



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

Sue Kelly
Executive Deputy Commissioner

Endocrinology Proficiency Test Program

Statistical Summary - September 2013 (Event 13-3)

This statistical report summarizes participant data for the five Endocrinology proficiency survey specimens shipped 9 September 2013. Test specimens E01-E05 were prepared by the quantitative transfer of constituents to a pooled human serum base. This material was subsequently sterile-filtered, dispensed into aliquots, stored at – 80°C, and distributed to 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

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 Endocrinology Section at (518) 474-6930.

Statistical Summary (Mean and Standard Deviation)

Thyroxin (T4, µg/dL)

Specimen: E01	Specimen: E02	Specimen: E03	Specimen: E04	Specimen: E05	Number	Instrument or Reagent System
3.29 ± 0.63	7.77 ± 0.97	9.36 ± 1.02	13.43 ± 1.47	9.91 ± 1.02	n = 231	All Methods & Instruments
3.30	7.70	9.39	13.10	9.90	n = 231	Median value, All Methods & Instruments
<Instruments>						
3.10 ± 0.25	6.37 ± 0.27	7.53 ± 0.30	12.13 ± 0.54	8.29 ± 0.27	n = 20	Abbott Architect i System
3.26 ± 0.25	8.48 ± 0.53	9.96 ± 0.61	15.07 ± 0.61	10.45 ± 0.58	n = 17	Beckman Coulter ACCESS
3.28 ± 0.13	6.95 ± 0.20	8.65 ± 0.43	12.89 ± 0.61	9.65 ± 0.46	n = 7	Beckman Coulter AU Chemistry System
3.21 ± 0.29	8.97 ± 0.48	10.03 ± 0.43	15.70 ± 0.89	10.57 ± 0.60	n = 16	Beckman Coulter UniCel DxI 800
3.27 ± 0.12	7.43 ± 0.41	9.31 ± 0.49	13.45 ± 0.81	10.04 ± 0.65	n = 16	Ortho Vitros 5600
3.27 ± 0.19	7.46 ± 0.62	9.24 ± 0.88	13.55 ± 1.25	10.06 ± 0.94	n = 7	Ortho Vitros ECi/ECiQ
3.77 ± 0.11	7.23 ± 0.16	8.52 ± 0.29	12.40 ± 0.41	9.17 ± 0.30	n = 10	Roche cobas e601
3.95 ± 0.12	7.68 ± 0.20	8.76 ± 0.48	12.97 ± 0.45	9.60 ± 0.58	n = 4	Roche cobas e602
3.88 ± 0.34	7.32 ± 0.52	9.14 ± 0.45	12.63 ± 0.53	9.95 ± 0.73	n = 4	Roche MODULAR D/P
3.82 ± 0.18	7.36 ± 0.29	8.63 ± 0.28	12.54 ± 0.41	9.10 ± 0.42	n = 11	Roche MODULAR E
2.59 ± 0.35	7.65 ± 0.37	9.35 ± 0.39	12.58 ± 0.53	9.87 ± 0.40	n = 51	Siemens ADVIA Centaur
3.50 ± 0.10	8.16 ± 0.26	9.43 ± 0.36	14.18 ± 0.15	9.95 ± 0.54	n = 5	Siemens Dimension EXL
3.76 ± 0.23	8.01 ± 0.11	9.67 ± 0.09	13.79 ± 0.23	10.21 ± 0.34	n = 4	Siemens Dimension RxL
4.48 ± 0.56	9.53 ± 0.59	11.06 ± 0.47	15.59 ± 0.59	11.80 ± 0.66	n = 29	Siemens Dimension Vista
3.07 ± 0.57	7.87 ± 0.76	10.10 ± 0.80	14.22 ± 0.77	10.34 ± 0.73	n = 5	Siemens Immulite 1000
2.83 ± 0.23	7.46 ± 0.60	9.15 ± 0.59	13.00 ± 0.74	9.58 ± 0.51	n = 13	Siemens Immulite 2000
3.53 ± 0.11	7.89 ± 0.63	9.14 ± 0.35	13.54 ± 0.38	9.64 ± 0.38	n = 5	Tosoh Bioscience
3.43 ± 0.45	7.68 ± 0.65	9.26 ± 0.69	13.42 ± 1.07	9.87 ± 0.57	n = 17	Mean of Above Means
<Reagents>						
3.10 ± 0.25	6.37 ± 0.27	7.53 ± 0.30	12.13 ± 0.54	8.29 ± 0.27	n = 20	Abbott
3.24 ± 0.27	8.72 ± 0.56	10.00 ± 0.51	15.36 ± 0.81	10.50 ± 0.59	n = 33	Beckman Coulter
3.28 ± 0.13	6.95 ± 0.20	8.65 ± 0.43	12.89 ± 0.61	9.65 ± 0.46	n = 7	Microgenics DRI
3.27 ± 0.14	7.44 ± 0.47	9.29 ± 0.60	13.49 ± 0.94	10.05 ± 0.73	n = 23	Ortho Clinical Diagnostics
3.80 ± 0.16	7.34 ± 0.30	8.56 ± 0.34	12.50 ± 0.52	9.15 ± 0.50	n = 29	Roche Elecsys/Modular E/e601/e411
2.59 ± 0.35	7.65 ± 0.37	9.35 ± 0.39	12.58 ± 0.53	9.87 ± 0.40	n = 51	Siemens ADVIA/ADVIS Centaur
4.26 ± 0.64	9.19 ± 0.87	10.69 ± 0.82	15.14 ± 0.91	11.35 ± 1.02	n = 35	Siemens Dimension
4.23 ± 0.51	9.30 ± 0.54	11.28 ± 0.24	16.22 ± 0.15	11.98 ± 0.24	n = 3	Siemens Dimension LOCI
2.88 ± 0.33	7.57 ± 0.69	9.35 ± 0.77	13.30 ± 0.91	9.74 ± 0.63	n = 18	Siemens Immulite
3.54 ± 0.10	8.29 ± 0.57	9.28 ± 0.41	13.70 ± 0.46	9.52 ± 0.32	n = 3	Tosoh ST AIA
3.39 ± 0.55	7.86 ± 0.98	9.37 ± 1.02	13.60 ± 1.38	9.94 ± 1.00	n = 10	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Free T4 (ng/dL)

Specimen: E01	Specimen: E02	Specimen: E03	Specimen: E04	Specimen: E05	Number	Instrument or Reagent System
0.64 ± 0.09	2.10 ± 0.42	1.71 ± 0.30	4.25 ± 0.90	1.83 ± 0.30	n = 261	All Methods & Instruments
0.61	2.10	1.70	4.12	1.90	n = 261	Median value, All Methods & Instruments
<Instruments>						
0.61 ± 0.04	1.61 ± 0.09	1.44 ± 0.10	3.08 ± 0.25	1.55 ± 0.10	n = 18	Abbott Architect i System
0.60 ± 0.00	2.15 ± 0.11	1.66 ± 0.07	3.34 ± 0.15	1.76 ± 0.07	n = 20	Beckman Coulter ACCESS
0.67 ± 0.05	2.17 ± 0.14	1.67 ± 0.08	3.62 ± 0.21	1.80 ± 0.09	n = 15	Beckman Coulter UniCel DxI 800
0.50 ± 0.00	1.30 ± 0.09	1.37 ± 0.05	4.10 ± 0.09	1.68 ± 0.15	n = 3	bioMerieux Vidas
0.82 ± 0.06	4.05 ± 0.24	2.82 ± 0.17	6.96 ± 0.05	3.19 ± 0.17	n = 17	Ortho Vitros 5600
0.80 ± 0.00	3.94 ± 0.19	2.74 ± 0.13	6.98 ± 0.04	3.11 ± 0.16	n = 8	Ortho Vitros ECi/ECiQ
0.69 ± 0.06	2.42 ± 0.12	1.93 ± 0.06	5.23 ± 0.32	2.10 ± 0.09	n = 3	Roche cobas e411
0.70 ± 0.02	2.48 ± 0.09	1.91 ± 0.05	5.23 ± 0.17	2.11 ± 0.06	n = 12	Roche cobas e601
0.70 ± 0.00	2.45 ± 0.06	2.00 ± 0.08	5.35 ± 0.12	2.10 ± 0.08	n = 4	Roche cobas e602
0.72 ± 0.06	2.42 ± 0.09	1.95 ± 0.12	4.76 ± 0.20	2.02 ± 0.07	n = 3	Roche Elecsys
0.71 ± 0.01	2.48 ± 0.10	1.97 ± 0.09	5.08 ± 0.23	2.12 ± 0.11	n = 14	Roche MODULAR E
0.63 ± 0.05	2.03 ± 0.11	1.75 ± 0.11	4.05 ± 0.23	1.90 ± 0.11	n = 62	Siemens ADVIA Centaur
0.59 ± 0.03	1.76 ± 0.09	1.39 ± 0.07	4.11 ± 0.17	1.51 ± 0.07	n = 14	Siemens Dimension EXL
0.62 ± 0.16	3.07 ± 0.39	1.80 ± 0.21	4.88 ± 0.33	1.86 ± 0.22	n = 5	Siemens Dimension RxL
0.56 ± 0.04	1.72 ± 0.07	1.36 ± 0.06	4.09 ± 0.13	1.48 ± 0.05	n = 34	Siemens Dimension Vista
0.45 ± 0.06	2.79 ± 0.18	1.48 ± 0.16	4.59 ± 0.43	1.65 ± 0.13	n = 3	Siemens Dimension Xpand
0.68 ± 0.05	2.69 ± 0.10	1.95 ± 0.11	4.83 ± 0.31	2.10 ± 0.11	n = 15	Siemens Immulite 2000
0.57 ± 0.06	2.48 ± 0.19	2.02 ± 0.13	5.59 ± 0.30	2.25 ± 0.12	n = 5	Tosoh Bioscience
0.65 ± 0.09	2.36 ± 0.63	1.78 ± 0.34	4.68 ± 1.01	1.90 ± 0.30	n = 18	Mean of Above Means
<Reagents>						
0.61 ± 0.04	1.61 ± 0.09	1.44 ± 0.10	3.08 ± 0.25	1.55 ± 0.10	n = 18	Abbott
0.62 ± 0.05	2.16 ± 0.12	1.66 ± 0.07	3.46 ± 0.26	1.78 ± 0.08	n = 37	Beckman Coulter
0.50 ± 0.00	1.30 ± 0.09	1.37 ± 0.05	4.10 ± 0.09	1.68 ± 0.15	n = 3	bioMerieux Vitek
0.82 ± 0.06	4.01 ± 0.23	2.79 ± 0.16	6.96 ± 0.05	3.16 ± 0.17	n = 25	Ortho Clinical Diagnostics
0.70 ± 0.00	2.47 ± 0.10	1.95 ± 0.08	5.15 ± 0.27	2.10 ± 0.09	n = 36	Roche Elecsys/Modular E/e601/e411
0.63 ± 0.05	2.03 ± 0.11	1.75 ± 0.11	4.06 ± 0.23	1.90 ± 0.11	n = 63	Siemens ADVIA/ADVIS Centaur
0.55 ± 0.12	2.77 ± 0.58	1.60 ± 0.26	4.65 ± 0.47	1.71 ± 0.22	n = 10	Siemens Dimension
0.57 ± 0.04	1.73 ± 0.08	1.36 ± 0.07	4.09 ± 0.13	1.49 ± 0.06	n = 46	Siemens Dimension LOCI
0.68 ± 0.04	2.70 ± 0.10	1.95 ± 0.12	4.82 ± 0.38	2.12 ± 0.12	n = 17	Siemens Immulite
0.58 ± 0.06	2.56 ± 0.11	2.08 ± 0.09	5.60 ± 0.41	2.32 ± 0.09	n = 3	Tosoh ST AIA
0.62 ± 0.08	2.25 ± 0.67	1.72 ± 0.34	4.48 ± 1.02	1.86 ± 0.33	n = 10	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

T3-Uptake (%)

Specimen: E01	Specimen: E02	Specimen: E03	Specimen: E04	Specimen: E05	Number	Instrument or Reagent System
32.28 ± 3.49	43.18 ± 7.78	38.60 ± 4.83	46.97 ± 8.03	38.80 ± 4.77	n = 135	All Methods & Instruments
32.20	43.50	38.27	47.50	39.00	n = 135	Median value, All Methods & Instruments
32.16 ± 0.84	35.35 ± 0.69	32.00 ± 0.72	37.34 ± 0.83	31.96 ± 0.81	n = 9	<Instruments>
42.36 ± 2.69	46.96 ± 3.48	44.91 ± 2.59	50.57 ± 3.42	44.74 ± 3.27	n = 12	Abbott Architect i System
32.70 ± 1.41	45.57 ± 0.80	41.28 ± 1.24	48.04 ± 1.04	41.24 ± 1.21	n = 7	Beckman Coulter ACCESS
42.80 ± 1.60	47.61 ± 2.97	44.99 ± 1.41	50.77 ± 1.75	44.86 ± 2.17	n = 11	Beckman Coulter AU Chemistry System
33.51 ± 0.74	54.43 ± 1.14	42.27 ± 0.51	59.91 ± 1.00	41.98 ± 1.16	n = 8	Beckman Coulter UniCel DxI 800
33.59 ± 0.89	54.90 ± 1.50	42.35 ± 1.08	60.44 ± 2.68	42.41 ± 1.42	n = 6	Ortho Vitros 5600
33.94 ± 1.62	46.09 ± 1.46	41.82 ± 1.84	48.77 ± 1.81	41.51 ± 1.41	n = 4	Ortho Vitros ECi/ECiQ
31.70 ± 1.66	49.28 ± 2.80	39.26 ± 2.02	52.72 ± 2.62	39.66 ± 1.71	n = 27	Roche MODULAR D/P
32.14 ± 1.27	37.84 ± 2.67	37.52 ± 2.20	42.36 ± 2.05	37.23 ± 1.55	n = 5	Siemens ADVIA Centaur
31.80 ± 2.36	36.74 ± 2.26	36.16 ± 1.54	40.74 ± 1.37	36.26 ± 1.37	n = 3	Siemens Dimension EXL
31.51 ± 1.16	36.48 ± 1.75	36.11 ± 1.44	41.86 ± 2.06	36.84 ± 1.75	n = 20	Siemens Dimension RxL
26.96 ± 1.08	37.59 ± 0.37	31.48 ± 1.32	41.37 ± 0.95	32.34 ± 1.00	n = 3	Siemens Dimension Vista
28.33 ± 0.75	33.79 ± 0.86	31.42 ± 1.32	34.50 ± 1.77	30.68 ± 1.19	n = 12	Siemens Immulite 1000
32.10 ± 1.95	43.07 ± 7.69	38.77 ± 5.07	46.58 ± 8.17	38.82 ± 4.95	n = 13	Siemens Immulite 2000
						Mean of Above Means
32.16 ± 0.84	35.35 ± 0.69	32.00 ± 0.72	37.34 ± 0.83	31.96 ± 0.81	n = 9	<Reagents>
42.72 ± 2.32	47.31 ± 3.21	44.89 ± 2.03	50.71 ± 2.65	44.80 ± 2.79	n = 23	Abbott
33.02 ± 1.60	45.48 ± 0.97	41.47 ± 1.04	48.25 ± 1.03	41.39 ± 1.06	n = 8	Beckman Coulter
33.53 ± 0.81	54.59 ± 1.33	42.24 ± 0.91	60.00 ± 1.73	42.15 ± 1.30	n = 14	Microgenics CEDIA
31.58 ± 1.22	37.38 ± 0.41	36.51 ± 0.48	41.86 ± 1.71	37.07 ± 0.09	n = 6	Ortho Clinical Diagnostics
31.70 ± 1.66	49.28 ± 2.80	39.26 ± 2.02	52.72 ± 2.62	39.66 ± 1.71	n = 27	Roche Elecsys/Modular E/e601/e411
31.64 ± 1.33	36.78 ± 2.14	36.37 ± 1.69	41.92 ± 1.98	36.85 ± 1.73	n = 27	Siemens ADVIA/ADVIS Centaur
28.16 ± 0.88	34.43 ± 1.78	31.44 ± 1.32	35.75 ± 3.23	31.00 ± 1.34	n = 15	Siemens Dimension EXL
32.14 ± 1.01	42.27 ± 7.74	38.09 ± 4.89	45.73 ± 8.28	38.28 ± 4.88	n = 8	Siemens Immulite 1000
						Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

T Uptake (Unit)

Specimen: E01	Specimen: E02	Specimen: E03	Specimen: E04	Specimen: E05	Number	Instrument or Reagent System
1.076 ± 0.128	0.911 ± 0.057	0.994 ± 0.107	0.726 ± 0.049	0.968 ± 0.121	n = 21	All Methods & Instruments
1.110	0.930	0.990	0.720	0.960	n = 21	Median value, All Methods & Instruments
						<Instruments>
0.904 ± 0.106	0.796 ± 0.110	0.942 ± 0.107	0.731 ± 0.111	0.902 ± 0.101	n = 5	Abbott Architect i System
1.154 ± 0.008	0.935 ± 0.017	0.983 ± 0.027	0.730 ± 0.034	0.968 ± 0.038	n = 7	Roche MODULAR E
1.043 ± 0.083	1.577 ± 0.149	1.241 ± 0.096	1.695 ± 0.089	1.279 ± 0.103	n = 4	Siemens ADVIA Centaur
1.036 ± 0.113	1.070 ± 0.371	1.042 ± 0.144	1.001 ± 0.494	1.034 ± 0.179	n = 3	Mean of Above Means
						<Reagents>
0.904 ± 0.106	0.796 ± 0.110	0.942 ± 0.107	0.731 ± 0.111	0.902 ± 0.101	n = 5	Abbott
1.157 ± 0.017	0.933 ± 0.020	0.980 ± 0.020	0.724 ± 0.035	0.967 ± 0.035	n = 11	Roche Elecsys/Modular E/e601/e411
1.043 ± 0.083	1.577 ± 0.149	1.241 ± 0.096	1.695 ± 0.089	1.279 ± 0.103	n = 4	Siemens ADVIA/ADVIS Centaur
1.036 ± 0.114	1.069 ± 0.371	1.040 ± 0.145	0.999 ± 0.495	1.033 ± 0.179	n = 3	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Triiodothyronine (T3, ng/dL)

Specimen: E01	Specimen: E02	Specimen: E03	Specimen: E04	Specimen: E05	Number	Instrument or Reagent System
36.1 ± 8.66	107.0 ± 13.81	112.3 ± 13.50	113.8 ± 15.26	117.5 ± 15.15	n = 182	All Methods & Instruments
37.0	106.0	114.0	115.0	119.0	n = 182	Median value, All Methods & Instruments
<Instruments>						
36.4 ± 4.58	96.2 ± 4.86	101.6 ± 6.23	97.7 ± 4.47	105.0 ± 4.61	n = 16	Abbott Architect i System
39.7 ± 5.56	92.8 ± 5.59	91.0 ± 4.66	94.1 ± 7.06	93.3 ± 7.81	n = 11	Beckman Coulter ACCESS
40.5 ± 7.15	88.8 ± 5.26	90.4 ± 5.28	94.8 ± 5.81	93.0 ± 7.08	n = 16	Beckman Coulter UniCel DxI 800
44.3 ± 2.60	124.3 ± 5.22	124.0 ± 4.71	129.1 ± 5.96	127.6 ± 4.29	n = 13	Ortho Vitros 5600
44.6 ± 5.58	128.2 ± 15.79	127.9 ± 13.79	132.3 ± 12.22	131.8 ± 12.27	n = 3	Ortho Vitros ECi/ECiQ
41.0 ± 2.61	121.1 ± 4.91	121.4 ± 4.24	129.0 ± 6.33	129.7 ± 5.91	n = 9	Roche cobas e601
42.4 ± 4.87	103.4 ± 50.45	125.2 ± 5.28	131.3 ± 6.10	133.3 ± 6.18	n = 4	Roche cobas e602
40.4 ± 2.27	118.3 ± 6.51	121.2 ± 5.40	123.9 ± 6.64	126.0 ± 5.41	n = 13	Roche MODULAR E
27.8 ± 6.02	104.1 ± 7.33	116.5 ± 7.15	114.2 ± 7.99	122.8 ± 9.24	n = 68	Siemens ADVIA Centaur
40.0 ± 0.00	114.8 ± 6.79	106.6 ± 3.87	115.8 ± 9.60	105.5 ± 7.22	n = 3	Siemens Immulite 1000
40.0 ± 0.00	117.1 ± 7.02	104.4 ± 4.98	120.9 ± 14.25	110.0 ± 4.43	n = 12	Siemens Immulite 2000
33.5 ± 2.17	99.8 ± 5.46	100.4 ± 3.22	102.2 ± 2.80	105.2 ± 8.57	n = 4	Tosoh Bioscience
40.2 ± 3.51	109.2 ± 13.82	111.3 ± 14.08	116.2 ± 15.44	115.7 ± 15.69	n = 12	Mean of Above Means
<Reagents>						
36.4 ± 4.58	96.2 ± 4.86	101.6 ± 6.23	97.7 ± 4.47	105.0 ± 4.61	n = 16	Abbott
40.4 ± 6.44	90.7 ± 6.01	90.9 ± 5.14	94.1 ± 6.17	93.3 ± 7.24	n = 29	Beckman Coulter
44.2 ± 3.06	124.6 ± 7.00	124.6 ± 6.65	129.5 ± 7.19	127.6 ± 5.12	n = 16	Ortho Clinical Diagnostics
41.1 ± 3.75	120.6 ± 6.87	121.8 ± 6.00	127.3 ± 7.44	129.0 ± 6.65	n = 30	Roche Elecsys/Modular E/e601/e411
27.9 ± 5.94	104.3 ± 7.22	116.6 ± 7.04	114.4 ± 7.97	122.9 ± 9.11	n = 70	Siemens ADVIA/ADVIS Centaur
40.0 ± 0.00	117.3 ± 6.83	105.1 ± 5.25	120.3 ± 14.06	109.2 ± 5.45	n = 14	Siemens Immulite
39.4 ± 4.59	109.3 ± 14.09	110.5 ± 13.00	114.6 ± 15.00	115.2 ± 14.23	n = 6	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Free T-3 (pg/mL)

Specimen: E01	Specimen: E02	Specimen: E03	Specimen: E04	Specimen: E05	Number	Instrument or Reagent System
1.28 ± 0.28	3.58 ± 0.46	3.15 ± 0.58	4.01 ± 0.53	3.27 ± 0.62	n = 138	All Methods & Instruments
1.30	3.60	3.20	4.00	3.30	n = 138	Median value, All Methods & Instruments
						<Instruments>
1.00 ± 0.00	3.26 ± 0.20	2.89 ± 0.16	3.49 ± 0.16	3.04 ± 0.17	n = 12	Abbott Architect i System
1.39 ± 0.12	3.49 ± 0.18	2.97 ± 0.14	3.91 ± 0.18	3.11 ± 0.12	n = 7	Beckman Coulter ACCESS
1.33 ± 0.20	3.35 ± 0.24	2.76 ± 0.31	3.64 ± 0.26	2.93 ± 0.32	n = 12	Beckman Coulter UniCel DxI 800
1.23 ± 0.09	6.94 ± 0.19	4.23 ± 0.26	8.60 ± 0.36	4.19 ± 0.24	n = 5	Ortho Vitros 5600
1.26 ± 0.08	4.48 ± 0.11	3.71 ± 0.08	4.76 ± 0.12	3.93 ± 0.07	n = 5	Roche cobas e601
1.30 ± 0.09	4.44 ± 0.10	3.73 ± 0.05	4.87 ± 0.14	3.97 ± 0.05	n = 3	Roche cobas e602
1.33 ± 0.14	4.45 ± 0.20	3.72 ± 0.04	4.91 ± 0.23	3.96 ± 0.19	n = 11	Roche MODULAR E
1.45 ± 0.16	3.68 ± 0.14	3.24 ± 0.13	4.05 ± 0.18	3.39 ± 0.13	n = 46	Siemens ADVIA Centaur
0.50 ± 0.00	3.45 ± 0.11	1.45 ± 0.15	4.21 ± 0.13	1.62 ± 0.14	n = 15	Siemens Dimension Vista
1.06 ± 0.08	2.86 ± 0.36	2.97 ± 0.30	2.99 ± 0.42	2.90 ± 0.33	n = 12	Siemens Immulite 2000
1.27 ± 0.15	3.71 ± 0.65	3.26 ± 0.65	4.10 ± 0.68	3.39 ± 0.69	n = 10	Mean of Above Means
						<Reagents>
1.00 ± 0.00	3.26 ± 0.20	2.89 ± 0.16	3.49 ± 0.16	3.04 ± 0.17	n = 12	Abbott
1.35 ± 0.16	3.37 ± 0.26	2.82 ± 0.28	3.72 ± 0.27	3.01 ± 0.26	n = 21	Beckman Coulter
1.23 ± 0.08	6.96 ± 0.16	4.18 ± 0.25	8.64 ± 0.31	4.27 ± 0.28	n = 6	Ortho Clinical Diagnostics
1.29 ± 0.12	4.44 ± 0.16	3.72 ± 0.06	4.83 ± 0.20	3.93 ± 0.16	n = 21	Roche Elecsys/Modular E/e601/e411
1.45 ± 0.16	3.68 ± 0.13	3.24 ± 0.13	4.05 ± 0.17	3.39 ± 0.13	n = 46	Siemens ADVIA/ADVIS Centaur
0.50 ± 0.00	3.45 ± 0.12	1.46 ± 0.15	4.22 ± 0.14	1.62 ± 0.14	n = 15	Siemens Dimension LOCI
1.05 ± 0.07	2.81 ± 0.37	2.94 ± 0.31	2.99 ± 0.39	2.89 ± 0.31	n = 13	Siemens Immulite
1.18 ± 0.26	3.45 ± 0.48	3.11 ± 0.76	3.87 ± 0.61	3.23 ± 0.78	n = 7	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Thyrotropin (TSH, $\mu\text{U/mL}$)

Specimen: E01	Specimen: E02	Specimen: E03	Specimen: E04	Specimen: E05	Number	Instrument or Reagent System
0.44 ± 0.06	1.47 ± 0.19	5.04 ± 0.63	2.37 ± 0.26	4.22 ± 0.52	n = 294	All Methods & Instruments
0.43	1.44	5.03	2.40	4.26	n = 294	Median value, All Methods & Instruments
						<Instruments>
0.40 ± 0.01	1.26 ± 0.06	4.46 ± 0.19	2.01 ± 0.08	3.69 ± 0.13	n = 19	Abbott Architect i System
0.40 ± 0.00	1.29 ± 0.08	4.47 ± 0.32	2.09 ± 0.15	3.74 ± 0.26	n = 26	Beckman Coulter ACCESS
0.40 ± 0.00	1.27 ± 0.07	4.50 ± 0.30	2.04 ± 0.16	3.71 ± 0.22	n = 16	Beckman Coulter UniCel DxI 800
0.40 ± 0.00	1.37 ± 0.05	4.27 ± 0.23	2.16 ± 0.10	3.67 ± 0.14	n = 3	bioMerieux Vidas
0.39 ± 0.02	1.42 ± 0.04	6.12 ± 0.13	2.64 ± 0.06	5.12 ± 0.14	n = 18	Ortho Vitros 5600
0.39 ± 0.02	1.46 ± 0.05	6.17 ± 0.24	2.66 ± 0.09	5.11 ± 0.16	n = 10	Ortho Vitros ECi/ECiQ
0.50 ± 0.00	1.62 ± 0.04	5.13 ± 0.15	2.44 ± 0.05	4.34 ± 0.10	n = 4	Roche cobas e411
0.51 ± 0.01	1.63 ± 0.04	5.17 ± 0.10	2.50 ± 0.04	4.40 ± 0.11	n = 16	Roche cobas e601
0.50 ± 0.01	1.60 ± 0.02	5.16 ± 0.11	2.45 ± 0.05	4.40 ± 0.02	n = 5	Roche cobas e602
0.50 ± 0.01	1.60 ± 0.07	5.16 ± 0.29	2.49 ± 0.09	4.36 ± 0.16	n = 6	Roche Elecsys
0.50 ± 0.00	1.60 ± 0.00	5.15 ± 0.10	2.47 ± 0.04	4.38 ± 0.07	n = 15	Roche MODULAR E
0.44 ± 0.04	1.44 ± 0.09	5.00 ± 0.18	2.34 ± 0.09	4.19 ± 0.17	n = 62	Siemens ADVIA Centaur
0.49 ± 0.02	1.79 ± 0.08	5.86 ± 0.31	2.74 ± 0.14	4.90 ± 0.23	n = 19	Siemens Dimension EXL
0.33 ± 0.03	1.22 ± 0.12	4.29 ± 0.40	2.00 ± 0.21	3.55 ± 0.31	n = 6	Siemens Dimension RxL
0.45 ± 0.03	1.67 ± 0.05	5.49 ± 0.23	2.56 ± 0.09	4.60 ± 0.19	n = 36	Siemens Dimension Vista
0.37 ± 0.03	1.26 ± 0.07	4.28 ± 0.24	2.04 ± 0.13	3.81 ± 0.03	n = 3	Siemens Dimension Xpand
0.47 ± 0.04	1.34 ± 0.11	4.51 ± 0.32	2.17 ± 0.13	3.78 ± 0.22	n = 6	Siemens Immulite 1000
0.46 ± 0.05	1.35 ± 0.07	4.25 ± 0.22	2.17 ± 0.16	3.66 ± 0.20	n = 17	Siemens Immulite 2000
0.46 ± 0.05	1.54 ± 0.08	5.54 ± 0.25	2.54 ± 0.12	4.49 ± 0.19	n = 4	Tosoh Bioscience
0.44 ± 0.06	1.45 ± 0.18	4.96 ± 0.65	2.35 ± 0.26	4.18 ± 0.52	n = 19	Mean of Above Means
						<Reagents>
0.40 ± 0.01	1.26 ± 0.06	4.46 ± 0.19	2.01 ± 0.08	3.69 ± 0.13	n = 19	Abbott
0.40 ± 0.00	1.28 ± 0.08	4.47 ± 0.30	2.07 ± 0.15	3.72 ± 0.24	n = 44	Beckman Coulter
0.40 ± 0.00	1.37 ± 0.05	4.27 ± 0.23	2.16 ± 0.10	3.67 ± 0.14	n = 3	bioMerieux Vitek
0.39 ± 0.02	1.43 ± 0.05	6.14 ± 0.18	2.65 ± 0.07	5.12 ± 0.15	n = 28	Ortho Clinical Diagnostics
0.50 ± 0.01	1.61 ± 0.04	5.16 ± 0.11	2.48 ± 0.05	4.38 ± 0.09	n = 46	Roche Elecsys/Modular E/e601/e411
0.44 ± 0.05	1.45 ± 0.11	5.00 ± 0.17	2.34 ± 0.10	4.20 ± 0.19	n = 36	Siemens ADVIA/ADVIS Centaur
0.38 ± 0.08	1.28 ± 0.21	4.43 ± 0.65	2.10 ± 0.32	3.78 ± 0.49	n = 11	Siemens Dimension
0.46 ± 0.04	1.70 ± 0.08	5.59 ± 0.30	2.61 ± 0.13	4.68 ± 0.25	n = 53	Siemens Dimension LOCI
0.46 ± 0.05	1.35 ± 0.08	4.31 ± 0.28	2.17 ± 0.15	3.69 ± 0.21	n = 23	Siemens Immulite
0.44 ± 0.03	1.43 ± 0.05	5.00 ± 0.19	2.33 ± 0.08	4.18 ± 0.14	n = 27	Siemens TSH-3
0.42 ± 0.04	1.40 ± 0.14	4.81 ± 0.58	2.28 ± 0.23	4.05 ± 0.47	n = 10	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Vitamin B12 (pg/mL)

Specimen: E01	Specimen: E02	Specimen: E03	Specimen: E04	Specimen: E05	Number	Instrument or Reagent System
469.5 ± 65.18	475.6 ± 73.96	446.1 ± 68.98	459.8 ± 68.96	447.3 ± 66.97	n = 231	All Methods & Instruments
461.0	467.0	445.0	452.0	444.0	n = 231	Median value, All Methods & Instruments
526.6 ± 46.41	525.1 ± 18.81	486.9 ± 21.20	499.4 ± 22.48	485.6 ± 29.22	n = 13	<Instruments>
436.5 ± 33.10	460.9 ± 36.36	438.8 ± 23.26	442.0 ± 30.97	437.1 ± 31.86	n = 21	Abbott Architect i System
402.1 ± 17.02	413.1 ± 21.70	389.7 ± 14.17	412.5 ± 24.60	445.3 ± 38.34	n = 3	Beckman Coulter ACCESS
416.4 ± 18.36	412.1 ± 26.62	395.8 ± 24.84	408.6 ± 38.07	391.4 ± 16.84	n = 18	Beckman Coulter UniCel DxI 600
495.5 ± 20.30	524.3 ± 17.59	465.5 ± 14.06	500.9 ± 14.90	468.3 ± 11.18	n = 14	Beckman Coulter UniCel DxI 800
537.1 ± 46.21	535.6 ± 24.69	483.6 ± 31.57	514.3 ± 24.24	485.4 ± 29.95	n = 9	Ortho Vitros 5600
539.2 ± 29.05	505.7 ± 33.43	534.0 ± 31.83	468.6 ± 43.02	531.1 ± 24.88	n = 4	Ortho Vitros ECi/ECiQ
563.9 ± 24.34	574.2 ± 23.01	535.8 ± 22.72	553.7 ± 20.61	535.2 ± 23.16	n = 13	Roche cobas e411
569.1 ± 15.43	586.1 ± 21.25	536.7 ± 8.64	563.9 ± 29.64	530.1 ± 16.32	n = 3	Roche cobas e601
571.9 ± 24.03	576.0 ± 21.49	536.3 ± 19.36	555.6 ± 29.29	539.4 ± 13.88	n = 14	Roche cobas e602
435.6 ± 32.55	436.9 ± 28.47	412.8 ± 33.55	422.9 ± 33.28	413.7 ± 28.81	n = 75	Siemens MODULAR E
466.7 ± 11.49	429.8 ± 56.32	415.7 ± 82.55	423.2 ± 68.56	401.2 ± 77.73	n = 6	Siemens ADVIA Centaur
427.2 ± 15.02	373.9 ± 14.83	320.5 ± 22.48	367.5 ± 15.95	322.3 ± 27.16	n = 13	Siemens ADVIA Centaur CP
520.4 ± 38.55	581.9 ± 53.42	550.6 ± 56.15	550.9 ± 57.07	538.6 ± 49.54	n = 4	Siemens Dimension Vista
492.2 ± 32.46	536.0 ± 40.77	498.8 ± 32.43	513.3 ± 26.23	480.7 ± 42.00	n = 16	Siemens Immulite 1000
567.7 ± 70.94	609.3 ± 65.10	533.8 ± 48.34	585.5 ± 51.93	550.2 ± 49.04	n = 4	Siemens Immulite 2000
500.0 ± 63.58	508.2 ± 77.81	476.6 ± 69.04	488.0 ± 70.35	478.0 ± 65.28	n = 16	Tosoh Bioscience
						Mean of Above Means
526.6 ± 46.41	525.1 ± 18.81	486.9 ± 21.20	499.4 ± 22.48	485.6 ± 29.22	n = 13	<Reagents>
422.5 ± 27.22	435.0 ± 40.00	416.0 ± 33.67	426.5 ± 37.87	419.5 ± 38.11	n = 42	Abbott
506.6 ± 32.93	528.0 ± 20.51	470.9 ± 20.53	506.1 ± 20.42	473.3 ± 19.81	n = 23	Beckman Coulter
566.2 ± 24.94	570.7 ± 28.95	537.5 ± 19.79	550.4 ± 32.25	537.4 ± 18.21	n = 35	Ortho Clinical Diagnostics
437.8 ± 33.16	437.5 ± 29.01	414.1 ± 36.69	423.9 ± 35.04	414.9 ± 30.65	n = 81	Roche Elecsys/Modular E/e601/e411
427.2 ± 15.02	373.9 ± 14.83	320.5 ± 22.48	367.5 ± 15.95	322.3 ± 27.16	n = 13	Siemens ADVIA/ADVIS Centaur
497.1 ± 34.90	542.8 ± 45.06	504.6 ± 37.02	514.3 ± 37.32	489.9 ± 48.58	n = 20	Siemens Dimension LOCI
567.7 ± 70.94	609.3 ± 65.10	533.8 ± 48.34	585.5 ± 51.93	550.2 ± 49.04	n = 4	Siemens Immulite
494.2 ± 61.20	506.6 ± 79.53	468.4 ± 68.94	486.7 ± 72.49	468.2 ± 69.74	n = 8	Tosoh AIA
						Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Folic Acid (ng/mL)

Specimen: E01	Specimen: E02	Specimen: E03	Specimen: E04	Specimen: E05	Number	Instrument or Reagent System
7.19 ± 1.83	6.01 ± 0.67	9.03 ± 0.86	14.71 ± 3.87	11.72 ± 1.51	n = 225	All Methods & Instruments
7.10	5.90	8.90	14.10	11.50	n = 225	Median value, All Methods & Instruments
<Instruments>						
7.41 ± 0.54	6.16 ± 0.45	9.65 ± 0.92	18.66 ± 0.89	13.36 ± 1.28	n = 12	Abbott Architect i System
6.62 ± 0.64	5.87 ± 0.48	9.23 ± 0.87	17.69 ± 1.44	12.33 ± 1.06	n = 20	Beckman Coulter ACCESS
6.78 ± 0.31	6.06 ± 0.32	9.27 ± 0.73	17.51 ± 1.19	12.25 ± 0.85	n = 18	Beckman Coulter UniCel DxI 800
5.80 ± 0.42	5.59 ± 0.43	8.71 ± 0.62	19.55 ± 0.59	12.75 ± 1.11	n = 14	Ortho Vitros 5600
5.52 ± 0.29	5.16 ± 0.38	8.58 ± 0.34	19.92 ± 0.09	12.73 ± 0.46	n = 9	Ortho Vitros ECi/ECiQ
7.33 ± 0.77	6.42 ± 0.49	9.21 ± 1.16	13.11 ± 1.61	11.14 ± 1.11	n = 3	Roche cobas e411
7.39 ± 0.57	6.39 ± 0.61	8.95 ± 0.53	13.48 ± 0.93	11.06 ± 0.93	n = 13	Roche cobas e601
7.47 ± 0.95	6.87 ± 0.69	8.95 ± 1.17	13.29 ± 1.42	11.00 ± 1.17	n = 3	Roche cobas e602
7.55 ± 0.40	6.59 ± 0.41	8.91 ± 0.73	13.46 ± 0.86	10.93 ± 1.04	n = 13	Roche MODULAR E
8.93 ± 0.82	6.04 ± 0.52	9.01 ± 0.81	13.41 ± 1.29	11.38 ± 1.15	n = 63	Siemens ADVIA Centaur
8.69 ± 0.20	6.07 ± 0.31	9.61 ± 0.37	14.03 ± 1.13	12.52 ± 0.51	n = 3	Siemens ADVIA Centaur CP
3.00 ± 0.19	2.43 ± 0.20	3.37 ± 0.24	7.17 ± 0.43	4.62 ± 0.28	n = 27	Siemens Dimension Vista
7.92 ± 0.89	6.45 ± 0.46	9.98 ± 0.57	17.83 ± 2.41	13.91 ± 1.01	n = 4	Siemens Immulite 1000
7.11 ± 0.51	5.41 ± 0.63	8.35 ± 1.12	14.81 ± 1.82	10.66 ± 1.22	n = 16	Siemens Immulite 2000
6.75 ± 0.59	7.68 ± 0.63	9.55 ± 0.76	13.04 ± 1.24	11.31 ± 0.66	n = 4	Tosoh Bioscience
7.21 ± 0.98	6.15 ± 0.57	9.13 ± 0.45	15.29 ± 3.22	11.89 ± 1.05	n = 15	Mean of Above Means
<Reagents>						
7.41 ± 0.54	6.16 ± 0.45	9.65 ± 0.92	18.66 ± 0.89	13.36 ± 1.28	n = 12	Abbott
6.72 ± 0.44	6.01 ± 0.41	9.27 ± 0.78	17.72 ± 1.37	12.33 ± 0.95	n = 40	Beckman Coulter
5.67 ± 0.38	5.41 ± 0.47	8.67 ± 0.53	19.62 ± 0.58	12.80 ± 0.84	n = 23	Ortho Clinical Diagnostics
7.42 ± 0.60	6.49 ± 0.56	8.88 ± 0.81	13.43 ± 1.02	10.99 ± 1.00	n = 33	Roche Elecsys/Modular E/e601/e411
8.91 ± 0.80	6.04 ± 0.51	9.04 ± 0.80	13.44 ± 1.29	11.44 ± 1.16	n = 66	Siemens ADVIA/ADVIS Centaur
3.00 ± 0.19	2.43 ± 0.20	3.37 ± 0.24	7.17 ± 0.43	4.62 ± 0.28	n = 27	Siemens Dimension LOCI
7.21 ± 0.73	5.60 ± 0.74	8.69 ± 1.25	15.33 ± 2.31	11.19 ± 1.74	n = 20	Siemens Immulite
6.75 ± 0.59	7.68 ± 0.63	9.55 ± 0.76	13.04 ± 1.24	11.31 ± 0.66	n = 4	Tosoh AIA
6.97 ± 1.25	6.06 ± 0.60	9.10 ± 0.40	15.13 ± 3.74	11.85 ± 0.92	n = 8	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Cortisol ($\mu\text{g/dL}$)

Specimen: E01	Specimen: E02	Specimen: E03	Specimen: E04	Specimen: E05	Number	Instrument or Reagent System
3.12 ± 0.33	9.85 ± 1.15	28.50 ± 3.64	17.09 ± 1.86	11.52 ± 1.52	n = 155	All Methods & Instruments
3.10	9.80	28.70	17.10	11.70	n = 155	Median value, All Methods & Instruments
						<Instruments>
2.96 ± 0.14	8.43 ± 0.29	22.33 ± 0.79	14.09 ± 0.39	9.84 ± 0.54	n = 9	Abbott Architect i System
3.24 ± 0.29	9.51 ± 0.61	27.54 ± 0.67	16.31 ± 0.35	10.89 ± 0.91	n = 8	Beckman Coulter ACCESS
3.08 ± 0.41	9.01 ± 0.85	26.65 ± 2.74	16.04 ± 1.43	10.13 ± 0.23	n = 3	Beckman Coulter UniCel DxI 600
3.00 ± 0.29	9.11 ± 0.69	25.68 ± 1.85	16.03 ± 1.25	10.20 ± 0.81	n = 16	Beckman Coulter UniCel DxI 800
3.48 ± 0.41	10.03 ± 0.60	28.02 ± 2.13	17.23 ± 0.77	11.85 ± 0.63	n = 3	LC/MS/MS
2.59 ± 0.17	8.29 ± 0.42	22.83 ± 1.33	14.26 ± 0.91	9.30 ± 0.42	n = 9	Ortho Vitros 5600
2.79 ± 0.10	8.81 ± 0.44	23.53 ± 1.40	14.93 ± 0.77	9.64 ± 0.47	n = 3	Ortho Vitros ECi/ECiQ
3.14 ± 0.27	9.77 ± 0.38	29.30 ± 0.68	17.41 ± 0.32	12.24 ± 0.61	n = 7	Roche cobas e601
3.08 ± 0.15	9.65 ± 0.45	29.45 ± 0.63	16.90 ± 0.55	12.13 ± 0.34	n = 3	Roche cobas e602
2.72 ± 0.15	8.90 ± 0.45	27.82 ± 1.25	15.90 ± 0.72	11.35 ± 0.91	n = 3	Roche Elecsys
3.05 ± 0.16	9.52 ± 0.40	28.95 ± 0.87	16.84 ± 0.52	11.88 ± 0.29	n = 10	Roche MODULAR E
3.27 ± 0.27	10.37 ± 0.72	29.60 ± 2.02	18.06 ± 1.24	11.90 ± 0.80	n = 54	Siemens ADVIA Centaur
3.50 ± 0.19	10.99 ± 0.66	33.14 ± 2.96	18.70 ± 1.81	12.41 ± 1.21	n = 3	Siemens ADVIA Centaur CP
3.16 ± 0.22	11.17 ± 0.65	32.98 ± 2.15	18.60 ± 1.09	13.84 ± 0.92	n = 17	Siemens Immulite 2000
3.08 ± 0.26	9.48 ± 0.87	27.73 ± 3.32	16.55 ± 1.47	11.24 ± 1.32	n = 14	Mean of Above Means
						<Reagents>
2.96 ± 0.14	8.43 ± 0.29	22.33 ± 0.79	14.09 ± 0.39	9.84 ± 0.54	n = 9	Abbott
3.08 ± 0.33	9.20 ± 0.74	26.22 ± 1.97	16.07 ± 1.13	10.38 ± 0.87	n = 27	Beckman Coulter
2.95 ± 1.42	8.72 ± 3.57	24.13 ± 10.75	15.04 ± 5.94	10.18 ± 4.50	n = 4	In-House
2.65 ± 0.19	8.43 ± 0.48	23.01 ± 1.38	14.45 ± 0.95	9.38 ± 0.45	n = 12	Ortho Clinical Diagnostics
3.03 ± 0.22	9.53 ± 0.48	29.08 ± 0.81	16.87 ± 0.65	11.95 ± 0.46	n = 24	Roche Elecsys/Modular E/e601/e411
3.28 ± 0.28	10.41 ± 0.74	29.72 ± 2.13	18.08 ± 1.27	11.91 ± 0.83	n = 57	Siemens ADVIA/ADVIS Centaur
3.18 ± 0.24	11.32 ± 0.85	33.22 ± 2.21	18.83 ± 1.41	14.06 ± 1.20	n = 19	Siemens Immulite
3.04 ± 0.18	9.32 ± 1.04	26.62 ± 4.01	16.14 ± 1.84	10.92 ± 1.53	n = 7	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Insulin (μ U/mL)

Specimen: E01	Specimen: E02	Specimen: E03	Specimen: E04	Specimen: E05	Number	Instrument or Reagent System
20.07 ± 3.73	325.02 ± 77.39	111.01 ± 39.55	111.75 ± 36.51	373.19 ± 109.94	n = 101	All Methods & Instruments
19.70	300.00	108.00	103.22	381.80	n = 101	Median value, All Methods & Instruments
						<Instruments>
17.95 ± 0.21	290.09 ± 7.38	97.21 ± 3.84	95.53 ± 3.74	376.79 ± 12.86	n = 7	Abbott Architect i System
16.49 ± 0.35	295.71 ± 14.34	103.79 ± 2.27	100.00 ± 1.41	365.00 ± 37.40	n = 4	Beckman Coulter ACCESS
16.43 ± 0.89	298.56 ± 15.26	102.99 ± 2.82	96.18 ± 4.43	361.70 ± 43.86	n = 7	Beckman Coulter UniCel DxI 800
21.77 ± 0.34	364.42 ± 6.79	120.53 ± 2.83	122.88 ± 2.27	422.92 ± 9.62	n = 6	Roche cobas e601
21.79 ± 0.40	371.74 ± 1.21	120.96 ± 4.39	124.99 ± 0.31	422.42 ± 18.09	n = 5	Roche cobas e602
23.99 ± 0.74	402.08 ± 10.84	132.15 ± 3.69	133.41 ± 3.25	463.68 ± 15.04	n = 4	Roche Elecsys
21.28 ± 1.16	360.47 ± 19.45	117.51 ± 6.55	121.11 ± 5.65	410.78 ± 27.09	n = 9	Roche MODULAR E
24.87 ± 1.26	417.18 ± 56.63	167.87 ± 8.20	166.43 ± 8.22	511.67 ± 85.50	n = 22	Siemens ADVIA Centaur
18.28 ± 0.86	256.92 ± 11.86	67.67 ± 3.03	75.86 ± 4.16	260.90 ± 20.20	n = 3	Siemens Immulite 1000
17.20 ± 1.01	252.18 ± 17.32	66.26 ± 3.57	74.21 ± 5.68	257.13 ± 19.61	n = 25	Siemens Immulite 2000
21.52 ± 0.96	348.94 ± 27.76	130.02 ± 5.36	123.30 ± 4.01	402.36 ± 61.88	n = 3	Tosoh Bioscience
20.10 ± 3.12	332.90 ± 58.86	111.58 ± 27.54	111.20 ± 26.19	391.64 ± 73.28	n = 11	Mean of Above Means
						<Reagents>
17.95 ± 0.21	290.09 ± 7.38	97.21 ± 3.84	95.53 ± 3.74	376.79 ± 12.86	n = 7	Abbott
16.47 ± 0.75	297.84 ± 14.06	103.59 ± 2.62	97.61 ± 3.30	366.07 ± 39.80	n = 12	Beckman Coulter
21.86 ± 1.14	369.35 ± 18.65	121.03 ± 6.94	124.08 ± 5.42	423.71 ± 27.74	n = 25	Roche Elecsys/Modular E/e601/e411
24.85 ± 1.22	419.86 ± 54.93	168.29 ± 8.21	165.84 ± 8.67	515.86 ± 77.69	n = 23	Siemens ADVIA/ADVIS Centaur
17.50 ± 1.08	254.84 ± 26.79	65.92 ± 8.89	74.46 ± 7.72	258.62 ± 31.14	n = 7	Siemens Immulite
17.24 ± 1.03	252.62 ± 13.25	66.44 ± 2.92	74.45 ± 4.82	256.90 ± 15.60	n = 21	Siemens Immulite-Insulin lot# > 400
21.52 ± 0.96	348.94 ± 27.76	130.02 ± 5.36	123.30 ± 4.01	402.36 ± 61.88	n = 3	Tosoh ST AIA
19.37 ± 3.09	315.49 ± 62.00	105.85 ± 35.21	104.97 ± 30.74	371.28 ± 89.41	n = 7	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Free Estriol (ng/mL)

Specimen: E01	Specimen: E02	Specimen: E03	Specimen: E04	Specimen: E05	Number	Instrument or Reagent System
0.08 ± 0.04	1.53 ± 0.54	1.70 ± 0.72	1.67 ± 0.58	1.50 ± 0.51	n = 18	All Methods & Instruments
0.10	1.60	1.40	1.80	1.50	n = 18	Median value, All Methods & Instruments
						<Instruments>
0.06 ± 0.04	1.14 ± 0.11	1.25 ± 0.08	1.30 ± 0.06	1.14 ± 0.08	n = 4	Beckman Coulter UniCel DxI 800
0.09 ± 0.02	1.83 ± 0.21	1.84 ± 0.37	1.96 ± 0.11	1.68 ± 0.12	n = 5	Siemens Immulite 2000
0.07 ± 0.01	1.48 ± 0.39	1.55 ± 0.34	1.63 ± 0.38	1.41 ± 0.31	n = 2	Mean of Above Means
						<Reagents>
0.08 ± 0.04	1.19 ± 0.12	1.28 ± 0.06	1.31 ± 0.05	1.20 ± 0.10	n = 7	Beckman Coulter
0.10 ± 0.09	2.67 ± 1.44	2.57 ± 1.36	2.65 ± 1.41	2.50 ± 1.38	n = 3	In-House
0.08 ± 0.02	1.80 ± 0.19	1.82 ± 0.30	1.95 ± 0.10	1.69 ± 0.11	n = 6	Siemens Immulite
0.09 ± 0.01	1.87 ± 0.67	1.87 ± 0.59	1.97 ± 0.60	1.77 ± 0.59	n = 3	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Estradiol (pg/mL)

Specimen: E01	Specimen: E02	Specimen: E03	Specimen: E04	Specimen: E05	Number	Instrument or Reagent System
38.6 ± 13.09	155.0 ± 17.78	121.6 ± 15.71	63.6 ± 18.32	66.2 ± 15.84	n = 164	All Methods & Instruments
42.0	155.0	121.0	62.0	67.8	n = 164	Median value, All Methods & Instruments
<Instruments>						
46.8 ± 3.17	131.5 ± 6.11	110.8 ± 6.85	57.5 ± 3.65	61.6 ± 5.83	n = 11	Abbott Architect i System
33.4 ± 9.07	166.9 ± 18.92	119.2 ± 21.14	59.2 ± 9.72	52.5 ± 9.02	n = 6	Beckman Coulter ACCESS
34.6 ± 10.79	168.3 ± 16.84	125.9 ± 17.22	58.4 ± 15.66	60.4 ± 17.17	n = 3	Beckman Coulter UniCel DxI 600
30.5 ± 9.93	169.4 ± 15.93	120.4 ± 13.03	54.2 ± 8.81	61.3 ± 11.28	n = 9	Beckman Coulter UniCel DxI 800
20.3 ± 4.19	136.1 ± 9.79	108.0 ± 9.13	69.8 ± 6.10	68.5 ± 5.97	n = 6	Ortho Vitros 5600
47.0 ± 1.16	161.6 ± 3.57	127.9 ± 5.64	78.0 ± 6.86	75.0 ± 3.69	n = 5	Roche cobas e411
48.2 ± 3.05	157.9 ± 4.79	124.5 ± 5.45	78.6 ± 4.00	73.2 ± 1.74	n = 9	Roche cobas e601
53.9 ± 1.96	165.6 ± 6.60	130.2 ± 2.02	82.7 ± 2.74	80.3 ± 3.63	n = 4	Roche cobas e602
46.7 ± 2.11	158.7 ± 5.71	122.6 ± 7.66	76.4 ± 4.25	66.7 ± 7.79	n = 3	Roche Elecsys
49.5 ± 3.50	158.2 ± 5.86	125.5 ± 4.21	79.3 ± 4.29	73.7 ± 3.73	n = 8	Roche MODULAR E
46.5 ± 4.71	147.8 ± 6.94	112.8 ± 7.10	49.1 ± 5.70	53.8 ± 5.73	n = 46	Siemens ADVIA Centaur
46.2 ± 5.27	167.5 ± 19.51	123.8 ± 5.66	50.0 ± 12.21	55.3 ± 10.18	n = 5	Siemens ADVIA Centaur CP
29.3 ± 5.14	118.1 ± 8.53	51.8 ± 6.47	13.5 ± 2.53	11.0 ± 0.00	n = 5	Siemens Dimension Vista
26.3 ± 5.63	170.7 ± 6.15	133.5 ± 18.73	78.5 ± 6.10	80.3 ± 7.90	n = 8	Siemens Immulite 1000
22.1 ± 3.30	166.5 ± 13.72	142.3 ± 9.37	81.1 ± 5.69	84.8 ± 7.74	n = 25	Siemens Immulite 2000
39.3 ± 11.71	160.0 ± 13.09	123.3 ± 8.69	67.7 ± 15.00	67.4 ± 11.42	n = 15	Mean of Above Means
<Reagents>						
46.8 ± 3.17	131.5 ± 6.11	110.8 ± 6.85	57.5 ± 3.65	61.6 ± 5.83	n = 11	Abbott
32.2 ± 10.03	168.3 ± 17.05	120.5 ± 16.48	57.1 ± 11.37	58.1 ± 12.33	n = 18	Beckman Coulter
26.1 ± 19.63	124.4 ± 85.40	103.7 ± 72.18	36.2 ± 24.19	44.8 ± 31.89	n = 3	In-House
20.4 ± 3.99	138.4 ± 12.21	111.3 ± 11.29	70.7 ± 5.51	69.9 ± 7.37	n = 8	Ortho Clinical Diagnostics
48.7 ± 3.85	159.6 ± 5.72	126.2 ± 5.31	79.1 ± 4.88	74.2 ± 3.97	n = 29	Roche Elecsys/Modular E/e601/e411
46.1 ± 4.94	148.4 ± 7.24	113.5 ± 7.37	48.9 ± 6.33	53.0 ± 5.87	n = 39	Siemens ADVIA Centaur Enhanced Estr
47.3 ± 4.30	147.7 ± 7.04	114.5 ± 8.51	49.6 ± 6.58	56.3 ± 6.20	n = 12	Siemens ADVIA/ADVISIA Centaur
31.0 ± 2.58	120.4 ± 4.96	53.8 ± 5.47	14.3 ± 2.35	11.0 ± 0.00	n = 4	Siemens Dimension LOCI
23.0 ± 4.08	167.8 ± 12.02	140.9 ± 12.29	80.5 ± 5.94	83.7 ± 7.89	n = 33	Siemens Immulite
35.8 ± 12.12	145.2 ± 18.40	116.0 ± 10.13	56.4 ± 20.11	60.4 ± 16.24	n = 9	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Testosterone (ng/dL)

Specimen: E01	Specimen: E02	Specimen: E03	Specimen: E04	Specimen: E05	Number	Instrument or Reagent System
280.57 ± 55.60	226.48 ± 22.29	25.11 ± 8.46	422.37 ± 41.05	270.23 ± 34.10	n = 146	All Methods & Instruments
267.00	225.00	24.00	422.50	272.00	n = 146	Median value, All Methods & Instruments
333.00 ± 2.84	223.00 ± 1.60	17.80 ± 0.08	405.00 ± 0.37	276.00 ± 0.53	n = 2	[---] Results of LC_MS_MS measurement*
<Instruments>						
396.73 ± 25.15	230.81 ± 18.87	23.58 ± 5.61	440.21 ± 42.42	294.80 ± 17.69	n = 3	Abbott Architect i System
263.97 ± 6.90	205.27 ± 9.95	21.54 ± 3.23	394.14 ± 12.69	227.96 ± 8.00	n = 9	Beckman Coulter ACCESS
257.05 ± 2.61	206.44 ± 4.58	21.53 ± 1.86	382.17 ± 8.46	226.20 ± 6.66	n = 3	Beckman Coulter UniCel DxI 600
256.88 ± 10.89	205.09 ± 5.41	21.19 ± 1.57	384.60 ± 12.92	222.13 ± 8.49	n = 12	Beckman Coulter UniCel DxI 800
287.23 ± 27.78	214.83 ± 15.42	15.15 ± 3.35	379.86 ± 33.54	262.96 ± 22.85	n = 5	Gamma Counter
353.69 ± 26.31	247.39 ± 20.98	20.28 ± 5.15	427.00 ± 33.06	283.33 ± 37.90	n = 4	LC/MS/MS
251.60 ± 7.86	272.06 ± 4.21	27.90 ± 2.55	537.55 ± 20.49	303.35 ± 13.63	n = 4	Ortho Vitros 5600
360.07 ± 20.12	238.31 ± 12.09	21.67 ± 3.79	444.18 ± 23.72	299.73 ± 17.44	n = 8	Roche cobas e601
350.70 ± 13.18	237.84 ± 10.52	23.44 ± 8.11	455.13 ± 37.28	300.58 ± 18.69	n = 5	Roche cobas e602
358.82 ± 11.18	231.34 ± 9.79	21.22 ± 1.73	440.19 ± 19.16	291.85 ± 8.80	n = 5	Roche Elecsys
354.29 ± 6.15	234.29 ± 8.82	22.44 ± 1.97	444.29 ± 8.49	294.85 ± 5.14	n = 11	Roche MODULAR E
273.19 ± 23.92	219.98 ± 13.73	34.62 ± 9.42	417.82 ± 35.10	272.92 ± 23.58	n = 48	Siemens ADVIA Centaur
213.92 ± 23.99	248.69 ± 19.29	24.06 ± 4.54	431.85 ± 32.22	260.48 ± 18.61	n = 20	Siemens Immulite 2000
252.51 ± 17.43	223.13 ± 11.36	17.03 ± 2.88	419.86 ± 32.47	229.29 ± 23.13	n = 3	Tosoh Bioscience
300.76 ± 60.71	228.56 ± 18.43	21.84 ± 3.08	422.91 ± 30.61	271.43 ± 32.68	n = 14	Mean of Above Means
<Reagents>						
396.73 ± 25.15	230.81 ± 18.87	23.58 ± 5.61	440.21 ± 42.42	294.80 ± 17.69	n = 3	Abbott
259.93 ± 8.79	205.47 ± 6.84	21.53 ± 2.16	387.81 ± 13.23	224.97 ± 8.63	n = 24	Beckman Coulter
353.73 ± 26.34	256.39 ± 29.71	19.28 ± 4.82	445.43 ± 53.71	297.07 ± 43.69	n = 5	In-House
251.60 ± 7.86	272.06 ± 4.21	27.90 ± 2.55	537.55 ± 20.49	303.35 ± 13.63	n = 4	Ortho Clinical Diagnostics
354.68 ± 12.37	234.92 ± 10.47	21.66 ± 3.17	444.21 ± 18.19	295.69 ± 12.67	n = 30	Roche Elecsys/Modular E/e601/e411
273.19 ± 23.92	219.98 ± 13.73	34.62 ± 9.42	417.82 ± 35.10	272.92 ± 23.58	n = 48	Siemens ADVIA/ADVIS Centaur
287.23 ± 27.78	214.83 ± 15.42	15.15 ± 3.35	379.86 ± 33.54	262.96 ± 22.85	n = 5	Siemens Coat-A-Count
215.26 ± 24.69	250.49 ± 22.52	24.18 ± 4.55	435.11 ± 38.47	263.19 ± 22.66	n = 22	Siemens Immulite
252.51 ± 17.43	223.13 ± 11.36	17.03 ± 2.88	419.86 ± 32.47	229.29 ± 23.13	n = 3	Tosoh ST AIA
289.38 ± 60.51	232.89 ± 21.47	22.15 ± 5.33	425.39 ± 30.78	273.85 ± 29.45	n = 9	Mean of Above Means

*The analyses on these specimens were performed in duplicate measurement using the HPLC-tandem mass spectrometry reference method at Clinical Chemistry Branch (CCB), Division of Laboratory Sciences (DLS), Centers for Disease Control and Prevention, Atlanta, Georgia.

Statistical Summary (Mean and Standard Deviation)

Progesterone (ng/mL)

Specimen: E01	Specimen: E02	Specimen: E03	Specimen: E04	Specimen: E05	Number	Instrument or Reagent System
4.01 ± 0.46	2.66 ± 0.37	6.14 ± 0.79	8.42 ± 0.88	1.74 ± 0.21	n = 159	All Methods & Instruments
3.99	2.61	6.10	8.50	1.70	n = 159	Median value, All Methods & Instruments
						<Instruments>
4.96 ± 0.14	2.63 ± 0.07	6.50 ± 0.15	8.38 ± 0.16	1.50 ± 0.08	n = 8	Abbott Architect i System
4.42 ± 0.21	3.00 ± 0.26	6.11 ± 0.44	8.60 ± 0.63	1.73 ± 0.14	n = 7	Beckman Coulter ACCESS
4.13 ± 0.27	2.97 ± 0.19	6.25 ± 0.63	8.68 ± 0.18	1.60 ± 0.02	n = 3	Beckman Coulter UniCel DxI 600
4.43 ± 0.54	2.87 ± 0.29	6.45 ± 0.54	8.76 ± 0.60	1.73 ± 0.16	n = 11	Beckman Coulter UniCel DxI 800
4.30 ± 0.62	2.27 ± 0.42	5.56 ± 0.92	7.56 ± 1.26	1.24 ± 0.35	n = 4	LC/MS/MS
2.55 ± 0.12	2.12 ± 0.08	4.70 ± 0.19	5.84 ± 0.23	2.03 ± 0.12	n = 6	Ortho Vitros 5600
3.87 ± 0.08	2.24 ± 0.11	5.70 ± 0.20	8.51 ± 0.31	1.63 ± 0.10	n = 4	Roche cobas e411
3.85 ± 0.08	2.25 ± 0.08	5.81 ± 0.18	8.48 ± 0.28	1.71 ± 0.06	n = 9	Roche cobas e601
3.88 ± 0.19	2.34 ± 0.08	5.88 ± 0.34	8.54 ± 0.43	1.67 ± 0.08	n = 5	Roche cobas e602
3.93 ± 0.16	2.29 ± 0.10	5.86 ± 0.15	8.57 ± 0.23	1.69 ± 0.08	n = 9	Roche MODULAR E
4.05 ± 0.28	2.84 ± 0.22	6.69 ± 0.44	8.77 ± 0.56	1.78 ± 0.21	n = 48	Siemens ADVIA Centaur
4.37 ± 0.32	3.10 ± 0.25	7.19 ± 0.28	9.18 ± 0.52	1.97 ± 0.25	n = 5	Siemens ADVIA Centaur CP
3.80 ± 0.19	2.90 ± 0.24	6.01 ± 0.59	8.61 ± 1.00	2.21 ± 0.24	n = 6	Siemens Immulite 1000
3.70 ± 0.28	2.59 ± 0.24	5.38 ± 0.39	7.27 ± 0.71	1.76 ± 0.17	n = 27	Siemens Immulite 2000
4.08 ± 0.36	2.60 ± 0.37	6.01 ± 0.57	8.59 ± 0.13	1.73 ± 0.21	n = 14	Mean of Above Means
						<Reagents>
4.96 ± 0.14	2.63 ± 0.07	6.50 ± 0.15	8.38 ± 0.16	1.50 ± 0.08	n = 8	Abbott
4.39 ± 0.41	2.93 ± 0.27	6.29 ± 0.55	8.70 ± 0.55	1.70 ± 0.15	n = 21	Beckman Coulter
3.91 ± 1.44	2.10 ± 0.60	5.11 ± 1.72	7.66 ± 1.12	1.10 ± 0.52	n = 5	In-House
2.55 ± 0.11	2.12 ± 0.07	4.68 ± 0.18	5.80 ± 0.24	2.01 ± 0.12	n = 7	Ortho Clinical Diagnostics
3.89 ± 0.15	2.27 ± 0.10	5.80 ± 0.25	8.51 ± 0.31	1.68 ± 0.08	n = 29	Roche Elecsys/Modular E/e601/e411
4.08 ± 0.30	2.86 ± 0.23	6.75 ± 0.46	8.81 ± 0.56	1.80 ± 0.22	n = 53	Siemens ADVIA/ADVIS Centaur
3.73 ± 0.27	2.62 ± 0.24	5.46 ± 0.44	7.45 ± 0.79	1.80 ± 0.22	n = 31	Siemens Immulite Progesterone (LKFW)
4.00 ± 0.63	2.51 ± 0.35	5.81 ± 0.77	8.12 ± 0.85	1.70 ± 0.24	n = 7	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

17-hydroxyprogesterone (ng/dL)

Specimen: E01	Specimen: E02	Specimen: E03	Specimen: E04	Specimen: E05	Number	Instrument or Reagent System
50.77 ± 27.57	37.18 ± 14.70	325.56 ± 125.71	133.54 ± 65.09	28.24 ± 9.11	n = 10	All Methods & Instruments
51.00	40.00	339.00	133.20	27.80	n = 10	Median value, All Methods & Instruments
73.53 ± 54.58	66.64 ± 64.01	431.01 ± 328.72	198.34 ± 169.89	52.84 ± 45.07	n = 4	<Instruments>
56.44 ± 3.43	40.65 ± 7.83	378.10 ± 39.85	132.76 ± 9.21	30.69 ± 5.64	n = 4	Gamma Counter
64.99 ± 9.74	53.64 ± 14.82	404.56 ± 30.16	165.55 ± 37.39	41.76 ± 12.63	n = 2	LC/MS/MS
56.44 ± 3.43	40.65 ± 7.83	378.10 ± 39.85	132.76 ± 9.21	30.69 ± 5.64	n = 4	Mean of Above Means
						<Reagents>
						In-House

Statistical Summary (Mean and Standard Deviation)

Dehydroepiandrosterone (DHEA, ng/dL)

Specimen: E01	Specimen: E02	Specimen: E03	Specimen: E04	Specimen: E05	Number	Instrument or Reagent System
51.8 ± 42.23	77.5 ± 25.31	437.6 ± 284.91	98.4 ± 58.74	1213.8 ± 617.45	n = 8	All Methods & Instruments
45.2	81.2	403.0	107.0	1216.0	n = 8	Median value, All Methods & Instruments
56.1 ± 25.73	77.1 ± 31.29	365.5 ± 110.54	80.6 ± 48.58	1090.4 ± 325.60	n = 4	<Instruments> LC/MS/MS
44.8 ± 33.16	77.7 ± 26.97	301.3 ± 158.07	79.9 ± 42.49	880.9 ± 519.07	n = 5	<Reagents> In-House

Dehydroepiandrosterone sulfate (DHEA-S, µg/dL)

Specimen: E01	Specimen: E02	Specimen: E03	Specimen: E04	Specimen: E05	Number	Instrument or Reagent System
37.05 ± 8.57	145.21 ± 20.05	142.08 ± 18.25	142.13 ± 19.36	437.76 ± 46.02	n = 77	All Methods & Instruments
35.00	143.00	140.20	141.70	431.00	n = 77	Median value, All Methods & Instruments
41.35 ± 1.44	146.21 ± 5.27	136.70 ± 4.12	142.94 ± 3.54	426.09 ± 14.85	n = 5	<Instruments> Abbott Architect i System
40.87 ± 2.47	148.56 ± 9.09	139.12 ± 8.86	145.14 ± 7.50	413.64 ± 11.15	n = 4	Beckman Coulter ACCESS
41.41 ± 3.92	149.76 ± 12.67	135.40 ± 8.62	138.70 ± 10.22	393.23 ± 36.27	n = 3	Beckman Coulter UniCel DxI 800
54.35 ± 4.37	182.49 ± 11.30	176.69 ± 5.56	179.24 ± 7.13	498.54 ± 18.90	n = 3	Roche cobas e602
50.36 ± 3.75	170.91 ± 9.00	160.28 ± 6.41	169.33 ± 6.50	475.08 ± 14.02	n = 7	Roche MODULAR E
32.84 ± 0.99	98.92 ± 3.17	93.44 ± 1.51	95.46 ± 3.64	295.95 ± 9.46	n = 5	Siemens ADVIA Centaur
73.41 ± 67.28	145.74 ± 5.91	162.00 ± 13.52	266.35 ± 203.47	342.26 ± 215.07	n = 3	Siemens Immulite 1000
31.72 ± 3.76	139.02 ± 12.26	137.65 ± 10.49	136.66 ± 9.76	435.71 ± 37.15	n = 40	Siemens Immulite 2000
43.65 ± 11.61	149.90 ± 20.95	144.92 ± 22.31	147.75 ± 31.82	414.03 ± 64.48	n = 8	Mean of Above Means
41.35 ± 1.44	146.21 ± 5.27	136.70 ± 4.12	142.94 ± 3.54	426.09 ± 14.85	n = 5	<Reagents> Abbott
41.16 ± 3.15	149.34 ± 10.70	137.51 ± 8.78	142.83 ± 8.82	413.47 ± 11.37	n = 7	Beckman Coulter
50.46 ± 3.44	171.18 ± 9.49	161.66 ± 9.36	170.10 ± 8.28	473.98 ± 21.13	n = 14	Roche Elecsys/Modular E/e601/e411
32.84 ± 0.99	98.92 ± 3.17	93.44 ± 1.51	95.46 ± 3.64	295.95 ± 9.46	n = 5	Siemens ADVIA/ADVIS Centaur
32.01 ± 3.90	139.65 ± 12.04	138.82 ± 12.01	137.22 ± 10.26	437.21 ± 36.72	n = 43	Siemens Immulite
39.21 ± 7.21	143.90 ± 23.22	136.66 ± 21.34	140.08 ± 23.85	421.85 ± 54.42	n = 5	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Lutropin (LH, mIU/mL)

Specimen: E01	Specimen: E02	Specimen: E03	Specimen: E04	Specimen: E05	Number	Instrument or Reagent System
3.04 ± 0.63	9.67 ± 1.17	166.09 ± 20.28	6.49 ± 0.86	66.31 ± 8.00	n = 194	All Methods & Instruments
2.90	9.70	166.80	6.50	66.37	n = 194	Median value, All Methods & Instruments
<Instruments>						
2.53 ± 0.16	8.27 ± 0.49	134.16 ± 3.97	5.53 ± 0.27	57.66 ± 2.54	n = 13	Abbott Architect i System
2.41 ± 0.23	7.57 ± 0.60	139.32 ± 6.16	5.23 ± 0.28	54.60 ± 4.35	n = 9	Beckman Coulter ACCESS
2.30 ± 0.22	7.49 ± 0.46	140.20 ± 11.98	5.16 ± 0.29	53.32 ± 2.83	n = 16	Beckman Coulter UniCel DxI 800
2.74 ± 0.15	9.76 ± 0.42	200.00 ± 0.00	6.28 ± 0.67	79.39 ± 2.87	n = 11	Ortho Vitros 5600
3.43 ± 0.33	10.42 ± 0.37	166.11 ± 3.51	7.35 ± 0.42	66.48 ± 1.96	n = 4	Roche cobas e411
3.62 ± 0.10	10.64 ± 0.26	162.99 ± 4.00	7.41 ± 0.22	65.90 ± 1.18	n = 12	Roche cobas e601
3.51 ± 0.10	10.44 ± 0.36	159.35 ± 6.33	7.33 ± 0.23	64.98 ± 1.91	n = 5	Roche cobas e602
3.61 ± 0.24	10.72 ± 0.97	166.01 ± 20.55	7.42 ± 0.44	66.79 ± 7.30	n = 4	Roche Elecsys
3.59 ± 0.08	10.59 ± 0.17	161.35 ± 3.92	7.39 ± 0.15	65.70 ± 1.27	n = 9	Roche MODULAR E
2.74 ± 0.18	9.75 ± 0.53	175.39 ± 8.97	6.52 ± 0.42	66.76 ± 3.70	n = 56	Siemens ADVIA Centaur
3.01 ± 0.11	9.80 ± 0.42	174.91 ± 17.10	6.50 ± 0.40	69.73 ± 2.79	n = 4	Siemens ADVIA Centaur CP
3.30 ± 0.13	11.61 ± 0.18	150.00 ± 0.00	7.47 ± 0.09	84.05 ± 1.65	n = 8	Siemens Dimension Vista
3.94 ± 0.25	9.84 ± 0.56	195.30 ± 4.83	6.49 ± 0.53	73.47 ± 2.71	n = 7	Siemens Immulite 1000
3.95 ± 0.30	9.78 ± 0.68	172.41 ± 10.52	6.68 ± 0.43	70.03 ± 4.51	n = 28	Siemens Immulite 2000
2.95 ± 0.54	9.68 ± 1.94	155.90 ± 12.70	6.35 ± 1.26	64.14 ± 8.17	n = 3	Tosoh Bioscience
3.19 ± 0.57	9.91 ± 1.07	162.78 ± 18.41	6.67 ± 0.82	66.55 ± 7.73	n = 15	Mean of Above Means
<Reagents>						
2.53 ± 0.16	8.27 ± 0.49	134.16 ± 3.97	5.53 ± 0.27	57.66 ± 2.54	n = 13	Abbott
2.34 ± 0.21	7.53 ± 0.48	139.19 ± 9.67	5.16 ± 0.29	54.06 ± 3.58	n = 27	Beckman Coulter
2.73 ± 0.15	9.69 ± 0.26	200.00 ± 0.00	6.20 ± 0.59	79.14 ± 2.61	n = 12	Ortho Clinical Diagnostics
3.59 ± 0.14	10.58 ± 0.33	162.28 ± 5.73	7.40 ± 0.25	65.76 ± 1.61	n = 34	Roche Elecsys/Modular E/e601/e411
2.76 ± 0.19	9.76 ± 0.52	175.46 ± 9.38	6.52 ± 0.42	66.98 ± 3.71	n = 60	Siemens ADVIA/ADVIS Centaur
3.30 ± 0.13	11.61 ± 0.18	150.00 ± 0.00	7.47 ± 0.09	84.05 ± 1.65	n = 8	Siemens Dimension LOCI
3.95 ± 0.29	9.80 ± 0.66	177.13 ± 13.99	6.64 ± 0.46	70.81 ± 4.41	n = 35	Siemens Immulite
3.00 ± 0.59	9.64 ± 1.32	161.80 ± 23.21	6.43 ± 0.87	68.15 ± 10.72	n = 7	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Follitropin (FSH, mIU/mL)

Specimen: E01	Specimen: E02	Specimen: E03	Specimen: E04	Specimen: E05	Number	Instrument or Reagent System
19.91 ± 2.19	17.58 ± 3.64	34.83 ± 4.93	22.40 ± 4.79	129.84 ± 27.13	n = 198	All Methods & Instruments
19.90	17.10	35.60	21.57	123.00	n = 198	Median value, All Methods & Instruments
<Instruments>						
17.42 ± 0.74	14.70 ± 0.53	32.68 ± 1.58	18.41 ± 0.77	110.48 ± 4.94	n = 13	Abbott Architect i System
19.30 ± 0.85	17.13 ± 0.96	36.70 ± 2.21	20.93 ± 1.53	122.19 ± 11.92	n = 9	Beckman Coulter ACCESS
20.07 ± 0.91	17.61 ± 0.75	38.39 ± 1.85	22.60 ± 1.16	127.70 ± 9.20	n = 16	Beckman Coulter UniCel DxI 800
15.49 ± 0.54	14.21 ± 0.48	28.85 ± 0.86	18.45 ± 0.65	110.53 ± 3.73	n = 11	Ortho Vitros 5600
20.82 ± 0.85	18.85 ± 0.89	39.39 ± 1.25	24.13 ± 1.02	136.40 ± 4.45	n = 4	Roche cobas e411
18.38 ± 0.77	16.55 ± 0.75	34.64 ± 1.11	21.10 ± 1.13	120.11 ± 5.44	n = 12	Roche cobas e601
18.71 ± 0.72	16.63 ± 0.65	35.33 ± 1.39	21.45 ± 0.70	121.96 ± 3.73	n = 5	Roche cobas e602
20.14 ± 2.26	18.03 ± 2.18	38.07 ± 4.49	23.08 ± 2.82	131.53 ± 15.20	n = 4	Roche Elecsys
18.54 ± 0.74	16.69 ± 0.27	35.04 ± 1.19	21.17 ± 0.41	121.11 ± 4.30	n = 9	Roche MODULAR E
21.73 ± 1.14	21.76 ± 0.91	37.22 ± 1.88	28.24 ± 1.74	163.00 ± 9.68	n = 61	Siemens ADVIA Centaur
21.02 ± 1.30	20.60 ± 1.01	34.00 ± 2.63	26.43 ± 1.39	168.20 ± 13.79	n = 4	Siemens ADVIA Centaur CP
17.83 ± 0.33	16.16 ± 0.52	36.73 ± 0.90	20.21 ± 0.47	118.49 ± 1.71	n = 8	Siemens Dimension Vista
19.89 ± 1.74	12.93 ± 0.63	26.80 ± 2.08	16.83 ± 1.27	100.60 ± 9.76	n = 7	Siemens Immulite 1000
19.97 ± 1.24	13.36 ± 0.97	26.40 ± 1.88	17.33 ± 1.01	102.21 ± 7.70	n = 27	Siemens Immulite 2000
22.24 ± 0.73	18.60 ± 0.64	44.97 ± 1.61	22.79 ± 1.19	126.08 ± 1.22	n = 3	Tosoh Bioscience
19.54 ± 1.70	16.87 ± 2.47	35.21 ± 4.64	21.35 ± 3.10	121.94 ± 15.63	n = 15	Mean of Above Means
<Reagents>						
17.42 ± 0.74	14.70 ± 0.53	32.68 ± 1.58	18.41 ± 0.77	110.48 ± 4.94	n = 13	Abbott
19.87 ± 0.96	17.49 ± 0.85	37.90 ± 1.98	22.04 ± 1.44	124.68 ± 10.94	n = 27	Beckman Coulter
15.49 ± 0.50	14.16 ± 0.49	28.76 ± 0.87	18.39 ± 0.65	109.96 ± 4.05	n = 12	Ortho Clinical Diagnostics
18.80 ± 1.18	16.81 ± 1.02	35.49 ± 2.15	21.44 ± 1.31	122.75 ± 8.00	n = 34	Roche Elecsys/Modular E/e601/e411
21.69 ± 1.15	21.71 ± 0.95	37.09 ± 1.96	28.13 ± 1.77	163.30 ± 10.13	n = 65	Siemens ADVIA/ADVIS Centaur
17.83 ± 0.33	16.16 ± 0.52	36.73 ± 0.90	20.21 ± 0.47	118.49 ± 1.71	n = 8	Siemens Dimension LOCI
19.93 ± 1.33	13.26 ± 0.92	26.48 ± 1.93	17.23 ± 1.09	101.93 ± 8.23	n = 34	Siemens Immulite
18.76 ± 1.96	15.93 ± 2.44	33.99 ± 4.40	20.10 ± 2.87	115.14 ± 9.26	n = 7	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Prolactin ($\mu\text{g/L}$)

Specimen: E01	Specimen: E02	Specimen: E03	Specimen: E04	Specimen: E05	Number	Instrument or Reagent System
1.95 ± 0.34	5.44 ± 0.76	15.50 ± 2.61	5.79 ± 0.87	8.45 ± 1.26	n = 173	All Methods & Instruments
1.90	5.40	15.10	5.80	8.20	n = 173	Median value, All Methods & Instruments
						<Instruments>
2.22 ± 0.31	6.43 ± 0.89	17.58 ± 1.81	6.84 ± 0.90	9.79 ± 1.18	n = 10	Abbott Architect i System
1.85 ± 0.09	4.99 ± 0.17	14.26 ± 0.50	5.33 ± 0.21	7.65 ± 0.25	n = 7	Beckman Coulter ACCESS
1.87 ± 0.14	5.04 ± 0.10	14.26 ± 0.56	5.37 ± 0.05	7.68 ± 0.24	n = 3	Beckman Coulter UniCel DxI 600
1.81 ± 0.17	4.97 ± 0.20	14.26 ± 0.47	5.15 ± 0.26	7.73 ± 0.33	n = 16	Beckman Coulter UniCel DxI 800
2.60 ± 0.41	5.93 ± 0.34	16.50 ± 0.68	6.70 ± 0.48	9.64 ± 0.47	n = 10	Ortho Vitros 5600
2.63 ± 0.27	6.42 ± 0.21	20.30 ± 0.32	6.88 ± 0.12	10.23 ± 0.05	n = 3	Roche cobas e411
2.38 ± 0.10	6.28 ± 0.26	19.02 ± 0.73	6.76 ± 0.30	10.03 ± 0.36	n = 8	Roche cobas e601
2.40 ± 0.00	6.25 ± 0.19	18.83 ± 0.23	6.71 ± 0.20	9.96 ± 0.10	n = 3	Roche cobas e602
2.54 ± 0.14	6.60 ± 0.22	20.04 ± 0.18	6.92 ± 0.04	10.35 ± 0.24	n = 5	Roche Elecsys
2.41 ± 0.07	6.32 ± 0.22	19.42 ± 0.61	6.77 ± 0.27	10.03 ± 0.36	n = 8	Roche MODULAR E
1.92 ± 0.15	5.37 ± 0.25	14.78 ± 1.16	5.73 ± 0.28	8.17 ± 0.43	n = 57	Siemens ADVIA Centaur
2.10 ± 0.09	5.63 ± 0.34	16.10 ± 1.01	6.21 ± 0.29	8.37 ± 0.23	n = 3	Siemens ADVIA Centaur CP
1.67 ± 0.07	5.58 ± 0.16	18.18 ± 0.72	5.86 ± 0.25	9.15 ± 0.29	n = 10	Siemens Dimension Vista
1.56 ± 0.09	4.07 ± 0.33	11.95 ± 0.94	4.32 ± 0.30	6.55 ± 0.41	n = 22	Siemens Immulite 2000
2.14 ± 0.38	5.77 ± 0.73	16.91 ± 2.72	6.19 ± 0.82	9.03 ± 1.27	n = 14	Mean of Above Means
						<Reagents>
2.18 ± 0.31	6.33 ± 0.89	17.35 ± 1.89	6.72 ± 0.92	9.61 ± 1.28	n = 11	Abbott
1.83 ± 0.15	4.99 ± 0.17	14.26 ± 0.49	5.23 ± 0.25	7.70 ± 0.30	n = 26	Beckman Coulter
2.68 ± 0.42	5.96 ± 0.34	16.49 ± 0.73	6.67 ± 0.39	9.67 ± 0.50	n = 12	Ortho Clinical Diagnostics
2.43 ± 0.10	6.37 ± 0.26	19.52 ± 0.84	6.83 ± 0.26	10.13 ± 0.31	n = 26	Roche Elecsys/Modular E/e601/e411
1.93 ± 0.15	5.38 ± 0.26	14.84 ± 1.19	5.75 ± 0.29	8.19 ± 0.42	n = 60	Siemens ADVIA/ADVIS Centaur
1.67 ± 0.07	5.58 ± 0.16	18.18 ± 0.72	5.86 ± 0.25	9.15 ± 0.29	n = 10	Siemens Dimension LOCI
1.56 ± 0.08	4.09 ± 0.35	12.01 ± 0.91	4.33 ± 0.31	6.61 ± 0.44	n = 25	Siemens Immulite
2.02 ± 0.41	5.60 ± 0.76	16.18 ± 2.52	5.99 ± 0.89	8.82 ± 1.25	n = 7	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Intact Parathyrin (PTH, pg/mL)

Specimen: E01	Specimen: E02	Specimen: E03	Specimen: E04	Specimen: E05	Number	Instrument or Reagent System
3.86 ± 2.56	3.50 ± 1.97	15.17 ± 8.04	3.24 ± 1.78	5.08 ± 2.92	n = 174	All Methods & Instruments
4.00	3.17	15.90	3.00	5.20	n = 174	Median value, All Methods & Instruments
						<Instruments>
2.61 ± 1.91	3.61 ± 1.18	39.07 ± 7.31	3.30 ± 1.14	9.57 ± 2.57	n = 8	Abbott Architect i System
1.50 ± 2.45	1.94 ± 2.37	12.99 ± 6.84	1.68 ± 2.39	3.46 ± 2.15	n = 10	Beckman Coulter ACCESS
0.86 ± 0.37	1.00 ± 0.00	12.01 ± 5.63	1.00 ± 0.00	3.01 ± 1.67	n = 11	Beckman Coulter UniCel DxI 800
3.40 ± 0.00	3.70 ± 0.44	22.19 ± 4.93	3.40 ± 0.00	7.32 ± 1.16	n = 7	Ortho Vitros 5600
4.80 ± 1.18	4.09 ± 1.36	19.29 ± 6.67	3.93 ± 1.29	7.30 ± 1.83	n = 14	Roche cobas e601
5.20 ± 1.77	4.37 ± 1.14	17.42 ± 8.47	4.12 ± 1.18	6.82 ± 1.83	n = 5	Roche cobas e602
4.05 ± 0.28	4.56 ± 1.08	20.98 ± 3.45	4.21 ± 0.17	7.87 ± 0.24	n = 5	Roche Elecsys
4.39 ± 1.08	3.56 ± 1.10	17.53 ± 7.36	3.24 ± 1.35	6.13 ± 1.94	n = 10	Roche MODULAR E
2.92 ± 2.11	2.93 ± 2.10	11.78 ± 6.59	2.92 ± 2.10	3.18 ± 2.02	n = 49	Siemens ADVIA Centaur
3.54 ± 1.43	3.54 ± 1.43	13.55 ± 6.69	3.54 ± 1.43	3.54 ± 1.43	n = 6	Siemens ADVIA Centaur CP
11.78 ± 7.89	4.00 ± 1.14	16.89 ± 7.99	4.00 ± 1.14	7.09 ± 4.02	n = 6	Siemens Immulite 1000
6.68 ± 2.10	4.36 ± 1.67	14.64 ± 6.37	3.63 ± 1.12	5.71 ± 2.27	n = 31	Siemens Immulite 2000
1.00 ± 0.00	1.47 ± 0.54	10.34 ± 7.62	1.08 ± 0.13	2.54 ± 1.63	n = 4	Tosoh Bioscience
3.46 ± 1.91	3.49 ± 1.09	15.70 ± 4.01	3.26 ± 1.04	5.67 ± 2.37	n = 13	Mean of Above Means
						<Reagents>
2.61 ± 1.91	3.61 ± 1.18	39.07 ± 7.31	3.30 ± 1.14	9.57 ± 2.57	n = 8	Abbott
1.07 ± 1.69	1.47 ± 1.69	12.44 ± 6.06	0.70 ± 0.51	3.30 ± 1.92	n = 23	Beckman Coulter
3.40 ± 0.00	3.62 ± 0.37	22.88 ± 4.85	3.40 ± 0.00	7.17 ± 1.10	n = 8	Ortho Clinical Diagnostics
4.55 ± 1.06	4.12 ± 1.30	19.11 ± 6.76	3.82 ± 1.25	7.03 ± 1.90	n = 36	Roche Elecsys/Modular E/e601/e411
3.06 ± 2.06	3.07 ± 2.06	12.18 ± 6.82	3.02 ± 2.01	3.29 ± 2.04	n = 56	Siemens ADVIA/ADVIS Centaur
6.55 ± 2.13	4.15 ± 1.63	13.94 ± 6.33	3.54 ± 1.07	5.40 ± 2.23	n = 33	Siemens Immulite
18.65 ± 0.99	5.00 ± 0.00	21.94 ± 0.97	5.00 ± 0.00	10.45 ± 1.77	n = 3	Siemens Immulite Turbo
3.43 ± 1.73	3.72 ± 0.95	18.26 ± 7.29	3.47 ± 0.95	6.58 ± 2.84	n = 7	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

25-OH Vitamin D2 (ng/ml)

Specimen: E01	Specimen: E02	Specimen: E03	Specimen: E04	Specimen: E05	Number	Instrument or Reagent System
2.79 ± 1.52	8.97 ± 1.32	13.37 ± 1.63	27.38 ± 3.81	51.82 ± 4.18	n = 12	All Methods & Instruments
2.10	9.00	12.90	27.10	51.50	n = 12	Median value, All Methods & Instruments
2.79 ± 1.52	8.97 ± 1.32	13.37 ± 1.63	27.38 ± 3.81	51.82 ± 4.18	n = 12	<Instruments> LC/MS/MS
2.79 ± 1.52	8.97 ± 1.32	13.37 ± 1.63	27.38 ± 3.81	51.82 ± 4.18	n = 12	<Reagents> In-House

25-OH Vitamin D3 (ng/mL)

Specimen: E01	Specimen: E02	Specimen: E03	Specimen: E04	Specimen: E05	Number	Instrument or Reagent System
25.03 ± 3.46	28.85 ± 3.45	33.46 ± 3.11	28.50 ± 3.36	32.69 ± 3.26	n = 12	All Methods & Instruments
24.00	28.20	32.30	28.00	31.00	n = 12	Median value, All Methods & Instruments
25.03 ± 3.46	28.85 ± 3.45	33.46 ± 3.11	28.50 ± 3.36	32.69 ± 3.26	n = 12	<Instruments> LC/MS/MS
25.03 ± 3.46	28.85 ± 3.45	33.46 ± 3.11	28.50 ± 3.36	32.69 ± 3.26	n = 12	<Reagents> In-House

Statistical Summary (Mean and Standard Deviation)

25-OH Vitamin D, Total (ng/mL)

Specimen: E01	Specimen: E02	Specimen: E03	Specimen: E04	Specimen: E05	Number	Instrument or Reagent System
26.80 ± 4.70	34.30 ± 13.89	36.55 ± 15.88	46.51 ± 23.31	58.25 ± 32.62	n = 150	All Methods & Instruments
25.80	29.60	31.60	35.80	43.00	n = 150	Median value, All Methods & Instruments
26.18 ± 1.74	28.89 ± 1.96	30.01 ± 2.34	33.51 ± 2.07	37.89 ± 2.52	n = 18	<Instruments>
30.10 ± 1.65	40.89 ± 6.45	40.59 ± 5.89	52.29 ± 10.96	55.39 ± 10.70	n = 4	Abbott Architect i System
24.41 ± 1.72	24.84 ± 1.88	25.03 ± 2.01	31.94 ± 2.31	36.80 ± 2.98	n = 52	Automated microplate processor
22.72 ± 2.64	27.87 ± 3.22	28.06 ± 3.36	32.79 ± 3.67	38.18 ± 5.10	n = 4	DiaSorin Liaison
24.07 ± 0.95	31.23 ± 2.04	34.75 ± 0.72	37.34 ± 1.61	47.39 ± 2.50	n = 3	Gamma Counter
24.96 ± 3.53	37.20 ± 3.73	46.38 ± 2.93	56.08 ± 5.83	84.16 ± 3.40	n = 11	Immunodiagnostic Systems-iSYS Immun
28.47 ± 3.64	33.29 ± 5.51	39.73 ± 5.38	56.38 ± 4.61	82.60 ± 9.50	n = 3	LC/MS/MS
24.32 ± 2.39	29.31 ± 2.17	31.45 ± 1.44	34.48 ± 1.56	44.56 ± 2.85	n = 7	Ortho Vitros 5600
33.64 ± 4.79	56.52 ± 7.24	60.42 ± 6.10	85.08 ± 7.78	105.72 ± 8.82	n = 38	Roche cobas e601
26.03 ± 3.24	31.68 ± 5.91	35.79 ± 9.68	43.51 ± 15.05	56.32 ± 24.80	n = 9	Siemens ADVIA Centaur
						Mean of Above Means
26.18 ± 1.74	28.89 ± 1.96	30.01 ± 2.34	33.51 ± 2.07	37.89 ± 2.52	n = 18	<Reagents>
24.41 ± 1.74	24.89 ± 1.85	25.02 ± 2.05	31.96 ± 2.35	36.89 ± 2.91	n = 51	Abbott
21.67 ± 2.12	27.15 ± 3.52	26.64 ± 2.71	34.17 ± 3.49	39.53 ± 6.43	n = 3	DiaSorin Liaison
30.99 ± 4.21	41.49 ± 7.94	38.74 ± 5.55	49.10 ± 9.49	54.18 ± 11.04	n = 9	DiaSorin Radioimmunoassay
24.26 ± 0.83	29.48 ± 4.47	33.23 ± 4.04	36.17 ± 3.02	44.71 ± 7.02	n = 4	Immunodiagnostic Systems Enzyme Imm
24.96 ± 3.53	37.20 ± 3.73	46.38 ± 2.93	56.08 ± 5.83	84.16 ± 3.40	n = 11	Immunodiagnostic Systems-iSYS chemi
28.47 ± 3.64	33.29 ± 5.51	39.73 ± 5.38	56.38 ± 4.61	82.60 ± 9.50	n = 3	In-House
25.11 ± 2.22	30.08 ± 2.27	32.72 ± 2.47	35.73 ± 2.59	45.69 ± 3.00	n = 11	Ortho Clinical Diagnostics
33.15 ± 4.45	56.18 ± 6.83	59.93 ± 5.56	84.87 ± 6.93	105.29 ± 8.27	n = 32	Roche Elecsys/Modular E/e601/e411
36.75 ± 5.33	59.11 ± 9.20	64.09 ± 8.00	85.72 ± 11.81	107.89 ± 11.58	n = 6	Siemens ADVIA Centaur - Vitamin D T
27.07 ± 4.51	34.80 ± 11.10	38.01 ± 12.88	47.60 ± 19.73	61.69 ± 29.14	n = 10	Siemens ADVIA/ADVISIA Centaur
						Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Intact human Choriogonadotropin (intact hCG, mIU/mL)

Specimen: E01	Specimen: E02	Specimen: E03	Specimen: E04	Specimen: E05	Number	Instrument or Reagent System
53.3 ± 2.31	6.9 ± 0.45	57.5 ± 4.16	5.4 ± 0.62	52.7 ± 2.43	n = 46	All Methods & Instruments
53.9	7.0	58.0	5.1	53.0	n = 46	Median value, All Methods & Instruments
						<Instruments>
50.6 ± 1.69	6.4 ± 0.48	50.6 ± 1.46	5.0 ± 0.06	49.3 ± 2.50	n = 10	Roche cobas e601
53.1 ± 1.43	7.0 ± 0.00	59.0 ± 1.40	5.3 ± 0.54	52.6 ± 1.40	n = 13	Siemens Dimension EXL
54.7 ± 1.60	7.2 ± 0.50	59.4 ± 1.90	6.0 ± 0.00	53.9 ± 1.88	n = 13	Siemens Dimension RxL
53.8 ± 1.80	7.2 ± 0.47	60.1 ± 1.73	5.6 ± 0.56	53.9 ± 1.78	n = 7	Siemens Dimension Xpand
53.2 ± 1.59	7.0 ± 0.32	58.1 ± 3.71	5.5 ± 0.39	52.7 ± 1.92	n = 4	Mean of Above Means
						<Reagents>
51.0 ± 2.19	6.4 ± 0.48	50.9 ± 1.87	5.0 ± 0.06	49.8 ± 3.13	n = 11	Roche Elecsys/Modular E/e601/e411
53.8 ± 1.78	7.0 ± 0.00	59.3 ± 1.75	5.7 ± 0.56	53.3 ± 1.78	n = 33	Siemens Dimension
52.4 ± 1.60	6.7 ± 0.34	55.1 ± 4.82	5.3 ± 0.37	51.6 ± 2.04	n = 2	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Total Beta hCG (mIU/mL)

Specimen: E01	Specimen: E02	Specimen: E03	Specimen: E04	Specimen: E05	Number	Instrument or Reagent System
63.4 ± 5.48	7.4 ± 0.94	48.4 ± 10.43	6.1 ± 0.88	59.2 ± 8.86	n = 252	All Methods & Instruments
64.6	7.0	50.0	6.0	60.0	n = 252	Median value, All Methods & Instruments
<Instruments>						
50.3 ± 3.43	7.4 ± 0.56	37.6 ± 2.13	5.9 ± 0.52	48.1 ± 2.75	n = 22	Abbott Architect i System
62.9 ± 2.40	7.0 ± 0.00	35.0 ± 1.54	6.0 ± 0.00	56.8 ± 2.41	n = 23	Beckman Coulter ACCESS
62.3 ± 1.97	7.1 ± 0.32	35.4 ± 1.74	6.0 ± 0.37	56.7 ± 2.13	n = 15	Beckman Coulter UniCel DxI 800
65.3 ± 3.40	8.4 ± 0.49	58.0 ± 3.06	6.8 ± 0.42	63.1 ± 3.48	n = 19	Ortho Vitros 5600
63.5 ± 2.58	7.8 ± 0.81	56.8 ± 1.68	5.9 ± 0.64	61.4 ± 3.02	n = 10	Ortho Vitros ECi/ECiQ
67.4 ± 6.01	6.7 ± 0.47	52.8 ± 1.93	5.0 ± 0.28	66.8 ± 5.96	n = 6	Roche cobas e411
68.2 ± 1.72	6.6 ± 0.44	51.6 ± 1.51	5.0 ± 0.00	67.3 ± 2.03	n = 10	Roche cobas e601
66.9 ± 2.86	6.3 ± 0.51	50.2 ± 2.36	5.0 ± 0.00	66.3 ± 1.37	n = 3	Roche cobas e602
73.0 ± 4.45	6.9 ± 0.26	52.1 ± 2.07	5.3 ± 0.49	67.8 ± 1.54	n = 3	Roche Elecsys
68.1 ± 1.95	6.5 ± 0.51	51.4 ± 1.35	5.0 ± 0.00	67.8 ± 1.74	n = 13	Roche MODULAR E
61.5 ± 3.62	8.2 ± 1.13	44.2 ± 3.14	7.2 ± 0.89	52.3 ± 2.57	n = 51	Siemens ADVIA Centaur
58.7 ± 1.85	9.3 ± 0.49	43.0 ± 1.23	8.0 ± 0.55	47.6 ± 3.67	n = 6	Siemens ADVIA Centaur CP
65.8 ± 1.08	7.0 ± 0.00	55.8 ± 0.97	6.0 ± 0.00	64.7 ± 1.09	n = 41	Siemens Dimension Vista
87.9 ± 7.24	6.0 ± 0.88	53.7 ± 3.61	5.0 ± 0.41	76.7 ± 6.82	n = 5	Siemens Immulite 1000
104.5 ± 8.31	8.3 ± 0.89	68.7 ± 4.96	6.4 ± 0.63	96.1 ± 7.87	n = 17	Siemens Immulite 2000
64.9 ± 4.64	7.2 ± 0.90	49.9 ± 9.07	5.8 ± 0.85	62.5 ± 9.42	n = 15	Mean of Above Means
<Reagents>						
50.4 ± 3.42	7.3 ± 0.55	37.6 ± 2.08	5.9 ± 0.51	48.0 ± 2.69	n = 23	Abbott
62.5 ± 2.35	7.0 ± 0.00	35.1 ± 1.56	6.0 ± 0.00	56.7 ± 2.42	n = 40	Beckman Coulter
64.7 ± 3.33	8.2 ± 0.65	57.6 ± 2.72	6.5 ± 0.66	62.6 ± 3.48	n = 29	Ortho Clinical Diagnostics
68.3 ± 2.46	6.6 ± 0.48	51.7 ± 1.69	5.0 ± 0.00	67.6 ± 2.15	n = 35	Roche Elecsys/Modular E/e601/e411
61.1 ± 3.74	8.3 ± 1.14	44.1 ± 2.99	7.3 ± 0.90	52.0 ± 2.90	n = 57	Siemens ADVIA/ADVIS Centaur
59.2 ± 8.85	7.2 ± 0.41	57.1 ± 2.04	5.5 ± 0.57	59.4 ± 7.86	n = 4	Siemens Dimension
65.8 ± 1.04	7.0 ± 0.00	55.8 ± 0.98	6.0 ± 0.00	64.7 ± 1.06	n = 39	Siemens Dimension LOCI
101.1 ± 10.60	7.8 ± 1.30	65.6 ± 8.23	6.0 ± 0.87	92.3 ± 11.21	n = 22	Siemens Immulite
62.6 ± 4.93	7.4 ± 0.64	50.9 ± 10.78	6.0 ± 0.61	59.6 ± 8.66	n = 8	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Qualitative hCG report:

[AB1] Abbott	Specimen:E01	Specimen:E02*	Specimen:E03	Specimen:E04*	Specimen:E05
Negative	0	0	0	0	0
Indeterminant	0	8	0	8	0
Positive	8	0	8	0	8
<hr/>					
[AR1] Alere hCG Combo Cassette	Specimen:E01	Specimen:E02	Specimen:E03	Specimen:E04	Specimen:E05
Negative	0	3	0	4	0
Indeterminant	0	1	0	0	0
Positive	5	1	5	1	5
<hr/>					
[AD1] American Diagnostics	Specimen:E01	Specimen:E02	Specimen:E03	Specimen:E04	Specimen:E05
Negative	0	1	0	1	0
Indeterminant	0	0	0	0	0
Positive	2	1	2	1	2
<hr/>					
[BC1] Beckman Coulter	Specimen:E01	Specimen:E02	Specimen:E03	Specimen:E04	Specimen:E05
Negative	0	18	0	17	0
Indeterminant	0	5	0	5	0
Positive	26	3	26	4	26
<hr/>					
[CD1] Cardinal Health	Specimen:E01	Specimen:E02	Specimen:E03	Specimen:E04	Specimen:E05
Negative	0	9	0	9	0
Indeterminant	0	2	0	2	0
Positive	16	5	16	5	16
<hr/>					
[CM1] CEN-MED Elite Plus hCG One Step	Specimen:E01	Specimen:E02	Specimen:E03	Specimen:E04	Specimen:E05
Negative	0	5	0	6	0
Indeterminant	0	0	0	0	0
Positive	6	1	6	0	6
<hr/>					
[FI1] Fisher	Specimen:E01	Specimen:E02	Specimen:E03	Specimen:E04	Specimen:E05
Negative	0	28	0	38	0
Indeterminant	0	8	0	4	0
Positive	48	12	48	6	48

*Mean values of Total Beta hCG in the specimen E02 and E04, determined by 252 laboratories using 15 various immunoassay methods, were 7.4 ± 0.94 and 6.1 ± 0.88 (mIU/mL), respectively. The test methods with cutoff values greater than 10 mIU/mL should produce negative results for these two specimens.

Statistical Summary (Mean and Standard Deviation)

[IM1] Inverness Medical

Specimen:E01 Specimen:E02* Specimen:E03 Specimen:E04* Specimen:E05

Negative	0	3	0	4	0
Indeterminant	0	0	0	0	0
Positive	4	1	4	0	4

[JJ1] Ortho Clinical Diagnostics

Specimen:E01 Specimen:E02 Specimen:E03 Specimen:E04 Specimen:E05

Negative	0	0	0	0	0
Indeterminant	0	1	0	1	0
Positive	3	2	3	2	3

[PM1] Polymedco

Specimen:E01 Specimen:E02 Specimen:E03 Specimen:E04 Specimen:E05

Negative	0	2	0	2	0
Indeterminant	0	0	0	0	0
Positive	4	2	4	2	4

[QQ2] Quidel QuickVue One-Step hCG Combo

Specimen:E01 Specimen:E02 Specimen:E03 Specimen:E04 Specimen:E05

Negative	0	21	0	20	0
Indeterminant	0	0	0	0	0
Positive	22	1	22	2	22

[QQ1] Quidel QuickVue† One-Step hCG Combo

Specimen:E01 Specimen:E02 Specimen:E03 Specimen:E04 Specimen:E05

Negative	0	7	0	11	0
Indeterminant	0	3	0	1	0
Positive	17	7	17	5	17

[RO3] Roche Elecsys/Modular E/e601/e411

Specimen:E01 Specimen:E02 Specimen:E03 Specimen:E04 Specimen:E05

Negative	0	3	0	6	0
Indeterminant	0	2	0	2	0
Positive	8	3	8	0	8

[GZ1] Sekisui Diagnostics (Genzyme)

Specimen:E01 Specimen:E02 Specimen:E03 Specimen:E04 Specimen:E05

Negative	0	5	0	5	0
Indeterminant	0	1	0	1	0
Positive	7	1	7	1	7

*Mean values of Total Beta hCG in the specimen E02 and E04, determined by 252 laboratories using 15 various immunoassay methods, were 7.4 ± 0.94 and 6.1 ± 0.88 (mIU/mL), respectively. The test methods with cutoff values greater than 10 mIU/mL should produce negative results for these two specimens.

Statistical Summary (Mean and Standard Deviation)

[BY1] Siemens ADVIA/ADvia Centaur	Specimen:E01	Specimen:E02*	Specimen:E03	Specimen:E04*	Specimen:E05
Negative	0	7	0	9	0
Indeterminant	0	13	0	12	0
Positive	23	3	23	2	23
<hr/>					
[DA5] Siemens Dimension	Specimen:E01	Specimen:E02	Specimen:E03	Specimen:E04	Specimen:E05
Negative	0	0	0	1	0
Indeterminant	0	2	0	1	0
Positive	2	0	2	0	2
<hr/>					
[DA6] Siemens Dimension LOCI	Specimen:E01	Specimen:E02	Specimen:E03	Specimen:E04	Specimen:E05
Negative	0	0	0	0	0
Indeterminant	0	5	0	5	0
Positive	5	0	5	0	5
<hr/>					
[DP5] Siemens Immulite	Specimen:E01	Specimen:E02	Specimen:E03	Specimen:E04	Specimen:E05
Negative	0	1	0	1	0
Indeterminant	0	1	0	1	0
Positive	3	1	3	1	3
<hr/>					
[SB1] Stanbio	Specimen:E01	Specimen:E02	Specimen:E03	Specimen:E04	Specimen:E05
Negative	0	5	0	6	0
Indeterminant	0	1	0	0	0
Positive	8	2	8	2	8
<hr/>					
[TR1] TrueMedix	Specimen:E01	Specimen:E02	Specimen:E03	Specimen:E04	Specimen:E05
Negative	0	5	0	5	0
Indeterminant	0	0	0	1	0
Positive	6	1	6	0	6
<hr/>					
[---] All Methods & Instruments	Specimen:E01	Specimen:E02	Specimen:E03	Specimen:E04	Specimen:E05
Negative	0	123	0	145	0
Indeterminant	0	53	0	44	0
Positive	223	47	223	34	223

*Mean values of Total Beta hCG in the specimen E02 and E04, determined by 252 laboratories using 15 various immunoassay methods, were 7.4 ± 0.94 and 6.1 ± 0.88 (mIU/mL), respectively. The test methods with cutoff values greater than 10 mIU/mL should produce negative results for these two specimens.