

Endocrinology Proficiency Test – September 2011

Enclosed is a statistical summary of participant data for the five endocrinology proficiency survey specimens (E66, E67, E68, E69, E70) shipped 12 September 2011. 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. A summary of your laboratory's performance for the three most recent surveys is also included with your report.

Target value

In general, targets utilized are derived from all-participant mean values calculated by robust statistical technique. In some cases, however, it is recognized that 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: E66	Specimen: E67	Specimen: E68	Specimen: E69	Specimen: E70	Number	Instrument or Reagent System
3.02 ± 0.67	8.19 ± 0.74	10.32 ± 0.93	10.96 ± 0.90	15.69 ± 1.68	n = 235	All Methods & Instruments
3.00	8.20	10.30	11.00	15.60	n = 235	Median value, All Methods & Instruments
<Instruments>						
3.43 ± 0.35	7.42 ± 0.43	9.32 ± 0.43	10.32 ± 0.38	16.07 ± 0.58	n = 12	Abbott Architect i System
3.65 ± 0.23	7.92 ± 0.30	9.96 ± 0.29	10.93 ± 0.49	15.10 ± 0.68	n = 7	Abbott AxSym
2.33 ± 0.25	8.33 ± 0.76	10.66 ± 0.85	10.68 ± 0.87	15.08 ± 1.62	n = 20	Beckman Coulter ACCESS
3.06 ± 0.24	7.95 ± 0.21	10.15 ± 0.26	11.03 ± 0.32	16.92 ± 0.85	n = 10	Beckman Coulter AU Chemistry System
2.08 ± 0.24	8.83 ± 0.76	10.15 ± 0.63	10.63 ± 0.67	14.43 ± 0.68	n = 3	Beckman Coulter UniCel DxI 600
2.37 ± 0.26	8.47 ± 0.52	10.83 ± 0.70	10.60 ± 0.74	14.90 ± 1.04	n = 20	Beckman Coulter UniCel DxI 800
3.00 ± 0.27	7.62 ± 0.49	9.51 ± 0.66	10.87 ± 0.05	15.13 ± 1.04	n = 3	Gamma Counter
2.89 ± 0.16	8.03 ± 0.26	10.64 ± 0.45	11.42 ± 0.41	17.07 ± 0.29	n = 8	Ortho Vitros 5600
2.85 ± 0.14	8.25 ± 0.54	10.71 ± 0.46	11.34 ± 0.64	16.74 ± 1.05	n = 11	Ortho Vitros ECi/ECiQ
3.66 ± 0.06	7.52 ± 0.35	9.20 ± 0.42	10.07 ± 0.05	13.98 ± 0.59	n = 8	Roche cobas e601
4.04 ± 0.10	8.19 ± 0.29	9.71 ± 0.29	10.95 ± 0.54	14.93 ± 1.04	n = 3	Roche Elecsys
4.29 ± 0.37	8.05 ± 0.45	10.15 ± 0.36	11.29 ± 0.29	15.71 ± 0.57	n = 3	Roche MODULAR D/P
3.61 ± 0.19	7.40 ± 0.27	9.11 ± 0.39	10.06 ± 0.35	13.89 ± 0.49	n = 15	Roche MODULAR E
2.82 ± 0.48	8.28 ± 0.51	10.24 ± 0.53	10.91 ± 0.55	15.05 ± 0.91	n = 48	Siemens ADVIA Centaur
3.36 ± 0.49	8.76 ± 0.35	10.99 ± 0.40	12.09 ± 0.51	17.34 ± 0.51	n = 10	Siemens Dimension RxL
4.14 ± 0.76	9.72 ± 0.81	12.13 ± 0.90	13.43 ± 1.03	19.23 ± 1.12	n = 21	Siemens Dimension Vista
2.65 ± 0.41	8.35 ± 1.02	10.50 ± 1.04	11.45 ± 1.07	16.56 ± 1.34	n = 6	Siemens Immulite 1000
2.75 ± 0.30	8.10 ± 0.63	10.14 ± 0.49	10.80 ± 0.55	14.96 ± 0.77	n = 12	Siemens Immulite 2000
2.82 ± 0.14	7.92 ± 0.25	10.02 ± 0.42	10.58 ± 0.53	15.64 ± 0.94	n = 6	Tosoh Bioscience
3.13 ± 0.65	8.10 ± 0.45	10.17 ± 0.64	10.87 ± 0.50	15.57 ± 1.21	n = 19	Mean of Above Means
<Reagents>						
3.52 ± 0.33	7.62 ± 0.46	9.61 ± 0.55	10.53 ± 0.52	15.75 ± 0.77	n = 19	Abbott
2.33 ± 0.27	8.44 ± 0.64	10.71 ± 0.77	10.64 ± 0.79	14.98 ± 1.23	n = 43	Beckman Coulter
4.29 ± 0.37	8.05 ± 0.45	10.15 ± 0.36	11.29 ± 0.29	15.71 ± 0.57	n = 3	Microgenics CEDIA
3.06 ± 0.24	7.95 ± 0.21	10.15 ± 0.26	11.03 ± 0.32	16.92 ± 0.85	n = 10	Microgenics DRI
2.87 ± 0.15	8.12 ± 0.46	10.68 ± 0.45	11.36 ± 0.54	16.83 ± 0.84	n = 19	Ortho Clinical Diagnostics
3.70 ± 0.21	7.52 ± 0.36	9.24 ± 0.44	10.23 ± 0.46	14.05 ± 0.64	n = 28	Roche Elecsys/Modular E/e601/e411
2.84 ± 0.51	8.30 ± 0.53	10.26 ± 0.55	10.93 ± 0.58	15.08 ± 0.96	n = 49	Siemens ADVIA/ADVIA Centaur
3.74 ± 0.79	9.22 ± 0.79	11.54 ± 0.88	12.72 ± 1.05	18.44 ± 1.41	n = 29	Siemens Dimension
3.95 ± 0.78	9.57 ± 0.86	12.01 ± 1.25	13.46 ± 0.93	18.66 ± 1.09	n = 5	Siemens Dimension LOCI
2.75 ± 0.33	8.22 ± 0.76	10.29 ± 0.71	11.09 ± 0.89	15.62 ± 1.27	n = 20	Siemens Immulite
2.86 ± 0.11	7.92 ± 0.29	10.18 ± 0.28	10.74 ± 0.39	15.87 ± 0.88	n = 5	Tosoh ST AIA
3.25 ± 0.62	8.16 ± 0.54	10.36 ± 0.73	10.90 ± 0.42	16.06 ± 1.38	n = 11	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Free T4 (ng/dL)

Specimen: E66	Specimen: E67	Specimen: E68	Specimen: E69	Specimen: E70	Number	Instrument or Reagent System
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0.53 ± 0.08	2.62 ± 0.52	3.03 ± 0.59	2.77 ± 0.43	4.29 ± 0.55	n = 255	All Methods & Instruments
0.50	2.60	3.00	2.80	4.30	n = 255	Median value, All Methods & Instruments
<Instruments>						
0.57 ± 0.05	1.85 ± 0.10	2.25 ± 0.15	2.14 ± 0.11	3.48 ± 0.19	n = 14	Abbott Architect i System
0.45 ± 0.06	1.80 ± 0.06	2.06 ± 0.08	2.03 ± 0.11	2.87 ± 0.19	n = 6	Abbott AxSym
0.49 ± 0.06	2.84 ± 0.18	3.33 ± 0.19	2.94 ± 0.16	4.23 ± 0.25	n = 19	Beckman Coulter ACCESS
0.50 ± 0.00	2.97 ± 0.14	3.40 ± 0.09	3.00 ± 0.09	4.37 ± 0.05	n = 3	Beckman Coulter UniCel DxI 600
0.49 ± 0.08	2.84 ± 0.14	3.35 ± 0.16	2.95 ± 0.19	4.44 ± 0.16	n = 18	Beckman Coulter UniCel DxI 800
0.50 ± 0.00	4.49 ± 0.17	5.14 ± 0.20	4.22 ± 0.18	6.40 ± 0.18	n = 7	Ortho Vitros 5600
0.50 ± 0.00	4.49 ± 0.16	5.12 ± 0.16	4.17 ± 0.20	6.41 ± 0.06	n = 10	Ortho Vitros Eci/ECiq
0.60 ± 0.00	2.60 ± 0.09	3.04 ± 0.10	2.87 ± 0.14	4.63 ± 0.23	n = 3	Roche cobas e411
0.59 ± 0.04	2.60 ± 0.12	3.04 ± 0.15	2.87 ± 0.12	4.57 ± 0.23	n = 11	Roche cobas e601
0.60 ± 0.00	2.56 ± 0.11	2.96 ± 0.11	2.80 ± 0.00	4.59 ± 0.18	n = 5	Roche Elecsys
0.60 ± 0.00	2.62 ± 0.09	3.04 ± 0.13	2.87 ± 0.13	4.60 ± 0.26	n = 19	Roche MODULAR E
0.56 ± 0.06	2.44 ± 0.12	2.80 ± 0.15	2.67 ± 0.13	4.03 ± 0.23	n = 59	Siemens ADVIA Centaur
0.54 ± 0.06	2.42 ± 0.13	2.82 ± 0.18	2.46 ± 0.13	4.33 ± 0.24	n = 7	Siemens Dimension EXL
0.43 ± 0.10	3.44 ± 0.31	4.02 ± 0.31	3.08 ± 0.29	4.83 ± 0.18	n = 9	Siemens Dimension RxL
0.50 ± 0.00	2.19 ± 0.08	2.58 ± 0.10	2.31 ± 0.11	4.01 ± 0.17	n = 26	Siemens Dimension Vista
0.43 ± 0.05	3.45 ± 0.22	3.90 ± 0.19	3.20 ± 0.00	5.10 ± 0.00	n = 6	Siemens Dimension Xpand
0.63 ± 0.05	3.10 ± 0.00	3.50 ± 0.09	3.13 ± 0.05	4.44 ± 0.10	n = 3	Siemens Immulite 1000
0.60 ± 0.00	3.27 ± 0.13	3.65 ± 0.16	3.24 ± 0.13	4.70 ± 0.16	n = 14	Siemens Immulite 2000
0.63 ± 0.05	3.47 ± 0.05	3.83 ± 0.14	3.27 ± 0.14	5.20 ± 0.45	n = 3	Siemens Immulite 2500
0.44 ± 0.06	3.37 ± 0.16	4.01 ± 0.21	3.52 ± 0.11	5.45 ± 0.28	n = 5	Tosoh Bioscience
0.53 ± 0.07	2.88 ± 0.68	3.32 ± 0.74	2.95 ± 0.51	4.58 ± 0.71	n = 20	Mean of Above Means
<Reagents>						
0.54 ± 0.08	1.83 ± 0.09	2.19 ± 0.16	2.11 ± 0.13	3.32 ± 0.35	n = 20	Abbott
0.49 ± 0.06	2.84 ± 0.16	3.35 ± 0.17	2.96 ± 0.16	4.33 ± 0.23	n = 41	Beckman Coulter
0.50 ± 0.00	4.49 ± 0.17	5.13 ± 0.18	4.19 ± 0.19	6.41 ± 0.16	n = 17	Ortho Clinical Diagnostics
0.60 ± 0.00	2.60 ± 0.10	3.03 ± 0.14	2.86 ± 0.12	4.58 ± 0.23	n = 37	Roche Elecsys/Modular E/e601/e411
0.55 ± 0.06	2.44 ± 0.12	2.80 ± 0.15	2.67 ± 0.13	4.03 ± 0.23	n = 62	Siemens ADVIA/ADVIA Centaur
0.45 ± 0.09	3.42 ± 0.34	3.95 ± 0.30	3.05 ± 0.33	4.86 ± 0.31	n = 17	Siemens Dimension
0.50 ± 0.00	2.22 ± 0.12	2.62 ± 0.13	2.35 ± 0.12	4.07 ± 0.21	n = 31	Siemens Dimension LOCI
0.60 ± 0.04	3.26 ± 0.16	3.65 ± 0.18	3.22 ± 0.13	4.68 ± 0.24	n = 20	Siemens Immulite
0.42 ± 0.04	3.40 ± 0.18	4.07 ± 0.25	3.52 ± 0.13	5.53 ± 0.27	n = 4	Tosoh ST AIA
0.52 ± 0.06	2.89 ± 0.75	3.36 ± 0.85	2.95 ± 0.58	4.57 ± 0.83	n = 9	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

T3-Uptake (%)

Specimen: E66	Specimen: E67	Specimen: E68	Specimen: E69	Specimen: E70	Number	Instrument or Reagent System
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31.14 ± 3.97	47.40 ± 8.29	46.69 ± 8.07	43.27 ± 5.05	44.61 ± 6.11	n = 146	All Methods & Instruments
31.00	47.20	46.60	43.10	44.60	n = 146	Median value, All Methods & Instruments
<Instruments>						
27.81 ± 0.90	41.14 ± 1.39	38.26 ± 1.53	36.61 ± 1.27	34.67 ± 1.17	n = 6	Abbott Architect i System
31.84 ± 0.56	44.19 ± 0.85	39.99 ± 1.20	38.55 ± 0.36	33.58 ± 0.32	n = 3	Abbott AxSym
37.00 ± 2.02	48.70 ± 1.00	48.92 ± 1.85	44.78 ± 2.13	46.32 ± 2.16	n = 14	Beckman Coulter ACCESS
25.98 ± 2.05	47.20 ± 2.94	47.02 ± 2.57	43.89 ± 2.05	45.24 ± 1.38	n = 10	Beckman Coulter AU Chemistry System
38.82 ± 3.10	48.20 ± 2.62	48.78 ± 3.48	46.54 ± 3.32	46.12 ± 3.21	n = 14	Beckman Coulter UniCel DxI 800
31.04 ± 1.32	62.36 ± 1.77	59.92 ± 1.51	51.13 ± 1.50	55.30 ± 2.01	n = 6	Ortho Vitros 5600
31.58 ± 0.51	63.51 ± 1.44	61.42 ± 1.80	52.27 ± 0.54	55.81 ± 1.41	n = 5	Ortho Vitros ECI/ECiQ
26.37 ± 2.06	48.80 ± 2.20	48.27 ± 2.97	45.59 ± 2.48	46.11 ± 3.08	n = 3	Roche MODULAR D/P
30.76 ± 2.33	39.65 ± 0.45	38.24 ± 1.59	38.67 ± 1.49	41.43 ± 1.72	n = 5	Roche MODULAR E
31.97 ± 1.81	57.67 ± 3.17	55.62 ± 2.94	47.40 ± 2.07	49.66 ± 2.60	n = 29	Siemens ADVIA Centaur
29.54 ± 1.89	40.21 ± 1.89	39.93 ± 2.16	39.79 ± 2.21	40.53 ± 2.10	n = 7	Siemens Dimension RxL
30.67 ± 1.79	42.11 ± 2.61	42.11 ± 2.57	40.81 ± 2.91	42.22 ± 2.40	n = 16	Siemens Dimension Vista
28.88 ± 0.37	43.42 ± 3.94	39.84 ± 1.10	38.63 ± 1.03	37.67 ± 1.24	n = 5	Siemens Immulite 1000
28.35 ± 0.99	38.24 ± 2.01	37.34 ± 1.57	36.67 ± 1.62	35.85 ± 1.87	n = 8	Siemens Immulite 2000
28.50 ± 1.27	37.75 ± 1.91	36.66 ± 2.02	36.90 ± 0.36	35.60 ± 2.07	n = 3	Siemens Immulite 2500
26.49 ± 0.57	42.82 ± 3.38	42.90 ± 2.62	40.82 ± 1.21	43.66 ± 0.88	n = 4	Tosoh Bioscience
29.78 ± 3.02	45.25 ± 7.37	44.33 ± 7.78	42.03 ± 5.14	42.76 ± 6.85	n = 16	Mean of Above Means
<Reagents>						
29.16 ± 2.19	42.31 ± 2.03	38.91 ± 1.73	37.49 ± 1.58	34.17 ± 0.98	n = 9	Abbott
37.66 ± 2.68	48.30 ± 2.03	48.61 ± 2.80	45.24 ± 2.79	46.26 ± 2.56	n = 30	Beckman Coulter
25.32 ± 1.61	48.76 ± 1.51	48.53 ± 0.78	45.13 ± 1.57	46.05 ± 1.87	n = 10	Microgenics CEDIA
28.60 ± 0.64	43.06 ± 0.10	43.00 ± 0.18	41.20 ± 0.18	44.13 ± 0.34	n = 3	Microgenics DRI
31.33 ± 1.01	62.93 ± 1.69	60.54 ± 1.79	51.42 ± 1.62	55.62 ± 1.67	n = 11	Ortho Clinical Diagnostics
31.27 ± 2.32	39.65 ± 1.21	38.70 ± 1.82	39.07 ± 1.66	41.86 ± 1.74	n = 6	Roche Elecsys/Modular E/e601/e411
31.97 ± 1.81	57.67 ± 3.17	55.62 ± 2.94	47.40 ± 2.07	49.66 ± 2.60	n = 29	Siemens ADVIA/ADVIA Centaur
30.34 ± 1.85	41.55 ± 2.52	41.38 ± 2.64	40.27 ± 2.65	42.03 ± 2.30	n = 23	Siemens Dimension
30.72 ± 0.51	40.00 ± 0.90	41.00 ± 0.90	40.00 ± 2.70	40.44 ± 1.02	n = 3	Siemens Dimension LOCI
28.47 ± 1.08	39.14 ± 3.30	38.06 ± 2.07	37.38 ± 1.54	36.45 ± 1.90	n = 16	Siemens Immulite
26.49 ± 0.57	42.82 ± 3.38	42.90 ± 2.62	40.82 ± 1.21	43.66 ± 0.88	n = 4	Tosoh ST AIA
29.77 ± 2.67	44.32 ± 6.52	44.05 ± 6.76	41.82 ± 4.26	43.41 ± 5.53	n = 11	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

T Uptake (Unit)

Specimen: E66 -----	Specimen: E67 -----	Specimen: E68 -----	Specimen: E69 -----	Specimen: E70 -----	Number -----	Instrument or Reagent System -----
1.065 ± 0.088	0.744 ± 0.153	0.779 ± 0.115	0.791 ± 0.078	0.774 ± 0.061	n = 25	All Methods & Instruments
1.100	0.820	0.840	0.810	0.770	n = 25	Median value, All Methods & Instruments
						<Instruments>
0.925 ± 0.014	0.558 ± 0.024	0.645 ± 0.019	0.698 ± 0.019	0.848 ± 0.028	n = 6	Abbott AxSym
1.113 ± 0.015	0.842 ± 0.027	0.853 ± 0.027	0.843 ± 0.039	0.746 ± 0.026	n = 4	Roche cobas e601
1.115 ± 0.012	0.845 ± 0.028	0.854 ± 0.015	0.835 ± 0.021	0.740 ± 0.021	n = 8	Roche MODULAR E
1.043 ± 0.059	1.906 ± 0.061	1.818 ± 0.069	1.559 ± 0.066	1.633 ± 0.068	n = 3	Siemens ADVIA Centaur
1.058 ± 0.081	0.949 ± 0.512	0.957 ± 0.448	0.919 ± 0.330	0.913 ± 0.358	n = 4	Mean of Above Means
						<Reagents>
0.950 ± 0.075	0.577 ± 0.046	0.659 ± 0.039	0.715 ± 0.035	0.838 ± 0.028	n = 8	Abbott
1.116 ± 0.014	0.847 ± 0.028	0.858 ± 0.017	0.838 ± 0.026	0.745 ± 0.024	n = 13	Roche Elecsys/Modular E/e601/e411
1.043 ± 0.059	1.906 ± 0.061	1.818 ± 0.069	1.559 ± 0.066	1.633 ± 0.068	n = 3	Siemens ADVIA/ADVIA Centaur
1.038 ± 0.075	1.057 ± 0.626	1.062 ± 0.552	0.999 ± 0.406	1.029 ± 0.434	n = 3	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Triiodothyronine (T3, ng/dL)

Specimen: E66	Specimen: E67	Specimen: E68	Specimen: E69	Specimen: E70	Number	Instrument or Reagent System
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62.3 ± 13.89	176.9 ± 26.51	192.8 ± 28.47	211.9 ± 24.53	154.6 ± 19.73	n = 193	All Methods & Instruments
60.0	181.0	196.0	215.0	156.0	n = 193	Median value, All Methods & Instruments
<Instruments>						
58.5 ± 6.31	151.7 ± 5.61	164.0 ± 10.86	196.6 ± 8.06	137.0 ± 10.34	n = 11	Abbott Architect i System
70.4 ± 6.55	159.3 ± 7.45	172.4 ± 6.52	191.1 ± 10.16	143.6 ± 7.45	n = 6	Abbott AxSym
55.9 ± 1.66	140.2 ± 6.44	151.6 ± 9.46	169.5 ± 6.38	124.2 ± 4.96	n = 13	Beckman Coulter ACCESS
63.6 ± 9.79	135.6 ± 10.24	153.1 ± 13.64	170.0 ± 14.48	127.2 ± 9.43	n = 3	Beckman Coulter UniCel DxI 600
58.9 ± 11.71	140.0 ± 14.59	153.0 ± 16.95	172.9 ± 15.27	125.1 ± 14.64	n = 18	Beckman Coulter UniCel DxI 800
66.9 ± 2.28	176.3 ± 5.07	193.1 ± 3.23	214.9 ± 3.30	166.4 ± 1.37	n = 6	Ortho Vitros 5600
68.2 ± 3.68	181.1 ± 9.01	192.9 ± 12.60	216.5 ± 13.69	163.9 ± 8.41	n = 6	Ortho Vitros ECI/ECiQ
95.6 ± 4.55	199.5 ± 6.47	213.2 ± 7.50	222.5 ± 8.54	170.0 ± 5.84	n = 9	Roche cobas e601
108.1 ± 10.97	211.6 ± 12.69	221.2 ± 14.09	231.0 ± 10.10	178.7 ± 5.86	n = 3	Roche Elecsys
95.9 ± 6.52	198.7 ± 7.98	212.1 ± 7.27	222.4 ± 8.90	168.0 ± 6.49	n = 15	Roche MODULAR E
59.0 ± 5.98	191.0 ± 13.48	208.9 ± 14.67	224.0 ± 13.42	159.9 ± 9.70	n = 53	Siemens ADVIA Centaur
55.3 ± 14.24	158.1 ± 13.18	180.3 ± 14.41	210.4 ± 17.23	144.6 ± 18.13	n = 5	Siemens Dimension RxL
70.2 ± 11.30	164.6 ± 9.38	179.9 ± 10.21	209.3 ± 15.21	152.5 ± 8.96	n = 15	Siemens Dimension Vista
47.3 ± 5.65	197.0 ± 12.92	219.1 ± 10.83	223.7 ± 17.18	166.3 ± 7.26	n = 5	Siemens Immulite 1000
53.4 ± 4.99	193.9 ± 12.61	210.6 ± 12.98	232.6 ± 10.69	171.7 ± 13.44	n = 12	Siemens Immulite 2000
60.2 ± 2.32	162.0 ± 7.62	171.2 ± 5.43	188.1 ± 5.73	133.6 ± 4.29	n = 5	Tosoh Bioscience
63.9 ± 13.74	172.6 ± 25.67	187.6 ± 26.44	207.8 ± 22.36	152.7 ± 19.56	n = 16	Mean of Above Means
<Reagents>						
62.0 ± 8.87	154.1 ± 7.30	167.7 ± 10.20	194.6 ± 9.49	140.0 ± 9.14	n = 17	Abbott
57.2 ± 8.90	140.5 ± 10.66	153.0 ± 13.36	171.0 ± 10.61	125.1 ± 10.43	n = 34	Beckman Coulter
67.4 ± 3.25	178.2 ± 7.57	193.2 ± 8.41	215.4 ± 9.37	164.7 ± 6.40	n = 12	Ortho Clinical Diagnostics
97.0 ± 6.44	200.5 ± 8.61	213.4 ± 7.90	224.2 ± 9.69	170.1 ± 7.26	n = 28	Roche Elecsys/Modular E/e601/e411
58.8 ± 5.88	191.0 ± 13.12	208.8 ± 14.85	223.7 ± 13.09	159.8 ± 9.53	n = 55	Siemens ADVIA/ADVIA Centaur
67.1 ± 13.18	164.6 ± 10.13	181.7 ± 10.66	211.5 ± 14.96	152.1 ± 10.24	n = 17	Siemens Dimension
67.5 ± 11.83	157.6 ± 9.30	172.4 ± 9.68	198.6 ± 14.68	150.2 ± 13.99	n = 3	Siemens Dimension LOCI
51.9 ± 5.72	195.1 ± 13.30	214.8 ± 14.35	230.8 ± 12.77	171.3 ± 12.85	n = 19	Siemens Immulite
61.0 ± 1.76	162.4 ± 8.65	171.2 ± 6.42	186.5 ± 5.65	132.4 ± 4.14	n = 4	Tosoh ST AIA
61.9 ± 5.62	171.2 ± 21.17	186.0 ± 23.09	207.4 ± 19.91	152.5 ± 16.78	n = 9	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Free T-3 (pg/mL)

Specimen: E66	Specimen: E67	Specimen: E68	Specimen: E69	Specimen: E70	Number	Instrument or Reagent System
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2.02 ± 0.40	6.12 ± 1.14	6.55 ± 1.36	6.76 ± 1.25	5.11 ± 0.85	n = 116	All Methods & Instruments
2.10	6.20	6.60	6.50	5.00	n = 116	Median value, All Methods & Instruments
<Instruments>						
1.41 ± 0.29	5.59 ± 0.44	6.27 ± 0.49	7.25 ± 0.47	4.98 ± 0.40	n = 7	Abbott Architect i System
2.00 ± 0.00	5.36 ± 0.10	5.56 ± 0.10	6.18 ± 0.24	4.80 ± 0.00	n = 3	Beckman Coulter ACCESS
2.06 ± 0.34	5.16 ± 0.27	5.37 ± 0.43	5.87 ± 0.41	4.73 ± 0.30	n = 14	Beckman Coulter UniCel DxI 800
1.37 ± 0.16	11.37 ± 0.70	12.07 ± 0.57	10.30 ± 0.50	10.01 ± 1.08	n = 4	Ortho Vitros Eci/ECiQ
2.08 ± 0.08	7.20 ± 0.00	7.82 ± 0.08	8.37 ± 0.16	6.28 ± 0.08	n = 5	Roche cobas e601
2.10 ± 0.09	7.03 ± 0.05	7.72 ± 0.24	8.33 ± 0.14	6.20 ± 0.09	n = 3	Roche Elecsys
2.07 ± 0.18	7.08 ± 0.19	7.65 ± 0.24	8.33 ± 0.34	6.21 ± 0.18	n = 8	Roche MODULAR E
2.12 ± 0.12	6.24 ± 0.16	6.65 ± 0.19	6.52 ± 0.20	5.00 ± 0.15	n = 44	Siemens ADVIA Centaur
1.03 ± 0.16	7.80 ± 0.38	8.09 ± 0.16	7.78 ± 0.14	6.14 ± 0.16	n = 9	Siemens Dimension Vista
2.57 ± 0.29	4.31 ± 0.35	4.23 ± 0.39	5.18 ± 0.37	3.54 ± 0.34	n = 6	Siemens Immulite 2000
2.63 ± 0.25	3.92 ± 0.27	4.01 ± 0.27	4.80 ± 0.42	3.35 ± 0.23	n = 4	Siemens Immulite 2500
1.98 ± 0.48	6.14 ± 1.63	6.59 ± 1.91	7.13 ± 1.64	5.25 ± 1.28	n = 11	Mean of Above Means
<Reagents>						
1.41 ± 0.29	5.59 ± 0.44	6.27 ± 0.49	7.25 ± 0.47	4.98 ± 0.40	n = 7	Abbott
2.04 ± 0.29	5.19 ± 0.31	5.40 ± 0.38	5.95 ± 0.38	4.76 ± 0.23	n = 18	Beckman Coulter
1.35 ± 0.12	11.37 ± 0.57	12.07 ± 0.44	10.42 ± 0.42	9.99 ± 0.72	n = 6	Ortho Clinical Diagnostics
2.08 ± 0.13	7.11 ± 0.14	7.72 ± 0.21	8.35 ± 0.25	6.24 ± 0.13	n = 15	Roche Elecsys/Modular E/e601/e411
2.12 ± 0.12	6.24 ± 0.16	6.65 ± 0.20	6.51 ± 0.20	5.00 ± 0.15	n = 44	Siemens ADVIA/ADVIA Centaur
1.03 ± 0.16	7.80 ± 0.38	8.09 ± 0.16	7.78 ± 0.14	6.14 ± 0.16	n = 9	Siemens Dimension LOCI
2.52 ± 0.31	4.08 ± 0.37	4.13 ± 0.33	4.91 ± 0.50	3.41 ± 0.31	n = 12	Siemens Immulite
1.80 ± 0.54	6.40 ± 2.00	6.83 ± 2.16	7.20 ± 1.69	5.30 ± 1.43	n = 7	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

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

Specimen: E66	Specimen: E67	Specimen: E68	Specimen: E69	Specimen: E70	Number	Instrument or Reagent System
0.69 $\pm$ 0.08	1.31 $\pm$ 0.16	4.88 $\pm$ 0.52	2.11 $\pm$ 0.24	3.95 $\pm$ 0.42	n = 290	All Methods & Instruments
0.70	1.30	4.90	2.10	4.00	n = 290	Median value, All Methods & Instruments
<Instruments>						
0.61 $\pm$ 0.06	1.13 $\pm$ 0.06	4.14 $\pm$ 0.19	1.75 $\pm$ 0.08	3.30 $\pm$ 0.16	n = 14	Abbott Architect i System
0.62 $\pm$ 0.09	1.14 $\pm$ 0.08	4.19 $\pm$ 0.31	1.83 $\pm$ 0.16	3.52 $\pm$ 0.17	n = 7	Abbott AxSym
0.65 $\pm$ 0.06	1.24 $\pm$ 0.06	4.66 $\pm$ 0.23	1.98 $\pm$ 0.11	3.75 $\pm$ 0.20	n = 26	Beckman Coulter ACCESS
0.67 $\pm$ 0.05	1.25 $\pm$ 0.19	4.91 $\pm$ 0.29	2.14 $\pm$ 0.10	3.97 $\pm$ 0.14	n = 3	Beckman Coulter UniCel DxI 600
0.62 $\pm$ 0.05	1.20 $\pm$ 0.09	4.77 $\pm$ 0.39	1.93 $\pm$ 0.18	3.81 $\pm$ 0.28	n = 19	Beckman Coulter UniCel DxI 800
0.75 $\pm$ 0.06	1.23 $\pm$ 0.07	5.88 $\pm$ 0.23	2.17 $\pm$ 0.07	4.51 $\pm$ 0.18	n = 8	Ortho Vitros 5600
0.72 $\pm$ 0.05	1.30 $\pm$ 0.00	6.17 $\pm$ 0.27	2.26 $\pm$ 0.12	4.69 $\pm$ 0.25	n = 13	Ortho Vitros ECI/ECiQ
0.77 $\pm$ 0.05	1.53 $\pm$ 0.05	5.15 $\pm$ 0.19	2.37 $\pm$ 0.05	4.23 $\pm$ 0.14	n = 3	Roche cobas e411
0.76 $\pm$ 0.06	1.52 $\pm$ 0.06	5.00 $\pm$ 0.16	2.33 $\pm$ 0.06	4.09 $\pm$ 0.10	n = 14	Roche cobas e601
0.74 $\pm$ 0.06	1.48 $\pm$ 0.07	4.97 $\pm$ 0.26	2.29 $\pm$ 0.11	4.09 $\pm$ 0.16	n = 7	Roche Elecsys
0.77 $\pm$ 0.05	1.53 $\pm$ 0.05	5.04 $\pm$ 0.14	2.35 $\pm$ 0.06	4.11 $\pm$ 0.10	n = 21	Roche MODULAR E
0.70 $\pm$ 0.00	1.32 $\pm$ 0.06	4.91 $\pm$ 0.23	2.12 $\pm$ 0.11	3.96 $\pm$ 0.21	n = 60	Siemens ADVIA Centaur
0.72 $\pm$ 0.05	1.51 $\pm$ 0.09	5.43 $\pm$ 0.27	2.47 $\pm$ 0.12	4.49 $\pm$ 0.26	n = 10	Siemens Dimension EXL
0.57 $\pm$ 0.06	1.08 $\pm$ 0.07	4.07 $\pm$ 0.37	1.77 $\pm$ 0.13	3.32 $\pm$ 0.23	n = 12	Siemens Dimension RxL
0.66 $\pm$ 0.05	1.42 $\pm$ 0.07	5.23 $\pm$ 0.28	2.31 $\pm$ 0.11	4.28 $\pm$ 0.22	n = 28	Siemens Dimension Vista
0.60 $\pm$ 0.00	1.04 $\pm$ 0.06	3.93 $\pm$ 0.17	1.70 $\pm$ 0.08	3.17 $\pm$ 0.18	n = 7	Siemens Dimension Xpand
0.72 $\pm$ 0.05	1.25 $\pm$ 0.11	4.89 $\pm$ 0.27	2.03 $\pm$ 0.11	3.93 $\pm$ 0.20	n = 7	Siemens Immulite 1000
0.67 $\pm$ 0.06	1.20 $\pm$ 0.08	4.63 $\pm$ 0.19	1.92 $\pm$ 0.12	3.69 $\pm$ 0.23	n = 17	Siemens Immulite 2000
0.63 $\pm$ 0.05	1.17 $\pm$ 0.05	4.55 $\pm$ 0.45	1.87 $\pm$ 0.05	3.60 $\pm$ 0.09	n = 3	Siemens Immulite 2500
0.80 $\pm$ 0.06	1.42 $\pm$ 0.08	5.28 $\pm$ 0.41	2.26 $\pm$ 0.17	4.28 $\pm$ 0.36	n = 5	Tosoh Bioscience
0.69 $\pm$ 0.07	1.29 $\pm$ 0.17	4.87 $\pm$ 0.55	2.10 $\pm$ 0.25	3.95 $\pm$ 0.43	n = 20	Mean of Above Means
<Reagents>						
0.61 $\pm$ 0.06	1.13 $\pm$ 0.07	4.14 $\pm$ 0.22	1.77 $\pm$ 0.13	3.37 $\pm$ 0.20	n = 21	Abbott
0.64 $\pm$ 0.06	1.23 $\pm$ 0.09	4.71 $\pm$ 0.31	1.97 $\pm$ 0.15	3.79 $\pm$ 0.24	n = 48	Beckman Coulter
0.73 $\pm$ 0.05	1.27 $\pm$ 0.06	6.05 $\pm$ 0.29	2.22 $\pm$ 0.11	4.61 $\pm$ 0.24	n = 21	Ortho Clinical Diagnostics
0.76 $\pm$ 0.06	1.52 $\pm$ 0.06	5.03 $\pm$ 0.17	2.34 $\pm$ 0.06	4.11 $\pm$ 0.12	n = 44	Roche Elecsys/Modular E/e601/e411
0.71 $\pm$ 0.05	1.36 $\pm$ 0.09	4.83 $\pm$ 0.24	2.16 $\pm$ 0.12	3.91 $\pm$ 0.27	n = 33	Siemens ADVIA/ADVIA Centaur
0.59 $\pm$ 0.05	1.07 $\pm$ 0.07	4.03 $\pm$ 0.37	1.74 $\pm$ 0.13	3.26 $\pm$ 0.24	n = 21	Siemens Dimension
0.68 $\pm$ 0.06	1.44 $\pm$ 0.09	5.28 $\pm$ 0.29	2.35 $\pm$ 0.14	4.32 $\pm$ 0.24	n = 36	Siemens Dimension LOCI
0.68 $\pm$ 0.06	1.21 $\pm$ 0.09	4.69 $\pm$ 0.28	1.94 $\pm$ 0.12	3.74 $\pm$ 0.23	n = 27	Siemens Immulite
0.70 $\pm$ 0.00	1.30 $\pm$ 0.00	5.00 $\pm$ 0.19	2.08 $\pm$ 0.08	4.00 $\pm$ 0.13	n = 29	Siemens TSH-3
0.78 $\pm$ 0.04	1.40 $\pm$ 0.08	5.16 $\pm$ 0.34	2.22 $\pm$ 0.13	4.18 $\pm$ 0.31	n = 4	Tosoh AIA
0.69 $\pm$ 0.06	1.29 $\pm$ 0.14	4.87 $\pm$ 0.53	2.09 $\pm$ 0.22	3.94 $\pm$ 0.41	n = 10	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Vitamin B12 (pg/mL)

Specimen: E66	Specimen: E67	Specimen: E68	Specimen: E69	Specimen: E70	Number	Instrument or Reagent System
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385.8 ± 43.88	306.4 ± 44.67	283.9 ± 44.01	416.3 ± 62.03	380.5 ± 54.59	n = 231	All Methods & Instruments
382.0	307.0	282.0	415.0	381.0	n = 231	Median value, All Methods & Instruments
						<Instruments>
400.7 ± 23.53	327.9 ± 20.70	300.6 ± 24.74	439.6 ± 29.62	406.2 ± 23.47	n = 13	Abbott AxSym
343.6 ± 26.69	290.3 ± 25.29	268.9 ± 20.10	390.1 ± 25.99	353.6 ± 22.98	n = 21	Beckman Coulter ACCESS
339.9 ± 17.49	279.3 ± 22.82	277.6 ± 18.25	390.2 ± 22.88	358.4 ± 11.80	n = 4	Beckman Coulter UniCel DxI 600
320.5 ± 29.84	268.8 ± 15.63	244.2 ± 23.66	341.7 ± 28.97	318.3 ± 28.66	n = 21	Beckman Coulter UniCel DxI 800
352.9 ± 13.04	323.7 ± 10.03	299.9 ± 11.11	419.8 ± 11.77	383.4 ± 7.86	n = 6	Ortho Vitros 5600
378.5 ± 32.57	341.5 ± 15.91	317.2 ± 17.34	449.4 ± 30.14	400.3 ± 21.44	n = 16	Ortho Vitros ECi/ECiQ
439.2 ± 14.01	303.1 ± 27.79	259.6 ± 20.69	461.3 ± 19.16	415.9 ± 26.29	n = 4	Roche cobas e411
428.4 ± 20.91	350.3 ± 15.78	319.7 ± 12.95	471.7 ± 21.91	428.6 ± 19.82	n = 12	Roche cobas e601
438.6 ± 43.28	295.6 ± 27.64	274.6 ± 12.53	440.5 ± 39.61	398.7 ± 32.02	n = 3	Roche Elecsys
429.2 ± 17.06	352.3 ± 12.80	321.6 ± 11.22	471.7 ± 18.56	431.1 ± 13.90	n = 18	Roche MODULAR E
382.7 ± 26.87	296.9 ± 24.93	274.2 ± 24.07	402.0 ± 30.43	373.4 ± 28.86	n = 61	Siemens ADVIA Centaur
408.5 ± 30.23	352.7 ± 16.68	330.8 ± 26.92	454.6 ± 48.02	433.3 ± 32.83	n = 3	Siemens ADVIA Centaur CP
407.3 ± 24.05	219.7 ± 29.06	153.2 ± 27.64	311.6 ± 33.04	268.7 ± 35.60	n = 23	Siemens Dimension Vista
381.6 ± 44.29	333.1 ± 31.99	299.2 ± 23.69	493.0 ± 35.58	443.8 ± 35.03	n = 4	Siemens Immulite 1000
370.9 ± 27.48	315.6 ± 19.25	287.6 ± 24.38	465.7 ± 26.29	420.3 ± 27.29	n = 14	Siemens Immulite 2000
465.5 ± 51.51	447.7 ± 42.80	392.0 ± 34.90	563.7 ± 44.05	498.5 ± 36.50	n = 5	Tosoh Bioscience
393.4 ± 42.54	315.5 ± 38.70	292.8 ± 33.65	437.5 ± 55.06	400.4 ± 47.96	n = 16	Mean of Above Means
						<Reagents>
400.7 ± 23.53	327.9 ± 20.70	300.6 ± 24.74	439.6 ± 29.62	406.2 ± 23.47	n = 13	Abbott
333.1 ± 29.88	278.1 ± 23.56	259.2 ± 26.32	368.8 ± 37.87	339.0 ± 30.56	n = 46	Beckman Coulter
368.8 ± 29.18	336.0 ± 16.60	311.6 ± 17.99	439.3 ± 28.12	394.0 ± 19.40	n = 22	Ortho Clinical Diagnostics
431.2 ± 20.95	348.0 ± 20.88	315.0 ± 23.00	469.8 ± 20.92	428.1 ± 18.06	n = 37	Roche Elecsys/Modular E/e601/e411
384.0 ± 28.05	299.1 ± 27.22	276.0 ± 26.02	403.5 ± 32.61	375.3 ± 30.42	n = 64	Siemens ADVIA/ADVIA Centaur
407.7 ± 24.75	220.8 ± 31.23	151.1 ± 28.43	310.5 ± 35.65	271.2 ± 37.79	n = 21	Siemens Dimension LOCI
377.1 ± 32.48	321.1 ± 25.15	295.4 ± 29.20	473.2 ± 30.36	427.6 ± 30.19	n = 20	Siemens Immulite
465.5 ± 51.51	447.7 ± 42.80	392.0 ± 34.90	563.7 ± 44.05	498.5 ± 36.50	n = 5	Tosoh AIA
394.6 ± 38.49	318.0 ± 55.84	295.1 ± 53.34	433.2 ± 71.19	395.7 ± 62.30	n = 8	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Folic Acid (ng/mL)

Specimen: E66	Specimen: E67	Specimen: E68	Specimen: E69	Specimen: E70	Number	Instrument or Reagent System
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0.81 ± 0.35	0.96 ± 0.53	1.60 ± 0.75	8.87 ± 1.32	2.56 ± 0.95	n = 228	All Methods & Instruments
0.80	1.00	1.50	8.80	2.50	n = 228	Median value, All Methods & Instruments
<Instruments>						
0.75 ± 0.46	0.93 ± 0.41	2.05 ± 0.28	11.68 ± 0.69	3.14 ± 0.35	n = 4	Abbott Architect i System
1.32 ± 0.38	1.77 ± 0.58	2.63 ± 0.30	12.10 ± 0.77	3.70 ± 0.52	n = 11	Abbott AxSym
0.72 ± 0.14	0.90 ± 0.15	1.52 ± 0.17	9.09 ± 0.41	2.52 ± 0.14	n = 20	Beckman Coulter ACCESS
0.90 ± 0.11	0.92 ± 0.13	1.47 ± 0.16	8.87 ± 0.60	2.46 ± 0.18	n = 4	Beckman Coulter UniCel DxI 600
0.70 ± 0.20	0.85 ± 0.15	1.49 ± 0.20	8.62 ± 0.34	2.39 ± 0.16	n = 21	Beckman Coulter UniCel DxI 800
0.86 ± 0.21	1.20 ± 0.06	1.76 ± 0.35	9.04 ± 0.84	2.46 ± 0.50	n = 6	Ortho Vitros 5600
0.84 ± 0.21	1.16 ± 0.20	1.70 ± 0.24	9.24 ± 0.91	2.48 ± 0.35	n = 15	Ortho Vitros ECI/ECiQ
2.04 ± 0.71	2.04 ± 0.71	2.43 ± 0.42	8.15 ± 0.54	3.74 ± 0.39	n = 3	Roche cobas e411
2.14 ± 0.25	2.70 ± 0.38	3.16 ± 0.30	8.33 ± 0.58	4.23 ± 0.29	n = 12	Roche cobas e601
2.05 ± 0.38	2.64 ± 0.35	3.25 ± 0.47	8.58 ± 0.55	4.32 ± 0.50	n = 17	Roche MODULAR E
0.67 ± 0.16	0.67 ± 0.18	1.19 ± 0.18	8.74 ± 0.82	2.14 ± 0.20	n = 61	Siemens ADVIA Centaur
0.78 ± 0.24	0.78 ± 0.15	1.45 ± 0.19	11.33 ± 2.58	2.48 ± 0.32	n = 3	Siemens ADVIA Centaur CP
0.50 ± 0.00	0.50 ± 0.00	0.50 ± 0.00	3.58 ± 0.21	0.85 ± 0.21	n = 23	Siemens Dimension Vista
1.10 ± 0.11	1.47 ± 0.20	2.27 ± 0.09	12.90 ± 0.35	3.50 ± 0.08	n = 4	Siemens Immulite 1000
1.00 ± 0.00	1.00 ± 0.00	1.55 ± 0.14	8.93 ± 0.85	2.67 ± 0.18	n = 14	Siemens Immulite 2000
0.68 ± 0.19	1.99 ± 0.58	2.55 ± 0.50	8.46 ± 0.73	3.93 ± 0.71	n = 5	Tosoh Bioscience
0.94 ± 0.45	1.26 ± 0.67	1.91 ± 0.73	9.30 ± 1.67	2.96 ± 0.90	n = 16	Mean of Above Means
<Reagents>						
1.17 ± 0.52	1.55 ± 0.66	2.44 ± 0.43	11.98 ± 0.77	3.53 ± 0.57	n = 15	Abbott
0.74 ± 0.18	0.88 ± 0.15	1.50 ± 0.18	8.85 ± 0.46	2.46 ± 0.17	n = 45	Beckman Coulter
0.84 ± 0.21	1.16 ± 0.19	1.73 ± 0.27	9.18 ± 0.88	2.48 ± 0.40	n = 21	Ortho Clinical Diagnostics
2.04 ± 0.43	2.59 ± 0.46	3.11 ± 0.49	8.42 ± 0.59	4.20 ± 0.47	n = 34	Roche Elecsys/Modular E/e601/e411
0.68 ± 0.16	0.67 ± 0.18	1.20 ± 0.19	8.77 ± 0.85	2.15 ± 0.21	n = 64	Siemens ADVIA/ADVIA Centaur
0.50 ± 0.00	0.50 ± 0.00	0.50 ± 0.00	3.60 ± 0.21	0.87 ± 0.21	n = 21	Siemens Dimension LOCI
1.00 ± 0.00	1.00 ± 0.00	1.73 ± 0.34	9.92 ± 1.96	2.92 ± 0.46	n = 20	Siemens Immulite
0.68 ± 0.19	1.99 ± 0.58	2.55 ± 0.50	8.46 ± 0.73	3.93 ± 0.71	n = 5	Tosoh AIA
0.79 ± 0.23	1.22 ± 0.68	1.85 ± 0.82	8.86 ± 0.51	2.87 ± 1.04	n = 8	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Cortisol (µg/dL)

Specimen: E66	Specimen: E67	Specimen: E68	Specimen: E69	Specimen: E70	Number	Instrument or Reagent System
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4.04 ± 0.40	10.54 ± 1.28	16.01 ± 1.72	25.66 ± 2.91	9.83 ± 1.14	n = 154	All Methods & Instruments
4.00	10.40	15.90	25.70	9.80	n = 154	Median value, All Methods & Instruments
<Instruments>						
4.03 ± 0.18	8.30 ± 0.23	12.12 ± 0.41	19.33 ± 0.84	7.91 ± 0.35	n = 6	Abbott Architect i System
3.91 ± 0.27	9.91 ± 0.16	15.22 ± 0.41	24.87 ± 1.12	9.32 ± 0.36	n = 7	Beckman Coulter ACCESS
3.75 ± 0.36	9.87 ± 0.14	15.28 ± 0.32	25.97 ± 1.04	8.81 ± 0.66	n = 3	Beckman Coulter UniCel DxI 600
3.85 ± 0.35	10.32 ± 0.68	15.13 ± 1.06	24.89 ± 1.62	8.86 ± 0.74	n = 18	Beckman Coulter UniCel DxI 800
4.90 ± 0.36	10.15 ± 0.83	16.40 ± 1.18	26.70 ± 0.72	10.83 ± 0.77	n = 3	LC/MS/MS
3.47 ± 0.14	9.56 ± 0.40	14.45 ± 0.64	22.22 ± 0.95	8.68 ± 0.44	n = 6	Ortho Vitros 5600
3.43 ± 0.22	9.33 ± 0.52	14.57 ± 1.29	21.50 ± 1.36	8.91 ± 0.93	n = 6	Ortho Vitros ECi/ECiQ
4.03 ± 0.27	9.70 ± 0.58	15.48 ± 0.85	24.39 ± 1.50	10.01 ± 0.62	n = 6	Roche cobas e601
3.94 ± 0.16	9.27 ± 0.32	15.16 ± 0.56	24.19 ± 0.80	9.63 ± 0.42	n = 4	Roche Elecsys
3.94 ± 0.19	9.32 ± 0.31	14.87 ± 0.40	23.90 ± 0.70	9.50 ± 0.27	n = 11	Roche MODULAR E
4.16 ± 0.28	11.23 ± 0.82	16.87 ± 1.12	27.03 ± 2.15	10.21 ± 0.67	n = 51	Siemens ADVIA Centaur
4.09 ± 0.23	12.32 ± 0.69	17.96 ± 0.88	29.05 ± 1.77	10.98 ± 0.46	n = 4	Siemens Immulite 1000
4.48 ± 0.46	11.90 ± 1.33	17.63 ± 1.60	28.25 ± 2.44	11.16 ± 0.93	n = 17	Siemens Immulite 2000
4.47 ± 0.59	11.94 ± 0.65	17.62 ± 0.49	29.57 ± 1.49	11.25 ± 0.90	n = 3	Siemens Immulite 2500
3.62 ± 0.15	9.12 ± 0.50	13.15 ± 0.19	21.16 ± 0.67	8.27 ± 0.23	n = 3	Tosoh Bioscience
3.97 ± 0.37	10.04 ± 1.17	15.49 ± 1.61	24.91 ± 3.03	9.60 ± 1.13	n = 15	Mean of Above Means
<Reagents>						
4.09 ± 0.26	8.67 ± 0.98	12.77 ± 1.81	20.21 ± 2.53	8.50 ± 1.50	n = 8	Abbott
3.86 ± 0.33	10.17 ± 0.59	15.19 ± 0.83	25.02 ± 1.47	8.99 ± 0.68	n = 28	Beckman Coulter
4.90 ± 0.36	10.15 ± 0.83	16.40 ± 1.18	26.70 ± 0.72	10.83 ± 0.77	n = 3	In-House
3.45 ± 0.17	9.44 ± 0.48	14.41 ± 0.89	21.91 ± 1.23	8.71 ± 0.64	n = 12	Ortho Clinical Diagnostics
3.95 ± 0.20	9.40 ± 0.45	15.03 ± 0.61	24.01 ± 0.93	9.61 ± 0.42	n = 21	Roche Elecsys/Modular E/e601/e411
4.17 ± 0.27	11.23 ± 0.80	16.88 ± 1.09	27.00 ± 2.10	10.21 ± 0.65	n = 53	Siemens ADVIA/ADVIA Centaur
4.40 ± 0.48	11.97 ± 1.13	17.67 ± 1.34	28.58 ± 2.29	11.14 ± 0.85	n = 24	Siemens Immulite
3.62 ± 0.15	9.12 ± 0.50	13.15 ± 0.19	21.16 ± 0.67	8.27 ± 0.23	n = 3	Tosoh ST AIA
4.02 ± 0.43	9.92 ± 1.08	15.20 ± 1.76	24.34 ± 3.11	9.48 ± 1.12	n = 8	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

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

Specimen: E66	Specimen: E67	Specimen: E68	Specimen: E69	Specimen: E70	Number	Instrument or Reagent System
14.62 $\pm$ 6.11	264.45 $\pm$ 123.96	93.09 $\pm$ 41.12	95.89 $\pm$ 41.80	355.42 $\pm$ 100.67	n = 94	All Methods & Instruments
15.20	298.70	95.80	98.60	301.00	n = 94	Median value, All Methods & Instruments
<Instruments>						
15.48 $\pm$ 0.32	291.77 $\pm$ 7.28	95.47 $\pm$ 0.80	97.97 $\pm$ 1.99	380.91 $\pm$ 12.80	n = 6	Abbott Architect i System
14.17 $\pm$ 0.84	294.14 $\pm$ 9.09	95.49 $\pm$ 4.52	97.85 $\pm$ 5.86	336.91 $\pm$ 37.28	n = 8	Beckman Coulter UniCel DxI 800
18.15 $\pm$ 1.11	344.65 $\pm$ 19.01	116.39 $\pm$ 6.93	117.62 $\pm$ 6.70	434.52 $\pm$ 23.41	n = 5	Roche cobas e601
19.11 $\pm$ 0.61	357.34 $\pm$ 15.31	118.25 $\pm$ 3.60	123.99 $\pm$ 3.63	450.30 $\pm$ 14.66	n = 6	Roche Elecsys
18.94 $\pm$ 0.74	354.42 $\pm$ 13.29	118.49 $\pm$ 4.45	122.06 $\pm$ 3.93	448.20 $\pm$ 16.12	n = 6	Roche MODULAR E
21.25 $\pm$ 1.32	385.64 $\pm$ 52.82	146.22 $\pm$ 8.40	148.48 $\pm$ 8.92	471.02 $\pm$ 88.02	n = 17	Siemens ADVIA Centaur
7.64 $\pm$ 1.26	117.43 $\pm$ 7.34	50.08 $\pm$ 3.51	51.70 $\pm$ 2.82	280.83 $\pm$ 16.64	n = 5	Siemens Immulite 1000
8.17 $\pm$ 1.57	122.20 $\pm$ 10.14	48.67 $\pm$ 3.75	51.63 $\pm$ 4.20	276.23 $\pm$ 19.70	n = 27	Siemens Immulite 2000
5.35 $\pm$ 1.54	106.69 $\pm$ 22.28	47.65 $\pm$ 9.43	48.40 $\pm$ 7.90	243.44 $\pm$ 12.64	n = 3	Siemens Immulite 2500
20.02 $\pm$ 0.39	353.16 $\pm$ 19.02	121.28 $\pm$ 5.07	121.33 $\pm$ 2.16	415.64 $\pm$ 34.23	n = 4	Tosoh Bioscience
15.31 $\pm$ 5.90	284.36 $\pm$ 114.12	97.75 $\pm$ 36.24	100.13 $\pm$ 36.60	378.36 $\pm$ 86.76	n = 10	Mean of Above Means
<Reagents>						
15.48 $\pm$ 0.32	291.77 $\pm$ 7.28	95.47 $\pm$ 0.80	97.97 $\pm$ 1.99	380.91 $\pm$ 12.80	n = 6	Abbott
14.26 $\pm$ 0.75	296.65 $\pm$ 8.45	95.90 $\pm$ 4.36	98.57 $\pm$ 5.88	326.27 $\pm$ 34.43	n = 12	Beckman Coulter
18.84 $\pm$ 0.86	353.27 $\pm$ 15.76	118.17 $\pm$ 4.49	122.00 $\pm$ 4.89	446.64 $\pm$ 16.20	n = 17	Roche Elecsys/Modular E/e601/e411
21.16 $\pm$ 1.32	387.14 $\pm$ 50.67	145.75 $\pm$ 8.34	147.87 $\pm$ 8.84	475.05 $\pm$ 82.59	n = 18	Siemens ADVIA/ADVIA Centaur
7.92 $\pm$ 1.67	121.21 $\pm$ 12.27	48.94 $\pm$ 4.26	51.56 $\pm$ 4.35	274.27 $\pm$ 21.14	n = 35	Siemens Immulite
20.02 $\pm$ 0.39	353.16 $\pm$ 19.02	121.28 $\pm$ 5.07	121.33 $\pm$ 2.16	415.64 $\pm$ 34.23	n = 4	Tosoh ST AIA
16.82 $\pm$ 4.50	325.55 $\pm$ 65.35	106.88 $\pm$ 30.16	109.19 $\pm$ 29.84	390.03 $\pm$ 74.34	n = 6	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Free Estriol (ng/mL)

Specimen: E66	Specimen: E67	Specimen: E68	Specimen: E69	Specimen: E70	Number	Instrument or Reagent System
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0.08 ± 0.05	1.16 ± 0.41	0.10 ± 0.00	0.99 ± 0.16	1.05 ± 0.25	n = 19	All Methods & Instruments
0.10	1.00	0.10	1.00	1.00	n = 19	Median value, All Methods & Instruments
						<Instruments>
0.06 ± 0.06	0.94 ± 0.11	0.10 ± 0.00	0.90 ± 0.06	0.90 ± 0.06	n = 5	Beckman Coulter UniCel DxI 800
0.10 ± 0.00	1.36 ± 0.11	0.10 ± 0.00	1.14 ± 0.06	1.23 ± 0.14	n = 5	Siemens Immulite 2000
0.08 ± 0.02	1.15 ± 0.24	0.10 ± 0.00	1.02 ± 0.14	1.06 ± 0.19	n = 2	Mean of Above Means
						<Reagents>
0.06 ± 0.06	0.90 ± 0.08	0.10 ± 0.00	0.89 ± 0.05	0.89 ± 0.05	n = 9	Beckman Coulter
0.10 ± 0.00	1.37 ± 0.10	0.10 ± 0.00	1.16 ± 0.08	1.25 ± 0.12	n = 6	Siemens Immulite
0.08 ± 0.02	1.14 ± 0.27	0.10 ± 0.00	1.02 ± 0.15	1.07 ± 0.20	n = 2	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Estradiol (pg/mL)

Specimen: E66	Specimen: E67	Specimen: E68	Specimen: E69	Specimen: E70	Number	Instrument or Reagent System
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28.3 ± 12.83	126.2 ± 41.41	93.6 ± 19.16	61.9 ± 30.50	72.1 ± 29.79	n = 159	All Methods & Instruments
25.0	116.0	93.0	58.0	66.0	n = 159	Median value, All Methods & Instruments
						<Instruments>
40.8 ± 1.99	96.0 ± 6.84	93.6 ± 5.74	48.9 ± 4.60	60.8 ± 2.77	n = 8	Abbott Architect i System
28.0 ± 9.01	93.9 ± 14.53	92.3 ± 8.57	44.8 ± 11.26	53.0 ± 6.42	n = 3	Abbott AxSym
27.4 ± 9.62	188.7 ± 11.65	117.2 ± 12.46	104.1 ± 11.82	116.6 ± 9.25	n = 9	Beckman Coulter ACCESS
29.9 ± 7.25	192.3 ± 6.84	115.9 ± 12.42	105.6 ± 6.41	125.2 ± 15.52	n = 4	Beckman Coulter UniCel DxI 600
24.1 ± 5.55	189.7 ± 14.48	113.9 ± 17.67	107.7 ± 17.67	123.4 ± 18.26	n = 12	Beckman Coulter UniCel DxI 800
22.2 ± 16.63	81.6 ± 29.15	48.3 ± 15.16	46.1 ± 18.78	58.2 ± 15.11	n = 3	Gamma Counter
21.4 ± 4.72	74.4 ± 10.01	71.2 ± 4.11	22.2 ± 16.00	33.3 ± 13.15	n = 3	LC/MS/MS
13.1 ± 1.83	108.3 ± 7.53	84.6 ± 3.04	44.2 ± 3.55	60.1 ± 3.64	n = 5	Ortho Vitros Eci/ECiQ
45.7 ± 4.46	111.2 ± 5.18	98.8 ± 5.98	46.9 ± 5.68	58.2 ± 5.08	n = 8	Roche cobas e601
43.5 ± 5.30	107.5 ± 5.70	91.1 ± 8.80	44.7 ± 4.64	56.9 ± 4.74	n = 5	Roche Elecsys
44.9 ± 5.72	108.1 ± 10.01	94.7 ± 8.69	45.8 ± 7.88	53.0 ± 6.04	n = 8	Roche MODULAR E
29.4 ± 12.33	96.7 ± 16.27	78.4 ± 6.95	58.7 ± 37.32	61.6 ± 27.29	n = 41	Siemens ADVIA Centaur
33.7 ± 14.03	95.8 ± 8.75	80.0 ± 4.61	54.7 ± 32.92	54.9 ± 24.40	n = 4	Siemens ADVIA Centaur CP
20.0 ± 0.00	144.8 ± 18.33	100.2 ± 20.26	53.1 ± 6.20	70.7 ± 12.19	n = 11	Siemens Immulite 1000
20.0 ± 0.00	145.9 ± 8.82	106.6 ± 9.64	64.9 ± 5.38	76.5 ± 6.44	n = 23	Siemens Immulite 2000
20.8 ± 1.54	159.6 ± 13.71	116.3 ± 10.44	77.2 ± 8.71	87.0 ± 1.80	n = 3	Siemens Immulite 2500
26.3 ± 1.37	205.9 ± 15.43	86.4 ± 8.43	131.4 ± 14.68	150.0 ± 14.44	n = 3	Tosoh Bioscience
28.1 ± 9.87	125.9 ± 44.97	94.9 ± 17.08	60.3 ± 28.12	71.0 ± 30.18	n = 17	Mean of Above Means
						<Reagents>
40.4 ± 2.19	96.0 ± 8.79	93.3 ± 6.61	49.4 ± 4.37	59.8 ± 3.30	n = 11	Abbott
25.5 ± 6.68	189.3 ± 11.63	115.7 ± 14.57	106.0 ± 12.71	120.7 ± 14.96	n = 25	Beckman Coulter
21.4 ± 4.72	74.4 ± 10.01	71.2 ± 4.11	22.2 ± 16.00	33.3 ± 13.15	n = 3	In-House
12.9 ± 1.88	106.3 ± 8.29	83.8 ± 3.37	43.3 ± 3.64	59.4 ± 3.50	n = 7	Ortho Clinical Diagnostics
44.4 ± 4.71	108.4 ± 7.32	94.5 ± 8.01	45.4 ± 5.77	56.1 ± 6.02	n = 21	Roche Elecsys/Modular E/e601/e411
23.6 ± 6.69	91.7 ± 4.76	79.4 ± 4.38	27.9 ± 6.55	43.7 ± 10.32	n = 18	Siemens ADVIA Centaur Enhanced Estr
36.2 ± 9.47	93.1 ± 9.40	75.6 ± 4.86	65.7 ± 8.29	64.2 ± 9.85	n = 16	Siemens ADVIA Centaur Estradiol-6 I
29.7 ± 16.40	124.7 ± 26.72	81.2 ± 13.07	100.8 ± 41.41	98.9 ± 35.84	n = 11	Siemens ADVIA/ADVIA Centaur
20.0 ± 0.00	146.7 ± 12.46	105.4 ± 12.58	62.8 ± 8.69	76.3 ± 8.73	n = 36	Siemens Immulite
26.3 ± 1.37	205.9 ± 15.43	86.4 ± 8.43	131.4 ± 14.68	150.0 ± 14.44	n = 3	Tosoh ST AIA
27.6 ± 9.73	117.5 ± 41.31	87.2 ± 13.15	62.4 ± 35.76	71.2 ± 33.77	n = 10	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Testosterone (ng/dL)

Specimen: E66	Specimen: E67	Specimen: E68	Specimen: E69	Specimen: E70	Number	Instrument or Reagent System
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61.17 ± 12.20	224.17 ± 38.90	60.67 ± 12.29	421.50 ± 38.47	338.22 ± 33.69	n = 139	All Methods & Instruments
60.00	218.00	59.20	418.70	337.20	n = 139	Median value, All Methods & Instruments
68.60, 69.2	210, 212	45.8, 46.2	400, 402	339, 351	n = 2	[---] Results of LC_MS_MS measurement*
<Instruments>						
52.95 ± 3.41	206.93 ± 16.66	53.62 ± 3.42	400.77 ± 17.96	302.78 ± 16.44	n = 8	Beckman Coulter ACCESS
55.55 ± 3.59	206.66 ± 23.77	53.74 ± 3.16	388.31 ± 10.54	301.61 ± 13.68	n = 3	Beckman Coulter UniCel DxI 600
53.16 ± 4.77	199.34 ± 19.95	55.41 ± 4.23	390.23 ± 12.90	298.08 ± 14.23	n = 13	Beckman Coulter UniCel DxI 800
49.02 ± 8.02	205.83 ± 37.91	36.08 ± 6.51	414.12 ± 11.56	324.70 ± 22.31	n = 6	Gamma Counter
68.62 ± 3.92	204.93 ± 12.73	46.59 ± 5.53	403.79 ± 36.19	348.83 ± 17.26	n = 5	LC/MS/MS
39.01 ± 4.37	248.72 ± 26.47	63.41 ± 6.55	441.46 ± 32.40	372.64 ± 23.24	n = 4	Ortho Vitros ECi/ECiQ
59.10 ± 1.69	230.43 ± 22.91	56.59 ± 4.98	434.20 ± 22.47	350.95 ± 20.95	n = 6	Roche cobas e601
63.53 ± 5.53	238.88 ± 31.40	58.89 ± 4.35	449.25 ± 18.70	364.71 ± 15.46	n = 9	Roche Elecsys
58.32 ± 4.38	239.95 ± 24.55	58.63 ± 5.06	436.64 ± 17.17	345.91 ± 16.79	n = 11	Roche MODULAR E
73.35 ± 5.57	207.43 ± 21.36	66.34 ± 8.58	421.29 ± 43.50	341.52 ± 25.68	n = 41	Siemens ADVIA Centaur
62.99 ± 8.39	367.26 ± 56.73	82.73 ± 7.03	500.64 ± 54.54	374.04 ± 13.05	n = 4	Siemens Immulite 1000
57.95 ± 10.95	287.13 ± 28.02	76.22 ± 17.10	435.36 ± 37.32	337.76 ± 33.84	n = 16	Siemens Immulite 2000
50.11 ± 4.57	297.93 ± 13.58	74.86 ± 13.63	418.82 ± 18.73	336.19 ± 11.53	n = 3	Siemens Immulite 2500
37.84 ± 8.17	228.23 ± 32.79	47.44 ± 2.42	412.64 ± 17.24	329.98 ± 24.80	n = 3	Tosoh Bioscience
56.14 ± 9.77	227.58 ± 32.09	58.90 ± 12.38	420.62 ± 23.17	338.64 ± 25.16	n = 14	Mean of Above Means
<Reagents>						
53.46 ± 4.23	202.96 ± 19.64	54.63 ± 4.02	393.08 ± 15.45	300.15 ± 15.22	n = 24	Beckman Coulter
68.58 ± 3.94	200.25 ± 15.78	46.60 ± 5.53	413.06 ± 38.16	348.87 ± 17.42	n = 6	In-House
39.03 ± 4.06	234.60 ± 7.97	62.36 ± 5.28	450.19 ± 32.09	376.06 ± 20.09	n = 6	Ortho Clinical Diagnostics
59.66 ± 4.16	236.67 ± 27.87	58.06 ± 4.57	438.88 ± 19.09	353.59 ± 18.90	n = 26	Roche Elecsys/Modular E/e601/e411
73.35 ± 5.57	207.43 ± 21.36	66.34 ± 8.58	421.29 ± 43.50	341.52 ± 25.68	n = 41	Siemens ADVIA/ADVIA Centaur
50.93 ± 5.85	212.96 ± 20.93	37.68 ± 5.87	414.10 ± 11.51	324.93 ± 20.48	n = 5	Siemens Coat-A-Count
57.54 ± 10.55	294.54 ± 30.68	77.68 ± 15.34	439.68 ± 43.17	344.79 ± 32.23	n = 23	Siemens Immulite
37.84 ± 8.17	228.23 ± 32.79	47.44 ± 2.42	412.64 ± 17.24	329.98 ± 24.80	n = 3	Tosoh ST AIA
55.12 ± 12.65	218.51 ± 18.66	56.01 ± 12.36	422.79 ± 18.68	340.75 ± 20.72	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: E66	Specimen: E67	Specimen: E68	Specimen: E69	Specimen: E70	Number	Instrument or Reagent System
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10.53 ± 1.75	23.27 ± 3.12	18.29 ± 2.24	4.83 ± 0.55	3.96 ± 0.45	n = 154	All Methods & Instruments
10.20	23.50	18.50	4.80	3.90	n = 154	Median value, All Methods & Instruments
<Instruments>						
11.53 ± 0.74	22.37 ± 1.01	17.38 ± 0.96	5.11 ± 0.29	3.55 ± 0.06	n = 5	Abbott Architect i System
11.40 ± 1.53	21.42 ± 3.34	17.73 ± 1.67	6.21 ± 0.44	4.45 ± 0.27	n = 3	Abbott AxSym
11.36 ± 1.03	23.40 ± 1.71	18.48 ± 1.44	5.42 ± 0.48	4.54 ± 0.39	n = 10	Beckman Coulter ACCESS
11.83 ± 1.33	24.53 ± 3.13	18.79 ± 2.68	5.61 ± 1.08	4.48 ± 0.46	n = 4	Beckman Coulter UniCel DxI 600
11.89 ± 1.08	24.29 ± 2.52	19.63 ± 1.64	5.65 ± 0.45	4.73 ± 0.43	n = 13	Beckman Coulter UniCel DxI 800
10.64 ± 1.61	19.60 ± 1.64	15.51 ± 1.47	4.74 ± 0.73	3.85 ± 0.19	n = 3	LC/MS/MS
7.50 ± 0.09	15.24 ± 0.56	12.17 ± 0.34	4.00 ± 0.09	3.54 ± 0.10	n = 3	Ortho Vitros 5600
7.96 ± 0.26	16.29 ± 0.67	13.38 ± 0.35	4.32 ± 0.21	3.90 ± 0.13	n = 5	Ortho Vitros ECi/ECiQ
13.01 ± 0.55	26.52 ± 0.88	19.98 ± 0.96	4.58 ± 0.23	3.79 ± 0.29	n = 9	Roche cobas e601
13.00 ± 0.45	25.81 ± 0.44	19.54 ± 0.10	4.45 ± 0.19	3.61 ± 0.20	n = 3	Roche Elecsys
12.51 ± 0.49	25.36 ± 1.17	19.30 ± 1.07	4.40 ± 0.23	3.62 ± 0.16	n = 9	Roche MODULAR E
9.51 ± 0.60	24.54 ± 1.45	19.19 ± 0.93	4.61 ± 0.31	3.81 ± 0.24	n = 42	Siemens ADVIA Centaur
9.62 ± 0.15	24.95 ± 0.99	18.18 ± 0.87	4.55 ± 0.19	3.62 ± 0.15	n = 3	Siemens ADVIA Centaur CP
10.48 ± 1.89	19.61 ± 0.65	15.93 ± 1.77	5.40 ± 0.43	4.49 ± 0.62	n = 8	Siemens Immulite 1000
9.82 ± 0.89	20.52 ± 1.66	16.07 ± 1.48	4.92 ± 0.36	4.09 ± 0.34	n = 24	Siemens Immulite 2000
10.75 ± 0.19	21.56 ± 1.65	16.86 ± 1.03	4.75 ± 0.19	3.99 ± 0.20	n = 3	Siemens Immulite 2500
10.93 ± 1.58	22.60 ± 3.25	17.70 ± 2.12	4.87 ± 0.59	3.97 ± 0.43	n = 16	Mean of Above Means
<Reagents>						
11.53 ± 1.06	22.68 ± 0.95	17.54 ± 1.28	5.49 ± 0.64	3.90 ± 0.47	n = 8	Abbott
11.69 ± 1.13	23.98 ± 2.35	19.06 ± 1.83	5.60 ± 0.61	4.63 ± 0.43	n = 27	Beckman Coulter
10.64 ± 1.61	19.60 ± 1.64	15.51 ± 1.47	4.74 ± 0.73	3.85 ± 0.19	n = 3	In-House
7.77 ± 0.32	15.91 ± 0.83	12.97 ± 0.74	4.18 ± 0.24	3.77 ± 0.23	n = 8	Ortho Clinical Diagnostics
12.81 ± 0.62	25.92 ± 1.16	19.55 ± 0.96	4.49 ± 0.25	3.68 ± 0.24	n = 22	Roche Elecsys/Modular E/e601/e411
9.52 ± 0.57	24.58 ± 1.42	19.13 ± 0.96	4.60 ± 0.30	3.79 ± 0.24	n = 45	Siemens ADVIA/ADVIA Centaur
10.03 ± 1.06	20.32 ± 1.54	16.18 ± 1.58	4.99 ± 0.42	4.13 ± 0.40	n = 34	Siemens Immulite
10.66 ± 1.58	22.12 ± 3.35	17.34 ± 2.32	4.85 ± 0.52	3.83 ± 0.14	n = 7	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Dehydroepiandrosterone sulfate (DHEA-S, µg/dL)

Specimen: E66	Specimen: E67	Specimen: E68	Specimen: E69	Specimen: E70	Number	Instrument or Reagent System
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47.00 ± 8.65	129.02 ± 15.40	166.48 ± 18.75	179.04 ± 16.84	350.94 ± 33.24	n = 74	All Methods & Instruments
47.20	128.00	164.00	176.00	348.00	n = 74	Median value, All Methods & Instruments
						<Instruments>
49.58 ± 1.22	119.18 ± 2.13	154.53 ± 1.94	168.01 ± 4.77	316.91 ± 6.45	n = 3	Beckman Coulter ACCESS
51.47 ± 5.46	120.45 ± 4.45	157.50 ± 16.69	177.70 ± 11.10	319.93 ± 34.83	n = 4	Beckman Coulter UniCel DxI 800
66.81 ± 1.07	165.89 ± 4.46	210.45 ± 3.68	207.83 ± 5.47	395.47 ± 7.50	n = 4	Roche cobas e601
62.08 ± 5.05	148.98 ± 13.04	193.84 ± 13.81	191.14 ± 13.86	365.92 ± 29.09	n = 4	Roche Elecsys
66.17 ± 4.46	158.99 ± 7.82	199.63 ± 11.31	196.78 ± 14.14	375.74 ± 20.16	n = 4	Roche MODULAR E
44.36 ± 4.82	121.51 ± 2.32	165.78 ± 13.20	171.72 ± 3.77	349.15 ± 18.51	n = 5	Siemens Immulite 1000
42.99 ± 5.13	126.36 ± 10.70	163.56 ± 11.78	177.53 ± 13.22	353.67 ± 27.31	n = 39	Siemens Immulite 2000
44.79 ± 4.88	130.42 ± 5.73	158.86 ± 5.43	176.35 ± 10.17	324.92 ± 10.26	n = 4	Siemens Immulite 2500
53.03 ± 10.35	134.91 ± 18.93	173.72 ± 22.49	182.06 ± 13.42	349.62 ± 28.67	n = 8	Mean of Above Means
						<Reagents>
49.40 ± 1.74	119.88 ± 3.61	155.51 ± 11.88	172.31 ± 9.46	317.99 ± 25.31	n = 7	Beckman Coulter
48.46 ± 3.72	112.79 ± 19.48	146.72 ± 21.45	150.03 ± 19.89	305.76 ± 46.65	n = 3	In-House
65.36 ± 4.46	159.67 ± 9.90	202.62 ± 12.05	199.79 ± 13.57	382.26 ± 20.56	n = 12	Roche Elecsys/Modular E/e601/e411
43.28 ± 5.13	126.60 ± 10.30	163.15 ± 11.53	177.06 ± 12.76	350.33 ± 26.76	n = 48	Siemens Immulite
50.39 ± 8.37	126.94 ± 18.18	163.68 ± 21.63	174.75 ± 18.83	337.63 ± 32.66	n = 4	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Lutropin (LH, mIU/mL)

Specimen: E66	Specimen: E67	Specimen: E68	Specimen: E69	Specimen: E70	Number	Instrument or Reagent System
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6.66 ± 1.06	27.60 ± 4.01	153.27 ± 23.53	27.33 ± 3.64	94.71 ± 13.60	n = 187	All Methods & Instruments
6.50	27.50	151.90	27.30	94.30	n = 187	Median value, All Methods & Instruments
<Instruments>						
4.20 ± 0.30	19.67 ± 1.41	108.29 ± 6.48	19.62 ± 0.97	66.25 ± 4.57	n = 8	Abbott Architect i System
5.41 ± 0.48	25.21 ± 2.34	140.96 ± 12.77	25.25 ± 1.97	92.40 ± 9.79	n = 4	Abbott AxSym
6.56 ± 0.26	23.92 ± 1.46	138.55 ± 12.26	23.64 ± 1.34	80.66 ± 8.65	n = 11	Beckman Coulter ACCESS
6.07 ± 0.50	22.91 ± 1.97	130.55 ± 9.79	22.50 ± 2.36	79.65 ± 4.96	n = 3	Beckman Coulter UniCel DxI 600
6.04 ± 0.39	22.43 ± 1.14	136.98 ± 9.00	22.59 ± 1.27	81.34 ± 6.85	n = 19	Beckman Coulter UniCel DxI 800
8.23 ± 0.78	33.02 ± 1.10	195.79 ± 5.09	32.46 ± 1.30	113.00 ± 3.83	n = 6	Ortho Vitros 5600
8.04 ± 0.21	33.16 ± 1.28	198.98 ± 2.00	32.81 ± 0.58	113.00 ± 2.03	n = 6	Ortho Vitros ECI/ECiQ
6.86 ± 0.20	27.19 ± 0.75	138.17 ± 3.39	27.03 ± 0.70	86.59 ± 2.51	n = 12	Roche cobas e601
7.12 ± 0.24	28.06 ± 1.06	141.42 ± 6.33	28.20 ± 0.86	90.23 ± 3.74	n = 5	Roche Elecsys
6.98 ± 0.26	27.24 ± 1.02	139.09 ± 5.00	27.15 ± 0.86	86.48 ± 3.52	n = 10	Roche MODULAR E
6.13 ± 0.34	27.43 ± 1.64	156.97 ± 9.16	27.48 ± 1.65	97.03 ± 5.56	n = 51	Siemens ADVIA Centaur
5.62 ± 0.37	27.63 ± 1.15	152.57 ± 7.66	27.92 ± 1.84	92.97 ± 2.51	n = 4	Siemens ADVIA Centaur CP
8.18 ± 0.24	35.40 ± 0.36	150.00 ± 0.00	36.15 ± 0.27	121.98 ± 2.58	n = 3	Siemens Dimension Vista
8.50 ± 0.45	32.69 ± 1.76	193.94 ± 4.82	31.60 ± 1.09	114.21 ± 5.56	n = 9	Siemens Immulite 1000
7.81 ± 0.51	31.40 ± 1.59	172.36 ± 12.07	29.65 ± 1.78	105.51 ± 5.63	n = 24	Siemens Immulite 2000
7.53 ± 0.05	30.64 ± 1.11	167.26 ± 2.26	30.07 ± 0.41	102.65 ± 4.32	n = 3	Siemens Immulite 2500
6.41 ± 0.24	28.47 ± 0.49	149.68 ± 6.78	28.05 ± 0.63	93.23 ± 1.94	n = 4	Tosoh Bioscience
6.86 ± 1.17	28.09 ± 4.40	151.53 ± 24.13	27.80 ± 4.19	94.87 ± 15.08	n = 17	Mean of Above Means
<Reagents>						
4.53 ± 0.68	21.13 ± 3.11	116.80 ± 17.48	21.02 ± 3.13	72.90 ± 13.77	n = 12	Abbott
6.24 ± 0.45	22.94 ± 1.49	136.64 ± 10.14	22.96 ± 1.46	80.81 ± 7.10	n = 33	Beckman Coulter
8.17 ± 0.42	33.08 ± 1.18	197.75 ± 3.83	32.68 ± 0.97	113.00 ± 2.86	n = 12	Ortho Clinical Diagnostics
6.92 ± 0.25	27.25 ± 0.94	138.58 ± 4.70	27.18 ± 0.93	86.79 ± 3.32	n = 28	Roche Elecsys/Modular E/e601/e411
6.10 ± 0.37	27.45 ± 1.62	156.42 ± 9.03	27.52 ± 1.69	96.71 ± 5.54	n = 56	Siemens ADVIA/ADVIA Centaur
7.94 ± 0.58	31.62 ± 1.76	177.63 ± 15.48	30.24 ± 1.77	107.23 ± 6.96	n = 36	Siemens Immulite
6.33 ± 0.23	28.27 ± 0.41	147.09 ± 5.55	27.80 ± 0.54	92.61 ± 2.34	n = 3	Tosoh ST AIA
6.64 ± 1.18	27.49 ± 4.25	151.25 ± 26.25	27.19 ± 3.91	92.70 ± 14.14	n = 7	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Follitropin (FSH, mIU/mL)

Specimen: E66	Specimen: E67	Specimen: E68	Specimen: E69	Specimen: E70	Number	Instrument or Reagent System
-----	-----	-----	-----	-----	-----	-----
8.23 ± 0.90	4.26 ± 0.92	13.47 ± 2.43	5.09 ± 0.90	17.61 ± 2.85	n = 189	All Methods & Instruments
8.10	4.40	14.10	5.20	18.00	n = 189	Median value, All Methods & Instruments
						<Instruments>
7.08 ± 0.38	3.74 ± 0.14	12.37 ± 0.42	4.50 ± 0.20	16.32 ± 0.57	n = 8	Abbott Architect i System
8.02 ± 0.31	4.30 ± 0.00	13.76 ± 0.65	5.06 ± 0.16	18.19 ± 1.64	n = 4	Abbott AxSym
9.42 ± 0.55	4.76 ± 0.33	15.47 ± 1.00	5.85 ± 0.34	20.50 ± 1.02	n = 11	Beckman Coulter ACCESS
9.23 ± 0.34	4.83 ± 0.41	15.09 ± 1.95	6.26 ± 0.56	21.26 ± 3.29	n = 3	Beckman Coulter UniCel DxI 600
9.27 ± 0.45	4.60 ± 0.35	15.10 ± 0.65	5.83 ± 0.36	20.69 ± 0.99	n = 19	Beckman Coulter UniCel DxI 800
9.64 ± 0.46	3.25 ± 0.29	10.07 ± 0.70	3.84 ± 0.48	13.59 ± 0.96	n = 6	Ortho Vitros 5600
9.37 ± 0.31	3.27 ± 0.23	10.14 ± 0.47	3.98 ± 0.25	13.97 ± 0.61	n = 6	Ortho Vitros ECI/ECiQ
7.68 ± 0.34	4.22 ± 0.18	13.96 ± 0.57	5.03 ± 0.22	18.48 ± 0.73	n = 12	Roche cobas e601
8.08 ± 0.24	4.44 ± 0.20	14.59 ± 0.57	5.26 ± 0.23	19.38 ± 0.87	n = 5	Roche Elecsys
7.62 ± 0.31	4.22 ± 0.17	13.88 ± 0.46	5.01 ± 0.15	18.43 ± 0.54	n = 10	Roche MODULAR E
8.10 ± 0.37	4.94 ± 0.33	14.48 ± 0.61	5.61 ± 0.25	18.06 ± 0.87	n = 53	Siemens ADVIA Centaur
6.95 ± 0.53	4.70 ± 0.24	14.11 ± 0.64	5.32 ± 0.21	17.70 ± 0.42	n = 4	Siemens ADVIA Centaur CP
6.20 ± 0.18	4.07 ± 0.14	13.92 ± 0.41	4.93 ± 0.14	18.55 ± 0.46	n = 3	Siemens Dimension Vista
8.39 ± 0.63	2.76 ± 0.18	9.47 ± 0.54	3.80 ± 0.39	13.62 ± 0.62	n = 9	Siemens Immulite 1000
7.80 ± 0.33	2.84 ± 0.19	9.47 ± 0.58	3.74 ± 0.23	13.55 ± 0.81	n = 24	Siemens Immulite 2000
7.18 ± 0.41	2.75 ± 0.19	9.33 ± 0.60	3.65 ± 0.19	12.66 ± 1.31	n = 3	Siemens Immulite 2500
10.54 ± 0.76	5.45 ± 0.38	18.04 ± 1.35	6.64 ± 0.45	24.19 ± 1.83	n = 4	Tosoh Bioscience
8.24 ± 1.17	4.11 ± 0.86	13.24 ± 2.61	4.96 ± 0.96	17.60 ± 3.30	n = 17	Mean of Above Means
						<Reagents>
7.50 ± 0.74	3.91 ± 0.31	12.72 ± 0.82	4.68 ± 0.35	16.49 ± 0.73	n = 12	Abbott
9.31 ± 0.48	4.68 ± 0.37	15.20 ± 0.99	5.86 ± 0.36	20.56 ± 1.07	n = 33	Beckman Coulter
9.48 ± 0.41	3.27 ± 0.25	10.13 ± 0.59	3.93 ± 0.36	13.81 ± 0.81	n = 12	Ortho Clinical Diagnostics
7.77 ± 0.39	4.27 ± 0.21	14.08 ± 0.64	5.07 ± 0.22	18.68 ± 0.84	n = 28	Roche Elecsys/Modular E/e601/e411
8.07 ± 0.43	4.92 ± 0.33	14.45 ± 0.62	5.58 ± 0.27	18.03 ± 0.84	n = 57	Siemens ADVIA/ADVIA Centaur
6.20 ± 0.18	4.07 ± 0.14	13.92 ± 0.41	4.93 ± 0.14	18.55 ± 0.46	n = 3	Siemens Dimension LOCI
7.85 ± 0.43	2.81 ± 0.19	9.46 ± 0.59	3.73 ± 0.25	13.55 ± 0.89	n = 36	Siemens Immulite
10.83 ± 0.69	5.58 ± 0.41	18.53 ± 1.32	6.80 ± 0.46	24.72 ± 2.10	n = 3	Tosoh ST AIA
8.32 ± 1.38	4.20 ± 0.88	13.54 ± 2.75	5.04 ± 0.99	17.84 ± 3.43	n = 8	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Prolactin (µg/L)

Specimen: E66	Specimen: E67	Specimen: E68	Specimen: E69	Specimen: E70	Number	Instrument or Reagent System
1.70 ± 0.19	4.08 ± 0.53	4.85 ± 0.65	5.85 ± 0.85	10.89 ± 1.49	n = 169	All Methods & Instruments
1.70	4.10	4.90	5.80	10.70	n = 169	Median value, All Methods & Instruments
<Instruments>						
2.16 ± 0.21	5.53 ± 0.27	6.63 ± 0.37	7.94 ± 0.65	15.17 ± 0.97	n = 6	Abbott Architect i System
2.05 ± 0.11	4.85 ± 0.60	5.91 ± 0.37	7.17 ± 0.67	13.17 ± 1.31	n = 5	Abbott AxSym
1.72 ± 0.15	4.17 ± 0.25	4.76 ± 0.39	5.92 ± 0.33	10.67 ± 0.56	n = 10	Beckman Coulter ACCESS
1.61 ± 0.29	4.01 ± 0.29	4.65 ± 0.27	5.65 ± 0.19	10.28 ± 0.32	n = 3	Beckman Coulter UniCel DxI 600
1.60 ± 0.20	4.03 ± 0.21	4.65 ± 0.17	5.62 ± 0.33	10.35 ± 0.42	n = 18	Beckman Coulter UniCel DxI 800
3.19 ± 0.33	6.10 ± 0.26	6.84 ± 0.28	7.89 ± 0.34	12.84 ± 0.44	n = 6	Ortho Vitros 5600
3.66 ± 0.34	6.11 ± 0.42	6.89 ± 0.46	7.95 ± 0.43	12.86 ± 0.61	n = 5	Ortho Vitros ECi/ECiQ
1.70 ± 0.00	4.29 ± 0.12	4.95 ± 0.11	6.35 ± 0.12	12.22 ± 0.37	n = 9	Roche cobas e601
1.77 ± 0.07	4.40 ± 0.28	5.20 ± 0.25	6.59 ± 0.36	12.53 ± 0.54	n = 6	Roche Elecsys
1.72 ± 0.05	4.39 ± 0.10	5.16 ± 0.10	6.48 ± 0.13	12.61 ± 0.22	n = 8	Roche MODULAR E
1.75 ± 0.10	4.10 ± 0.20	4.93 ± 0.24	5.70 ± 0.28	10.51 ± 0.51	n = 52	Siemens ADVIA Centaur
1.80 ± 0.08	4.15 ± 0.34	4.75 ± 0.23	5.57 ± 0.40	10.23 ± 0.79	n = 4	Siemens ADVIA Centaur CP
1.36 ± 0.19	3.98 ± 0.04	4.97 ± 0.08	6.03 ± 0.08	12.22 ± 0.13	n = 4	Siemens Dimension Vista
1.50 ± 0.00	3.54 ± 0.24	4.28 ± 0.21	5.24 ± 0.23	9.93 ± 0.34	n = 6	Siemens Immulite 1000
1.50 ± 0.10	3.17 ± 0.16	3.81 ± 0.14	4.57 ± 0.27	8.90 ± 0.59	n = 18	Siemens Immulite 2000
1.55 ± 0.19	3.12 ± 0.24	3.97 ± 0.34	4.60 ± 0.18	8.45 ± 0.19	n = 3	Siemens Immulite 2500
1.73 ± 0.05	4.47 ± 0.05	5.33 ± 0.05	6.27 ± 0.05	12.04 ± 0.10	n = 3	Tosoh Bioscience
1.68 ± 0.18	4.27 ± 0.79	5.06 ± 0.89	6.16 ± 1.06	11.46 ± 1.73	n = 17	Mean of Above Means
<Reagents>						
2.09 ± 0.17	5.30 ± 0.57	6.31 ± 0.54	7.61 ± 0.75	14.32 ± 1.52	n = 11	Abbott
1.65 ± 0.21	4.07 ± 0.24	4.66 ± 0.24	5.72 ± 0.33	10.42 ± 0.43	n = 31	Beckman Coulter
3.43 ± 0.42	6.10 ± 0.34	6.86 ± 0.37	7.91 ± 0.38	12.83 ± 0.50	n = 11	Ortho Clinical Diagnostics
1.72 ± 0.06	4.35 ± 0.18	5.10 ± 0.22	6.48 ± 0.24	12.48 ± 0.46	n = 23	Roche Elecsys/Modular E/e601/e411
1.76 ± 0.10	4.10 ± 0.21	4.92 ± 0.25	5.69 ± 0.29	10.50 ± 0.53	n = 56	Siemens ADVIA/ADVIA Centaur
1.36 ± 0.19	3.98 ± 0.04	4.97 ± 0.08	6.03 ± 0.08	12.22 ± 0.13	n = 4	Siemens Dimension LOCI
1.51 ± 0.10	3.24 ± 0.24	3.94 ± 0.29	4.71 ± 0.39	9.08 ± 0.75	n = 27	Siemens Immulite
1.73 ± 0.05	4.47 ± 0.05	5.33 ± 0.05	6.27 ± 0.05	12.04 ± 0.10	n = 3	Tosoh ST AIA
1.68 ± 0.21	4.36 ± 0.80	5.19 ± 0.88	6.26 ± 1.02	11.77 ± 1.62	n = 8	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Intact Parathyrin (PTH, pg/mL)

Specimen: E66 -----	Specimen: E67 -----	Specimen: E68 -----	Specimen: E69 -----	Specimen: E70 -----	Number -----	Instrument or Reagent System -----
4.67 ± 4.32 4.90	15.86 ± 5.63 15.40	27.13 ± 6.61 27.00	8.81 ± 3.07 9.10	186.20 ± 42.60 194.50	n = 162 n = 162	All Methods & Instruments Median value, All Methods & Instruments
<Instruments>						
2.07 ± 1.85	36.78 ± 2.23	68.01 ± 5.51	20.29 ± 1.33	443.12 ± 18.62	n = 6	Abbott Architect i System
0.57 ± 0.56	11.79 ± 1.64	21.86 ± 3.25	6.66 ± 1.03	150.52 ± 22.60	n = 10	Beckman Coulter ACCESS
1.97 ± 3.06	11.40 ± 0.76	21.12 ± 1.28	6.21 ± 0.53	149.09 ± 12.78	n = 15	Beckman Coulter UniCel DxI 800
3.40 ± 0.00	19.14 ± 0.10	35.59 ± 0.85	11.60 ± 0.64	231.88 ± 9.87	n = 3	Ortho Vitros 5600
3.40 ± 0.00	18.03 ± 1.69	32.47 ± 2.87	10.86 ± 0.72	205.33 ± 46.80	n = 4	Ortho Vitros Eci/ECiQ
4.94 ± 0.89	14.69 ± 0.65	24.46 ± 1.05	9.29 ± 0.66	150.60 ± 3.90	n = 10	Roche cobas e601
5.61 ± 0.87	17.43 ± 0.59	27.91 ± 1.64	10.84 ± 0.63	161.87 ± 10.97	n = 9	Roche Elecsys
4.51 ± 1.01	14.47 ± 1.10	24.13 ± 1.36	9.09 ± 0.87	148.33 ± 3.88	n = 13	Roche MODULAR E
3.63 ± 2.04	14.11 ± 3.85	26.96 ± 4.15	7.81 ± 3.39	206.93 ± 17.25	n = 40	Siemens ADVIA Centaur
26.81 ± 18.52	20.52 ± 2.24	31.05 ± 3.51	8.59 ± 2.75	189.45 ± 36.30	n = 7	Siemens Immulite 1000
17.05 ± 6.91	23.42 ± 4.63	34.83 ± 5.02	10.28 ± 3.22	227.24 ± 17.62	n = 29	Siemens Immulite 2000
19.65 ± 5.90	32.08 ± 5.70	41.58 ± 4.69	12.32 ± 1.47	242.41 ± 18.75	n = 5	Siemens Immulite 2500
1.06 ± 0.16	10.77 ± 0.72	19.68 ± 1.38	5.97 ± 1.43	126.47 ± 9.78	n = 4	Tosoh Bioscience
3.14 ± 1.70	17.18 ± 6.53	28.12 ± 6.89	9.21 ± 2.34	181.56 ± 41.80	n = 13	Mean of Above Means
<Reagents>						
2.07 ± 1.85	36.78 ± 2.23	68.01 ± 5.51	20.29 ± 1.33	443.12 ± 18.62	n = 6	Abbott
0.60 ± 0.55	11.48 ± 1.05	21.33 ± 2.09	6.35 ± 0.78	149.72 ± 17.01	n = 27	Beckman Coulter
3.40 ± 0.00	18.72 ± 1.25	34.06 ± 2.71	11.20 ± 0.72	227.36 ± 16.94	n = 7	Ortho Clinical Diagnostics
5.00 ± 1.06	15.34 ± 1.60	25.11 ± 2.09	9.66 ± 1.10	151.38 ± 7.94	n = 33	Roche Elecsys/Modular E/e601/e411
3.67 ± 2.13	14.02 ± 3.72	26.82 ± 4.08	7.53 ± 3.40	207.13 ± 16.78	n = 43	Siemens ADVIA/ADVIA Centaur
17.08 ± 6.77	24.23 ± 5.08	35.59 ± 5.32	10.78 ± 2.71	227.08 ± 20.68	n = 36	Siemens Immulite
40.41 ± 12.87	21.51 ± 8.56	33.51 ± 11.11	6.59 ± 2.32	185.39 ± 49.35	n = 4	Siemens Immulite Turbo
1.11 ± 0.20	11.06 ± 0.62	20.21 ± 0.83	6.42 ± 1.77	127.14 ± 11.94	n = 3	Tosoh ST AIA
2.62 ± 1.67	17.64 ± 7.09	28.14 ± 6.63	8.33 ± 2.33	182.79 ± 41.84	n = 8	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

25-OH Vitamin D2 (ng/ml)

Specimen: E66 -----	Specimen: E67 -----	Specimen: E68 -----	Specimen: E69 -----	Specimen: E70 -----	Number -----	Instrument or Reagent System -----
2.99 ± 1.70 4.00	3.83 ± 0.67 4.00	5.62 ± 1.11 5.80	14.76 ± 1.85 15.00	33.34 ± 3.45 32.10	n = 11 n = 11	All Methods & Instruments Median value, All Methods & Instruments
2.99 ± 1.70	3.83 ± 0.67	5.62 ± 1.11	14.76 ± 1.85	33.34 ± 3.45	n = 11	<Instruments> LC/MS/MS
2.99 ± 1.70	3.83 ± 0.67	5.62 ± 1.11	14.76 ± 1.85	33.34 ± 3.45	n = 11	<Reagents> In-House

Statistical Summary (Mean and Standard Deviation)

25-OH Vitamin D3 (ng/mL)

Specimen: E66 -----	Specimen: E67 -----	Specimen: E68 -----	Specimen: E69 -----	Specimen: E70 -----	Number -----	Instrument or Reagent System -----
16.22 ± 1.84	17.96 ± 1.67	40.31 ± 3.07	45.62 ± 5.06	44.79 ± 4.75	n = 11	All Methods & Instruments
16.00	18.00	40.00	43.00	44.00	n = 11	Median value, All Methods & Instruments
16.22 ± 1.84	17.96 ± 1.67	40.31 ± 3.07	45.62 ± 5.06	44.79 ± 4.75	n = 11	<Instruments> LC/MS/MS
16.22 ± 1.84	17.96 ± 1.67	40.31 ± 3.07	45.62 ± 5.06	44.79 ± 4.75	n = 11	<Reagents> In-House

Statistical Summary (Mean and Standard Deviation)

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

Specimen: E66 -----	Specimen: E67 -----	Specimen: E68 -----	Specimen: E69 -----	Specimen: E70 -----	Number -----	Instrument or Reagent System -----
22.15 ± 3.57	24.84 ± 4.30	41.38 ± 6.37	43.48 ± 7.02	48.18 ± 5.35	n = 87	All Methods & Instruments
22.00	24.40	40.60	42.80	48.00	n = 87	Median value, All Methods & Instruments
						<Instruments>
24.61 ± 2.60	31.44 ± 1.35	51.54 ± 3.89	51.37 ± 3.25	52.94 ± 2.36	n = 4	Automated microplate processor
21.48 ± 0.75	28.23 ± 1.69	44.01 ± 0.41	43.88 ± 1.85	46.70 ± 2.90	n = 5	BioRad PhD System
23.10 ± 2.65	23.80 ± 2.13	38.81 ± 3.01	41.02 ± 3.85	47.11 ± 3.97	n = 49	DiaSorin Liaison
20.12 ± 5.20	20.32 ± 3.83	31.23 ± 3.68	39.52 ± 3.74	44.20 ± 3.20	n = 3	Gamma Counter
16.83 ± 1.36	21.34 ± 3.38	46.65 ± 2.16	59.91 ± 4.77	77.40 ± 2.73	n = 10	LC/MS/MS
21.64 ± 4.05	29.96 ± 4.82	48.24 ± 7.39	44.90 ± 7.43	52.15 ± 8.15	n = 12	Instrument Not Listed
21.51 ± 2.46	25.86 ± 4.76	44.12 ± 6.89	45.77 ± 6.97	48.55 ± 3.75	n = 6	Mean of Above Means
						<Reagents>
23.22 ± 2.64	23.82 ± 2.05	38.87 ± 2.92	40.89 ± 3.68	47.06 ± 3.75	n = 47	DiaSorin Liaison
20.12 ± 5.20	20.32 ± 3.83	31.23 ± 3.68	39.52 ± 3.74	44.20 ± 3.20	n = 3	DiaSorin Radioimmunoassay
22.49 ± 2.30	30.41 ± 3.43	48.41 ± 6.15	46.61 ± 5.96	51.71 ± 6.54	n = 24	Immuno Diagnostic Systems Enzyme Im
16.83 ± 1.36	21.34 ± 3.38	46.65 ± 2.16	59.91 ± 4.77	77.40 ± 2.73	n = 10	In-House
20.87 ± 2.68	23.44 ± 4.06	41.70 ± 7.47	45.64 ± 8.34	52.69 ± 13.02	n = 4	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Intact human Choriogonadotropin (intact hCG, mIU/mL)

Specimen: E66	Specimen: E67	Specimen: E68	Specimen: E69	Specimen: E70	Number	Instrument or Reagent System
-----	-----	-----	-----	-----	-----	-----
33.1 ± 1.62	1.2 ± 0.71	42.8 ± 2.70	1.2 ± 0.71	40.7 ± 1.81	n = 54	All Methods & Instruments
33.0	1.0	43.0	1.0	41.0	n = 54	Median value, All Methods & Instruments
						<Instruments>
33.7 ± 3.37	3.5 ± 4.61	38.3 ± 3.07	3.5 ± 4.61	39.2 ± 3.23	n = 3	Roche Elecsys
33.3 ± 2.07	1.3 ± 1.37	44.3 ± 2.19	1.3 ± 1.37	40.2 ± 2.77	n = 6	Siemens Dimension EXL
33.0 ± 1.56	1.2 ± 0.51	42.6 ± 2.03	1.2 ± 0.51	40.7 ± 1.41	n = 25	Siemens Dimension RxL
34.3 ± 0.51	2.1 ± 2.05	56.0 ± 0.90	2.1 ± 2.05	56.3 ± 1.37	n = 3	Siemens Dimension Vista
33.1 ± 1.05	1.1 ± 0.82	43.7 ± 1.53	1.1 ± 0.82	41.3 ± 1.37	n = 12	Siemens Dimension Xpand
33.4 ± 0.48	1.7 ± 0.90	43.9 ± 5.42	1.7 ± 0.90	40.4 ± 0.82	n = 5	Mean of Above Means
						<Reagents>
32.7 ± 2.54	5.3 ± 4.06	38.3 ± 2.05	5.3 ± 4.06	39.5 ± 2.14	n = 6	Roche Elecsys/Modular E/e601/e411
33.1 ± 1.50	1.2 ± 0.72	43.2 ± 2.05	1.2 ± 0.72	40.8 ± 1.68	n = 43	Siemens Dimension
34.3 ± 0.51	2.1 ± 2.05	56.0 ± 0.90	2.1 ± 2.05	56.3 ± 1.37	n = 3	Siemens Dimension LOCI
33.3 ± 0.75	2.7 ± 1.91	45.3 ± 8.18	2.7 ± 1.91	44.7 ± 8.29	n = 3	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Total Beta hCG (mIU/mL)

Specimen: E66	Specimen: E67	Specimen: E68	Specimen: E69	Specimen: E70	Number	Instrument or Reagent System
-----	-----	-----	-----	-----	-----	-----
31.3 ± 7.80	1.4 ± 1.21	51.7 ± 9.52	1.4 ± 1.14	52.0 ± 10.22	n = 243	All Methods & Instruments
31.0	1.0	53.0	1.0	53.0	n = 243	Median value, All Methods & Instruments
<Instruments>						
14.7 ± 1.49	1.0 ± 0.00	41.6 ± 2.62	1.0 ± 0.00	39.7 ± 2.14	n = 13	Abbott Architect i System
44.0 ± 7.09	0.3 ± 0.82	78.4 ± 3.49	0.3 ± 0.82	74.6 ± 6.56	n = 4	Abbott AxSym
26.9 ± 1.16	2.2 ± 2.29	53.7 ± 2.18	2.2 ± 2.29	53.7 ± 2.17	n = 35	Beckman Coulter ACCESS
26.9 ± 1.27	2.5 ± 2.20	53.0 ± 1.54	2.5 ± 2.20	54.0 ± 2.41	n = 5	Beckman Coulter UniCel DxI 600
24.8 ± 2.54	1.1 ± 0.58	51.8 ± 3.27	1.1 ± 0.48	52.0 ± 3.53	n = 19	Beckman Coulter UniCel DxI 800
46.4 ± 1.31	2.0 ± 0.00	52.5 ± 1.33	2.0 ± 0.00	51.9 ± 1.51	n = 7	Ortho Vitros 5600
46.3 ± 1.63	2.2 ± 0.41	52.7 ± 1.92	2.2 ± 0.41	52.3 ± 2.18	n = 15	Ortho Vitros ECI/ECiQ
37.5 ± 1.86	1.0 ± 0.00	67.8 ± 4.11	1.0 ± 0.00	67.5 ± 4.61	n = 3	Roche cobas e411
32.9 ± 1.40	1.3 ± 1.73	60.5 ± 2.87	1.3 ± 1.73	61.4 ± 2.78	n = 13	Roche cobas e601
34.9 ± 2.50	0.3 ± 0.51	66.4 ± 2.06	0.3 ± 0.51	64.6 ± 4.55	n = 6	Roche Elecsys
33.2 ± 1.57	0.9 ± 0.52	61.2 ± 2.20	0.9 ± 0.52	62.0 ± 1.95	n = 17	Roche MODULAR E
29.7 ± 1.62	2.2 ± 1.38	41.6 ± 2.07	2.2 ± 1.38	41.0 ± 2.31	n = 52	Siemens ADVIA Centaur
24.1 ± 3.91	2.0 ± 0.55	38.8 ± 2.54	2.0 ± 0.00	39.6 ± 1.94	n = 6	Siemens ADVIA Centaur CP
33.0 ± 0.77	1.0 ± 0.00	54.6 ± 1.35	1.0 ± 0.00	54.8 ± 1.19	n = 28	Siemens Dimension Vista
47.1 ± 3.49	1.0 ± 0.00	76.2 ± 7.28	1.0 ± 0.00	74.4 ± 3.14	n = 5	Siemens Immulite 1000
51.9 ± 5.43	1.0 ± 0.00	94.1 ± 9.77	1.0 ± 0.00	90.7 ± 9.13	n = 11	Siemens Immulite 2000
37.3 ± 0.51	1.3 ± 0.51	64.7 ± 0.51	1.3 ± 0.51	63.3 ± 1.37	n = 3	Tosoh Bioscience
34.8 ± 10.09	1.4 ± 0.70	58.0 ± 13.40	1.4 ± 0.70	57.7 ± 12.78	n = 17	Mean of Above Means
<Reagents>						
14.7 ± 1.51	0.9 ± 0.52	46.0 ± 13.96	0.9 ± 0.52	39.7 ± 2.15	n = 17	Abbott
26.5 ± 1.79	1.9 ± 1.99	53.2 ± 2.38	1.9 ± 1.98	53.3 ± 2.71	n = 59	Beckman Coulter
46.3 ± 1.52	2.0 ± 0.00	52.6 ± 1.71	2.0 ± 0.00	52.1 ± 1.94	n = 22	Ortho Clinical Diagnostics
33.5 ± 2.22	0.8 ± 0.56	61.8 ± 3.88	0.8 ± 0.56	62.5 ± 3.24	n = 37	Roche Elecsys/Modular E/e601/e411
29.7 ± 1.98	2.1 ± 1.24	41.4 ± 2.25	2.1 ± 1.21	40.9 ± 2.32	n = 58	Siemens ADVIA/ADVIA Centaur
33.0 ± 0.83	1.0 ± 0.00	54.6 ± 1.44	1.0 ± 0.00	54.7 ± 1.24	n = 25	Siemens Dimension LOCI
50.1 ± 5.31	1.0 ± 0.00	88.8 ± 12.60	1.0 ± 0.00	85.3 ± 11.23	n = 16	Siemens Immulite
37.3 ± 0.51	1.3 ± 0.51	64.7 ± 0.51	1.3 ± 0.51	63.3 ± 1.37	n = 3	Tosoh ST AIA
34.1 ± 10.71	1.3 ± 0.56	55.0 ± 11.11	1.3 ± 0.56	54.8 ± 12.82	n = 8	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Qualitative hCG report:

[AB1] Abbott		Specimen:E66	Specimen:E67	Specimen:E68	Specimen:E69	Specimen:E70
-----		-----	-----	-----	-----	-----
	Negative	0	4	0	4	0
	Indeterminant	4	0	0	0	0
	Positive	0	0	4	0	4
[AD1] American Diagnostics		Specimen:E66	Specimen:E67	Specimen:E68	Specimen:E69	Specimen:E70
-----		-----	-----	-----	-----	-----
	Negative	0	2	0	2	0
	Indeterminant	0	0	0	0	0
	Positive	2	0	2	0	2
[BC1] Beckman Coulter		Specimen:E66	Specimen:E67	Specimen:E68	Specimen:E69	Specimen:E70
-----		-----	-----	-----	-----	-----
	Negative	0	35	0	35	0
	Indeterminant	2	0	0	0	0
	Positive	33	0	35	0	35
[CD1] Cardinal Health		Specimen:E66	Specimen:E67	Specimen:E68	Specimen:E69	Specimen:E70
-----		-----	-----	-----	-----	-----
	Negative	0	7	0	7	0
	Indeterminant	0	0	0	0	0
	Positive	7	0	7	0	7
[CM1] CEN-MED Elite Plus hCG One Step		Specimen:E66	Specimen:E67	Specimen:E68	Specimen:E69	Specimen:E70
-----		-----	-----	-----	-----	-----
	Negative	0	9	0	9	0
	Indeterminant	0	0	0	0	0
	Positive	9	0	9	0	9
[FI1] Fisher		Specimen:E66	Specimen:E67	Specimen:E68	Specimen:E69	Specimen:E70
-----		-----	-----	-----	-----	-----
	Negative	0	55	0	55	0
	Indeterminant	0	0	0	0	0
	Positive	55	0	55	0	55
[GZ1] Genzyme		Specimen:E66	Specimen:E67	Specimen:E68	Specimen:E69	Specimen:E70
-----		-----	-----	-----	-----	-----
	Negative	0	9	0	9	0
	Indeterminant	0	0	0	0	0
	Positive	9	0	9	0	9

Statistical Summary (Mean and Standard Deviation)

[IM1] Inverness Medical		Specimen:E66	Specimen:E67	Specimen:E68	Specimen:E69	Specimen:E70
Negative		0	5	0	5	0
Indeterminant		0	0	0	0	0
Positive		5	0	5	0	5
[JJ1] Ortho Clinical Diagnostics		Specimen:E66	Specimen:E67	Specimen:E68	Specimen:E69	Specimen:E70
Negative		0	1	0	1	0
Indeterminant		0	0	0	0	0
Positive		1	0	1	0	1
[PM1] Polymedco		Specimen:E66	Specimen:E67	Specimen:E68	Specimen:E69	Specimen:E70
Negative		0	4	0	4	0
Indeterminant		0	0	0	0	0
Positive		4	0	4	0	4
[QQ2] Quidel QuickVue One-Step hCG Combo		Specimen:E66	Specimen:E67	Specimen:E68	Specimen:E69	Specimen:E70
Negative		1	25	0	25	0
Indeterminant		3	0	0	0	0
Positive		21	0	25	0	25
[QQ1] Quidel QuickVue± One-Step hCG Combo		Specimen:E66	Specimen:E67	Specimen:E68	Specimen:E69	Specimen:E70
Negative		0	21	0	21	0
Indeterminant		1	0	0	0	0
Positive		20	0	21	0	21
[R03] Roche Elecsys/Modular E/e601/e411		Specimen:E66	Specimen:E67	Specimen:E68	Specimen:E69	Specimen:E70
Negative		0	6	0	6	0
Indeterminant		0	0	0	0	0
Positive		6	0	6	0	6
[R02] Roche Hitachi and Modular D/P		Specimen:E66	Specimen:E67	Specimen:E68	Specimen:E69	Specimen:E70
Negative		0	2	0	2	0
Indeterminant		0	0	0	0	0
Positive		2	0	2	0	2
[BY1] Siemens ADVIA/ADVIA Centaur		Specimen:E66	Specimen:E67	Specimen:E68	Specimen:E69	Specimen:E70
Negative		0	22	0	22	0
Indeterminant		2	0	0	0	0
Positive		20	0	22	0	22

Statistical Summary (Mean and Standard Deviation)

[DA5]	Siemens Dimension	Specimen:E66	Specimen:E67	Specimen:E68	Specimen:E69	Specimen:E70
	Negative	0	5	0	5	0
	Indeterminant	0	0	0	0	0
	Positive	5	0	5	0	5
[DA6]	Siemens Dimension LOCI	Specimen:E66	Specimen:E67	Specimen:E68	Specimen:E69	Specimen:E70
	Negative	0	4	0	4	0
	Indeterminant	0	0	0	0	0
	Positive	4	0	4	0	4
[DP5]	Siemens Immulite	Specimen:E66	Specimen:E67	Specimen:E68	Specimen:E69	Specimen:E70
	Negative	0	1	0	1	0
	Indeterminant	0	0	0	0	0
	Positive	1	0	1	0	1
[SB1]	Stanbio	Specimen:E66	Specimen:E67	Specimen:E68	Specimen:E69	Specimen:E70
	Negative	0	12	0	12	0
	Indeterminant	0	0	0	0	0
	Positive	12	0	12	0	12
[TR1]	TrueMedix	Specimen:E66	Specimen:E67	Specimen:E68	Specimen:E69	Specimen:E70
	Negative	0	3	0	3	0
	Indeterminant	0	0	0	0	0
	Positive	3	0	3	0	3
[WP3]	Wampole Clearview	Specimen:E66	Specimen:E67	Specimen:E68	Specimen:E69	Specimen:E70
	Negative	0	3	0	3	0
	Indeterminant	0	0	0	0	0
	Positive	3	0	3	0	3
[ZZZ]	Reagent Not Listed	Specimen:E66	Specimen:E67	Specimen:E68	Specimen:E69	Specimen:E70
	Negative	0	9	0	9	0
	Indeterminant	0	0	0	0	0
	Positive	9	0	9	0	9
[---]	All Methods & Instruments	Specimen:E66	Specimen:E67	Specimen:E68	Specimen:E69	Specimen:E70
	Negative	1	244	0	244	0
	Indeterminant	12	0	0	0	0
	Positive	231	0	244	0	244