

Endocrinology Proficiency Test – May 2013

Enclosed is a statistical summary of participant data for the five endocrinology proficiency survey specimens (E91, E92, E93, E94 and E95) shipped 6 May 2013. Test specimens were prepared by the quantitative transfer of constituents to a pooled human serum base. This material was subsequently sterile-filtered, dispensed into aliquots, stored at – 80°C and distributed to each participant for analysis. Results for individual instrument and reagent systems where the number of laboratories using those systems is three or greater are provided. Mean and Standard Deviation (± 1 SD) values shown on the attached sheets are calculated by a robust statistical technique that does not assume a Gaussian distribution. These statistical reports are also available on the internet at: <http://www.wadsworth.org/chemheme>

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.

Outlined below is a description of the process utilized in the evaluation of your laboratory's proficiency test results.

Target value

In general, targets utilized are derived from all-participant mean values calculated by robust statistical technique. In some cases, however, it is recognized that method, reagent, and/or instrument specific targets may be required and "peer group" specific targets are used where appropriate. Should an alternate target be required to evaluate your laboratory's data, an asterisk will be placed adjacent to the method, reagent, and/or instrument listing(s) corresponding to the peer group utilized.

Acceptable ranges

Limits of acceptable performance were established using criteria specified by CLIA'88 regulations, allowing for rounding to appropriate significant digits. Results falling within this range are scored as 100%. Any result exceeding these limits is considered unsatisfactory and receives a score of 0%. Laboratories must achieve an overall analyte score $\geq 80\%$ in order to meet performance criteria for that analyte.

Range plots

Plots show relative distance of your laboratory's results (represented by an "x") from the target for each sample analyzed. Any result exceeding the high or low limit by $> 20\%$ of the acceptable range is also indicated by a "x" symbol.

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: E91	Specimen: E92	Specimen: E93	Specimen: E94	Specimen: E95	Number	Instrument or Reagent System
6.00 ± 0.64	15.92 ± 1.74	7.81 ± 0.88	10.00 ± 1.26	13.68 ± 1.46	n = 232	All Methods & Instruments
6.00	15.70	7.80	9.80	13.50	n = 232	Median value, All Methods & Instruments
<Instruments>						
5.08 ± 0.40	14.74 ± 0.72	6.38 ± 0.41	8.55 ± 0.43	12.28 ± 0.73	n = 20	Abbott Architect i System
5.89 ± 0.35	17.46 ± 0.79	8.17 ± 0.43	11.37 ± 0.89	14.37 ± 0.67	n = 15	Beckman Coulter ACCESS
5.87 ± 0.14	16.68 ± 0.30	7.34 ± 0.33	9.30 ± 0.25	13.93 ± 0.38	n = 8	Beckman Coulter AU Chemistry System
6.29 ± 0.43	18.61 ± 0.81	8.38 ± 0.54	11.59 ± 0.59	14.75 ± 0.91	n = 16	Beckman Coulter UniCel DxI 800
5.86 ± 0.43	16.53 ± 1.27	7.98 ± 0.49	9.88 ± 0.75	14.49 ± 0.98	n = 16	Ortho Vitros 5600
5.64 ± 0.20	16.27 ± 0.76	7.67 ± 0.35	9.62 ± 0.40	14.10 ± 0.85	n = 8	Ortho Vitros Eci/EciQ
6.14 ± 0.35	14.44 ± 0.62	6.83 ± 0.14	8.97 ± 0.48	12.26 ± 0.60	n = 9	Roche cobas e601
6.20 ± 0.43	14.47 ± 1.28	7.02 ± 0.51	9.05 ± 0.75	12.29 ± 0.78	n = 3	Roche cobas e602
6.00 ± 0.42	14.14 ± 0.78	7.23 ± 0.42	9.02 ± 0.63	12.57 ± 0.42	n = 4	Roche MODULAR D/P
6.27 ± 0.33	14.94 ± 0.60	7.14 ± 0.42	9.12 ± 0.31	12.62 ± 0.63	n = 12	Roche MODULAR E
5.76 ± 0.45	14.53 ± 0.62	7.70 ± 0.40	9.54 ± 0.41	12.77 ± 0.47	n = 53	Siemens ADVIA Centaur
6.07 ± 0.52	15.79 ± 0.83	8.01 ± 0.43	10.50 ± 0.33	14.17 ± 0.72	n = 4	Siemens Dimension EXL
6.33 ± 0.41	16.53 ± 0.26	7.96 ± 0.15	10.62 ± 0.23	14.31 ± 0.33	n = 5	Siemens Dimension RxL
7.06 ± 0.68	17.82 ± 0.79	9.01 ± 0.56	11.70 ± 0.63	15.76 ± 0.56	n = 30	Siemens Dimension Vista
6.72 ± 0.56	17.68 ± 0.91	9.04 ± 0.51	11.43 ± 0.64	15.78 ± 0.59	n = 6	Siemens Immulite 1000
5.93 ± 0.54	15.80 ± 0.98	8.07 ± 0.92	10.21 ± 0.78	13.93 ± 1.10	n = 13	Siemens Immulite 2000
5.81 ± 0.30	15.88 ± 1.64	7.29 ± 0.51	9.50 ± 0.70	12.94 ± 0.71	n = 4	Tosoh Bioscience
6.04 ± 0.36	15.97 ± 1.40	7.70 ± 0.72	9.93 ± 1.07	13.69 ± 1.20	n = 17	Mean of Above Means
<Reagents>						
5.08 ± 0.40	14.74 ± 0.72	6.38 ± 0.41	8.55 ± 0.43	12.28 ± 0.73	n = 20	Abbott
6.10 ± 0.46	18.06 ± 1.02	8.27 ± 0.49	11.51 ± 0.74	14.53 ± 0.79	n = 31	Beckman Coulter
5.87 ± 0.14	16.68 ± 0.30	7.34 ± 0.33	9.30 ± 0.25	13.93 ± 0.38	n = 8	Microgenics DRI
5.76 ± 0.38	16.43 ± 1.11	7.86 ± 0.47	9.78 ± 0.64	14.34 ± 0.95	n = 24	Ortho Clinical Diagnostics
6.29 ± 0.36	14.86 ± 0.72	7.09 ± 0.47	9.14 ± 0.43	12.53 ± 0.65	n = 28	Roche Elecsys/Modular E/e601/e411
5.76 ± 0.45	14.53 ± 0.62	7.70 ± 0.40	9.54 ± 0.41	12.77 ± 0.47	n = 53	Siemens ADVIA/ADVIA Centaur
6.85 ± 0.75	17.44 ± 1.03	8.73 ± 0.72	11.38 ± 0.75	15.37 ± 0.87	n = 35	Siemens Dimension
6.94 ± 0.62	17.86 ± 0.72	8.97 ± 0.42	11.84 ± 0.81	15.99 ± 0.34	n = 4	Siemens Dimension LOCI
6.17 ± 0.65	16.35 ± 1.36	8.43 ± 0.94	10.63 ± 0.95	14.58 ± 1.35	n = 19	Siemens Immulite
5.87 ± 0.34	16.13 ± 1.85	7.40 ± 0.64	9.60 ± 0.82	13.14 ± 0.73	n = 3	Tosoh ST AIA
6.06 ± 0.52	16.33 ± 1.31	7.84 ± 0.80	10.08 ± 1.17	13.93 ± 1.27	n = 10	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Free T4 (ng/dL)

Specimen: E91	Specimen: E92	Specimen: E93	Specimen: E94	Specimen: E95	Number	Instrument or Reagent System
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0.97 ± 0.21	5.01 ± 1.13	1.29 ± 0.21	2.68 ± 0.44	2.70 ± 0.39	n = 260	All Methods & Instruments
0.95	4.90	1.30	2.70	2.73	n = 260	Median value, All Methods & Instruments
						<Instruments>
0.90 ± 0.00	3.62 ± 0.20	1.16 ± 0.06	2.10 ± 0.12	2.25 ± 0.15	n = 18	Abbott Architect i System
0.87 ± 0.04	3.69 ± 0.18	1.34 ± 0.07	2.62 ± 0.13	2.46 ± 0.08	n = 17	Beckman Coulter ACCESS
0.86 ± 0.05	3.94 ± 0.17	1.27 ± 0.07	2.67 ± 0.14	2.58 ± 0.10	n = 15	Beckman Coulter UniCel DxI 800
0.83 ± 0.05	5.20 ± 0.09	0.94 ± 0.10	2.22 ± 0.24	3.15 ± 0.19	n = 3	bioMerieux Vidas
1.36 ± 0.06	6.97 ± 0.05	1.58 ± 0.08	5.21 ± 0.21	4.95 ± 0.21	n = 17	Ortho Vitros 5600
1.34 ± 0.13	6.98 ± 0.04	1.56 ± 0.09	5.16 ± 0.38	4.86 ± 0.30	n = 8	Ortho Vitros Eci/ECiQ
1.10 ± 0.00	6.08 ± 0.24	1.40 ± 0.00	3.07 ± 0.05	3.20 ± 0.00	n = 3	Roche cobas e411
1.17 ± 0.04	6.94 ± 0.40	1.44 ± 0.06	3.22 ± 0.14	3.36 ± 0.16	n = 11	Roche cobas e601
1.15 ± 0.05	6.52 ± 0.13	1.47 ± 0.05	3.18 ± 0.09	3.44 ± 0.26	n = 3	Roche Elecsys
1.10 ± 0.00	6.55 ± 0.39	1.40 ± 0.00	3.12 ± 0.11	3.25 ± 0.16	n = 15	Roche MODULAR E
1.00 ± 0.07	4.61 ± 0.28	1.26 ± 0.08	2.61 ± 0.13	2.81 ± 0.14	n = 65	Siemens ADVIA Centaur
0.72 ± 0.06	5.05 ± 0.24	1.03 ± 0.08	2.41 ± 0.10	2.45 ± 0.15	n = 11	Siemens Dimension EXL
0.78 ± 0.06	5.09 ± 0.39	1.24 ± 0.05	3.60 ± 0.18	2.62 ± 0.13	n = 7	Siemens Dimension RxL
0.68 ± 0.07	4.98 ± 0.16	0.98 ± 0.08	2.30 ± 0.10	2.36 ± 0.12	n = 34	Siemens Dimension Vista
0.75 ± 0.12	4.92 ± 0.27	1.23 ± 0.16	3.45 ± 0.22	2.60 ± 0.23	n = 4	Siemens Dimension Xpand
1.27 ± 0.05	5.42 ± 0.32	1.60 ± 0.00	3.20 ± 0.09	2.97 ± 0.05	n = 3	Siemens Immulite 1000
1.14 ± 0.06	5.44 ± 0.44	1.54 ± 0.10	3.19 ± 0.19	2.91 ± 0.15	n = 15	Siemens Immulite 2000
1.14 ± 0.10	6.41 ± 0.52	1.40 ± 0.08	3.45 ± 0.20	3.69 ± 0.41	n = 4	Tosoh Bioscience
1.01 ± 0.23	5.48 ± 1.15	1.34 ± 0.21	2.96 ± 0.62	2.92 ± 0.56	n = 18	Mean of Above Means
						<Reagents>
0.90 ± 0.00	3.60 ± 0.23	1.15 ± 0.07	2.09 ± 0.12	2.24 ± 0.15	n = 19	Abbott
0.87 ± 0.05	3.80 ± 0.20	1.30 ± 0.08	2.64 ± 0.13	2.51 ± 0.11	n = 34	Beckman Coulter
0.83 ± 0.05	5.20 ± 0.09	0.94 ± 0.10	2.22 ± 0.24	3.15 ± 0.19	n = 3	bioMerieux Vitek
1.36 ± 0.08	6.97 ± 0.05	1.58 ± 0.08	5.20 ± 0.25	4.93 ± 0.24	n = 25	Ortho Clinical Diagnostics
1.14 ± 0.05	6.62 ± 0.51	1.43 ± 0.06	3.16 ± 0.14	3.30 ± 0.18	n = 34	Roche Elecsys/Modular E/e601/e411
1.00 ± 0.07	4.62 ± 0.28	1.26 ± 0.08	2.61 ± 0.14	2.81 ± 0.14	n = 66	Siemens ADVIA/ADVIA Centaur
0.77 ± 0.08	5.00 ± 0.30	1.21 ± 0.11	3.55 ± 0.20	2.59 ± 0.16	n = 13	Siemens Dimension
0.68 ± 0.07	4.99 ± 0.18	0.99 ± 0.08	2.33 ± 0.12	2.38 ± 0.13	n = 43	Siemens Dimension LOCI
1.16 ± 0.07	5.43 ± 0.42	1.55 ± 0.09	3.19 ± 0.17	2.93 ± 0.13	n = 18	Siemens Immulite
1.16 ± 0.11	6.56 ± 0.54	1.40 ± 0.09	3.48 ± 0.23	3.79 ± 0.45	n = 3	Tosoh ST AIA
0.98 ± 0.22	5.26 ± 1.17	1.29 ± 0.22	2.87 ± 0.70	2.88 ± 0.60	n = 10	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

T3-Uptake (%)

Specimen: E91	Specimen: E92	Specimen: E93	Specimen: E94	Specimen: E95	Number	Instrument or Reagent System
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32.10 ± 3.54	46.96 ± 7.20	37.33 ± 4.42	44.00 ± 7.12	41.08 ± 4.67	n = 141	All Methods & Instruments
32.00	47.70	37.70	45.00	41.70	n = 141	Median value, All Methods & Instruments
						<Instruments>
28.66 ± 0.86	37.66 ± 1.18	32.02 ± 1.12	36.85 ± 1.38	32.84 ± 0.95	n = 9	Abbott Architect i System
41.28 ± 1.93	50.71 ± 2.20	43.66 ± 1.77	48.45 ± 3.01	46.01 ± 2.55	n = 11	Beckman Coulter ACCESS
31.35 ± 1.10	48.05 ± 1.04	39.41 ± 0.76	45.70 ± 1.77	43.21 ± 0.92	n = 8	Beckman Coulter AU Chemistry System
40.23 ± 2.04	49.38 ± 1.93	41.90 ± 2.41	46.91 ± 1.77	43.88 ± 1.80	n = 11	Beckman Coulter UniCel DxI 800
34.68 ± 1.81	59.09 ± 2.75	41.29 ± 1.96	55.09 ± 2.43	46.07 ± 2.07	n = 8	Ortho Vitros 5600
33.53 ± 1.29	58.93 ± 0.72	40.43 ± 0.84	54.50 ± 0.80	45.08 ± 1.42	n = 7	Ortho Vitros Eci/ECiQ
31.29 ± 0.88	48.41 ± 1.76	40.27 ± 1.19	45.87 ± 1.36	43.33 ± 1.15	n = 4	Roche MODULAR D/P
33.55 ± 0.45	45.16 ± 0.65	35.37 ± 1.22	39.83 ± 0.31	41.08 ± 0.77	n = 3	Roche MODULAR E
31.65 ± 1.46	51.47 ± 2.15	38.14 ± 1.83	49.49 ± 2.81	41.44 ± 1.62	n = 29	Siemens ADVIA Centaur
33.36 ± 1.52	43.27 ± 1.38	36.77 ± 1.55	39.77 ± 1.55	41.42 ± 1.33	n = 5	Siemens Dimension EXL
31.65 ± 1.58	42.84 ± 1.27	35.50 ± 1.22	38.30 ± 0.82	39.30 ± 0.82	n = 4	Siemens Dimension RxL
31.65 ± 1.57	41.71 ± 2.47	35.07 ± 1.74	38.63 ± 1.95	39.08 ± 2.08	n = 21	Siemens Dimension Vista
29.18 ± 0.68	42.59 ± 0.79	31.66 ± 1.03	38.28 ± 0.99	35.26 ± 0.90	n = 5	Siemens Immulite 1000
28.50 ± 0.81	36.04 ± 1.16	30.23 ± 0.94	34.49 ± 1.14	31.74 ± 1.39	n = 12	Siemens Immulite 2000
32.15 ± 3.09	46.46 ± 6.83	37.39 ± 4.28	43.39 ± 6.82	41.22 ± 4.49	n = 14	Mean of Above Means
						<Reagents>
28.66 ± 0.86	37.66 ± 1.18	32.02 ± 1.12	36.85 ± 1.38	32.84 ± 0.95	n = 9	Abbott
40.77 ± 2.08	49.99 ± 2.07	42.86 ± 2.29	47.56 ± 2.49	44.93 ± 2.47	n = 22	Beckman Coulter
31.28 ± 1.02	48.01 ± 0.97	39.31 ± 0.58	45.87 ± 1.26	43.14 ± 0.76	n = 9	Microgenics CEDIA
34.07 ± 1.61	58.95 ± 1.89	40.76 ± 1.46	54.76 ± 1.69	45.60 ± 1.88	n = 15	Ortho Clinical Diagnostics
33.40 ± 1.85	45.55 ± 0.92	35.09 ± 2.10	39.94 ± 0.30	40.89 ± 2.33	n = 5	Roche Elecsys/Modular E/e601/e411
31.65 ± 1.46	51.47 ± 2.15	38.14 ± 1.83	49.49 ± 2.81	41.44 ± 1.62	n = 29	Siemens ADVIA/ADVIA Centaur
31.92 ± 1.71	42.17 ± 2.36	35.39 ± 1.77	38.77 ± 1.87	39.57 ± 2.04	n = 28	Siemens Dimension
28.70 ± 0.82	37.70 ± 3.33	30.62 ± 1.14	35.46 ± 2.15	32.62 ± 2.10	n = 17	Siemens Immulite
31.76 ± 2.81	46.19 ± 7.14	36.82 ± 4.30	43.32 ± 6.94	40.59 ± 4.90	n = 8	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

T Uptake (Unit)

Specimen: E91 -----	Specimen: E92 -----	Specimen: E93 -----	Specimen: E94 -----	Specimen: E95 -----	Number -----	Instrument or Reagent System -----
1.083 ± 0.040	0.665 ± 0.059	1.037 ± 0.106	0.836 ± 0.059	0.823 ± 0.072	n = 21	All Methods & Instruments
1.090	0.680	1.030	0.850	0.830	n = 21	Median value, All Methods & Instruments
<Instruments>						
1.117 ± 0.120	0.714 ± 0.053	0.975 ± 0.075	0.772 ± 0.060	0.915 ± 0.054	n = 5	Abbott Architect i System
1.091 ± 0.011	0.640 ± 0.042	1.010 ± 0.026	0.866 ± 0.029	0.799 ± 0.026	n = 7	Roche MODULAR E
1.061 ± 0.048	1.749 ± 0.057	1.266 ± 0.054	1.607 ± 0.076	1.385 ± 0.072	n = 4	Siemens ADVIA Centaur
1.090 ± 0.025	0.978 ± 0.550	1.070 ± 0.141	1.042 ± 0.406	1.009 ± 0.277	n = 3	Mean of Above Means
<Reagents>						
1.117 ± 0.120	0.714 ± 0.053	0.975 ± 0.075	0.772 ± 0.060	0.915 ± 0.054	n = 5	Abbott
1.090 ± 0.024	0.644 ± 0.046	1.018 ± 0.032	0.858 ± 0.038	0.792 ± 0.038	n = 11	Roche Elecsys/Modular E/e601/e411
1.061 ± 0.048	1.749 ± 0.057	1.266 ± 0.054	1.607 ± 0.076	1.385 ± 0.072	n = 4	Siemens ADVIA/ADVIA Centaur
1.089 ± 0.025	0.980 ± 0.549	1.073 ± 0.140	1.039 ± 0.408	1.007 ± 0.279	n = 3	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Triiodothyronine (T3, ng/dL)

Specimen: E91	Specimen: E92	Specimen: E93	Specimen: E94	Specimen: E95	Number	Instrument or Reagent System
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66.0 ± 10.45	128.4 ± 16.40	105.9 ± 12.82	109.0 ± 13.21	128.3 ± 17.25	n = 186	All Methods & Instruments
64.9	130.0	108.0	109.0	131.0	n = 186	Median value, All Methods & Instruments
						<Instruments>
60.5 ± 6.22	106.4 ± 5.28	91.4 ± 4.91	91.9 ± 5.46	109.8 ± 5.87	n = 16	Abbott Architect i System
61.1 ± 5.73	106.0 ± 6.42	88.5 ± 7.39	95.2 ± 8.33	103.1 ± 8.81	n = 11	Beckman Coulter ACCESS
62.8 ± 4.08	106.4 ± 5.31	85.5 ± 5.25	93.5 ± 5.33	103.4 ± 5.85	n = 15	Beckman Coulter UniCel DxI 800
73.6 ± 3.45	139.4 ± 6.11	115.4 ± 4.37	122.9 ± 5.49	133.5 ± 5.65	n = 13	Ortho Vitros 5600
71.8 ± 3.09	138.5 ± 5.52	114.0 ± 4.04	123.2 ± 3.73	133.9 ± 2.71	n = 4	Ortho Vitros ECI/ECiQ
83.7 ± 4.38	139.8 ± 6.65	115.6 ± 4.02	121.0 ± 5.25	137.2 ± 4.58	n = 9	Roche cobas e601
83.0 ± 4.60	141.1 ± 5.53	114.7 ± 4.22	120.6 ± 3.31	136.2 ± 4.31	n = 14	Roche MODULAR E
64.4 ± 6.11	134.2 ± 11.25	110.0 ± 6.96	108.9 ± 8.53	138.9 ± 9.18	n = 68	Siemens ADVIA Centaur
53.8 ± 4.18	128.4 ± 5.14	108.4 ± 3.52	114.5 ± 7.68	120.4 ± 5.00	n = 5	Siemens Immulite 1000
55.0 ± 7.05	127.2 ± 9.99	99.4 ± 7.01	113.9 ± 5.85	118.2 ± 8.04	n = 13	Siemens Immulite 2000
63.0 ± 7.21	117.5 ± 5.40	96.2 ± 7.82	98.6 ± 5.58	110.6 ± 6.45	n = 3	Tosoh Bioscience
65.8 ± 10.14	126.8 ± 15.00	104.1 ± 12.22	110.0 ± 13.15	122.6 ± 14.96	n = 11	Mean of Above Means
						<Reagents>
60.5 ± 6.40	106.7 ± 5.19	91.9 ± 5.19	92.5 ± 6.34	109.7 ± 5.63	n = 17	Abbott
62.3 ± 4.99	106.8 ± 6.23	87.0 ± 6.22	94.1 ± 6.57	103.4 ± 7.09	n = 28	Beckman Coulter
73.1 ± 3.48	139.1 ± 5.96	115.1 ± 4.38	123.1 ± 4.97	133.7 ± 4.99	n = 17	Ortho Clinical Diagnostics
84.3 ± 4.97	141.6 ± 5.51	115.9 ± 4.75	121.3 ± 4.54	137.9 ± 5.82	n = 29	Roche Elecsys/Modular E/e601/e411
64.3 ± 6.01	133.7 ± 11.47	109.8 ± 6.80	108.6 ± 8.54	138.7 ± 9.16	n = 70	Siemens ADVIA/ADVIA Centaur
54.5 ± 5.74	120.7 ± 5.81	100.2 ± 10.52	94.3 ± 17.44	111.0 ± 18.00	n = 3	Siemens Dimension
54.6 ± 6.39	127.7 ± 8.18	102.7 ± 7.74	114.6 ± 6.53	119.6 ± 7.01	n = 17	Siemens Immulite
63.5 ± 9.79	125.8 ± 14.62	103.5 ± 11.24	106.9 ± 13.79	121.9 ± 15.19	n = 7	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Free T-3 (pg/mL)

Specimen: E91	Specimen: E92	Specimen: E93	Specimen: E94	Specimen: E95	Number	Instrument or Reagent System
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2.05 ± 0.23	4.30 ± 0.60	2.94 ± 0.36	3.52 ± 0.51	3.57 ± 0.69	n = 140	All Methods & Instruments
2.00	4.30	2.90	3.60	3.60	n = 140	Median value, All Methods & Instruments
						<Instruments>
1.73 ± 0.15	3.96 ± 0.12	2.76 ± 0.12	3.28 ± 0.11	3.38 ± 0.11	n = 12	Abbott Architect i System
1.99 ± 0.06	4.09 ± 0.09	2.62 ± 0.15	3.43 ± 0.15	3.30 ± 0.16	n = 5	Beckman Coulter ACCESS
1.90 ± 0.17	4.06 ± 0.33	2.56 ± 0.22	3.27 ± 0.28	3.20 ± 0.25	n = 12	Beckman Coulter UniCel DxI 800
1.77 ± 0.16	9.52 ± 0.45	3.52 ± 0.24	7.20 ± 0.21	5.26 ± 0.25	n = 5	Ortho Vitros 5600
1.74 ± 0.12	9.69 ± 0.23	3.55 ± 0.19	7.12 ± 0.15	5.34 ± 0.47	n = 3	Ortho Vitros ECI/ECiQ
2.28 ± 0.15	5.60 ± 0.34	3.50 ± 0.18	4.53 ± 0.25	4.47 ± 0.27	n = 4	Roche cobas e601
2.07 ± 0.14	5.29 ± 0.18	3.33 ± 0.15	4.34 ± 0.17	4.25 ± 0.19	n = 12	Roche MODULAR E
2.11 ± 0.11	4.27 ± 0.15	2.98 ± 0.12	3.68 ± 0.13	3.73 ± 0.13	n = 50	Siemens ADVIA Centaur
0.50 ± 0.00	4.70 ± 0.15	1.05 ± 0.22	3.20 ± 0.15	2.10 ± 0.18	n = 15	Siemens Dimension Vista
2.43 ± 0.31	3.04 ± 0.20	2.72 ± 0.30	2.62 ± 0.16	3.10 ± 0.27	n = 12	Siemens Immulite 2000
1.99 ± 0.25	4.89 ± 1.92	3.03 ± 0.50	3.94 ± 1.42	3.79 ± 1.01	n = 10	Mean of Above Means
						<Reagents>
1.73 ± 0.15	3.96 ± 0.12	2.76 ± 0.12	3.28 ± 0.11	3.38 ± 0.11	n = 12	Abbott
1.94 ± 0.12	4.07 ± 0.22	2.58 ± 0.19	3.34 ± 0.23	3.25 ± 0.21	n = 19	Beckman Coulter
1.75 ± 0.14	9.61 ± 0.38	3.52 ± 0.22	7.17 ± 0.19	5.29 ± 0.34	n = 8	Ortho Clinical Diagnostics
2.12 ± 0.16	5.35 ± 0.20	3.35 ± 0.17	4.38 ± 0.18	4.29 ± 0.22	n = 19	Roche Elecsys/Modular E/e601/e411
2.12 ± 0.10	4.28 ± 0.14	2.98 ± 0.12	3.68 ± 0.13	3.74 ± 0.13	n = 50	Siemens ADVIA/ADVIA Centaur
0.50 ± 0.00	4.69 ± 0.14	1.03 ± 0.21	3.18 ± 0.15	2.08 ± 0.16	n = 14	Siemens Dimension LOCI
2.44 ± 0.28	3.05 ± 0.27	2.70 ± 0.22	2.62 ± 0.17	3.07 ± 0.25	n = 14	Siemens Immulite
2.00 ± 0.27	4.24 ± 0.72	2.94 ± 0.45	3.38 ± 0.54	3.54 ± 0.94	n = 7	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

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

Specimen: E91	Specimen: E92	Specimen: E93	Specimen: E94	Specimen: E95	Number	Instrument or Reagent System
1.45 $\pm$ 0.18	4.52 $\pm$ 0.51	3.98 $\pm$ 0.50	3.78 $\pm$ 0.45	1.62 $\pm$ 0.23	n = 293	All Methods & Instruments
1.43	4.56	4.00	3.80	1.60	n = 293	Median value, All Methods & Instruments
<Instruments>						
1.31 $\pm$ 0.05	3.89 $\pm$ 0.12	3.51 $\pm$ 0.14	3.28 $\pm$ 0.12	1.50 $\pm$ 0.07	n = 19	Abbott Architect i System
1.26 $\pm$ 0.08	4.12 $\pm$ 0.22	3.60 $\pm$ 0.14	3.38 $\pm$ 0.20	1.43 $\pm$ 0.08	n = 23	Beckman Coulter ACCESS
1.24 $\pm$ 0.09	4.04 $\pm$ 0.27	3.46 $\pm$ 0.27	3.31 $\pm$ 0.21	1.41 $\pm$ 0.09	n = 16	Beckman Coulter UniCel DxI 800
1.34 $\pm$ 0.10	4.17 $\pm$ 0.31	3.54 $\pm$ 0.10	3.43 $\pm$ 0.05	1.47 $\pm$ 0.05	n = 3	bioMerieux Vidas
1.62 $\pm$ 0.04	5.55 $\pm$ 0.16	4.76 $\pm$ 0.14	4.53 $\pm$ 0.15	1.65 $\pm$ 0.05	n = 18	Ortho Vitros 5600
1.62 $\pm$ 0.09	5.70 $\pm$ 0.28	4.83 $\pm$ 0.25	4.67 $\pm$ 0.27	1.65 $\pm$ 0.09	n = 10	Ortho Vitros Eci/EciQ
1.53 $\pm$ 0.09	4.52 $\pm$ 0.37	4.07 $\pm$ 0.32	3.81 $\pm$ 0.30	1.83 $\pm$ 0.16	n = 4	Roche cobas e411
1.59 $\pm$ 0.04	4.62 $\pm$ 0.14	4.20 $\pm$ 0.09	3.92 $\pm$ 0.12	1.87 $\pm$ 0.06	n = 14	Roche cobas e601
1.60 $\pm$ 0.01	4.62 $\pm$ 0.06	4.20 $\pm$ 0.07	3.89 $\pm$ 0.05	1.86 $\pm$ 0.03	n = 3	Roche cobas e602
1.58 $\pm$ 0.06	4.64 $\pm$ 0.11	4.19 $\pm$ 0.06	3.95 $\pm$ 0.08	1.89 $\pm$ 0.06	n = 6	Roche Elecsys
1.59 $\pm$ 0.04	4.62 $\pm$ 0.11	4.18 $\pm$ 0.09	3.93 $\pm$ 0.09	1.86 $\pm$ 0.06	n = 17	Roche MODULAR E
1.41 $\pm$ 0.07	4.56 $\pm$ 0.16	3.93 $\pm$ 0.16	3.79 $\pm$ 0.15	1.54 $\pm$ 0.11	n = 64	Siemens ADVIA Centaur
1.76 $\pm$ 0.14	5.09 $\pm$ 0.31	4.60 $\pm$ 0.22	4.36 $\pm$ 0.26	2.00 $\pm$ 0.13	n = 16	Siemens Dimension EXL
1.25 $\pm$ 0.09	3.86 $\pm$ 0.33	3.31 $\pm$ 0.22	3.30 $\pm$ 0.10	1.40 $\pm$ 0.13	n = 8	Siemens Dimension RxL
1.59 $\pm$ 0.07	4.83 $\pm$ 0.17	4.35 $\pm$ 0.19	4.10 $\pm$ 0.14	1.85 $\pm$ 0.09	n = 37	Siemens Dimension Vista
1.27 $\pm$ 0.09	3.88 $\pm$ 0.32	3.37 $\pm$ 0.27	3.24 $\pm$ 0.29	1.42 $\pm$ 0.04	n = 4	Siemens Dimension Xpand
1.35 $\pm$ 0.09	4.32 $\pm$ 0.12	3.61 $\pm$ 0.16	3.49 $\pm$ 0.20	1.41 $\pm$ 0.06	n = 7	Siemens Immulite 1000
1.32 $\pm$ 0.07	4.17 $\pm$ 0.27	3.41 $\pm$ 0.20	3.38 $\pm$ 0.20	1.35 $\pm$ 0.10	n = 17	Siemens Immulite 2000
1.58 $\pm$ 0.12	5.04 $\pm$ 0.29	4.28 $\pm$ 0.22	4.15 $\pm$ 0.36	1.77 $\pm$ 0.15	n = 3	Tosoh Bioscience
1.46 $\pm$ 0.18	4.49 $\pm$ 0.52	3.96 $\pm$ 0.51	3.76 $\pm$ 0.46	1.64 $\pm$ 0.23	n = 19	Mean of Above Means
<Reagents>						
1.31 $\pm$ 0.05	3.90 $\pm$ 0.12	3.51 $\pm$ 0.13	3.28 $\pm$ 0.12	1.50 $\pm$ 0.07	n = 20	Abbott
1.26 $\pm$ 0.08	4.10 $\pm$ 0.25	3.56 $\pm$ 0.21	3.36 $\pm$ 0.21	1.42 $\pm$ 0.09	n = 41	Beckman Coulter
1.34 $\pm$ 0.10	4.17 $\pm$ 0.31	3.54 $\pm$ 0.10	3.43 $\pm$ 0.05	1.47 $\pm$ 0.05	n = 3	bioMerieux Vitek
1.62 $\pm$ 0.06	5.59 $\pm$ 0.20	4.78 $\pm$ 0.19	4.57 $\pm$ 0.20	1.65 $\pm$ 0.06	n = 28	Ortho Clinical Diagnostics
1.59 $\pm$ 0.04	4.63 $\pm$ 0.12	4.19 $\pm$ 0.10	3.93 $\pm$ 0.11	1.87 $\pm$ 0.06	n = 44	Roche Elecsys/Modular E/e601/e411
1.43 $\pm$ 0.09	4.55 $\pm$ 0.22	3.93 $\pm$ 0.18	3.77 $\pm$ 0.18	1.59 $\pm$ 0.13	n = 38	Siemens ADVIA/ADVIA Centaur
1.26 $\pm$ 0.09	3.87 $\pm$ 0.33	3.33 $\pm$ 0.24	3.25 $\pm$ 0.23	1.41 $\pm$ 0.09	n = 12	Siemens Dimension
1.62 $\pm$ 0.10	4.88 $\pm$ 0.22	4.42 $\pm$ 0.22	4.15 $\pm$ 0.21	1.89 $\pm$ 0.12	n = 53	Siemens Dimension LOCI
1.33 $\pm$ 0.08	4.21 $\pm$ 0.24	3.48 $\pm$ 0.22	3.41 $\pm$ 0.21	1.37 $\pm$ 0.09	n = 24	Siemens Immulite
1.40 $\pm$ 0.04	4.56 $\pm$ 0.12	3.92 $\pm$ 0.13	3.81 $\pm$ 0.12	1.50 $\pm$ 0.06	n = 27	Siemens TSH-3
1.40 $\pm$ 0.15	4.37 $\pm$ 0.46	3.82 $\pm$ 0.46	3.65 $\pm$ 0.41	1.54 $\pm$ 0.17	n = 10	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Vitamin B12 (pg/mL)

Specimen: E91	Specimen: E92	Specimen: E93	Specimen: E94	Specimen: E95	Number	Instrument or Reagent System
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399.2 ± 51.29	472.0 ± 67.42	436.0 ± 57.49	452.3 ± 63.24	434.3 ± 58.49	n = 230	All Methods & Instruments
393.0	465.0	433.0	447.0	432.0	n = 230	Median value, All Methods & Instruments
						<Instruments>
458.4 ± 28.40	529.3 ± 29.77	482.8 ± 39.32	501.6 ± 34.32	479.0 ± 25.72	n = 14	Abbott Architect i System
373.9 ± 19.21	450.2 ± 22.02	420.9 ± 22.31	420.9 ± 23.79	423.9 ± 15.51	n = 19	Beckman Coulter ACCESS
392.1 ± 30.99	419.6 ± 42.65	398.5 ± 41.10	403.2 ± 53.26	406.7 ± 49.52	n = 4	Beckman Coulter UniCel DxI 600
345.0 ± 23.66	409.1 ± 34.46	375.8 ± 26.05	390.3 ± 28.83	373.0 ± 28.49	n = 18	Beckman Coulter UniCel DxI 800
387.3 ± 12.20	502.9 ± 15.58	442.5 ± 14.29	475.6 ± 10.73	440.9 ± 12.15	n = 14	Ortho Vitros 5600
402.4 ± 15.38	513.0 ± 29.01	452.9 ± 33.47	480.9 ± 30.68	452.9 ± 26.57	n = 10	Ortho Vitros Eci/ECiQ
456.8 ± 36.95	480.3 ± 27.37	488.9 ± 33.91	485.4 ± 36.26	501.0 ± 45.46	n = 4	Roche cobas e411
457.2 ± 13.39	545.9 ± 15.48	498.5 ± 13.92	523.2 ± 16.17	500.6 ± 8.90	n = 12	Roche cobas e601
465.2 ± 8.58	545.5 ± 9.19	506.2 ± 10.47	525.5 ± 11.72	508.1 ± 15.14	n = 14	Roche MODULAR E
381.5 ± 32.02	434.9 ± 33.70	409.9 ± 31.77	419.5 ± 31.63	404.6 ± 31.91	n = 80	Siemens ADVIA Centaur
401.6 ± 21.40	463.1 ± 25.93	431.7 ± 19.98	452.5 ± 18.91	429.8 ± 17.99	n = 8	Siemens ADVIA Centaur CP
289.6 ± 11.91	389.3 ± 9.90	301.3 ± 7.10	350.2 ± 16.12	296.7 ± 12.19	n = 7	Siemens Dimension Vista
456.8 ± 38.12	620.3 ± 14.91	535.1 ± 44.18	562.0 ± 30.08	554.0 ± 40.07	n = 3	Siemens Immulite 1000
426.5 ± 25.01	559.0 ± 39.93	482.1 ± 27.82	527.3 ± 31.90	488.8 ± 28.16	n = 16	Siemens Immulite 2000
481.8 ± 23.53	643.9 ± 30.86	566.9 ± 24.66	610.1 ± 47.75	562.4 ± 50.40	n = 4	Tosoh Bioscience
416.2 ± 51.05	497.2 ± 76.07	456.7 ± 63.66	475.0 ± 70.31	458.8 ± 66.86	n = 15	Mean of Above Means
						<Reagents>
458.4 ± 28.40	529.3 ± 29.77	482.8 ± 39.32	501.6 ± 34.32	479.0 ± 25.72	n = 14	Abbott
363.1 ± 27.22	431.4 ± 35.87	399.8 ± 34.92	406.9 ± 33.80	401.8 ± 37.39	n = 41	Beckman Coulter
393.3 ± 15.44	506.8 ± 21.43	446.4 ± 23.58	477.6 ± 19.31	444.8 ± 19.31	n = 24	Ortho Clinical Diagnostics
462.5 ± 16.64	546.5 ± 17.84	502.5 ± 18.70	524.0 ± 20.63	505.1 ± 21.63	n = 33	Roche Elecsys/Modular E/e601/e411
383.6 ± 31.66	437.3 ± 34.40	412.2 ± 31.56	422.6 ± 32.47	407.2 ± 31.76	n = 88	Siemens ADVIA/ADVIA Centaur
289.6 ± 11.91	389.3 ± 9.90	301.3 ± 7.10	350.2 ± 16.12	296.7 ± 12.19	n = 7	Siemens Dimension LOCI
429.7 ± 28.57	568.8 ± 44.65	486.5 ± 32.19	532.2 ± 33.94	494.4 ± 36.32	n = 19	Siemens Immulite
481.8 ± 23.53	643.9 ± 30.86	566.9 ± 24.66	610.1 ± 47.75	562.4 ± 50.40	n = 4	Tosoh AIA
413.1 ± 60.79	505.5 ± 83.24	455.2 ± 74.44	478.5 ± 81.04	455.2 ± 75.61	n = 8	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Folic Acid (ng/mL)

Specimen: E91	Specimen: E92	Specimen: E93	Specimen: E94	Specimen: E95	Number	Instrument or Reagent System
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2.32 ± 0.85	7.01 ± 0.69	5.20 ± 0.58	11.23 ± 2.31	7.52 ± 0.83	n = 227	All Methods & Instruments
2.30	6.90	5.10	11.00	7.40	n = 227	Median value, All Methods & Instruments
						<Instruments>
2.30 ± 0.38	7.03 ± 0.42	5.30 ± 0.30	13.92 ± 1.35	8.18 ± 0.51	n = 13	Abbott Architect i System
2.01 ± 0.19	7.06 ± 0.38	5.37 ± 0.37	12.58 ± 0.97	8.38 ± 0.55	n = 19	Beckman Coulter ACCESS
2.08 ± 0.24	7.37 ± 0.54	5.31 ± 0.38	12.77 ± 0.80	8.06 ± 0.55	n = 18	Beckman Coulter UniCel DxI 800
1.85 ± 0.18	6.42 ± 0.61	4.75 ± 0.37	13.51 ± 1.17	7.43 ± 0.58	n = 14	Ortho Vitros 5600
1.58 ± 0.31	5.88 ± 0.88	4.44 ± 0.42	12.59 ± 1.65	7.25 ± 0.70	n = 10	Ortho Vitros ECI/ECiQ
2.97 ± 0.05	6.35 ± 0.27	5.23 ± 0.05	10.09 ± 0.37	6.93 ± 0.05	n = 3	Roche cobas e411
3.32 ± 0.33	7.21 ± 0.39	5.64 ± 0.41	10.23 ± 0.54	7.37 ± 0.47	n = 12	Roche cobas e601
3.57 ± 0.24	7.29 ± 0.45	5.85 ± 0.34	10.53 ± 0.57	7.57 ± 0.37	n = 13	Roche MODULAR E
2.71 ± 0.29	6.93 ± 0.55	5.03 ± 0.46	10.50 ± 0.75	7.00 ± 0.55	n = 67	Siemens ADVIA Centaur
2.74 ± 0.47	6.25 ± 0.63	5.28 ± 0.49	10.47 ± 1.13	7.37 ± 0.59	n = 3	Siemens ADVIA Centaur CP
0.50 ± 0.00	2.90 ± 0.19	1.87 ± 0.20	4.89 ± 0.33	2.95 ± 0.21	n = 28	Siemens Dimension Vista
2.05 ± 0.19	7.62 ± 0.69	5.77 ± 0.51	13.14 ± 1.82	8.71 ± 0.81	n = 3	Siemens Immulite 1000
1.99 ± 0.25	7.10 ± 0.74	5.03 ± 0.48	11.67 ± 1.24	7.63 ± 0.63	n = 15	Siemens Immulite 2000
3.45 ± 1.02	8.82 ± 1.03	6.80 ± 0.99	11.59 ± 1.69	8.43 ± 1.13	n = 4	Tosoh Bioscience
2.40 ± 0.79	6.96 ± 0.63	5.30 ± 0.47	11.77 ± 1.51	7.69 ± 0.60	n = 14	Mean of Above Means
						<Reagents>
2.30 ± 0.38	7.03 ± 0.42	5.30 ± 0.30	13.92 ± 1.35	8.18 ± 0.51	n = 13	Abbott
2.06 ± 0.23	7.23 ± 0.54	5.37 ± 0.40	12.74 ± 0.96	8.27 ± 0.63	n = 39	Beckman Coulter
1.76 ± 0.27	6.23 ± 0.79	4.62 ± 0.43	13.17 ± 1.48	7.37 ± 0.64	n = 24	Ortho Clinical Diagnostics
3.42 ± 0.39	7.18 ± 0.51	5.72 ± 0.41	10.35 ± 0.58	7.44 ± 0.47	n = 31	Roche Elecsys/Modular E/e601/e411
2.72 ± 0.30	6.91 ± 0.57	5.04 ± 0.46	10.50 ± 0.77	7.02 ± 0.56	n = 70	Siemens ADVIA/ADVIA Centaur
0.50 ± 0.00	2.90 ± 0.19	1.87 ± 0.20	4.89 ± 0.33	2.95 ± 0.21	n = 28	Siemens Dimension LOCI
2.00 ± 0.24	7.18 ± 0.75	5.13 ± 0.56	11.84 ± 1.41	7.74 ± 0.76	n = 18	Siemens Immulite
3.45 ± 1.02	8.82 ± 1.03	6.80 ± 0.99	11.59 ± 1.69	8.43 ± 1.13	n = 4	Tosoh AIA
2.33 ± 0.90	7.11 ± 0.13	5.30 ± 0.56	11.97 ± 1.48	7.79 ± 0.54	n = 8	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Cortisol (µg/dL)

Specimen: E91	Specimen: E92	Specimen: E93	Specimen: E94	Specimen: E95	Number	Instrument or Reagent System
7.83 ± 0.85	10.26 ± 1.22	14.14 ± 1.83	36.20 ± 5.03	21.98 ± 2.89	n = 160	All Methods & Instruments
7.80	10.24	14.20	36.39	22.30	n = 160	Median value, All Methods & Instruments
<Instruments>						
7.26 ± 0.15	8.63 ± 0.28	11.83 ± 0.54	27.72 ± 1.13	17.43 ± 0.74	n = 10	Abbott Architect i System
7.56 ± 0.76	9.91 ± 0.75	13.47 ± 0.89	35.09 ± 2.24	21.01 ± 1.74	n = 6	Beckman Coulter ACCESS
7.11 ± 0.20	9.77 ± 0.68	12.85 ± 0.99	32.14 ± 1.87	20.39 ± 0.98	n = 3	Beckman Coulter UniCel DxI 600
7.10 ± 0.33	9.62 ± 0.44	12.63 ± 0.77	34.48 ± 1.08	20.06 ± 0.83	n = 15	Beckman Coulter UniCel DxI 800
8.85 ± 0.12	10.10 ± 0.50	14.20 ± 1.66	31.62 ± 3.95	21.07 ± 3.32	n = 4	LC/MS/MS
6.56 ± 0.26	8.61 ± 0.31	11.61 ± 0.40	28.45 ± 1.44	17.72 ± 0.22	n = 9	Ortho Vitros 5600
6.42 ± 0.27	8.54 ± 0.39	11.52 ± 0.47	27.70 ± 1.57	16.81 ± 0.70	n = 5	Ortho Vitros Eci/ECiQ
7.85 ± 0.36	9.90 ± 0.34	14.38 ± 0.58	33.98 ± 1.41	22.44 ± 0.82	n = 6	Roche cobas e601
8.03 ± 0.41	9.85 ± 0.45	14.57 ± 0.50	35.67 ± 1.41	22.82 ± 0.68	n = 3	Roche Elecsys
7.59 ± 0.38	9.42 ± 0.19	13.92 ± 0.43	33.83 ± 0.74	21.76 ± 0.51	n = 10	Roche MODULAR E
8.12 ± 0.57	10.96 ± 0.71	14.70 ± 0.87	39.14 ± 2.42	23.24 ± 1.53	n = 57	Siemens ADVIA Centaur
7.95 ± 0.36	10.77 ± 0.40	14.59 ± 1.08	41.21 ± 2.70	23.11 ± 2.26	n = 3	Siemens ADVIA Centaur CP
9.43 ± 0.41	12.32 ± 0.69	18.59 ± 1.99	44.37 ± 1.22	27.91 ± 1.80	n = 3	Siemens Immulite 1000
8.71 ± 0.76	11.38 ± 0.91	16.89 ± 1.42	39.98 ± 2.64	24.70 ± 1.79	n = 18	Siemens Immulite 2000
7.72 ± 0.85	9.91 ± 1.04	13.75 ± 1.77	34.48 ± 5.15	21.38 ± 2.86	n = 14	Mean of Above Means
<Reagents>						
7.26 ± 0.15	8.63 ± 0.28	11.83 ± 0.54	27.72 ± 1.13	17.43 ± 0.74	n = 10	Abbott
7.15 ± 0.41	9.67 ± 0.50	12.84 ± 0.87	34.37 ± 1.52	20.22 ± 1.09	n = 24	Beckman Coulter
8.85 ± 0.12	10.10 ± 0.50	14.20 ± 1.67	31.61 ± 3.97	19.02 ± 7.23	n = 5	In-House
6.50 ± 0.28	8.58 ± 0.35	11.58 ± 0.43	28.17 ± 1.60	17.38 ± 0.75	n = 14	Ortho Clinical Diagnostics
7.80 ± 0.44	9.69 ± 0.48	14.19 ± 0.57	34.16 ± 1.22	22.19 ± 0.82	n = 22	Roche Elecsys/Modular E/e601/e411
8.11 ± 0.56	10.95 ± 0.70	14.69 ± 0.89	39.23 ± 2.49	23.23 ± 1.57	n = 60	Siemens ADVIA/ADVIA Centaur
8.78 ± 0.78	11.44 ± 1.04	17.01 ± 1.56	40.38 ± 3.18	24.97 ± 2.23	n = 22	Siemens Immulite
7.78 ± 0.87	9.84 ± 1.07	13.65 ± 1.80	33.59 ± 4.98	20.55 ± 2.97	n = 7	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Insulin ($\mu\text{U/mL}$)

Specimen: E91	Specimen: E92	Specimen: E93	Specimen: E94	Specimen: E95	Number	Instrument or Reagent System
23.97 $\pm$ 8.29	209.44 $\pm$ 57.61	127.94 $\pm$ 44.35	126.90 $\pm$ 42.42	238.66 $\pm$ 71.16	n = 105	All Methods & Instruments
23.80	206.68	123.30	119.90	234.60	n = 105	Median value, All Methods & Instruments
<Instruments>						
21.68 $\pm$ 0.62	187.60 $\pm$ 5.74	112.34 $\pm$ 3.80	112.04 $\pm$ 3.40	216.03 $\pm$ 8.81	n = 7	Abbott Architect i System
22.40 $\pm$ 0.36	201.68 $\pm$ 16.50	122.23 $\pm$ 4.34	119.41 $\pm$ 6.28	234.65 $\pm$ 23.17	n = 3	Beckman Coulter UniCel DxI 600
21.03 $\pm$ 1.30	188.96 $\pm$ 8.41	113.58 $\pm$ 6.90	111.30 $\pm$ 4.85	220.10 $\pm$ 9.33	n = 7	Beckman Coulter UniCel DxI 800
27.89 $\pm$ 0.19	234.91 $\pm$ 6.01	146.88 $\pm$ 1.64	143.49 $\pm$ 2.67	278.25 $\pm$ 2.53	n = 6	Roche cobas e601
28.50 $\pm$ 0.97	242.72 $\pm$ 5.76	149.87 $\pm$ 4.06	148.31 $\pm$ 4.97	282.00 $\pm$ 7.22	n = 4	Roche Elecsys
27.27 $\pm$ 1.16	233.62 $\pm$ 6.14	143.81 $\pm$ 5.16	142.01 $\pm$ 4.59	270.12 $\pm$ 10.71	n = 11	Roche MODULAR E
34.18 $\pm$ 1.40	286.39 $\pm$ 16.73	190.28 $\pm$ 9.32	187.03 $\pm$ 8.01	327.71 $\pm$ 28.33	n = 23	Siemens ADVIA Centaur
13.47 $\pm$ 1.23	157.58 $\pm$ 6.92	83.73 $\pm$ 4.81	84.27 $\pm$ 4.82	164.76 $\pm$ 10.80	n = 5	Siemens Immulite 1000
14.53 $\pm$ 1.48	151.09 $\pm$ 10.61	81.99 $\pm$ 5.19	83.64 $\pm$ 4.76	162.17 $\pm$ 11.30	n = 28	Siemens Immulite 2000
29.17 $\pm$ 1.32	226.87 $\pm$ 3.03	144.53 $\pm$ 5.08	144.20 $\pm$ 1.45	264.68 $\pm$ 6.55	n = 3	Tosoh Bioscience
24.29 $\pm$ 6.62	210.55 $\pm$ 41.28	128.44 $\pm$ 32.18	126.90 $\pm$ 31.06	243.51 $\pm$ 52.73	n = 10	Mean of Above Means
<Reagents>						
21.68 $\pm$ 0.62	187.60 $\pm$ 5.74	112.34 $\pm$ 3.80	112.04 $\pm$ 3.40	216.03 $\pm$ 8.81	n = 7	Abbott
21.71 $\pm$ 1.38	191.17 $\pm$ 12.27	115.34 $\pm$ 6.45	112.50 $\pm$ 5.82	221.32 $\pm$ 12.01	n = 11	Beckman Coulter
27.67 $\pm$ 1.06	235.91 $\pm$ 6.96	145.78 $\pm$ 4.77	143.60 $\pm$ 4.78	274.35 $\pm$ 9.66	n = 24	Roche Elecsys/Modular E/e601/e411
34.08 $\pm$ 1.48	285.32 $\pm$ 17.99	189.68 $\pm$ 9.75	186.52 $\pm$ 8.34	326.97 $\pm$ 27.70	n = 24	Siemens ADVIA/ADVIA Centaur
15.23 $\pm$ 1.59	151.29 $\pm$ 12.84	82.55 $\pm$ 6.54	84.03 $\pm$ 5.46	165.63 $\pm$ 11.95	n = 9	Siemens Immulite
13.95 $\pm$ 1.18	151.75 $\pm$ 8.87	81.91 $\pm$ 4.48	83.41 $\pm$ 4.48	160.79 $\pm$ 10.61	n = 23	Siemens Immulite-Insulin lot# > 400
29.17 $\pm$ 1.32	226.87 $\pm$ 3.03	144.53 $\pm$ 5.08	144.20 $\pm$ 1.45	264.68 $\pm$ 6.55	n = 3	Tosoh ST AIA
23.32 $\pm$ 7.42	201.53 $\pm$ 47.29	122.39 $\pm$ 37.36	121.46 $\pm$ 35.90	231.34 $\pm$ 59.71	n = 7	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Free Estriol (ng/mL)

Specimen: E91	Specimen: E92	Specimen: E93	Specimen: E94	Specimen: E95	Number	Instrument or Reagent System
-----	-----	-----	-----	-----	-----	-----
0.75 ± 0.08	0.09 ± 0.07	0.09 ± 0.07	2.08 ± 0.96	1.80 ± 0.52	n = 19	All Methods & Instruments
0.80	0.10	0.10	1.69	1.80	n = 19	Median value, All Methods & Instruments
						<Instruments>
0.73 ± 0.09	0.06 ± 0.05	0.06 ± 0.05	1.49 ± 0.11	1.46 ± 0.12	n = 4	Beckman Coulter UniCel DxI 800
0.78 ± 0.07	0.10 ± 0.01	0.10 ± 0.01	2.49 ± 0.20	2.20 ± 0.20	n = 5	Siemens Immulite 2000
0.76 ± 0.03	0.08 ± 0.02	0.08 ± 0.02	1.99 ± 0.57	1.83 ± 0.42	n = 2	Mean of Above Means
						<Reagents>
0.73 ± 0.08	0.07 ± 0.05	0.07 ± 0.05	1.52 ± 0.12	1.51 ± 0.13	n = 8	Beckman Coulter
1.86 ± 0.79	0.15 ± 0.19	0.14 ± 0.10	3.46 ± 1.97	3.42 ± 1.89	n = 3	In-House
0.77 ± 0.07	0.09 ± 0.02	0.09 ± 0.02	2.43 ± 0.22	2.14 ± 0.24	n = 6	Siemens Immulite
1.06 ± 0.57	0.10 ± 0.04	0.10 ± 0.04	2.46 ± 0.88	2.31 ± 0.87	n = 3	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Estradiol (pg/mL)

Specimen: E91	Specimen: E92	Specimen: E93	Specimen: E94	Specimen: E95	Number	Instrument or Reagent System
66.4 ± 13.00	40.2 ± 9.67	84.2 ± 9.22	114.3 ± 19.21	167.4 ± 24.24	n = 167	All Methods & Instruments
65.0	40.0	84.0	112.6	164.0	n = 167	Median value, All Methods & Instruments
						<Instruments>
71.6 ± 5.07	55.0 ± 6.26	94.6 ± 5.36	103.0 ± 4.96	151.3 ± 7.91	n = 11	Abbott Architect i System
61.1 ± 4.20	40.3 ± 10.83	87.7 ± 10.02	120.1 ± 8.95	180.0 ± 21.34	n = 5	Beckman Coulter ACCESS
48.1 ± 7.98	43.1 ± 11.07	82.6 ± 11.14	123.8 ± 6.94	169.5 ± 19.10	n = 4	Beckman Coulter UniCel DxI 600
53.8 ± 11.36	34.6 ± 9.56	86.5 ± 4.70	107.7 ± 13.63	159.9 ± 10.58	n = 9	Beckman Coulter UniCel DxI 800
67.3 ± 15.74	31.0 ± 4.99	89.9 ± 28.32	101.7 ± 26.07	176.6 ± 39.45	n = 4	LC/MS/MS
50.1 ± 3.90	38.4 ± 3.68	65.4 ± 1.89	109.9 ± 5.09	141.1 ± 10.08	n = 6	Ortho Vitros 5600
74.7 ± 5.41	45.2 ± 3.41	85.0 ± 8.89	121.5 ± 7.21	172.1 ± 7.00	n = 5	Roche cobas e411
83.9 ± 0.71	49.8 ± 2.25	89.3 ± 2.98	124.1 ± 2.95	167.9 ± 1.97	n = 7	Roche cobas e601
86.8 ± 5.12	53.8 ± 2.00	93.4 ± 1.71	133.5 ± 2.74	176.3 ± 8.48	n = 3	Roche Elecsys
80.6 ± 5.76	49.7 ± 3.68	91.5 ± 5.09	126.0 ± 4.58	171.7 ± 5.56	n = 9	Roche MODULAR E
60.9 ± 4.64	37.9 ± 5.07	82.3 ± 5.18	101.6 ± 6.16	155.5 ± 7.00	n = 47	Siemens ADVIA Centaur
67.3 ± 15.45	33.3 ± 9.35	86.6 ± 7.42	106.8 ± 0.41	184.4 ± 8.49	n = 5	Siemens ADVIA Centaur CP
22.1 ± 3.80	11.5 ± 0.93	33.9 ± 6.88	70.5 ± 8.05	99.4 ± 9.10	n = 5	Siemens Dimension Vista
69.6 ± 7.05	33.2 ± 4.32	77.8 ± 8.17	142.7 ± 12.14	187.0 ± 10.94	n = 9	Siemens Immulite 1000
72.1 ± 7.45	40.9 ± 5.76	83.5 ± 6.55	134.4 ± 10.14	201.1 ± 13.07	n = 27	Siemens Immulite 2000
66.9 ± 13.99	41.0 ± 9.28	86.8 ± 5.30	116.8 ± 15.97	170.9 ± 16.16	n = 15	Mean of Above Means
						<Reagents>
71.6 ± 5.07	55.0 ± 6.26	94.6 ± 5.36	103.0 ± 4.96	151.3 ± 7.91	n = 11	Abbott
54.9 ± 10.23	38.1 ± 10.95	86.9 ± 6.43	115.8 ± 12.42	166.4 ± 18.11	n = 18	Beckman Coulter
59.6 ± 29.35	27.4 ± 10.70	76.7 ± 44.19	90.9 ± 46.69	157.8 ± 77.52	n = 5	In-House
48.9 ± 4.03	36.6 ± 4.86	61.9 ± 6.96	107.9 ± 7.49	137.6 ± 13.23	n = 8	Ortho Clinical Diagnostics
81.6 ± 6.02	49.4 ± 4.30	90.3 ± 5.81	125.5 ± 6.27	171.1 ± 7.19	n = 26	Roche Elecsys/Modular E/e601/e411
60.9 ± 4.84	37.8 ± 5.33	82.4 ± 5.64	102.4 ± 6.06	156.5 ± 8.43	n = 39	Siemens ADVIA Centaur Enhanced Estr
61.4 ± 5.03	37.7 ± 6.60	83.5 ± 5.51	102.7 ± 7.98	156.3 ± 9.18	n = 13	Siemens ADVIA/ADVIA Centaur
22.9 ± 3.89	11.7 ± 1.05	35.1 ± 7.48	71.8 ± 8.81	100.6 ± 10.30	n = 4	Siemens Dimension LOCI
71.5 ± 7.45	38.8 ± 6.63	82.2 ± 7.45	136.3 ± 11.24	197.4 ± 14.41	n = 36	Siemens Immulite
61.7 ± 13.71	38.1 ± 10.70	83.7 ± 8.52	106.7 ± 17.74	157.5 ± 21.31	n = 9	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Testosterone (ng/dL)

Specimen: E91 -----	Specimen: E92 -----	Specimen: E93 -----	Specimen: E94 -----	Specimen: E95 -----	Number -----	Instrument or Reagent System -----
179.83 ± 30.08	508.23 ± 59.70	24.00 ± 8.86	230.24 ± 28.36	81.69 ± 15.72	n = 147	All Methods & Instruments
176.00	510.40	21.80	228.70	80.00	n = 147	Median value, All Methods & Instruments
202 & 204	497 & 489	18.3 & 18.5	214 & 217	84.7 & 83.8	n = 2	[---] Results of LC_MS_MS measurement*
						<Instruments>
158.79 ± 9.57	460.50 ± 16.06	17.08 ± 3.95	212.28 ± 10.23	69.42 ± 3.46	n = 6	Beckman Coulter ACCESS
153.69 ± 5.81	443.75 ± 26.95	13.99 ± 2.93	199.28 ± 7.77	62.36 ± 2.45	n = 3	Beckman Coulter UniCel DxI 600
154.72 ± 5.71	444.16 ± 13.56	20.15 ± 2.98	208.03 ± 6.98	67.19 ± 3.84	n = 12	Beckman Coulter UniCel DxI 800
189.08 ± 8.14	469.75 ± 11.27	14.44 ± 3.48	224.46 ± 13.95	74.58 ± 3.85	n = 5	Gamma Counter
211.22 ± 17.02	496.17 ± 39.88	20.25 ± 1.07	228.93 ± 15.83	84.59 ± 4.97	n = 5	LC/MS/MS
158.08 ± 5.93	637.43 ± 18.32	25.81 ± 2.77	295.58 ± 12.77	76.15 ± 8.61	n = 4	Ortho Vitros 5600
140.64 ± 8.81	600.68 ± 58.00	20.18 ± 1.32	269.72 ± 17.73	63.93 ± 4.84	n = 3	Ortho Vitros Eci/ECiq
214.21 ± 10.96	529.86 ± 24.70	18.81 ± 3.06	242.89 ± 13.93	76.17 ± 5.22	n = 7	Roche cobas e601
226.53 ± 11.91	559.32 ± 27.09	21.45 ± 1.89	250.95 ± 10.74	79.13 ± 5.65	n = 6	Roche Elecsys
215.58 ± 9.67	527.24 ± 19.45	19.17 ± 3.16	238.99 ± 11.16	76.43 ± 4.17	n = 11	Roche MODULAR E
181.64 ± 15.29	515.15 ± 40.69	34.54 ± 7.24	217.52 ± 17.64	97.93 ± 7.84	n = 47	Siemens ADVIA Centaur
179.77 ± 31.53	616.23 ± 39.42	21.27 ± 3.43	313.47 ± 16.48	84.60 ± 9.70	n = 4	Siemens Immulite 1000
157.73 ± 22.65	484.48 ± 57.51	22.19 ± 4.24	254.28 ± 26.93	78.29 ± 11.96	n = 23	Siemens Immulite 2000
178.86 ± 30.24	517.39 ± 66.16	19.74 ± 3.40	239.02 ± 32.52	75.54 ± 8.81	n = 13	Mean of Above Means
						<Reagents>
194.23 ± 42.10	460.64 ± 76.80	18.77 ± 4.39	143.42 ± 88.03	73.60 ± 8.01	n = 3	Abbott
155.42 ± 7.10	448.47 ± 18.09	18.58 ± 4.27	208.17 ± 8.94	67.10 ± 4.21	n = 21	Beckman Coulter
211.25 ± 17.05	515.21 ± 57.16	20.37 ± 0.99	228.95 ± 15.85	84.60 ± 4.97	n = 6	In-House
151.56 ± 11.58	633.60 ± 12.61	23.16 ± 3.78	285.48 ± 19.08	70.22 ± 9.38	n = 7	Ortho Clinical Diagnostics
217.33 ± 11.18	534.01 ± 24.13	19.37 ± 3.33	242.07 ± 12.36	76.42 ± 4.80	n = 27	Roche Elecsys/Modular E/e601/e411
181.64 ± 15.29	515.15 ± 40.69	34.54 ± 7.24	217.52 ± 17.64	97.93 ± 7.84	n = 47	Siemens ADVIA/ADVIA Centaur
189.08 ± 8.14	469.75 ± 11.27	14.44 ± 3.48	224.46 ± 13.95	74.58 ± 3.85	n = 5	Siemens Coat-A-Count
160.40 ± 25.24	501.32 ± 72.00	22.00 ± 4.04	261.49 ± 33.60	79.37 ± 11.78	n = 27	Siemens Immulite
182.45 ± 25.72	498.53 ± 44.96	19.76 ± 2.70	230.51 ± 36.23	76.28 ± 7.98	n = 8	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: E91	Specimen: E92	Specimen: E93	Specimen: E94	Specimen: E95	Number	Instrument or Reagent System
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4.35 ± 0.45	10.85 ± 1.38	3.14 ± 0.50	5.97 ± 0.68	8.56 ± 1.18	n = 161	All Methods & Instruments
4.30	11.00	3.10	5.91	8.70	n = 161	Median value, All Methods & Instruments
						<Instruments>
5.10 ± 0.47	11.39 ± 1.03	3.42 ± 0.36	6.68 ± 0.52	9.27 ± 0.70	n = 8	Abbott Architect i System
4.75 ± 0.36	11.29 ± 0.71	3.08 ± 0.25	6.55 ± 0.33	8.14 ± 0.31	n = 7	Beckman Coulter ACCESS
4.74 ± 0.22	11.28 ± 0.45	3.25 ± 0.33	6.37 ± 0.46	8.15 ± 0.87	n = 4	Beckman Coulter UniCel DxI 600
4.95 ± 0.38	11.77 ± 0.85	3.59 ± 0.32	7.26 ± 0.45	8.85 ± 0.65	n = 11	Beckman Coulter UniCel DxI 800
4.71 ± 0.37	11.67 ± 0.78	3.16 ± 0.38	6.13 ± 0.92	9.22 ± 1.32	n = 4	LC/MS/MS
2.94 ± 0.06	7.86 ± 0.13	2.34 ± 0.07	5.96 ± 0.11	5.97 ± 0.09	n = 6	Ortho Vitros 5600
4.11 ± 0.05	11.76 ± 0.64	2.54 ± 0.13	6.37 ± 0.20	8.60 ± 0.23	n = 4	Roche cobas e411
4.10 ± 0.22	11.68 ± 0.47	2.56 ± 0.17	6.25 ± 0.44	8.51 ± 0.49	n = 8	Roche cobas e601
4.28 ± 0.12	11.95 ± 0.36	2.63 ± 0.09	6.46 ± 0.21	8.75 ± 0.32	n = 10	Roche MODULAR E
4.35 ± 0.29	11.05 ± 0.56	3.46 ± 0.28	5.52 ± 0.34	9.32 ± 0.63	n = 48	Siemens ADVIA Centaur
4.63 ± 0.23	11.66 ± 0.32	3.69 ± 0.22	5.85 ± 0.12	9.77 ± 0.34	n = 5	Siemens ADVIA Centaur CP
4.46 ± 0.24	10.53 ± 0.84	3.40 ± 0.38	6.35 ± 0.70	8.54 ± 0.38	n = 7	Siemens Immulite 1000
4.03 ± 0.27	8.94 ± 0.56	2.93 ± 0.16	5.55 ± 0.39	7.13 ± 0.46	n = 29	Siemens Immulite 2000
4.50 ± 0.41	11.52 ± 0.36	3.10 ± 0.46	6.24 ± 0.44	8.69 ± 0.75	n = 13	Mean of Above Means
						<Reagents>
5.10 ± 0.47	11.39 ± 1.03	3.42 ± 0.36	6.68 ± 0.52	9.27 ± 0.70	n = 8	Abbott
4.85 ± 0.36	11.52 ± 0.78	3.35 ± 0.39	6.83 ± 0.63	8.48 ± 0.70	n = 22	Beckman Coulter
4.71 ± 0.37	11.26 ± 1.30	2.95 ± 0.92	5.81 ± 0.17	8.54 ± 2.92	n = 5	In-House
2.91 ± 0.19	7.83 ± 0.37	2.34 ± 0.12	5.94 ± 0.25	5.93 ± 0.23	n = 8	Ortho Clinical Diagnostics
4.20 ± 0.15	11.82 ± 0.46	2.60 ± 0.13	6.44 ± 0.19	8.67 ± 0.34	n = 26	Roche Elecsys/Modular E/e601/e411
4.38 ± 0.29	11.11 ± 0.58	3.48 ± 0.29	5.56 ± 0.35	9.38 ± 0.62	n = 53	Siemens ADVIA/ADVIA Centaur
4.03 ± 0.41	9.20 ± 0.81	3.00 ± 0.36	5.47 ± 0.59	7.03 ± 0.86	n = 3	Siemens Immulite Progesterone (LKPG)
4.11 ± 0.30	9.14 ± 0.83	2.97 ± 0.23	5.66 ± 0.51	7.30 ± 0.69	n = 33	Siemens Immulite Progesterone (LKPW)
4.38 ± 0.57	10.56 ± 1.45	3.03 ± 0.40	6.02 ± 0.54	8.18 ± 1.18	n = 8	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

17-hydroxyprogesterone (ng/dL)

Specimen: E91 -----	Specimen: E92 -----	Specimen: E93 -----	Specimen: E94 -----	Specimen: E95 -----	Number -----	Instrument or Reagent System -----
39.20 ± 5.61 41.90	40.94 ± 5.66 42.00	50.46 ± 42.00 40.00	39.34 ± 5.22 41.00	35.14 ± 20.90 30.70	n = 10 n = 10	All Methods & Instruments Median value, All Methods & Instruments
66.66 ± 49.79 42.47 ± 0.61 54.57 ± 13.79	98.18 ± 83.31 38.37 ± 3.14 68.27 ± 34.10	96.46 ± 58.24 30.11 ± 10.72 63.28 ± 37.83	88.20 ± 78.00 39.34 ± 3.12 63.77 ± 27.85	75.08 ± 70.59 26.99 ± 6.78 51.03 ± 27.42	n = 4 n = 5 n = 2	<Instruments> Gamma Counter LC/MS/MS Mean of Above Means
42.47 ± 0.61	38.37 ± 3.14	30.11 ± 10.72	39.34 ± 3.12	26.99 ± 6.78	n = 5	<Reagents> In-House

Statistical Summary (Mean and Standard Deviation)

Dehydroepiandrosterone (DHEA, ng/dL)

Specimen: E91	Specimen: E92	Specimen: E93	Specimen: E94	Specimen: E95	Number	Instrument or Reagent System
183.0 ±116.89 189.0	244.1 ±149.65 267.0	265.7 ±175.71 254.0	1072.4 ±863.40 1120.0	475.0 ±299.27 464.0	n = 8 n = 8	All Methods & Instruments Median value, All Methods & Instruments
173.9 ± 94.98	244.4 ±141.80	249.8 ±122.70	978.0 ±469.39	443.6 ±195.61	n = 5	<Instruments> LC/MS/MS
147.6 ±104.66	213.8 ±142.98	219.7 ±128.03	798.1 ±583.37	375.0 ±234.31	n = 6	<Reagents> In-House

Dehydroepiandrosterone sulfate (DHEA-S, µg/dL)

Specimen: E91	Specimen: E92	Specimen: E93	Specimen: E94	Specimen: E95	Number	Instrument or Reagent System
61.42 ± 9.55 62.70	174.24 ± 23.02 173.00	104.92 ± 12.17 105.00	373.69 ± 46.61 374.60	101.45 ± 14.47 101.00	n = 79 n = 79	All Methods & Instruments Median value, All Methods & Instruments
63.80 ± 1.91 61.61 ± 2.79 79.65 ± 6.98 49.64 ± 4.07 62.24 ± 5.16 58.83 ± 6.88 61.68 ± 8.38	184.84 ± 5.69 190.00 ± 1.64 203.70 ± 9.39 118.66 ± 10.25 178.56 ± 18.17 168.20 ± 13.43 180.80 ± 21.65	103.65 ± 1.97 108.17 ± 2.04 119.53 ± 6.68 69.66 ± 6.89 104.03 ± 9.28 103.50 ± 8.20 106.10 ± 5.16	385.20 ± 10.71 375.80 ± 64.86 428.04 ± 25.02 253.22 ± 19.45 394.65 ± 29.64 365.56 ± 28.57 387.09 ± 22.15	102.70 ± 2.94 96.64 ± 9.41 116.14 ± 4.98 69.48 ± 6.93 116.10 ± 9.11 98.58 ± 9.48 102.15 ± 15.09	n = 5 n = 3 n = 9 n = 5 n = 5 n = 42 n = 6	<Instruments> Abbott Architect i System Beckman Coulter UniCel DxI 800 Roche MODULAR E Siemens ADVIA Centaur Siemens Immulite 1000 Siemens Immulite 2000 Mean of Above Means
63.80 ± 1.91 61.60 ± 3.22 77.93 ± 6.98 49.64 ± 4.07 59.24 ± 6.78 61.84 ± 9.28	184.84 ± 5.69 182.11 ± 11.74 201.57 ± 12.58 118.66 ± 10.25 169.03 ± 14.35 176.47 ± 26.55	103.65 ± 1.97 104.10 ± 7.08 118.20 ± 6.20 69.66 ± 6.89 103.55 ± 8.36 102.96 ± 14.65	385.20 ± 10.71 337.19 ± 6.54 419.78 ± 26.58 253.22 ± 19.45 368.46 ± 30.25 359.40 ± 57.16	102.70 ± 2.94 95.61 ± 6.69 116.48 ± 6.93 69.48 ± 6.93 100.18 ± 10.73 98.72 ± 15.19	n = 5 n = 5 n = 13 n = 5 n = 47 n = 5	<Reagents> Abbott Beckman Coulter Roche Elecsys/Modular E/e601/e411 Siemens ADVIA/ADVIA Centaur Siemens Immulite Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Lutropin (LH, mIU/mL)

Specimen: E91	Specimen: E92	Specimen: E93	Specimen: E94	Specimen: E95	Number	Instrument or Reagent System
-----	-----	-----	-----	-----	-----	-----
10.37 ± 1.65	13.47 ± 1.60	35.10 ± 4.50	20.70 ± 2.46	155.65 ± 21.21	n = 195	All Methods & Instruments
10.20	13.60	35.30	21.00	154.80	n = 195	Median value, All Methods & Instruments
						<Instruments>
8.21 ± 0.31	11.39 ± 0.48	29.57 ± 1.14	17.99 ± 0.82	124.61 ± 4.03	n = 13	Abbott Architect i System
8.72 ± 0.85	10.78 ± 0.74	28.12 ± 2.13	16.17 ± 0.97	121.36 ± 8.66	n = 7	Beckman Coulter ACCESS
8.77 ± 0.68	11.55 ± 1.46	29.18 ± 2.14	17.12 ± 2.24	132.63 ± 15.38	n = 3	Beckman Coulter UniCel DxI 600
8.99 ± 0.66	10.85 ± 0.60	28.48 ± 1.83	16.27 ± 1.10	128.93 ± 6.35	n = 16	Beckman Coulter UniCel DxI 800
10.44 ± 0.72	14.53 ± 0.57	41.89 ± 1.41	23.57 ± 1.02	199.84 ± 0.42	n = 11	Ortho Vitros 5600
10.33 ± 0.34	14.62 ± 0.41	41.16 ± 1.82	22.96 ± 0.93	195.68 ± 3.07	n = 3	Ortho Vitros Eci/ECiQ
11.42 ± 0.20	15.20 ± 0.40	37.53 ± 1.16	22.49 ± 0.51	160.15 ± 5.41	n = 4	Roche cobas e411
11.05 ± 0.18	14.51 ± 0.25	35.64 ± 0.81	21.64 ± 0.49	151.12 ± 3.70	n = 11	Roche cobas e601
11.58 ± 0.21	14.93 ± 0.40	37.03 ± 0.99	22.25 ± 0.44	153.94 ± 3.96	n = 4	Roche Elecsys
11.04 ± 0.21	14.64 ± 0.35	35.86 ± 0.45	21.46 ± 0.42	150.69 ± 3.34	n = 10	Roche MODULAR E
9.73 ± 0.54	13.61 ± 0.83	34.25 ± 1.75	20.82 ± 1.13	162.67 ± 10.09	n = 56	Siemens ADVIA Centaur
10.25 ± 0.56	14.27 ± 0.62	37.74 ± 1.92	21.91 ± 0.62	160.41 ± 7.53	n = 4	Siemens ADVIA Centaur CP
11.45 ± 0.31	17.51 ± 0.27	44.83 ± 1.36	27.17 ± 0.77	150.00 ± 0.00	n = 8	Siemens Dimension Vista
13.29 ± 1.47	13.88 ± 0.55	38.78 ± 3.21	21.38 ± 1.41	187.35 ± 12.14	n = 8	Siemens Immulite 1000
13.19 ± 0.82	13.18 ± 0.71	37.30 ± 2.18	20.74 ± 1.38	160.79 ± 13.33	n = 29	Siemens Immulite 2000
9.33 ± 0.23	13.49 ± 0.29	34.93 ± 0.77	20.47 ± 0.50	157.10 ± 3.65	n = 3	Tosoh Bioscience
10.42 ± 1.52	13.73 ± 1.75	35.87 ± 4.99	20.96 ± 2.73	154.79 ± 22.90	n = 16	Mean of Above Means
						<Reagents>
8.21 ± 0.31	11.39 ± 0.48	29.57 ± 1.14	17.99 ± 0.82	124.61 ± 4.03	n = 13	Abbott
8.90 ± 0.72	10.90 ± 0.80	28.48 ± 1.96	16.31 ± 1.28	127.13 ± 9.00	n = 26	Beckman Coulter
10.42 ± 0.59	14.56 ± 0.53	41.76 ± 1.55	23.44 ± 1.04	198.65 ± 2.46	n = 14	Ortho Clinical Diagnostics
11.13 ± 0.30	14.67 ± 0.40	36.00 ± 0.94	21.77 ± 0.58	152.22 ± 4.28	n = 31	Roche Elecsys/Modular E/e601/e411
9.76 ± 0.56	13.65 ± 0.83	34.43 ± 1.90	20.91 ± 1.16	162.49 ± 9.88	n = 60	Siemens ADVIA/ADVIA Centaur
11.45 ± 0.31	17.51 ± 0.27	44.83 ± 1.36	27.17 ± 0.77	150.00 ± 0.00	n = 8	Siemens Dimension LOCI
13.17 ± 0.90	13.32 ± 0.75	37.50 ± 2.30	20.88 ± 1.38	165.82 ± 16.89	n = 37	Siemens Immulite
10.38 ± 1.62	13.62 ± 2.11	36.00 ± 5.95	21.08 ± 3.37	152.89 ± 23.72	n = 7	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Follitropin (FSH, mIU/mL)

Specimen: E91	Specimen: E92	Specimen: E93	Specimen: E94	Specimen: E95	Number	Instrument or Reagent System
-----	-----	-----	-----	-----	-----	-----
23.80 ± 2.51	7.63 ± 1.47	69.65 ± 14.12	10.10 ± 2.02	85.59 ± 18.33	n = 199	All Methods & Instruments
23.60	7.60	67.50	10.10	82.20	n = 199	Median value, All Methods & Instruments
						<Instruments>
21.88 ± 0.80	6.74 ± 0.30	57.71 ± 2.04	8.54 ± 0.35	69.99 ± 3.16	n = 13	Abbott Architect i System
27.83 ± 1.20	8.57 ± 0.31	69.41 ± 3.52	10.76 ± 0.43	83.57 ± 5.46	n = 7	Beckman Coulter ACCESS
28.24 ± 2.26	8.45 ± 0.45	67.46 ± 2.62	10.71 ± 0.57	86.63 ± 9.11	n = 3	Beckman Coulter UniCel DxI 600
28.32 ± 1.57	8.64 ± 0.64	70.43 ± 3.99	10.88 ± 0.65	85.86 ± 4.88	n = 16	Beckman Coulter UniCel DxI 800
26.49 ± 1.42	6.19 ± 0.27	58.46 ± 2.46	8.14 ± 0.42	71.71 ± 3.15	n = 11	Ortho Vitros 5600
25.54 ± 1.19	6.10 ± 0.32	57.08 ± 2.51	7.72 ± 0.32	70.66 ± 3.20	n = 3	Ortho Vitros Eci/EciQ
26.44 ± 1.84	8.30 ± 0.53	73.34 ± 4.11	10.93 ± 0.68	91.00 ± 5.29	n = 4	Roche cobas e411
22.89 ± 0.80	7.23 ± 0.23	65.21 ± 1.73	9.52 ± 0.43	80.01 ± 3.51	n = 11	Roche cobas e601
25.14 ± 1.72	7.90 ± 0.53	70.24 ± 3.21	10.43 ± 0.62	85.27 ± 5.30	n = 4	Roche Elecsys
22.94 ± 0.81	7.38 ± 0.21	65.19 ± 1.66	9.66 ± 0.27	79.57 ± 2.18	n = 10	Roche MODULAR E
24.14 ± 1.15	8.86 ± 0.66	86.41 ± 3.77	12.13 ± 0.61	108.88 ± 6.39	n = 60	Siemens ADVIA Centaur
21.98 ± 0.53	8.15 ± 0.47	79.21 ± 3.17	11.47 ± 0.38	103.18 ± 2.31	n = 4	Siemens ADVIA Centaur CP
21.74 ± 0.67	7.41 ± 0.17	66.86 ± 1.63	9.68 ± 0.26	80.22 ± 0.98	n = 8	Siemens Dimension Vista
21.31 ± 0.66	5.51 ± 0.15	51.43 ± 1.51	7.32 ± 0.30	63.69 ± 2.51	n = 8	Siemens Immulite 1000
21.90 ± 0.95	5.60 ± 0.38	54.32 ± 3.01	7.57 ± 0.42	67.42 ± 4.31	n = 29	Siemens Immulite 2000
31.05 ± 0.45	9.13 ± 0.14	73.05 ± 2.00	11.49 ± 0.56	85.79 ± 2.77	n = 3	Tosoh Bioscience
24.68 ± 3.05	7.58 ± 1.23	66.37 ± 9.15	9.88 ± 1.61	81.11 ± 11.63	n = 16	Mean of Above Means
						<Reagents>
21.88 ± 0.80	6.74 ± 0.30	57.71 ± 2.04	8.54 ± 0.35	69.99 ± 3.16	n = 13	Abbott
28.15 ± 1.56	8.57 ± 0.53	69.72 ± 3.76	10.81 ± 0.58	85.16 ± 5.43	n = 26	Beckman Coulter
26.25 ± 1.45	6.16 ± 0.30	58.16 ± 2.58	8.04 ± 0.45	71.47 ± 3.25	n = 14	Ortho Clinical Diagnostics
23.39 ± 1.45	7.45 ± 0.43	66.40 ± 3.35	9.79 ± 0.59	81.27 ± 4.76	n = 31	Roche Elecsys/Modular E/e601/e411
24.01 ± 1.26	8.81 ± 0.68	86.05 ± 4.13	12.09 ± 0.63	108.41 ± 6.44	n = 64	Siemens ADVIA/ADVIA Centaur
21.74 ± 0.67	7.41 ± 0.17	66.86 ± 1.63	9.68 ± 0.26	80.22 ± 0.98	n = 8	Siemens Dimension LOCI
21.76 ± 0.91	5.58 ± 0.33	53.58 ± 3.00	7.51 ± 0.41	66.48 ± 4.24	n = 37	Siemens Immulite
23.62 ± 2.39	7.24 ± 1.19	64.07 ± 9.50	9.42 ± 1.59	77.75 ± 11.22	n = 7	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Prolactin (µg/L)

Specimen: E91	Specimen: E92	Specimen: E93	Specimen: E94	Specimen: E95	Number	Instrument or Reagent System
2.77 ± 0.41	4.50 ± 0.66	7.10 ± 1.11	5.05 ± 0.74	18.24 ± 2.96	n = 176	All Methods & Instruments
2.80	4.60	7.10	5.10	18.30	n = 176	Median value, All Methods & Instruments
<Instruments>						
3.52 ± 0.32	5.84 ± 0.55	9.29 ± 0.74	6.65 ± 0.48	23.90 ± 2.08	n = 10	Abbott Architect i System
2.58 ± 0.18	4.25 ± 0.31	6.64 ± 0.33	4.72 ± 0.32	17.00 ± 1.11	n = 6	Beckman Coulter ACCESS
2.60 ± 0.00	4.17 ± 0.05	6.50 ± 0.09	4.73 ± 0.05	17.13 ± 0.86	n = 3	Beckman Coulter UniCel DxI 600
2.46 ± 0.24	4.13 ± 0.18	6.45 ± 0.40	4.77 ± 0.21	16.98 ± 0.83	n = 16	Beckman Coulter UniCel DxI 800
3.33 ± 0.34	5.13 ± 0.26	7.66 ± 0.13	5.51 ± 0.21	18.94 ± 0.45	n = 10	Ortho Vitros 5600
3.85 ± 0.46	5.70 ± 0.36	8.70 ± 0.72	6.50 ± 0.54	20.04 ± 0.67	n = 3	Ortho Vitros Eci/ECiQ
3.07 ± 0.23	5.31 ± 0.02	8.61 ± 0.11	6.06 ± 0.10	23.04 ± 0.05	n = 3	Roche cobas e411
2.92 ± 0.10	4.77 ± 0.15	7.96 ± 0.25	5.52 ± 0.08	21.18 ± 0.30	n = 8	Roche cobas e601
3.10 ± 0.15	4.95 ± 0.34	8.56 ± 0.36	5.65 ± 0.34	21.55 ± 1.14	n = 5	Roche Elecsys
2.91 ± 0.08	4.82 ± 0.16	7.94 ± 0.20	5.50 ± 0.13	21.43 ± 0.57	n = 8	Roche MODULAR E
2.88 ± 0.20	4.59 ± 0.25	7.07 ± 0.40	5.07 ± 0.30	17.92 ± 1.37	n = 56	Siemens ADVIA Centaur
3.12 ± 0.32	4.77 ± 0.32	6.97 ± 0.32	5.33 ± 0.32	18.04 ± 1.47	n = 3	Siemens ADVIA Centaur CP
2.50 ± 0.00	4.33 ± 0.13	7.37 ± 0.32	5.01 ± 0.15	20.53 ± 1.09	n = 10	Siemens Dimension Vista
2.30 ± 0.08	3.43 ± 0.09	5.28 ± 0.27	3.72 ± 0.04	13.65 ± 0.65	n = 4	Siemens Immulite 1000
2.23 ± 0.10	3.43 ± 0.14	5.28 ± 0.29	3.80 ± 0.21	13.88 ± 0.44	n = 24	Siemens Immulite 2000
2.87 ± 0.45	4.65 ± 0.71	7.39 ± 1.22	5.25 ± 0.82	19.10 ± 3.07	n = 15	Mean of Above Means
<Reagents>						
3.44 ± 0.39	5.74 ± 0.66	9.10 ± 1.00	6.49 ± 0.71	23.32 ± 2.78	n = 11	Abbott
2.52 ± 0.21	4.15 ± 0.19	6.52 ± 0.35	4.75 ± 0.23	17.00 ± 0.90	n = 25	Beckman Coulter
3.46 ± 0.46	5.27 ± 0.38	7.69 ± 0.16	5.71 ± 0.49	19.22 ± 0.74	n = 13	Ortho Clinical Diagnostics
2.96 ± 0.14	4.89 ± 0.25	8.15 ± 0.38	5.61 ± 0.25	21.60 ± 0.95	n = 25	Roche Elecsys/Modular E/e601/e411
2.89 ± 0.22	4.60 ± 0.26	7.07 ± 0.39	5.08 ± 0.30	17.93 ± 1.37	n = 59	Siemens ADVIA/ADVIA Centaur
2.50 ± 0.00	4.33 ± 0.13	7.37 ± 0.32	5.01 ± 0.15	20.53 ± 1.09	n = 10	Siemens Dimension LOCI
2.24 ± 0.10	3.43 ± 0.13	5.28 ± 0.28	3.78 ± 0.19	13.86 ± 0.48	n = 29	Siemens Immulite
2.85 ± 0.48	4.64 ± 0.74	7.35 ± 1.15	5.23 ± 0.80	19.19 ± 3.04	n = 7	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Intact Parathyrin (PTH, pg/mL)

Specimen: E91	Specimen: E92	Specimen: E93	Specimen: E94	Specimen: E95	Number	Instrument or Reagent System
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3.31 ± 2.17	3.00 ± 1.64	106.12 ± 18.18	3.30 ± 1.87	254.63 ± 51.05	n = 174	All Methods & Instruments
3.40	3.00	110.00	3.00	262.70	n = 174	Median value, All Methods & Instruments
						<Instruments>
2.87 ± 1.57	3.64 ± 0.54	176.22 ± 12.63	4.09 ± 0.48	415.91 ± 28.94	n = 8	Abbott Architect i System
0.22 ± 0.49	0.96 ± 1.59	93.27 ± 8.04	1.19 ± 1.75	213.04 ± 13.25	n = 9	Beckman Coulter ACCESS
0.68 ± 0.53	0.74 ± 0.45	88.89 ± 6.70	0.93 ± 0.43	210.51 ± 21.95	n = 11	Beckman Coulter UniCel DxI 800
3.40 ± 0.00	3.61 ± 0.30	126.61 ± 4.19	3.87 ± 0.46	292.03 ± 9.56	n = 7	Ortho Vitros 5600
4.90 ± 1.19	4.26 ± 1.28	83.13 ± 3.47	4.70 ± 1.11	192.54 ± 8.47	n = 13	Roche cobas e601
5.08 ± 0.76	5.19 ± 1.15	94.25 ± 10.56	5.48 ± 1.21	218.12 ± 29.82	n = 5	Roche Elecsys
4.44 ± 1.03	4.41 ± 1.23	82.65 ± 1.53	4.70 ± 1.18	192.85 ± 4.36	n = 12	Roche MODULAR E
2.06 ± 1.18	2.06 ± 1.18	115.95 ± 6.82	2.06 ± 1.18	291.58 ± 19.50	n = 48	Siemens ADVIA Centaur
1.82 ± 1.29	2.21 ± 0.95	115.16 ± 7.25	2.72 ± 0.26	281.53 ± 20.02	n = 5	Siemens ADVIA Centaur CP
5.25 ± 1.94	4.06 ± 1.09	108.26 ± 5.76	4.42 ± 1.24	245.76 ± 12.98	n = 8	Siemens Immulite 1000
4.86 ± 1.27	3.00 ± 0.00	114.05 ± 6.51	3.90 ± 1.23	266.83 ± 19.60	n = 33	Siemens Immulite 2000
1.00 ± 0.00	2.87 ± 1.36	91.86 ± 11.70	2.71 ± 0.85	223.07 ± 24.75	n = 4	Tosoh Bioscience
3.10 ± 1.97	3.15 ± 1.39	101.39 ± 17.16	3.49 ± 1.49	240.00 ± 45.25	n = 12	Mean of Above Means
						<Reagents>
2.87 ± 1.57	3.64 ± 0.54	176.22 ± 12.63	4.09 ± 0.48	415.91 ± 28.94	n = 8	Abbott
0.48 ± 0.58	0.58 ± 0.57	90.70 ± 7.47	0.72 ± 0.63	213.71 ± 18.77	n = 22	Beckman Coulter
3.40 ± 0.00	3.54 ± 0.27	126.65 ± 5.58	3.74 ± 0.45	290.82 ± 20.64	n = 9	Ortho Clinical Diagnostics
4.72 ± 1.04	4.54 ± 1.23	83.70 ± 4.02	4.83 ± 1.15	194.63 ± 9.67	n = 34	Roche Elecsys/Modular E/e601/e411
2.05 ± 1.24	2.10 ± 1.15	115.96 ± 6.80	2.12 ± 1.16	290.15 ± 20.00	n = 54	Siemens ADVIA/ADVIA Centaur
4.73 ± 1.20	3.00 ± 0.00	112.76 ± 7.63	3.82 ± 1.21	263.52 ± 22.35	n = 35	Siemens Immulite
6.28 ± 2.12	5.00 ± 0.00	110.69 ± 2.65	5.00 ± 0.00	250.54 ± 11.61	n = 5	Siemens Immulite Turbo
3.54 ± 1.89	3.32 ± 1.42	111.47 ± 24.14	3.67 ± 1.42	262.39 ± 59.11	n = 7	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

25-OH Vitamin D2 (ng/ml)

Specimen: E91	Specimen: E92	Specimen: E93	Specimen: E94	Specimen: E95	Number	Instrument or Reagent System
-----	-----	-----	-----	-----	-----	-----
2.14 ± 1.62	9.88 ± 1.86	13.18 ± 1.71	26.32 ± 3.07	52.44 ± 6.58	n = 13	All Methods & Instruments
1.30	9.20	12.90	25.80	49.20	n = 13	Median value, All Methods & Instruments
2.34 ± 1.52	9.87 ± 1.78	13.18 ± 1.71	26.32 ± 3.06	52.44 ± 6.58	n = 12	<Instruments> LC/MS/MS
2.34 ± 1.52	9.87 ± 1.78	13.18 ± 1.71	26.32 ± 3.06	52.44 ± 6.58	n = 12	<Reagents> In-House

25-OH Vitamin D3 (ng/mL)

Specimen: E91	Specimen: E92	Specimen: E93	Specimen: E94	Specimen: E95	Number	Instrument or Reagent System
-----	-----	-----	-----	-----	-----	-----
89.79 ± 5.08	70.67 ± 5.96	52.23 ± 3.44	39.66 ± 2.30	37.33 ± 4.60	n = 13	All Methods & Instruments
89.80	70.90	52.50	39.40	37.00	n = 13	Median value, All Methods & Instruments
89.79 ± 5.08	70.67 ± 5.96	52.23 ± 3.44	39.66 ± 2.30	37.33 ± 4.60	n = 13	<Instruments> LC/MS/MS
89.79 ± 5.08	70.67 ± 5.96	52.23 ± 3.44	39.66 ± 2.30	37.33 ± 4.60	n = 13	<Reagents> In-House

Statistical Summary (Mean and Standard Deviation)

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

Specimen: E91	Specimen: E92	Specimen: E93	Specimen: E94	Specimen: E95	Number	Instrument or Reagent System
-----	-----	-----	-----	-----	-----	-----
77.98 ± 32.39	63.24 ± 27.08	48.31 ± 22.31	50.53 ± 25.17	59.03 ± 33.12	n = 144	All Methods & Instruments
63.30	51.00	39.80	40.00	45.10	n = 144	Median value, All Methods & Instruments
						<Instruments>
60.69 ± 3.05	48.91 ± 2.41	37.79 ± 2.11	36.48 ± 1.67	38.92 ± 1.75	n = 18	Abbott Architect i System
96.25 ± 11.85	74.83 ± 6.05	53.30 ± 2.85	54.69 ± 3.72	58.78 ± 3.63	n = 5	Automated microplate processor
60.02 ± 4.59	46.22 ± 3.80	32.99 ± 2.39	35.35 ± 3.10	39.04 ± 3.25	n = 52	DiaSorin Liaison
58.69 ± 1.79	49.55 ± 3.74	33.62 ± 5.59	37.70 ± 2.69	40.06 ± 4.33	n = 3	Gamma Counter
66.55 ± 19.77	58.94 ± 10.84	48.51 ± 6.14	47.74 ± 7.10	54.49 ± 8.54	n = 4	Immunodiagnostic Systems-iSYS Immun
88.57 ± 6.89	79.30 ± 7.56	64.23 ± 3.30	64.75 ± 3.43	89.10 ± 11.46	n = 10	LC/MS/MS
54.87 ± 4.40	49.15 ± 3.71	41.13 ± 2.58	39.03 ± 3.65	49.48 ± 1.22	n = 7	Roche cobas e601
132.79 ± 8.40	107.37 ± 6.72	84.66 ± 6.78	94.56 ± 6.42	113.67 ± 8.17	n = 34	Siemens ADVIA Centaur
72.12 ± 22.81	60.80 ± 19.09	46.87 ± 15.85	46.18 ± 14.77	55.39 ± 23.62	n = 8	Mean of Above Means
						<Reagents>
60.96 ± 2.92	49.10 ± 2.30	38.00 ± 1.86	36.61 ± 1.56	39.06 ± 1.71	n = 17	Abbott
59.92 ± 4.44	46.09 ± 3.70	32.97 ± 2.39	35.28 ± 3.06	38.93 ± 3.15	n = 50	DiaSorin Liaison
58.69 ± 1.79	49.55 ± 3.74	33.62 ± 5.59	37.70 ± 2.69	40.06 ± 4.33	n = 3	DiaSorin Radioimmunoassay
90.77 ± 11.65	72.25 ± 7.91	51.42 ± 5.41	53.55 ± 6.37	58.27 ± 6.33	n = 12	Immunodiagnostic Systems Enzyme Imm
62.22 ± 8.18	56.32 ± 3.87	45.76 ± 2.24	46.05 ± 2.33	50.98 ± 1.99	n = 4	Immunodiagnostic Systems-iSYS chemi
88.57 ± 6.89	79.30 ± 7.56	64.23 ± 3.30	64.75 ± 3.43	89.10 ± 11.46	n = 10	In-House
56.14 ± 3.75	50.74 ± 2.82	42.04 ± 2.29	41.06 ± 2.40	48.96 ± 1.78	n = 10	Roche Elecsys/Modular E/e601/e411
132.70 ± 8.10	107.71 ± 6.63	85.01 ± 6.93	93.78 ± 6.46	113.34 ± 8.75	n = 32	Siemens ADVIA Centaur - Vitamin D T
124.42 ± 33.99	97.18 ± 25.75	74.51 ± 21.88	87.87 ± 25.45	106.31 ± 31.58	n = 4	Siemens ADVIA/ADVIA Centaur
77.99 ± 28.92	65.24 ± 22.66	50.16 ± 18.44	52.32 ± 21.58	61.91 ± 29.90	n = 9	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Intact human Choriogonadotropin (intact hCG, mIU/mL)

Specimen: E91	Specimen: E92	Specimen: E93	Specimen: E94	Specimen: E95	Number	Instrument or Reagent System
-----	-----	-----	-----	-----	-----	-----
60.6 ± 4.18	7.2 ± 0.61	1.7 ± 0.66	5.7 ± 0.61	57.0 ± 4.68	n = 47	All Methods & Instruments
60.0	7.0	2.0	6.0	58.0	n = 47	Median value, All Methods & Instruments
						<Instruments>
58.1 ± 1.83	7.0 ± 0.19	2.3 ± 2.01	5.1 ± 0.17	51.0 ± 2.11	n = 9	Roche cobas e601
62.0 ± 5.38	7.3 ± 0.76	1.9 ± 0.87	5.9 ± 0.70	58.7 ± 3.71	n = 11	Siemens Dimension EXL
60.1 ± 3.24	7.1 ± 0.67	2.0 ± 0.00	5.7 ± 0.48	58.0 ± 2.91	n = 15	Siemens Dimension RxL
60.5 ± 1.80	7.2 ± 0.41	1.8 ± 0.41	6.0 ± 0.00	59.7 ± 4.17	n = 8	Siemens Dimension Xpand
60.3 ± 1.50	7.1 ± 0.13	2.0 ± 0.20	5.7 ± 0.36	57.5 ± 3.36	n = 4	Mean of Above Means
						<Reagents>
58.5 ± 2.26	7.0 ± 0.19	2.7 ± 2.56	5.1 ± 0.17	51.3 ± 2.26	n = 10	Roche Elecsys/Modular E/e601/e411
61.0 ± 4.03	7.2 ± 0.63	1.8 ± 0.56	5.8 ± 0.55	58.5 ± 3.45	n = 34	Siemens Dimension
59.7 ± 1.43	7.1 ± 0.14	2.3 ± 0.50	5.5 ± 0.43	54.9 ± 4.06	n = 2	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Total Beta hCG (mIU/mL)

Specimen: E91	Specimen: E92	Specimen: E93	Specimen: E94	Specimen: E95	Number	Instrument or Reagent System
-----	-----	-----	-----	-----	-----	-----
69.6 ± 10.04	8.2 ± 0.91	1.5 ± 0.70	6.4 ± 0.90	59.6 ± 10.52	n = 252	All Methods & Instruments
71.0	8.0	1.8	6.0	61.0	n = 252	Median value, All Methods & Instruments
						<Instruments>
49.7 ± 2.01	7.8 ± 0.62	1.8 ± 1.69	5.8 ± 0.58	50.6 ± 2.08	n = 23	Abbott Architect i System
70.9 ± 3.18	8.0 ± 0.00	1.0 ± 0.00	5.8 ± 0.39	56.1 ± 2.85	n = 23	Beckman Coulter ACCESS
69.2 ± 2.73	7.8 ± 0.31	2.6 ± 1.72	6.0 ± 0.00	56.4 ± 2.77	n = 3	Beckman Coulter UniCel DxI 600
69.1 ± 3.66	7.7 ± 0.44	1.2 ± 0.39	5.8 ± 0.40	54.4 ± 2.99	n = 15	Beckman Coulter UniCel DxI 800
80.9 ± 5.24	9.1 ± 0.45	2.4 ± 0.48	7.2 ± 0.48	65.2 ± 2.56	n = 19	Ortho Vitros 5600
76.7 ± 4.24	8.0 ± 0.00	2.2 ± 0.23	6.6 ± 0.67	62.7 ± 2.41	n = 10	Ortho Vitros ECI/ECiQ
77.3 ± 5.83	7.5 ± 0.82	1.5 ± 1.41	5.6 ± 0.57	68.2 ± 5.38	n = 5	Roche cobas e411
76.3 ± 2.87	7.0 ± 0.00	1.0 ± 0.09	5.7 ± 0.43	69.4 ± 2.15	n = 9	Roche cobas e601
79.2 ± 2.96	7.8 ± 0.36	0.8 ± 0.14	5.9 ± 0.26	71.9 ± 3.85	n = 3	Roche Elecsys
77.1 ± 2.55	7.3 ± 0.44	1.0 ± 0.00	5.6 ± 0.42	69.7 ± 2.47	n = 15	Roche MODULAR E
62.7 ± 3.41	9.0 ± 0.88	2.0 ± 0.00	7.1 ± 0.88	49.8 ± 3.14	n = 53	Siemens ADVIA Centaur
56.1 ± 3.26	10.6 ± 0.97	2.4 ± 0.48	8.2 ± 0.67	47.3 ± 2.26	n = 6	Siemens ADVIA Centaur CP
71.8 ± 1.61	8.0 ± 0.00	1.0 ± 0.00	6.2 ± 0.46	67.1 ± 1.31	n = 39	Siemens Dimension Vista
103.2 ± 7.35	7.1 ± 0.86	1.4 ± 0.52	6.5 ± 0.82	80.8 ± 3.56	n = 5	Siemens Immulite 1000
121.7 ± 6.97	9.0 ± 0.77	1.4 ± 0.55	7.2 ± 0.38	102.7 ± 5.79	n = 17	Siemens Immulite 2000
72.8 ± 11.64	7.9 ± 0.77	1.6 ± 0.64	6.2 ± 0.71	62.7 ± 11.40	n = 15	Mean of Above Means
						<Reagents>
49.6 ± 2.01	7.7 ± 0.63	2.0 ± 1.85	5.9 ± 0.56	50.4 ± 2.18	n = 24	Abbott
70.2 ± 3.39	7.8 ± 0.39	1.2 ± 0.33	5.8 ± 0.37	55.5 ± 3.01	n = 41	Beckman Coulter
79.3 ± 5.22	8.8 ± 0.65	2.3 ± 0.39	7.0 ± 0.61	64.3 ± 2.70	n = 29	Ortho Clinical Diagnostics
77.0 ± 3.17	7.3 ± 0.51	0.9 ± 0.13	5.6 ± 0.44	69.5 ± 2.89	n = 33	Roche Elecsys/Modular E/e601/e411
62.3 ± 3.88	9.2 ± 0.99	2.0 ± 0.00	7.2 ± 0.93	49.5 ± 3.16	n = 59	Siemens ADVIA/ADVIA Centaur
65.8 ± 5.25	7.7 ± 0.51	1.5 ± 0.45	6.1 ± 0.26	61.9 ± 2.33	n = 3	Siemens Dimension
71.7 ± 1.62	8.0 ± 0.00	1.0 ± 0.00	6.2 ± 0.47	67.1 ± 1.27	n = 38	Siemens Dimension LOCI
118.9 ± 10.49	8.7 ± 1.08	1.4 ± 0.55	7.1 ± 0.39	98.3 ± 10.96	n = 22	Siemens Immulite
69.1 ± 10.07	8.1 ± 0.65	1.5 ± 0.52	6.4 ± 0.66	60.8 ± 10.21	n = 8	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Qualitative hCG report:

[AB1] Abbott		Specimen:E91	Specimen:E92*	Specimen:E93	Specimen:E94*	Specimen:E95
Negative		0	0	8	0	0
Indeterminant		0	8	0	8	0
Positive		8	0	0	0	8
[AR1] Alere hCG Combo Cassette		Specimen:E91	Specimen:E92*	Specimen:E93	Specimen:E94*	Specimen:E95
Negative		0	2	4	3	0
Indeterminant		0	1	0	0	0
Positive		4	1	0	1	4
[AD1] American Diagnostics		Specimen:E91	Specimen:E92*	Specimen:E93	Specimen:E94*	Specimen:E95
Negative		0	1	2	1	0
Indeterminant		0	0	0	0	0
Positive		2	1	0	1	2
[BC1] Beckman Coulter		Specimen:E91	Specimen:E92*	Specimen:E93	Specimen:E94*	Specimen:E95
Negative		0	16	27	19	0
Indeterminant		0	6	0	5	0
Positive		27	5	0	3	27
[CD1] Cardinal Health		Specimen:E91	Specimen:E92*	Specimen:E93	Specimen:E94*	Specimen:E95
Negative		0	5	11	8	0
Indeterminant		0	1	0	0	0
Positive		11	5	0	3	11
[CM1] CEN-MED Elite Plus hCG One Step		Specimen:E91	Specimen:E92*	Specimen:E93	Specimen:E94*	Specimen:E95
Negative		0	3	6	3	0
Indeterminant		0	1	0	1	0
Positive		6	2	0	2	6
[FI1] Fisher		Specimen:E91	Specimen:E92*	Specimen:E93	Specimen:E94*	Specimen:E95
Negative		0	15	50	30	0
Indeterminant		0	13	0	6	0
Positive		50	22	0	14	50

*Mean values of Total Beta hCG in the specimen E92 and E94, determined by 252 laboratories using 15 various immunoassay methods, were 8.2 ± 0.91 and 6.4 ± 0.90 (mIU/mL), respectively. The test methods with cutoff values greater than 10 or 15 mIU/mL should produce negative results for these two specimens.

Statistical Summary (Mean and Standard Deviation)

[IM1] Inverness Medical	Specimen:E91	Specimen:E92*	Specimen:E93	Specimen:E94*	Specimen:E95
Negative	0	2	4	2	0
Indeterminant	0	0	0	0	0
Positive	4	2	0	2	4
[JJ1] Ortho Clinical Diagnostics	Specimen:E91	Specimen:E92*	Specimen:E93	Specimen:E94*	Specimen:E95
Negative	0	0	2	0	0
Indeterminant	0	1	0	1	0
Positive	3	2	1	2	3
[PM1] Polymedco	Specimen:E91	Specimen:E92*	Specimen:E93	Specimen:E94*	Specimen:E95
Negative	0	1	4	1	0
Indeterminant	0	0	0	0	0
Positive	4	3	0	3	4
[QQ2] Quidel QuickVue One-Step hCG Combo	Specimen:E91	Specimen:E92*	Specimen:E93	Specimen:E94*	Specimen:E95
Negative	0	15	25	20	0
Indeterminant	0	3	0	3	0
Positive	25	7	0	2	25
[QQ1] Quidel QuickVue± One-Step hCG Combo	Specimen:E91	Specimen:E92*	Specimen:E93	Specimen:E94*	Specimen:E95
Negative	0	9	18	12	0
Indeterminant	0	2	0	2	0
Positive	18	7	0	4	18
[R03] Roche Elecsys/Modular E/e601/e411	Specimen:E91	Specimen:E92*	Specimen:E93	Specimen:E94*	Specimen:E95
Negative	0	1	7	2	0
Indeterminant	0	2	0	2	0
Positive	7	4	0	3	7
[GZ1] Sekisui Diagnostics (Genzyme)	Specimen:E91	Specimen:E92*	Specimen:E93	Specimen:E94*	Specimen:E95
Negative	0	5	7	5	0
Indeterminant	0	1	0	2	0
Positive	7	1	0	0	7

*Mean values of Total Beta hCG in the specimen E92 and E94, determined by 252 laboratories using 15 various immunoassay methods, were 8.2 ± 0.91 and 6.4 ± 0.90 (mIU/mL), respectively. The test methods with cutoff values greater than 10 or 15 mIU/mL should produce negative results for these two specimens.

Statistical Summary (Mean and Standard Deviation)

[BY1]	Siemens ADVIA/ADVIA Centaur	Specimen:E91	Specimen:E92*	Specimen:E93	Specimen:E94*	Specimen:E95
	Negative	0	6	24	6	0
	Indeterminant	0	14	0	14	0
	Positive	24	4	0	4	24
[DA5]	Siemens Dimension	Specimen:E91	Specimen:E92*	Specimen:E93	Specimen:E94*	Specimen:E95
	Negative	0	2	4	3	0
	Indeterminant	0	1	0	1	0
	Positive	4	1	0	0	4
[DA6]	Siemens Dimension LOCI	Specimen:E91	Specimen:E92*	Specimen:E93	Specimen:E94*	Specimen:E95
	Negative	0	1	5	1	0
	Indeterminant	0	4	0	4	0
	Positive	5	0	0	0	5
[DP5]	Siemens Immulite	Specimen:E91	Specimen:E92*	Specimen:E93	Specimen:E94*	Specimen:E95
	Negative	0	1	3	1	0
	Indeterminant	0	1	0	1	0
	Positive	3	1	0	1	3
[SB1]	Stanbio	Specimen:E91	Specimen:E92*	Specimen:E93	Specimen:E94*	Specimen:E95
	Negative	0	2	8	2	0
	Indeterminant	0	1	0	1	0
	Positive	8	5	0	5	8
[TR1]	TrueMedix	Specimen:E91	Specimen:E92*	Specimen:E93	Specimen:E94*	Specimen:E95
	Negative	0	4	6	5	0
	Indeterminant	0	1	0	0	0
	Positive	6	1	0	1	6
[---]	All Methods & Instruments	Specimen:E91	Specimen:E92*	Specimen:E93	Specimen:E94*	Specimen:E95
	Negative	0	91	225	124	0
	Indeterminant	0	61	0	51	0
	Positive	226	74	1	51	226

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