Methods & Instruments [---] Weigh-in value
20.21 ± 1.35	4.93 ± 0.25	12.13 ± 0.31	13.82 ± 0.20	9.77 ± 0.39	n = 4	<Instruments>
18.26 ± 0.61	4.60 ± 0.36	10.22 ± 0.86	12.23 ± 0.68	8.78 ± 0.50	n = 3	[ABB] Abbott AxSym
18.59 ± 0.29	4.27 ± 0.23	10.19 ± 0.37	13.34 ± 0.84	8.45 ± 0.27	n = 3	[OLC] Beckman Coulter AU Chemistry System
18.56 ± 0.68	4.36 ± 0.09	9.86 ± 0.25	11.90 ± 0.28	8.42 ± 0.10	n = 6	[ROC] Roche cobas c501 [ROT] Roche Cobas INTEGRA
						<Reagents>
20.21 ± 1.35	4.93 ± 0.25	12.13 ± 0.31	13.82 ± 0.20	9.77 ± 0.39	n = 4	[AB1] Abbott
18.59 ± 0.29	4.27 ± 0.23	10.19 ± 0.37	13.34 ± 0.84	8.45 ± 0.27	n = 3	[RO4] Roche cobas c311/c501/c502/c701
18.56 ± 0.68	4.36 ± 0.09	9.86 ± 0.25	11.90 ± 0.28	8.42 ± 0.10	n = 6	[RO1] Roche Integra and MIRA
18.44 ± 0.82	4.35 ± 0.19	10.03 ± 0.59	12.17 ± 0.59	8.70 ± 0.36	n = 3	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

Quinidine (mg/L)

Specimen: T46	Specimen: T47	Specimen: T48	Specimen: T49	Specimen: T50	Number	[Code] Instrument or Reagent System
5.57 ± 0.29 6.0	3.50 ± 0.14 3.9	1.30 ± 0.09 1.7	4.09 ± 0.14 4.2	6.65 ± 0.38 7.3	n = 19	[---] All Methods & Instruments [---] Weigh-in value
5.78 ± 0.08	3.54 ± 0.11	1.35 ± 0.08	4.08 ± 0.08	7.04 ± 0.30	n = 5	<Instruments> [ABB] Abbott AxSym
5.52 ± 0.16	3.46 ± 0.10	1.33 ± 0.05	4.07 ± 0.14	6.57 ± 0.17	n = 6	[ROT] Roche Cobas INTEGRA
5.78 ± 0.08	3.50 ± 0.16	1.33 ± 0.10	4.08 ± 0.08	6.95 ± 0.33	n = 6	<Reagents> [AB1] Abbott
5.52 ± 0.15	3.53 ± 0.05	1.23 ± 0.05	4.07 ± 0.05	6.50 ± 0.18	n = 3	[R04] Roche cobas c311/c501/c502/c701
5.52 ± 0.16	3.46 ± 0.10	1.33 ± 0.05	4.07 ± 0.14	6.57 ± 0.17	n = 6	[R01] Roche Integra and MIRA

Summary of Participant Performance (Mean and Standard Deviation)

Salicylate (mg/dL)

Specimen: T46	Specimen: T47	Specimen: T48	Specimen: T49	Specimen: T50	Number	[Code] Instrument or Reagent System
65.54 ± 1.96 63.3	27.00 ± 1.36 26.2	84.64 ± 3.24 82.8	43.91 ± 1.49 42.2	54.18 ± 1.79 52.3	n = 214	[---] All Methods & Instruments [---] Weigh-in value
<Instruments>						
64.58 ± 1.38	25.70 ± 0.63	84.26 ± 1.53	42.88 ± 0.71	53.38 ± 0.91	n = 5	[ABJ] Abbott Architect c System
62.47 ± 5.34	26.19 ± 1.96	79.72 ± 7.71	43.02 ± 3.83	52.87 ± 3.68	n = 10	[ABB] Abbott AxSym
69.54 ± 4.67	27.86 ± 2.16	92.70 ± 7.75	46.74 ± 1.99	57.87 ± 2.10	n = 9	[OLC] Beckman Coulter AU Chemistry System
66.31 ± 2.27	25.23 ± 0.91	86.26 ± 2.33	43.04 ± 2.18	54.23 ± 1.76	n = 9	[BCX] Beckman Coulter LX-20
66.00 ± 1.02	25.71 ± 0.89	85.85 ± 1.42	43.16 ± 1.18	53.74 ± 1.27	n = 12	[BCG] Beckman Coulter UniCel DxC 600
65.68 ± 1.87	25.49 ± 0.68	85.70 ± 2.75	42.69 ± 1.27	53.46 ± 1.59	n = 17	[BCH] Beckman Coulter UniCel DxC 800
64.52 ± 5.81	27.98 ± 0.04	84.58 ± 7.29	43.08 ± 4.35	54.22 ± 4.67	n = 4	[JJE] Ortho Vitros 250/350/950
66.00 ± 1.42	28.01 ± 0.60	86.75 ± 2.74	44.41 ± 1.36	55.05 ± 1.62	n = 23	[JJF] Ortho Vitros 5,1FS
65.38 ± 0.34	28.13 ± 0.77	87.25 ± 2.94	45.30 ± 1.00	55.38 ± 1.49	n = 5	[JJG] Ortho Vitros 5600
67.22 ± 2.00	25.81 ± 0.69	82.00 ± 2.44	44.18 ± 0.93	54.89 ± 2.29	n = 9	[ROC] Roche cobas c501
61.85 ± 1.09	25.56 ± 0.62	80.13 ± 2.12	41.81 ± 1.10	50.84 ± 1.16	n = 12	[ROT] Roche Cobas INTEGRA
64.26 ± 2.25	27.26 ± 1.16	82.45 ± 2.52	44.07 ± 1.55	53.41 ± 1.62	n = 12	[ROD] Roche MODULAR D/P
67.89 ± 2.35	27.35 ± 1.32	87.94 ± 3.58	45.02 ± 1.56	55.37 ± 2.34	n = 7	[BYE] Siemens ADVIA 1800
65.00 ± 0.00	27.74 ± 0.35	84.01 ± 0.68	44.23 ± 0.31	54.12 ± 0.19	n = 6	[DUE] Siemens Dimension EXL
65.49 ± 0.60	27.76 ± 0.33	84.26 ± 0.74	44.18 ± 0.35	54.36 ± 0.54	n = 36	[DUR] Siemens Dimension RxL
65.25 ± 1.17	27.66 ± 0.54	84.29 ± 1.38	44.20 ± 0.57	54.19 ± 1.16	n = 17	[DUT] Siemens Dimension Vista
64.87 ± 0.51	27.43 ± 0.16	83.33 ± 0.83	43.82 ± 0.41	53.72 ± 0.50	n = 9	[DUX] Siemens Dimension Xpand
<Reagents>						
63.05 ± 4.50	25.97 ± 1.50	81.03 ± 6.65	42.90 ± 2.80	53.07 ± 1.95	n = 16	[AB1] Abbott
65.87 ± 1.69	25.55 ± 0.82	85.88 ± 2.08	42.94 ± 1.35	53.71 ± 1.57	n = 42	[BC1] Beckman Coulter
69.98 ± 4.80	27.39 ± 2.07	95.13 ± 5.91	46.82 ± 1.78	58.13 ± 1.91	n = 6	[OL1] Beckman Coulter AU Series
66.03 ± 1.62	28.00 ± 0.53	86.89 ± 2.67	44.60 ± 1.43	55.23 ± 1.56	n = 32	[JJ1] Ortho Clinical Diagnostics
67.22 ± 2.00	25.81 ± 0.69	82.00 ± 2.44	44.18 ± 0.93	54.89 ± 2.29	n = 9	[RO4] Roche cobas c311/c501/c502/c701
64.09 ± 1.92	26.94 ± 0.73	82.78 ± 2.22	43.85 ± 1.32	53.37 ± 1.52	n = 11	[RO2] Roche Hitachi and Modular D/P
61.85 ± 1.09	25.56 ± 0.62	80.13 ± 2.12	41.81 ± 1.10	50.84 ± 1.16	n = 12	[RO1] Roche Integra and MIRA
67.90 ± 2.19	27.29 ± 1.12	88.06 ± 3.19	45.00 ± 1.47	55.34 ± 2.14	n = 12	[BY1] Siemens ADVIA/ADVIA Centaur
65.30 ± 0.73	27.68 ± 0.38	84.07 ± 0.96	44.14 ± 0.41	54.21 ± 0.71	n = 67	[DA5] Siemens Dimension

Summary of Participant Performance (Mean and Standard Deviation)

Theophylline (mg/L)

Specimen: T46	Specimen: T47	Specimen: T48	Specimen: T49	Specimen: T50	Number	[Code] Instrument or Reagent System
21.20 ± 1.59 21.5	16.04 ± 1.08 16.1	7.14 ± 0.51 7.6	14.33 ± 0.96 14.3	32.07 ± 2.30 32.3	n = 225	[---] All Methods & Instruments [---] Weigh-in value
<Instruments>						
21.17 ± 0.75	15.88 ± 0.46	7.05 ± 0.26	14.17 ± 0.43	32.11 ± 1.55	n = 12	[ABB] Abbott AxSym
21.44 ± 2.67	15.54 ± 0.87	6.82 ± 0.43	13.70 ± 0.89	31.56 ± 4.56	n = 10	[OLC] Beckman Coulter AU Chemistry System
19.47 ± 3.23	14.82 ± 3.14	6.72 ± 1.23	13.68 ± 2.42	30.18 ± 4.22	n = 3	[BCS] Beckman Coulter CX
20.55 ± 0.91	15.25 ± 0.72	7.05 ± 0.29	13.86 ± 0.71	31.11 ± 0.94	n = 8	[BCX] Beckman Coulter LX-20
20.57 ± 0.99	15.73 ± 0.53	7.25 ± 0.39	14.27 ± 0.43	31.51 ± 0.59	n = 13	[BCG] Beckman Coulter UniCel DxC 600
20.50 ± 0.77	15.72 ± 0.82	7.22 ± 0.44	14.14 ± 0.66	31.45 ± 1.08	n = 18	[BCH] Beckman Coulter UniCel DxC 800
26.42 ± 1.05	18.75 ± 0.60	9.37 ± 0.65	17.19 ± 0.80	38.77 ± 1.33	n = 21	[JJF] Ortho Vitros 5,1FS
26.52 ± 0.46	18.45 ± 0.73	9.27 ± 0.60	16.84 ± 0.59	37.76 ± 1.42	n = 5	[JJG] Ortho Vitros 5600
21.46 ± 0.62	15.79 ± 0.78	7.02 ± 0.22	14.33 ± 0.49	32.12 ± 0.83	n = 13	[ROC] Roche cobas c501
21.76 ± 0.69	16.21 ± 0.53	7.53 ± 0.22	14.70 ± 0.49	32.88 ± 1.24	n = 13	[ROT] Roche Cobas INTEGRA
20.86 ± 0.87	15.67 ± 0.56	6.98 ± 0.31	13.78 ± 0.74	31.93 ± 1.09	n = 15	[ROD] Roche MODULAR D/P
21.35 ± 0.83	16.27 ± 0.32	7.18 ± 0.15	14.73 ± 0.23	32.56 ± 1.08	n = 3	[BYE] Siemens ADVIA 1800
19.09 ± 1.30	15.00 ± 0.86	6.29 ± 0.49	13.37 ± 0.94	29.26 ± 1.73	n = 16	[COB] Siemens ADVIA Centaur
21.17 ± 0.31	15.92 ± 0.32	7.10 ± 0.09	14.36 ± 0.47	31.38 ± 0.41	n = 3	[DUE] Siemens Dimension EXL
21.91 ± 0.95	16.50 ± 0.73	7.34 ± 0.33	14.62 ± 0.51	32.86 ± 1.05	n = 31	[DUR] Siemens Dimension RxL
21.13 ± 0.70	16.09 ± 0.67	7.08 ± 0.26	14.25 ± 0.55	31.72 ± 1.08	n = 20	[DUT] Siemens Dimension Vista
21.53 ± 1.14	16.05 ± 0.86	7.23 ± 0.35	14.38 ± 0.66	31.99 ± 1.16	n = 7	[DUX] Siemens Dimension Xpand
<Reagents>						
21.08 ± 0.95	15.82 ± 0.62	7.04 ± 0.35	14.11 ± 0.53	31.97 ± 1.84	n = 15	[AB1] Abbott
20.60 ± 0.88	15.66 ± 0.78	7.20 ± 0.39	14.18 ± 0.65	31.47 ± 0.99	n = 43	[BC1] Beckman Coulter
21.81 ± 1.95	15.65 ± 0.22	6.89 ± 0.34	13.77 ± 1.07	32.73 ± 3.13	n = 6	[OL1] Beckman Coulter AU Series
26.49 ± 0.90	18.70 ± 0.64	9.36 ± 0.63	17.16 ± 0.79	38.46 ± 1.49	n = 27	[JJ1] Ortho Clinical Diagnostics
21.48 ± 0.59	15.80 ± 0.72	7.03 ± 0.21	14.32 ± 0.46	32.07 ± 0.80	n = 14	[RO4] Roche cobas c311/c501/c502/c701
20.84 ± 0.60	15.55 ± 0.28	6.93 ± 0.16	13.69 ± 0.69	31.80 ± 1.26	n = 4	[RO2] Roche Hitachi and Modular D/P
21.76 ± 0.69	16.21 ± 0.53	7.53 ± 0.22	14.70 ± 0.49	32.88 ± 1.24	n = 13	[RO1] Roche Integra and MIRA
20.85 ± 1.04	15.68 ± 0.72	6.98 ± 0.39	13.83 ± 0.81	31.90 ± 1.24	n = 10	[RO6] Roche ONLINE
19.29 ± 1.35	15.14 ± 0.91	6.35 ± 0.51	13.49 ± 0.94	29.48 ± 1.73	n = 18	[BY1] Siemens ADVIA/ADVIA Centaur
21.29 ± 1.24	15.86 ± 0.52	7.32 ± 0.21	14.49 ± 0.67	32.68 ± 0.96	n = 5	[BY5] Siemens ADVIA/Syva Emit 2000
21.54 ± 0.96	16.30 ± 0.72	7.21 ± 0.33	14.45 ± 0.57	32.29 ± 1.22	n = 60	[DA5] Siemens Dimension
19.35 ± 0.40	15.22 ± 1.09	6.87 ± 0.57	13.94 ± 0.66	27.42 ± 1.09	n = 5	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

Tobramycin (mg/L)

Specimen: T46	Specimen: T47	Specimen: T48	Specimen: T49	Specimen: T50	Number	[Code] Instrument or Reagent System
13.98 ± 1.64 14.1	2.17 ± 0.29 2.1	11.00 ± 1.27 11.0	9.43 ± 1.02 9.4	4.28 ± 0.49 4.2	n = 86	[---] All Methods & Instruments [---] Weigh-in value
<Instruments>						
15.30 ± 1.28	2.46 ± 0.14	12.23 ± 0.87	10.23 ± 0.85	4.63 ± 0.28	n = 13	[ABB] Abbott AxSym
12.77 ± 0.78	1.90 ± 0.06	9.54 ± 0.31	8.40 ± 0.13	3.80 ± 0.14	n = 6	[OLC] Beckman Coulter AU Chemistry System
15.03 ± 1.04	2.60 ± 0.00	12.60 ± 0.64	11.00 ± 0.46	5.10 ± 0.09	n = 3	[BCX] Beckman Coulter LX-20
15.63 ± 1.26	2.38 ± 0.21	12.51 ± 0.65	11.02 ± 0.53	5.03 ± 0.20	n = 4	[BCG] Beckman Coulter UniCel DxC 600
15.77 ± 0.61	2.40 ± 0.16	12.29 ± 0.47	10.95 ± 0.28	4.97 ± 0.20	n = 6	[BCH] Beckman Coulter UniCel DxC 800
15.50 ± 0.46	1.98 ± 0.15	11.86 ± 0.64	9.32 ± 0.46	4.02 ± 0.04	n = 4	[JJF] Ortho Vitros 5,1FS
12.69 ± 0.83	2.07 ± 0.05	10.09 ± 0.37	8.97 ± 0.34	4.13 ± 0.14	n = 3	[ROC] Roche cobas c501
12.87 ± 0.72	1.95 ± 0.13	10.17 ± 0.52	8.46 ± 0.29	3.80 ± 0.08	n = 11	[ROT] Roche Cobas INTEGRA
13.50 ± 1.78	2.21 ± 0.28	9.98 ± 0.55	8.90 ± 0.59	4.07 ± 0.34	n = 5	[ROD] Roche MODULAR D/P
14.43 ± 0.91	2.45 ± 0.14	11.74 ± 0.51	9.94 ± 0.16	4.65 ± 0.19	n = 6	[COB] Siemens ADVIA Centaur
13.83 ± 0.61	2.08 ± 0.08	10.60 ± 0.35	9.18 ± 0.23	4.18 ± 0.15	n = 11	[DUR] Siemens Dimension RxL
12.29 ± 0.57	1.87 ± 0.05	10.28 ± 0.50	8.91 ± 0.52	3.98 ± 0.13	n = 7	[DUT] Siemens Dimension Vista
<Reagents>						
15.30 ± 1.28	2.46 ± 0.14	12.23 ± 0.87	10.23 ± 0.85	4.63 ± 0.28	n = 13	[AB1] Abbott
15.62 ± 0.95	2.45 ± 0.18	12.42 ± 0.58	10.98 ± 0.41	5.02 ± 0.18	n = 13	[BC1] Beckman Coulter
12.39 ± 2.06	1.97 ± 0.23	9.78 ± 0.96	8.68 ± 0.86	3.87 ± 0.51	n = 3	[MG1] Microgenics CEDIA
15.27 ± 0.69	2.01 ± 0.14	11.79 ± 0.58	9.26 ± 0.36	4.05 ± 0.08	n = 5	[JJ1] Ortho Clinical Diagnostics
12.69 ± 0.83	2.07 ± 0.05	10.09 ± 0.37	8.97 ± 0.34	4.13 ± 0.14	n = 3	[RO4] Roche cobas c311/c501/c502/c701
12.87 ± 0.72	1.95 ± 0.13	10.17 ± 0.52	8.46 ± 0.29	3.80 ± 0.08	n = 11	[RO1] Roche Integra and MIRA
12.99 ± 1.81	2.28 ± 0.28	10.14 ± 0.61	9.01 ± 0.65	4.10 ± 0.39	n = 4	[RO6] Roche ONLINE
14.70 ± 1.06	2.46 ± 0.13	11.74 ± 0.52	9.94 ± 0.16	4.66 ± 0.17	n = 7	[BY1] Siemens ADVIA/ADVIA Centaur
13.35 ± 0.99	2.02 ± 0.14	10.51 ± 0.45	9.14 ± 0.34	4.12 ± 0.18	n = 20	[DA5] Siemens Dimension
12.33 ± 0.39	1.88 ± 0.04	9.37 ± 0.09	8.52 ± 0.33	3.80 ± 0.15	n = 4	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

Valproic Acid (mg/L)

Specimen: T46	Specimen: T47	Specimen: T48	Specimen: T49	Specimen: T50	Number	[Code] Instrument or Reagent System
48.06 ± 5.74 48.3	79.32 ± 8.08 80.5	106.16 ± 13.21 109.3	32.71 ± 4.08 32.2	154.29 ± 22.63 161.1	n = 254	[---] All Methods & Instruments [---] Weigh-in value
<Instruments>						
49.56 ± 0.47	80.28 ± 1.50	103.38 ± 1.23	33.73 ± 0.32	136.83 ± 1.23	n = 3	[ABJ] Abbott Architect c System
48.60 ± 2.62	80.92 ± 2.73	108.63 ± 4.45	32.86 ± 1.29	165.46 ± 6.04	n = 15	[ABB] Abbott AxSym
53.38 ± 3.99	86.20 ± 5.72	118.59 ± 5.48	36.46 ± 3.02	175.98 ± 16.36	n = 21	[OLC] Beckman Coulter AU Chemistry System
42.88 ± 1.98	66.06 ± 5.83	84.93 ± 8.71	30.38 ± 2.46	109.51 ± 16.16	n = 4	[BCS] Beckman Coulter CX
39.25 ± 4.74	62.87 ± 7.39	79.98 ± 9.60	28.23 ± 4.94	108.15 ± 16.92	n = 10	[BCX] Beckman Coulter LX-20
39.28 ± 3.75	60.31 ± 6.28	76.33 ± 6.83	26.61 ± 3.95	96.35 ± 11.07	n = 12	[BCG] Beckman Coulter UniCel DxC 600
38.14 ± 3.86	59.93 ± 3.50	74.70 ± 4.57	25.76 ± 4.46	94.23 ± 6.13	n = 18	[BCH] Beckman Coulter UniCel DxC 800
41.52 ± 2.87	76.92 ± 4.74	108.54 ± 5.73	25.74 ± 1.84	158.69 ± 6.66	n = 16	[JJF] Ortho Vitros 5,1FS
42.71 ± 2.03	78.36 ± 4.44	114.31 ± 6.88	26.25 ± 1.44	158.94 ± 16.47	n = 5	[JJG] Ortho Vitros 5600
52.20 ± 2.91	83.76 ± 3.37	117.16 ± 5.52	34.97 ± 2.76	166.81 ± 10.71	n = 16	[ROC] Roche cobas c501
47.27 ± 0.93	79.04 ± 1.12	107.73 ± 2.91	32.30 ± 0.75	157.41 ± 4.84	n = 15	[ROT] Roche Cobas INTEGRA
49.19 ± 2.44	81.19 ± 4.01	109.81 ± 6.93	33.46 ± 2.55	155.35 ± 8.74	n = 16	[ROD] Roche MODULAR D/P
57.29 ± 3.65	90.02 ± 1.62	117.97 ± 3.82	38.32 ± 1.56	182.31 ± 19.51	n = 4	[BYE] Siemens ADVIA 1800
47.70 ± 2.10	77.91 ± 2.08	102.63 ± 3.42	32.76 ± 1.69	155.99 ± 12.95	n = 19	[COB] Siemens ADVIA Centaur
48.81 ± 0.85	78.31 ± 1.33	101.82 ± 1.44	32.54 ± 0.69	146.35 ± 5.21	n = 4	[DUE] Siemens Dimension EXL
50.05 ± 2.50	80.49 ± 3.61	105.14 ± 5.30	34.03 ± 1.92	153.23 ± 9.50	n = 35	[DUR] Siemens Dimension RxL
50.39 ± 1.78	81.54 ± 2.69	108.68 ± 4.72	33.75 ± 1.88	155.29 ± 9.21	n = 19	[DUT] Siemens Dimension Vista
49.84 ± 2.27	79.97 ± 2.98	105.27 ± 4.91	34.02 ± 1.38	155.42 ± 9.42	n = 8	[DUX] Siemens Dimension Xpand
<Reagents>						
48.59 ± 2.70	80.73 ± 2.69	107.77 ± 6.55	32.96 ± 1.41	162.89 ± 13.43	n = 21	[AB1] Abbott
39.08 ± 4.20	60.89 ± 5.70	76.48 ± 6.86	26.92 ± 4.54	96.83 ± 9.54	n = 45	[BC1] Beckman Coulter
53.52 ± 2.90	85.93 ± 4.85	119.36 ± 4.53	37.13 ± 2.20	178.18 ± 15.90	n = 11	[OL1] Beckman Coulter AU Series
41.75 ± 2.81	77.28 ± 4.72	109.82 ± 6.41	25.87 ± 1.74	158.69 ± 9.47	n = 21	[JJ1] Ortho Clinical Diagnostics
52.09 ± 3.28	83.77 ± 3.42	116.80 ± 6.24	35.04 ± 2.65	165.99 ± 11.43	n = 16	[RO4] Roche cobas c311/c501/c502/c701
49.65 ± 1.80	82.25 ± 4.68	113.26 ± 6.91	33.46 ± 3.22	150.57 ± 9.54	n = 4	[RO2] Roche Hitachi and Modular D/P
47.27 ± 0.93	79.04 ± 1.12	107.73 ± 2.91	32.30 ± 0.75	157.41 ± 4.84	n = 15	[RO1] Roche Integra and MIRA
49.15 ± 2.67	80.82 ± 3.51	109.31 ± 6.76	33.30 ± 2.22	157.67 ± 7.75	n = 13	[RO6] Roche ONLINE
48.08 ± 2.32	78.35 ± 2.66	103.24 ± 4.52	32.84 ± 1.61	157.31 ± 12.76	n = 21	[BY1] Siemens ADVIA/ADVIA Centaur
56.80 ± 2.94	90.18 ± 2.14	120.44 ± 4.10	38.50 ± 1.83	170.52 ± 13.50	n = 7	[BY5] Siemens ADVIA/Syva Emit 2000
50.07 ± 2.25	80.58 ± 3.31	105.95 ± 5.23	33.83 ± 1.82	153.60 ± 9.44	n = 66	[DA5] Siemens Dimension
52.79 ± 5.03	85.53 ± 6.72	116.32 ± 6.84	35.34 ± 3.34	169.10 ± 14.64	n = 10	[SY4] Syva Emit 2000

Summary of Participant Performance (Mean and Standard Deviation)

Vancomycin (mg/L)

Specimen: T46	Specimen: T47	Specimen: T48	Specimen: T49	Specimen: T50	Number	[Code] Instrument or Reagent System
35.83 ± 3.86 40.1	5.05 ± 0.75 5.8	18.03 ± 1.75 20.4	24.15 ± 2.58 28.1	10.23 ± 1.09 11.7	n = 213	[---] All Methods & Instruments [---] Weigh-in value
<Instruments>						
37.03 ± 2.03	4.90 ± 0.00	18.01 ± 0.66	24.71 ± 0.29	10.20 ± 0.36	n = 3	[ABJ] Abbott Architect c System
34.64 ± 1.78	4.70 ± 0.09	17.70 ± 0.18	23.43 ± 0.41	10.51 ± 0.66	n = 3	[ABH] Abbott Architect i System
35.84 ± 1.02	5.14 ± 0.50	18.47 ± 0.98	24.39 ± 0.71	10.34 ± 0.57	n = 13	[ABB] Abbott AxSym
33.05 ± 0.90	4.99 ± 0.37	16.67 ± 0.76	21.90 ± 1.01	9.41 ± 0.43	n = 11	[OLC] Beckman Coulter AU Chemistry System
38.15 ± 0.98	5.16 ± 0.30	18.89 ± 0.91	26.16 ± 0.82	10.49 ± 0.78	n = 9	[BCX] Beckman Coulter LX-20
38.97 ± 1.62	5.57 ± 1.30	19.01 ± 0.98	26.11 ± 1.39	11.34 ± 0.91	n = 9	[BCG] Beckman Coulter UniCel Dx C 600
39.49 ± 1.15	5.69 ± 1.07	19.04 ± 0.90	26.26 ± 1.31	11.08 ± 0.96	n = 16	[BCH] Beckman Coulter UniCel Dx C 800
36.77 ± 1.26	5.74 ± 0.43	18.32 ± 0.62	24.47 ± 0.96	10.73 ± 0.45	n = 14	[JJF] Ortho Vitros 5,1FS
37.00 ± 1.36	5.56 ± 0.38	18.58 ± 0.41	24.49 ± 0.73	10.99 ± 0.27	n = 4	[JJG] Ortho Vitros 5600
38.75 ± 1.88	5.46 ± 0.48	19.22 ± 0.35	25.84 ± 1.14	10.78 ± 0.83	n = 9	[ROC] Roche cobas c501
38.69 ± 0.87	5.25 ± 0.27	19.39 ± 0.31	25.95 ± 0.90	10.54 ± 0.47	n = 15	[ROT] Roche Cobas INTEGRA
40.34 ± 1.20	5.67 ± 0.33	20.20 ± 0.96	27.60 ± 0.78	11.48 ± 0.76	n = 13	[ROD] Roche MODULAR D/P
35.25 ± 2.46	5.47 ± 0.32	18.01 ± 0.56	24.87 ± 2.04	10.86 ± 0.10	n = 3	[BYE] Siemens ADVIA 1800
27.29 ± 1.28	4.03 ± 0.38	13.64 ± 1.00	18.59 ± 1.08	7.78 ± 0.53	n = 21	[COB] Siemens ADVIA Centaur
25.41 ± 1.08	3.64 ± 0.10	12.72 ± 0.24	17.47 ± 1.13	8.15 ± 0.82	n = 3	[BYP] Siemens ADVIA Centaur CP
33.74 ± 0.42	4.78 ± 0.31	17.57 ± 0.58	22.50 ± 0.38	9.63 ± 0.52	n = 4	[DUE] Siemens Dimension EXL
34.57 ± 1.35	4.83 ± 0.35	17.38 ± 0.62	23.23 ± 0.81	9.82 ± 0.37	n = 29	[DUR] Siemens Dimension RxL
32.91 ± 1.07	4.75 ± 0.56	16.84 ± 0.67	22.81 ± 1.11	9.94 ± 0.60	n = 19	[DUT] Siemens Dimension Vista
34.15 ± 1.69	4.40 ± 0.80	17.33 ± 0.64	22.79 ± 1.67	10.01 ± 0.41	n = 8	[DUX] Siemens Dimension Xpand
<Reagents>						
35.85 ± 1.40	5.00 ± 0.42	18.21 ± 0.87	24.29 ± 0.76	10.34 ± 0.55	n = 19	[AB1] Abbott
39.15 ± 1.53	5.60 ± 1.06	19.00 ± 0.89	26.16 ± 1.14	11.03 ± 0.95	n = 36	[BC1] Beckman Coulter
33.40 ± 0.74	4.86 ± 0.45	16.91 ± 0.81	21.95 ± 1.33	9.48 ± 0.51	n = 6	[OL1] Beckman Coulter AU Series
36.81 ± 1.28	5.70 ± 0.43	18.37 ± 0.59	24.47 ± 0.90	10.79 ± 0.43	n = 18	[JJ1] Ortho Clinical Diagnostics
38.96 ± 1.81	5.43 ± 0.46	19.29 ± 0.98	25.83 ± 1.02	10.86 ± 0.81	n = 10	[RO4] Roche cobas c311/c501/c502/c701
40.07 ± 1.62	5.55 ± 0.29	19.88 ± 0.96	27.56 ± 0.53	11.31 ± 0.46	n = 5	[RO2] Roche Hitachi and Modular D/P
38.69 ± 0.87	5.25 ± 0.27	19.39 ± 0.31	25.95 ± 0.90	10.54 ± 0.47	n = 15	[RO1] Roche Integra and MIRA
40.62 ± 0.48	5.75 ± 0.32	20.41 ± 0.91	27.49 ± 1.19	11.60 ± 0.89	n = 8	[RO6] Roche ONLINE
27.07 ± 1.41	3.97 ± 0.38	13.49 ± 0.99	18.47 ± 1.13	7.81 ± 0.56	n = 24	[BY1] Siemens ADVIA/ADVIA Centaur
35.21 ± 2.46	5.26 ± 0.40	17.95 ± 0.44	24.45 ± 1.61	10.64 ± 0.35	n = 5	[BY5] Siemens ADVIA/Syva Emit 2000
33.94 ± 1.48	4.76 ± 0.46	17.23 ± 0.70	23.03 ± 0.99	9.86 ± 0.47	n = 60	[DA5] Siemens Dimension
32.42 ± 0.94	5.03 ± 0.28	16.45 ± 0.62	21.72 ± 0.87	9.38 ± 0.28	n = 6	[SY4] Syva Emit 2000