

Statistical Summary (Mean and Standard Deviation)

Cortisol (µg/dL)

Specimen: E46	Specimen: E47	Specimen: E48	Specimen: E49	Specimen: E50	Number	Instrument or Reagent System
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2.30 ± 0.37	10.55 ± 1.70	15.05 ± 1.92	33.67 ± 4.28	20.83 ± 2.39	n = 153	All Methods & Instruments
2.30	10.30	15.00	33.70	20.60	n = 153	Median value, All Methods & Instruments
<Instruments>						
2.34 ± 0.10	8.90 ± 0.36	12.63 ± 0.95	28.53 ± 1.06	18.13 ± 0.68	n = 3	Abbott Architect
2.66 ± 0.70	10.00 ± 0.61	15.47 ± 1.83	33.79 ± 3.73	21.13 ± 1.87	n = 5	Abbott AxSym
2.41 ± 0.22	10.05 ± 0.70	14.59 ± 0.99	32.58 ± 1.84	20.51 ± 1.37	n = 7	Beckman Coulter ACCESS
2.25 ± 0.39	10.22 ± 0.87	14.27 ± 1.13	33.15 ± 2.26	19.10 ± 1.01	n = 19	Beckman Coulter UniCel DxI 800
2.57 ± 0.31	8.96 ± 0.39	13.97 ± 0.23	29.71 ± 0.83	20.18 ± 0.68	n = 3	LC/MS/MS
1.78 ± 0.15	9.06 ± 0.53	13.63 ± 0.99	27.76 ± 1.57	17.88 ± 0.76	n = 12	Ortho Vitros Eci/ECiQ
1.97 ± 0.09	8.77 ± 0.43	13.31 ± 0.57	31.81 ± 1.66	19.73 ± 0.73	n = 8	Roche cobas e601
2.12 ± 0.16	8.99 ± 0.63	13.59 ± 0.72	30.97 ± 1.17	20.13 ± 0.81	n = 5	Roche Elecsys
1.95 ± 0.12	8.90 ± 0.30	13.13 ± 0.33	31.33 ± 1.10	19.84 ± 0.73	n = 9	Roche MODULAR E
2.47 ± 0.27	11.31 ± 1.29	15.78 ± 1.48	34.72 ± 3.14	21.70 ± 2.07	n = 48	Siemens ADVIA Centaur
2.59 ± 0.11	13.50 ± 1.33	17.49 ± 1.98	42.34 ± 4.00	24.27 ± 2.94	n = 4	Siemens Immulite 1000
2.42 ± 0.32	12.29 ± 1.31	16.98 ± 1.32	38.61 ± 2.70	23.17 ± 1.55	n = 21	Siemens Immulite 2000
2.60 ± 0.17	12.73 ± 0.16	17.90 ± 1.01	40.74 ± 3.93	23.89 ± 1.19	n = 4	Siemens Immulite 2500
2.34 ± 0.29	10.08 ± 1.63	14.68 ± 1.77	33.03 ± 4.37	20.61 ± 2.04	n = 13	Mean of Above Means
<Reagents>						
2.34 ± 0.23	9.57 ± 0.77	14.32 ± 2.09	31.50 ± 3.98	19.88 ± 2.16	n = 8	Abbott
2.29 ± 0.35	10.16 ± 0.81	14.37 ± 1.09	32.98 ± 2.15	19.42 ± 1.22	n = 26	Beckman Coulter
2.57 ± 0.31	8.96 ± 0.39	13.97 ± 0.23	29.71 ± 0.83	20.18 ± 0.68	n = 3	In-House
1.78 ± 0.15	9.06 ± 0.53	13.63 ± 0.99	27.76 ± 1.57	17.88 ± 0.76	n = 12	Ortho Clinical Diagnostics
1.99 ± 0.13	8.85 ± 0.40	13.28 ± 0.51	31.44 ± 1.41	19.86 ± 0.74	n = 22	Roche Elecsys/Modular E/e601/e411
2.46 ± 0.28	11.26 ± 1.28	15.77 ± 1.44	34.71 ± 3.05	21.70 ± 2.01	n = 50	Siemens ADVIA/ADVIA Centaur
2.48 ± 0.29	12.52 ± 1.29	17.13 ± 1.36	39.29 ± 3.28	23.34 ± 1.71	n = 29	Siemens Immulite
2.30 ± 0.27	9.88 ± 1.29	14.44 ± 1.22	32.12 ± 3.40	20.19 ± 1.62	n = 7	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

25-OH Vitamin D2 (ng/mL)

Specimen: E46 -----	Specimen: E47 -----	Specimen: E48 -----	Specimen: E49 -----	Specimen: E50 -----	Number -----	Instrument or Reagent System -----
2.99 ± 1.62 4.00	1.81 ± 2.01 1.20	13.6* ± 2.79 13.4	3.15 ± 1.40 4.00	3.03 ± 1.58 4.00	n = 14 n = 14	All Methods & Instruments Median value
2.99 ± 1.62	1.81 ± 2.01	13.60* ± 2.79	3.15 ± 1.40	3.03 ± 1.58	n = 14	<Instruments> LC/MS/MS
2.99 ± 1.62	1.81 ± 2.01	13.60* ± 2.79	3.15 ± 1.40	3.03 ± 1.58	n = 14	<Reagents> In-House

* The statistical analysis was conducted based on results of 5 of 14 laboratories that reported actual values; other 9 laboratories reported zero, < 4.0 or unreportable values.

Statistical Summary (Mean and Standard Deviation)

25-OH Vitamin D3 (ng/mL)

Specimen: E46 -----	Specimen: E47 -----	Specimen: E48 -----	Specimen: E49 -----	Specimen: E50 -----	Number -----	Instrument or Reagent System -----
9.69 ± 1.34 9.70	13.90* ± 4.17 14.0	15.7* ± 5.90 14.70	28.07 ± 2.18 27.00	31.47 ± 3.14 31.00	n = 14 n = 14	All Methods & Instruments Median value, All Methods & Instruments
9.75 ± 1.46	13.90* ± 4.17	13.90* ± 4.17	28.07 ± 2.18	31.55 ± 2.73	n = 14	<Instruments> LC/MS/MS
9.75 ± 1.46	13.90* ± 4.17	13.90* ± 4.17	28.07 ± 2.18	31.55 ± 2.73	n = 14	<Reagents> In-House

* The statistical analysis was conducted based on results of 5 of 14 laboratories that reported actual values; other 9 laboratories reported zero, < 5.0 or unreportable values.

Statistical Summary (Mean and Standard Deviation)

Dehydroepiandrosterone sulfate (DHEA-S, µg/dL)

Specimen: E46 -----	Specimen: E47 -----	Specimen: E48 -----	Specimen: E49 -----	Specimen: E50 -----	Number -----	Instrument or Reagent System -----
196.18 ± 29.61	417.34 ± 49.07	82.61 ± 12.34	180.74 ± 19.46	111.29 ± 15.05	n = 78	All Methods & Instruments
194.00	413.00	81.40	179.10	111.00	n = 78	Median value, All Methods & Instruments
214.7	313.7	68.9	133.3	87.1	n = 2	[---] Results of LC_MS_MS measurement*
<Instruments>						
195.44 ± 6.79	363.14 ± 19.64	78.09 ± 7.51	164.11 ± 9.29	105.02 ± 9.60	n = 4	Beckman Coulter UniCel DxI 800
264.06 ± 3.98	441.57 ± 193.64	113.14 ± 2.78	207.72 ± 3.28	137.29 ± 4.25	n = 4	Roche cobas e601
244.00 ± 10.71	475.27 ± 30.09	102.27 ± 10.11	198.05 ± 13.88	128.72 ± 10.98	n = 6	Roche Elecsys
268.83 ± 4.96	502.27 ± 8.42	112.14 ± 4.51	203.61 ± 5.39	134.76 ± 1.31	n = 3	Roche MODULAR E
208.08 ± 21.75	437.32 ± 6.52	89.05 ± 7.32	191.52 ± 7.00	125.76 ± 10.70	n = 5	Siemens Immulite 1000
188.02 ± 13.71	410.35 ± 23.81	79.31 ± 6.07	176.58 ± 12.48	107.84 ± 8.76	n = 43	Siemens Immulite 2000
183.21 ± 14.25	387.38 ± 23.18	83.98 ± 7.40	183.34 ± 18.00	113.14 ± 8.85	n = 6	Siemens Immulite 2500
220.28 ± 37.65	430.62 ± 48.18	93.44 ± 15.46	190.09 ± 15.40	122.05 ± 13.43	n = 7	Mean of Above Means
<Reagents>						
196.33 ± 6.17	370.40 ± 22.75	80.32 ± 7.90	165.51 ± 8.68	105.87 ± 8.52	n = 5	Beckman Coulter
162.40 ± 32.57	257.70 ± 48.18	62.34 ± 7.16	120.80 ± 17.92	82.66 ± 5.71	n = 4	In-House
257.06 ± 13.79	493.43 ± 30.40	109.30 ± 8.26	203.64 ± 9.91	134.45 ± 6.63	n = 13	Roche Elecsys/Modular E/e601/e411
188.53 ± 15.67	411.63 ± 27.38	80.55 ± 6.90	178.95 ± 13.93	109.51 ± 9.89	n = 54	Siemens Immulite
197.13 ± 35.91	386.57 ± 90.86	81.88 ± 17.66	169.39 ± 31.87	107.92 ± 19.54	n = 4	Mean of Above Means

*Values of LC_MS_MS measurements were results of multiple analysis of the specimens (CV% < 6%) at Bioanalytical Core Laboratory, Georgetown University, Washington, DC.

Reference:

- Guo T, Chan M, Soldin SJ. Steroid Profiles Using Liquid Chromatography-Tandem Mass Spectrometry With Atmospheric Pressure Photoionization Source. Arch Pathol Lab Med 2004;128;469-75.
- Guo T, Taylor RL, Singh RJ, Soldin SJ. Simultaneous determination of 12 steroids by isotope dilution liquid chromatography-photospray ionization tandem mass spectrometry. Clinica Chimica Acta 2006;372;76-82.

Statistical Summary (Mean and Standard Deviation)

Estradiol (pg/mL)

Specimen: E46	Specimen: E47	Specimen: E48	Specimen: E49	Specimen: E50	Number	Instrument or Reagent System
33.6 ± 15.77	96.8 ± 17.28	137.2 ± 23.41	210.0 ± 43.71	175.6 ± 43.55	n = 160	All Methods & Instruments
31.0	96.0	136.0	211.0	173.0	n = 160	Median value, All Methods & Instruments
						<Instruments>
26.1 ± 4.54	78.9 ± 8.93	125.5 ± 8.25	135.4 ± 11.86	110.8 ± 5.05	n = 6	Abbott AxSym
25.0 ± 8.26	98.9 ± 10.88	153.0 ± 12.95	253.3 ± 20.98	240.4 ± 20.86	n = 11	Beckman Coulter ACCESS
28.7 ± 9.05	111.8 ± 9.40	156.8 ± 10.05	269.1 ± 30.46	242.0 ± 22.02	n = 13	Beckman Coulter UniCel DxI 800
21.4 ± 13.25	51.3 ± 21.34	60.2 ± 9.26	146.2 ± 37.81	115.0 ± 21.41	n = 5	Gamma Counter
33.5 ± 8.09	74.1 ± 19.45	98.3 ± 18.46	188.1 ± 34.16	141.1 ± 29.47	n = 4	LC/MS/MS
14.3 ± 1.91	92.3 ± 8.42	126.6 ± 8.59	156.8 ± 5.70	139.2 ± 5.46	n = 8	Ortho Vitros ECi/ECiQ
47.6 ± 5.78	91.0 ± 6.19	135.1 ± 7.23	174.2 ± 5.17	144.0 ± 2.39	n = 6	Roche cobas e601
46.2 ± 2.96	86.2 ± 6.24	130.5 ± 9.86	172.4 ± 10.41	138.1 ± 13.07	n = 6	Roche Elecsys
52.4 ± 9.83	95.5 ± 4.23	140.0 ± 5.90	180.8 ± 7.64	148.9 ± 7.17	n = 7	Roche MODULAR E
49.7 ± 12.51	90.1 ± 13.84	122.0 ± 13.65	217.2 ± 31.80	179.5 ± 35.22	n = 39	Siemens ADVIA Centaur
53.4 ± 8.23	89.6 ± 10.01	118.2 ± 11.28	208.4 ± 20.23	164.0 ± 14.44	n = 3	Siemens ADVIA Centaur CP
21.1 ± 2.04	110.9 ± 13.62	164.0 ± 8.91	226.1 ± 16.81	181.7 ± 18.26	n = 12	Siemens Immulite 1000
24.1 ± 5.85	107.4 ± 12.12	154.2 ± 17.31	217.8 ± 24.14	184.9 ± 16.87	n = 27	Siemens Immulite 2000
25.9 ± 5.07	117.0 ± 13.14	146.5 ± 12.30	209.3 ± 2.82	176.4 ± 8.65	n = 6	Siemens Immulite 2500
32.8 ± 14.15	94.1 ± 15.57	135.6 ± 21.09	195.8 ± 39.39	160.4 ± 37.73	n = 14	Mean of Above Means
						<Reagents>
28.3 ± 7.84	78.1 ± 7.46	123.1 ± 7.86	135.7 ± 10.66	112.9 ± 6.67	n = 8	Abbott
26.9 ± 8.59	106.3 ± 12.06	155.4 ± 11.38	260.0 ± 25.42	241.2 ± 21.48	n = 24	Beckman Coulter
33.5 ± 8.09	74.1 ± 19.45	98.3 ± 18.46	188.1 ± 34.16	141.1 ± 29.47	n = 4	In-House
14.3 ± 1.91	92.3 ± 8.42	126.6 ± 8.59	156.8 ± 5.70	139.2 ± 5.46	n = 8	Ortho Clinical Diagnostics
47.4 ± 6.77	90.7 ± 6.99	134.7 ± 8.98	176.0 ± 8.53	144.6 ± 7.68	n = 19	Roche Elecsys/Modular E/e601/e411
51.7 ± 19.62	98.5 ± 14.98	122.5 ± 14.27	237.6 ± 22.28	205.2 ± 18.00	n = 21	Siemens ADVIA/ADVIA Centaur
50.1 ± 6.41	83.4 ± 7.46	121.0 ± 12.77	195.6 ± 21.00	151.7 ± 16.58	n = 21	Siemens ADVIA:Centaur Estradiol 6 I
23.1 ± 4.63	109.7 ± 13.35	156.2 ± 15.32	219.1 ± 20.65	182.7 ± 16.03	n = 45	Siemens Immulite
34.3 ± 14.18	91.5 ± 12.99	129.4 ± 18.47	195.5 ± 41.30	160.5 ± 39.93	n = 8	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Free Estriol (ng/mL)

Specimen: E46	Specimen: E47	Specimen: E48	Specimen: E49	Specimen: E50	Number	Instrument or Reagent System
0.14 ± 0.09	0.16 ± 0.11	0.16 ± 0.10	2.32 ± 1.23	2.87 ± 1.54	n = 21	All Methods & Instruments
0.10	0.10	0.10	1.90	2.20	n = 21	Median value, All Methods & Instruments
0.06	0.13	0.05	2.93	4.00	n = 2	[---] Results of LC_MS_MS measurement*
<Instruments>						
0.10 ± 0.00	0.10 ± 0.00	0.10 ± 0.00	1.20 ± 0.00	1.46 ± 0.06	n = 5	Beckman Coulter UniCel DxI 800
0.13 ± 0.05	0.16 ± 0.10	0.16 ± 0.10	2.39 ± 0.37	3.20 ± 0.81	n = 3	Gamma Counter
0.30 ± 0.00	0.31 ± 0.06	0.30 ± 0.00	3.51 ± 1.21	4.11 ± 1.43	n = 6	Siemens Immulite 2000
0.17 ± 0.10	0.18 ± 0.10	0.18 ± 0.09	2.37 ± 1.04	2.99 ± 1.21	n = 3	Mean of Above Means
<Reagents>						
0.10 ± 0.00	0.10 ± 0.00	0.10 ± 0.00	1.25 ± 0.07	1.49 ± 0.10	n = 8	Beckman Coulter
0.10 ± 0.00	0.10 ± 0.00	0.10 ± 0.00	2.79 ± 0.20	4.07 ± 0.05	n = 3	In-House
0.30 ± 0.00	0.30 ± 0.00	0.30 ± 0.00	3.66 ± 1.10	4.25 ± 1.29	n = 7	Siemens Immulite
0.16 ± 0.10	0.16 ± 0.10	0.16 ± 0.10	2.61 ± 1.10	3.41 ± 1.37	n = 3	Mean of Above Means

*Values of LC_MS_MS measurements were results of multiple analysis of the specimens (CV% < 6%) at Bioanalytical Core Laboratory, Georgetown University, Washington, DC.

Reference:

Guo T, Gu J, Soldin OP, Singh RJ, Soldin SJ. Rapid measurement of estrogens and their metabolites in human serum by liquid chromatography-tandem mass spectrometry without derivatization. Clin Biochem. 2008;41:736-41.

Guo T, Taylor RL, Singh RJ, Soldin SJ. Simultaneous determination of 12 steroids by isotope dilution liquid chromatography-photospray ionization tandem mass spectrometry. Clin Chim Acta 2006;372:76-82.

Statistical Summary (Mean and Standard Deviation)

Free T-3 (pg/mL)

Specimen: E46	Specimen: E47	Specimen: E48	Specimen: E49	Specimen: E50	Number	Instrument or Reagent System
2.19 ± 0.27	16.99 ± 4.91	3.61 ± 0.63	3.81 ± 0.57	7.98 ± 1.75	n = 112	All Methods & Instruments
2.20	16.50	3.80	3.80	7.70	n = 112	Median value, All Methods & Instruments
0.4	20.5	3.4	3.6	9.5	n = 2	[---] Results of LC_MS_MS measurement*
						<Instruments>
1.76 ± 0.09	22.84 ± 3.94	3.09 ± 0.14	3.76 ± 0.16	9.60 ± 0.11	n = 6	Abbott Architect
2.05 ± 0.17	16.70 ± 0.93	3.31 ± 0.20	3.71 ± 0.20	7.88 ± 0.52	n = 4	Beckman Coulter ACCESS
1.95 ± 0.25	17.77 ± 0.86	3.12 ± 0.19	3.45 ± 0.13	6.88 ± 0.50	n = 14	Beckman Coulter UniCel DxI 800
1.70 ± 0.15	22.80 ± 0.00	6.61 ± 0.52	7.11 ± 0.46	14.56 ± 0.54	n = 5	Ortho Vitros Eci/ECiQ
2.18 ± 0.11	22.10 ± 0.60	4.06 ± 0.25	4.72 ± 0.16	10.68 ± 0.29	n = 5	Roche cobas e601
2.30 ± 0.15	22.74 ± 0.78	4.20 ± 0.17	5.00 ± 0.17	11.33 ± 0.27	n = 4	Roche Elecsys
2.24 ± 0.13	22.26 ± 0.50	4.10 ± 0.14	4.78 ± 0.15	10.72 ± 0.32	n = 7	Roche MODULAR E
2.26 ± 0.12	15.57 ± 0.88	3.91 ± 0.13	3.91 ± 0.12	7.60 ± 0.19	n = 40	Siemens ADVIA Centaur
1.10 ± 0.09	25.17 ± 0.77	4.13 ± 0.05	4.17 ± 0.14	10.92 ± 0.15	n = 3	Siemens Dimension Vista
2.42 ± 0.18	10.27 ± 0.56	2.67 ± 0.24	3.05 ± 0.18	6.47 ± 0.34	n = 12	Siemens Immulite 2000
2.39 ± 0.18	10.36 ± 0.34	2.67 ± 0.16	2.85 ± 0.23	6.36 ± 0.47	n = 5	Siemens Immulite 2500
2.11 ± 0.31	19.46 ± 5.21	3.57 ± 0.72	4.00 ± 0.89	9.21 ± 2.53	n = 11	Mean of Above Means
						<Reagents>
1.72 ± 0.20	21.14 ± 3.54	3.16 ± 0.19	3.69 ± 0.15	9.25 ± 0.71	n = 9	Abbott
1.98 ± 0.24	17.57 ± 0.99	3.15 ± 0.20	3.50 ± 0.17	7.01 ± 0.60	n = 17	Beckman Coulter
1.70 ± 0.15	22.80 ± 0.00	6.61 ± 0.52	7.11 ± 0.46	14.56 ± 0.54	n = 5	Ortho Clinical Diagnostics
2.23 ± 0.14	22.31 ± 0.61	4.11 ± 0.20	4.79 ± 0.18	10.83 ± 0.41	n = 15	Roche Elecsys/Modular E/e601/e411
2.25 ± 0.12	15.53 ± 0.92	3.91 ± 0.13	3.90 ± 0.12	7.59 ± 0.20	n = 41	Siemens ADVIA/ADVIA Centaur
2.40 ± 0.18	10.27 ± 0.50	2.68 ± 0.20	2.98 ± 0.22	6.47 ± 0.40	n = 18	Siemens Immulite
2.06 ± 0.30	18.72 ± 4.60	3.42 ± 0.64	3.97 ± 1.09	8.90 ± 2.77	n = 6	Mean of Above Means

*Values of LC_MS_MS measurements were results of multiple analysis of the specimens (CV% < 6%) at Bioanalytical Core Laboratory, Georgetown University, Washington, DC.

Reference:

Soukhovaa N, Soldin OP, Soldin SJ. Isotope dilution tandem mass spectrometric method for T4/T3. Clinica Chimica Acta 2004;343:185-90.

Gu J, Soldin OP, Soldin SJ. Simultaneous quantification of free triiodothyronine and free thyroxine by isotope dilution tandem mass spectrometry. Clin Biochem 2007;40:1386-91.

Statistical Summary (Mean and Standard Deviation)

Folic Acid (ng/mL)

Specimen: E46	Specimen: E47	Specimen: E48	Specimen: E49	Specimen: E50	Number	Instrument or Reagent System
1.54 ± 0.81	1.76 ± 0.66	5.61 ± 0.97	8.69 ± 1.18	2.82 ± 0.77	n = 227	All Methods & Instruments
1.40	1.70	5.60	8.60	2.60	n = 227	Median value, All Methods & Instruments
						<Instruments>
1.39 ± 0.38	2.53 ± 0.36	7.63 ± 0.54	10.65 ± 0.52	4.03 ± 0.39	n = 14	Abbott AxSym
0.83 ± 0.11	1.67 ± 0.19	5.83 ± 0.55	9.31 ± 0.71	2.65 ± 0.28	n = 21	Beckman Coulter ACCESS
0.85 ± 0.21	1.72 ± 0.22	5.74 ± 0.49	8.77 ± 0.61	2.55 ± 0.18	n = 23	Beckman Coulter UniCel DxI 800
0.72 ± 0.16	1.74 ± 0.25	4.95 ± 0.61	9.24 ± 1.26	2.39 ± 0.30	n = 20	Ortho Vitros Eci/ECiQ
2.55 ± 0.34	3.43 ± 0.34	6.31 ± 0.38	8.70 ± 0.49	4.51 ± 0.41	n = 13	Roche cobas e601
2.49 ± 0.80	2.87 ± 0.67	5.66 ± 0.35	8.77 ± 0.55	4.38 ± 0.54	n = 4	Roche Elecsys
2.42 ± 0.30	3.33 ± 0.40	6.04 ± 0.30	8.59 ± 0.45	4.19 ± 0.24	n = 15	Roche MODULAR E
2.13 ± 0.21	1.35 ± 0.23	5.08 ± 0.65	7.81 ± 0.83	2.52 ± 0.22	n = 69	Siemens ADVIA Centaur
2.17 ± 0.05	1.37 ± 0.05	5.05 ± 0.27	9.40 ± 0.55	2.75 ± 0.19	n = 3	Siemens ADVIA Centaur CP
0.50 ± 0.00	0.50 ± 0.00	2.49 ± 0.25	3.77 ± 0.17	1.23 ± 0.38	n = 6	Siemens Dimension Vista
1.00 ± 0.00	2.20 ± 0.13	7.90 ± 0.08	11.48 ± 0.79	3.51 ± 0.18	n = 5	Siemens Immulite 1000
1.00 ± 0.00	1.61 ± 0.23	5.53 ± 0.45	8.70 ± 0.67	2.54 ± 0.20	n = 21	Siemens Immulite 2000
1.37 ± 0.71	2.00 ± 0.43	5.84 ± 0.43	8.68 ± 0.27	2.77 ± 0.16	n = 4	Siemens Immulite 2500
0.91 ± 0.35	2.37 ± 0.32	4.69 ± 0.51	7.89 ± 0.69	3.51 ± 0.56	n = 4	Tosoh Bioscience
1.41 ± 0.78	2.03 ± 0.79	5.67 ± 1.03	8.87 ± 0.78	3.11 ± 0.94	n = 14	Mean of Above Means
						<Reagents>
1.39 ± 0.38	2.53 ± 0.36	7.63 ± 0.54	10.65 ± 0.52	4.03 ± 0.39	n = 14	Abbott
0.83 ± 0.16	1.69 ± 0.21	5.79 ± 0.52	9.02 ± 0.70	2.60 ± 0.23	n = 45	Beckman Coulter
0.72 ± 0.16	1.74 ± 0.25	4.95 ± 0.61	9.24 ± 1.26	2.39 ± 0.30	n = 20	Ortho Clinical Diagnostics
2.47 ± 0.36	3.30 ± 0.44	6.07 ± 0.42	8.63 ± 0.49	4.38 ± 0.43	n = 33	Roche Elecsys/Modular E/e601/e411
2.13 ± 0.20	1.35 ± 0.21	5.07 ± 0.62	7.87 ± 0.91	2.52 ± 0.23	n = 71	Siemens ADVIA/ADVIA Centaur
0.50 ± 0.00	0.50 ± 0.00	2.45 ± 0.27	3.76 ± 0.20	1.25 ± 0.44	n = 5	Siemens Dimension LOCI
1.00 ± 0.00	1.74 ± 0.34	5.71 ± 0.74	8.88 ± 0.94	2.66 ± 0.35	n = 30	Siemens Immulite
0.91 ± 0.35	2.37 ± 0.32	4.69 ± 0.51	7.89 ± 0.69	3.51 ± 0.56	n = 4	Tosoh AIA
1.16 ± 0.68	1.90 ± 0.79	5.40 ± 1.25	8.78 ± 0.87	2.91 ± 0.99	n = 8	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Follitropin (FSH, mIU/mL)

Specimen: E46	Specimen: E47	Specimen: E48	Specimen: E49	Specimen: E50	Number	Instrument or Reagent System
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11.72 ± 1.06	6.39 ± 1.35	18.39 ± 3.22	31.79 ± 5.53	83.86 ± 12.98	n = 186	All Methods & Instruments
11.80	6.50	18.90	31.20	82.70	n = 186	Median value, All Methods & Instruments
 <Instruments>						
10.11 ± 0.23	5.70 ± 0.18	17.96 ± 0.23	27.08 ± 0.94	72.55 ± 1.48	n = 4	Abbott Architect
11.18 ± 0.67	6.21 ± 0.41	19.08 ± 1.03	29.43 ± 1.41	79.97 ± 4.42	n = 8	Abbott AxSym
13.05 ± 1.19	7.07 ± 0.79	22.20 ± 1.28	33.00 ± 2.28	85.13 ± 9.26	n = 10	Beckman Coulter ACCESS
12.75 ± 0.83	6.81 ± 0.40	21.45 ± 1.23	32.05 ± 2.22	84.78 ± 8.02	n = 20	Beckman Coulter UniCel DxI 800
10.95 ± 0.27	4.87 ± 0.20	15.29 ± 0.52	25.64 ± 1.19	70.24 ± 2.75	n = 8	Ortho Vitros Eci/ECiQ
10.54 ± 0.26	6.36 ± 0.17	18.98 ± 0.53	30.33 ± 0.69	79.94 ± 2.85	n = 10	Roche cobas e601
11.77 ± 0.89	7.01 ± 0.53	21.05 ± 1.56	33.78 ± 2.44	87.48 ± 5.89	n = 7	Roche Elecsys
10.48 ± 0.52	6.24 ± 0.21	19.04 ± 0.72	30.43 ± 1.20	80.21 ± 3.32	n = 7	Roche MODULAR E
11.62 ± 0.70	7.55 ± 0.57	19.22 ± 1.00	38.04 ± 2.31	97.80 ± 5.38	n = 53	Siemens ADVIA Centaur
10.71 ± 0.34	7.26 ± 0.30	19.08 ± 0.69	37.48 ± 0.89	98.20 ± 5.46	n = 4	Siemens ADVIA Centaur CP
11.60 ± 0.66	4.04 ± 0.17	13.67 ± 0.68	24.56 ± 0.94	67.51 ± 2.34	n = 11	Siemens Immulite 1000
12.12 ± 0.74	4.80 ± 0.29	14.21 ± 0.86	27.25 ± 1.27	72.47 ± 2.50	n = 28	Siemens Immulite 2000
12.43 ± 0.60	4.65 ± 0.15	14.01 ± 0.77	26.53 ± 1.14	71.50 ± 2.91	n = 6	Siemens Immulite 2500
13.28 ± 0.50	7.23 ± 0.23	25.00 ± 0.63	31.57 ± 0.69	86.74 ± 0.73	n = 3	Tosoh Bioscience
11.59 ± 1.05	6.21 ± 1.17	18.60 ± 3.36	30.29 ± 4.18	80.53 ± 9.77	n = 14	Mean of Above Means
 <Reagents>						
10.79 ± 0.79	6.01 ± 0.42	18.60 ± 0.95	28.62 ± 1.74	77.27 ± 5.29	n = 12	Abbott
12.84 ± 0.93	6.87 ± 0.54	21.70 ± 1.37	32.35 ± 2.32	84.96 ± 8.43	n = 30	Beckman Coulter
10.95 ± 0.29	4.90 ± 0.21	15.38 ± 0.58	25.87 ± 1.32	70.66 ± 2.80	n = 9	Ortho Clinical Diagnostics
10.84 ± 0.80	6.50 ± 0.45	19.51 ± 1.28	31.26 ± 2.09	82.06 ± 5.34	n = 25	Roche Elecsys/Modular E/e601/e411
11.56 ± 0.73	7.53 ± 0.56	19.22 ± 0.97	37.98 ± 2.22	97.83 ± 5.39	n = 57	Siemens ADVIA/ADVIA Centaur
12.03 ± 0.77	4.61 ± 0.41	14.04 ± 0.83	26.44 ± 1.73	71.16 ± 3.62	n = 45	Siemens Immulite
11.42 ± 0.78	6.10 ± 1.13	18.21 ± 2.79	30.01 ± 4.22	79.70 ± 9.47	n = 6	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Free T4 (ng/dL)

Specimen: E46	Specimen: E47	Specimen: E48	Specimen: E49	Specimen: E50	Number	Instrument or Reagent System
0.62 ± 0.11	6.43 ± 1.09	2.15 ± 0.53	2.18 ± 0.39	3.68 ± 0.70	n = 255	All Methods & Instruments
0.60	6.40	2.10	2.20	3.70	n = 255	Median value, All Methods & Instruments
0.6	18.5	3.6	3.3	7.6	n = 2	[---] Results of LC_MS_MS measurement*
						<Instruments>
0.72 ± 0.07	4.51 ± 0.29	1.57 ± 0.10	1.83 ± 0.07	2.98 ± 0.15	n = 9	Abbott Architect
0.58 ± 0.04	4.48 ± 0.23	1.49 ± 0.07	1.52 ± 0.04	2.71 ± 0.11	n = 11	Abbott AxSym
0.61 ± 0.06	5.65 ± 0.35	2.29 ± 0.16	2.26 ± 0.17	3.55 ± 0.29	n = 21	Beckman Coulter ACCESS
0.61 ± 0.07	5.60 ± 0.32	2.17 ± 0.17	2.15 ± 0.14	3.66 ± 0.16	n = 19	Beckman Coulter UniCel DxI 800
0.60 ± 0.00	6.97 ± 0.05	3.49 ± 0.18	3.33 ± 0.15	5.60 ± 0.19	n = 14	Ortho Vitros ECi/ECiQ
0.73 ± 0.05	7.55 ± 0.27	2.17 ± 0.05	2.30 ± 0.00	4.00 ± 0.00	n = 3	Roche cobas e411
0.73 ± 0.05	7.80 ± 0.00	2.16 ± 0.06	2.30 ± 0.06	3.96 ± 0.14	n = 11	Roche cobas e601
0.70 ± 0.00	7.19 ± 0.63	2.14 ± 0.12	2.30 ± 0.14	3.98 ± 0.26	n = 6	Roche Elecsys
0.77 ± 0.05	7.80 ± 0.00	2.19 ± 0.08	2.36 ± 0.09	4.12 ± 0.17	n = 16	Roche MODULAR E
0.56 ± 0.07	6.79 ± 0.59	1.80 ± 0.12	1.95 ± 0.11	3.18 ± 0.22	n = 67	Siemens ADVIA Centaur
0.60 ± 0.06	7.67 ± 1.02	1.79 ± 0.11	1.82 ± 0.13	3.60 ± 0.55	n = 5	Siemens Dimension EXL
0.40 ± 0.13	6.00 ± 0.31	2.74 ± 0.29	2.47 ± 0.29	4.32 ± 0.36	n = 17	Siemens Dimension RxL
0.60 ± 0.00	7.77 ± 0.22	1.80 ± 0.00	1.77 ± 0.09	3.33 ± 0.10	n = 8	Siemens Dimension Vista
0.50 ± 0.00	5.87 ± 0.40	2.94 ± 0.35	2.75 ± 0.24	4.52 ± 0.70	n = 6	Siemens Dimension Xpand
0.74 ± 0.10	6.00 ± 0.00	2.65 ± 0.15	2.43 ± 0.23	4.24 ± 0.30	n = 7	Siemens Immulite 1000
0.77 ± 0.07	6.00 ± 0.00	2.69 ± 0.15	2.47 ± 0.09	4.27 ± 0.19	n = 18	Siemens Immulite 2000
0.74 ± 0.06	6.00 ± 0.00	2.64 ± 0.11	2.46 ± 0.06	4.45 ± 0.33	n = 5	Siemens Immulite 2500
0.54 ± 0.06	8.86 ± 0.57	2.69 ± 0.21	2.81 ± 0.23	4.75 ± 0.25	n = 5	Tosoh Bioscience
0.64 ± 0.10	6.59 ± 1.23	2.28 ± 0.52	2.28 ± 0.40	3.94 ± 0.65	n = 18	Mean of Above Means
						<Reagents>
0.64 ± 0.10	4.49 ± 0.27	1.52 ± 0.09	1.65 ± 0.17	2.82 ± 0.19	n = 20	Abbott
0.61 ± 0.06	5.63 ± 0.33	2.23 ± 0.17	2.20 ± 0.16	3.60 ± 0.23	n = 40	Beckman Coulter
0.60 ± 0.00	6.96 ± 0.06	3.51 ± 0.18	3.35 ± 0.17	5.63 ± 0.20	n = 15	Ortho Clinical Diagnostics
0.75 ± 0.06	7.80 ± 0.00	2.17 ± 0.08	2.33 ± 0.09	4.04 ± 0.19	n = 35	Roche Elecsys/Modular E/e601/e411
0.56 ± 0.07	6.81 ± 0.60	1.80 ± 0.12	1.96 ± 0.11	3.19 ± 0.23	n = 68	Siemens ADVIA/ADVIA Centaur
0.44 ± 0.12	5.99 ± 0.40	2.77 ± 0.39	2.51 ± 0.37	4.29 ± 0.50	n = 26	Siemens Dimension
0.60 ± 0.00	7.91 ± 0.40	1.80 ± 0.00	1.80 ± 0.10	3.39 ± 0.17	n = 10	Siemens Dimension LOCI
0.76 ± 0.07	6.00 ± 0.00	2.67 ± 0.14	2.46 ± 0.12	4.28 ± 0.25	n = 30	Siemens Immulite
0.52 ± 0.04	7.97 ± 2.03	2.63 ± 0.20	2.78 ± 0.26	4.69 ± 0.27	n = 4	Tosoh ST AIA
0.61 ± 0.10	6.67 ± 1.19	2.31 ± 0.60	2.30 ± 0.50	3.94 ± 0.82	n = 9	Mean of Above Means

*Values of LC_MS_MS measurements were results of multiple analysis of the specimens (CV% < 6%) at Bioanalytical Core Laboratory, Georgetown University, Washington, DC.

Reference:

Soukhovaa N, Soldin OP, Soldin SJ. Isotope dilution tandem mass spectrometric method for T4/T3. Clinica Chimica Acta 2004;343:185-90.

Gu J, Soldin OP, Soldin SJ. Simultaneous quantification of free triiodothyronine and free thyroxine by isotope dilution tandem mass spectrometry. Clin Biochem 2007;40:1386-91.

Statistical Summary (Mean and Standard Deviation)

Intact human Choriogonadotropin (intact hCG, mIU/mL)

Specimen: E46	Specimen: E47	Specimen: E48	Specimen: E49	Specimen: E50	Number	Instrument or Reagent System
-----	-----	-----	-----	-----	-----	-----
3.6 ± 0.74	1.0 ± 0.76	39.1 ± 3.32	40.2 ± 3.10	33.6 ± 2.29	n = 67	All Methods & Instruments
4.0	1.0	39.0	40.0	34.0	n = 67	Median value, All Methods & Instruments
						<Instruments>
2.7 ± 3.18	0.5 ± 0.57	44.3 ± 1.59	44.5 ± 0.57	38.7 ± 0.90	n = 5	Roche Elecsys
3.0 ± 0.75	2.5 ± 1.23	38.0 ± 1.76	39.3 ± 1.58	33.4 ± 1.64	n = 4	Siemens Dimension EXL
3.7 ± 0.69	1.0 ± 0.54	39.0 ± 2.96	40.0 ± 2.72	33.4 ± 1.84	n = 46	Siemens Dimension RxL
3.8 ± 0.50	1.0 ± 0.84	38.5 ± 2.74	40.4 ± 3.47	33.5 ± 1.92	n = 10	Siemens Dimension Xpand
3.3 ± 0.54	1.1 ± 0.77	39.4 ± 2.48	40.7 ± 1.99	34.2 ± 2.15	n = 4	Mean of Above Means
						<Reagents>
2.8 ± 2.76	0.8 ± 0.80	44.3 ± 1.38	44.6 ± 0.55	39.0 ± 1.01	n = 6	Roche Elecsys/Modular E/e601/e411
3.7 ± 0.70	1.0 ± 0.73	38.8 ± 2.85	40.0 ± 2.75	33.4 ± 1.85	n = 60	Siemens Dimension
3.2 ± 0.48	0.9 ± 0.15	41.5 ± 3.11	42.3 ± 2.65	36.2 ± 3.19	n = 2	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Intact Parathyrin (PTH, pg/mL)

Specimen: E46	Specimen: E47	Specimen: E48	Specimen: E49	Specimen: E50	Number	Instrument or Reagent System
-----	-----	-----	-----	-----	-----	-----
3.17 ± 2.04	76.83 ± 14.96	2.99 ± 1.62	179.27 ± 35.27	175.78 ± 36.65	n = 159	All Methods & Instruments
3.00	79.70	3.00	185.80	186.00	n = 159	Median value, All Methods & Instruments
<Instruments>						
3.16 ± 1.27	174.71 ± 9.45	3.30 ± 0.94	391.63 ± 16.22	377.65 ± 3.84	n = 4	Abbott Architect
0.72 ± 0.37	67.52 ± 6.66	0.72 ± 0.37	158.70 ± 9.19	151.43 ± 12.21	n = 9	Beckman Coulter ACCESS
1.00 ± 0.00	60.96 ± 5.48	1.00 ± 0.00	150.12 ± 9.50	141.51 ± 9.12	n = 13	Beckman Coulter UniCel DxI 800
5.28 ± 0.71	59.44 ± 2.56	4.25 ± 1.19	134.89 ± 5.14	131.60 ± 5.04	n = 9	Roche cobas e601
6.96 ± 0.23	69.41 ± 4.79	5.38 ± 1.02	151.59 ± 8.26	146.59 ± 8.05	n = 13	Roche Elecsys
5.94 ± 0.99	60.04 ± 3.65	4.22 ± 1.13	136.07 ± 8.44	132.08 ± 9.78	n = 9	Roche MODULAR E
2.31 ± 0.99	86.47 ± 6.53	2.27 ± 1.00	202.31 ± 14.05	197.04 ± 12.25	n = 40	Siemens ADVIA Centaur
4.32 ± 1.14	70.08 ± 14.07	4.28 ± 1.05	169.80 ± 29.45	162.06 ± 31.05	n = 14	Siemens Immulite 1000
3.00 ± 0.00	85.86 ± 6.29	3.00 ± 0.00	203.41 ± 15.55	201.86 ± 14.30	n = 37	Siemens Immulite 2000
3.00 ± 0.00	97.42 ± 7.13	3.00 ± 0.00	215.42 ± 17.13	212.98 ± 16.05	n = 5	Siemens Immulite 2500
3.51 ± 2.07	71.78 ± 13.60	3.21 ± 1.48	167.49 ± 31.53	161.94 ± 32.55	n = 10	Mean of Above Means
<Reagents>						
3.16 ± 1.27	174.71 ± 9.45	3.30 ± 0.94	391.63 ± 16.22	377.65 ± 3.84	n = 4	Abbott
0.85 ± 0.34	63.42 ± 6.60	0.85 ± 0.34	153.71 ± 10.14	145.10 ± 10.80	n = 22	Beckman Coulter
6.25 ± 1.34	63.61 ± 6.37	4.74 ± 1.29	142.06 ± 11.17	138.09 ± 10.78	n = 32	Roche Elecsys/Modular E/e601/e411
2.37 ± 1.01	86.43 ± 6.61	2.33 ± 1.00	202.15 ± 13.58	196.58 ± 12.04	n = 42	Siemens ADVIA/ADVIA Centaur
3.00 ± 0.00	85.91 ± 8.95	3.00 ± 0.00	201.56 ± 20.40	201.04 ± 17.64	n = 52	Siemens Immulite
5.00 ± 0.00	67.90 ± 5.80	5.00 ± 0.00	162.33 ± 16.72	157.40 ± 11.12	n = 3	Siemens Immulite Turbo
3.38 ± 1.86	72.94 ± 11.81	3.25 ± 1.50	171.60 ± 27.91	166.71 ± 29.50	n = 6	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

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

Specimen: E46 -----	Specimen: E47 -----	Specimen: E48 -----	Specimen: E49 -----	Specimen: E50 -----	Number -----	Instrument or Reagent System -----
10.91 $\pm$ 4.88 10.00	125.18 $\pm$ 46.94 114.00	30.93 $\pm$ 18.34 34.00	22.94 $\pm$ 7.16 20.40	76.59 $\pm$ 41.38 81.40	n = 101 n = 101	All Methods & Instruments Median value, All Methods & Instruments
<Instruments>						
12.57 $\pm$ 0.42	135.99 $\pm$ 5.29	36.65 $\pm$ 1.37	24.28 $\pm$ 0.77	87.32 $\pm$ 2.05	n = 3	Abbott Architect
10.75 $\pm$ 1.19	118.45 $\pm$ 4.02	36.06 $\pm$ 1.54	20.94 $\pm$ 0.90	85.41 $\pm$ 3.82	n = 8	Beckman Coulter UniCel DxI 800
15.23 $\pm$ 1.10	165.02 $\pm$ 10.77	45.90 $\pm$ 2.98	29.43 $\pm$ 1.65	108.72 $\pm$ 6.06	n = 4	Roche cobas e601
14.76 $\pm$ 1.27	159.89 $\pm$ 7.20	44.74 $\pm$ 2.74	29.03 $\pm$ 1.69	107.50 $\pm$ 5.94	n = 7	Roche Elecsys
14.73 $\pm$ 0.78	160.37 $\pm$ 3.59	45.48 $\pm$ 1.17	29.23 $\pm$ 1.17	106.19 $\pm$ 2.38	n = 6	Roche MODULAR E
16.91 $\pm$ 1.26	201.45 $\pm$ 13.82	53.02 $\pm$ 2.17	32.78 $\pm$ 1.19	132.01 $\pm$ 4.94	n = 18	Siemens ADVIA Centaur
6.49 $\pm$ 0.99	86.58 $\pm$ 5.78	13.87 $\pm$ 1.09	17.26 $\pm$ 0.59	38.34 $\pm$ 2.36	n = 6	Siemens Immulite 1000
6.97 $\pm$ 1.30	88.65 $\pm$ 6.98	14.17 $\pm$ 2.60	17.35 $\pm$ 0.90	39.70 $\pm$ 4.80	n = 34	Siemens Immulite 2000
7.63 $\pm$ 0.98	91.82 $\pm$ 5.22	15.06 $\pm$ 1.74	17.24 $\pm$ 0.91	41.77 $\pm$ 2.99	n = 6	Siemens Immulite 2500
17.78 $\pm$ 0.77	161.48 $\pm$ 12.12	48.50 $\pm$ 1.92	29.91 $\pm$ 1.20	110.28 $\pm$ 4.07	n = 3	Tosoh Bioscience
12.55 $\pm$ 4.36	137.28 $\pm$ 40.29	36.61 $\pm$ 15.70	24.91 $\pm$ 6.41	87.91 $\pm$ 34.95	n = 10	Mean of Above Means
<Reagents>						
12.57 $\pm$ 0.42	135.99 $\pm$ 5.29	36.65 $\pm$ 1.37	24.28 $\pm$ 0.77	87.32 $\pm$ 2.05	n = 3	Abbott
11.13 $\pm$ 1.35	119.00 $\pm$ 4.01	36.16 $\pm$ 1.68	21.16 $\pm$ 1.01	85.71 $\pm$ 4.46	n = 10	Beckman Coulter
14.86 $\pm$ 1.03	160.68 $\pm$ 4.11	45.23 $\pm$ 1.92	29.23 $\pm$ 1.45	107.07 $\pm$ 4.18	n = 17	Roche Elecsys/Modular E/e601/e411
16.91 $\pm$ 1.26	201.45 $\pm$ 13.82	53.02 $\pm$ 2.17	32.78 $\pm$ 1.19	132.01 $\pm$ 4.94	n = 18	Siemens ADVIA/ADVIA Centaur
6.99 $\pm$ 1.26	88.80 $\pm$ 6.68	14.15 $\pm$ 2.13	17.32 $\pm$ 0.85	39.68 $\pm$ 4.14	n = 46	Siemens Immulite
17.78 $\pm$ 0.77	161.48 $\pm$ 12.12	48.50 $\pm$ 1.92	29.91 $\pm$ 1.20	110.28 $\pm$ 4.07	n = 3	Tosoh ST AIA
13.62 $\pm$ 3.87	144.56 $\pm$ 37.55	40.97 $\pm$ 12.00	25.98 $\pm$ 5.86	96.72 $\pm$ 28.40	n = 6	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Lutropin (LH, mIU/mL)

Specimen: E46	Specimen: E47	Specimen: E48	Specimen: E49	Specimen: E50	Number	Instrument or Reagent System
-----	-----	-----	-----	-----	-----	-----
16.75 ± 2.35	9.55 ± 1.26	9.52 ± 1.73	38.97 ± 4.52	56.30 ± 6.82	n = 187	All Methods & Instruments
16.60	9.60	9.50	39.30	56.40	n = 187	Median value, All Methods & Instruments
10.35 ± 0.52	7.15 ± 0.41	8.64 ± 0.72	27.69 ± 1.73	39.94 ± 1.33	n = 4	<Instruments> Abbott Architect
13.95 ± 0.84	8.35 ± 0.41	9.15 ± 0.75	34.83 ± 3.32	51.45 ± 4.00	n = 8	Abbott AxSym
14.67 ± 0.63	8.03 ± 0.33	7.54 ± 0.40	32.33 ± 1.53	46.25 ± 1.55	n = 11	Beckman Coulter ACCESS
14.62 ± 0.97	7.85 ± 0.57	7.48 ± 0.55	32.91 ± 2.30	46.59 ± 3.07	n = 20	Beckman Coulter UniCel DxI 800
22.57 ± 1.10	10.58 ± 0.43	8.29 ± 0.29	47.70 ± 1.28	66.14 ± 2.61	n = 8	Ortho Vitros Eci/ECiQ
17.21 ± 0.96	10.41 ± 0.57	10.21 ± 0.54	39.44 ± 2.31	55.41 ± 3.29	n = 10	Roche cobas e601
16.99 ± 0.50	10.48 ± 0.27	10.17 ± 0.11	39.97 ± 1.10	54.84 ± 1.03	n = 7	Roche Elecsys
16.96 ± 0.24	10.44 ± 0.13	10.12 ± 0.20	39.10 ± 0.79	54.44 ± 1.14	n = 7	Roche MODULAR E
16.27 ± 0.91	9.31 ± 0.57	9.19 ± 0.57	39.45 ± 2.45	58.07 ± 3.75	n = 52	Siemens ADVIA Centaur
15.55 ± 0.28	9.09 ± 0.35	9.09 ± 0.24	39.40 ± 0.61	55.28 ± 0.73	n = 4	Siemens ADVIA Centaur CP
19.54 ± 1.25	10.99 ± 0.54	12.25 ± 0.64	42.90 ± 1.86	63.12 ± 2.80	n = 11	Siemens Immulite 1000
18.88 ± 1.19	10.53 ± 0.67	11.87 ± 0.76	41.06 ± 1.80	60.40 ± 4.04	n = 28	Siemens Immulite 2000
19.22 ± 1.33	10.48 ± 0.56	12.17 ± 0.79	41.95 ± 3.20	59.74 ± 5.07	n = 6	Siemens Immulite 2500
16.69 ± 0.57	9.63 ± 0.32	8.53 ± 0.50	40.95 ± 0.46	56.44 ± 2.17	n = 3	Tosoh Bioscience
16.71 ± 2.67	9.63 ± 1.27	9.51 ± 1.61	38.96 ± 4.71	55.39 ± 6.70	n = 14	Mean of Above Means
12.84 ± 1.98	7.99 ± 0.71	8.98 ± 0.77	32.06 ± 4.81	47.46 ± 6.83	n = 12	<Reagents> Abbott
14.65 ± 0.88	7.90 ± 0.52	7.50 ± 0.50	32.65 ± 2.04	46.28 ± 2.25	n = 31	Beckman Coulter
22.70 ± 1.09	10.49 ± 0.50	8.22 ± 0.34	47.48 ± 1.36	66.22 ± 2.44	n = 9	Ortho Clinical Diagnostics
16.98 ± 0.68	10.43 ± 0.36	10.12 ± 0.32	39.45 ± 1.67	54.94 ± 2.14	n = 25	Roche Elecsys/Modular E/e601/e411
16.20 ± 0.89	9.29 ± 0.55	9.18 ± 0.55	39.44 ± 2.32	57.81 ± 3.69	n = 56	Siemens ADVIA/ADVIA Centaur
19.08 ± 1.25	10.64 ± 0.65	12.02 ± 0.76	41.61 ± 2.33	61.18 ± 4.15	n = 45	Siemens Immulite
16.84 ± 3.28	9.52 ± 1.29	9.19 ± 1.46	38.68 ± 5.63	55.67 ± 7.74	n = 6	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Prolactin (µg/L)

Specimen: E46	Specimen: E47	Specimen: E48	Specimen: E49	Specimen: E50	Number	Instrument or Reagent System
-----	-----	-----	-----	-----	-----	-----
1.22 ± 0.18	2.88 ± 0.51	3.76 ± 0.56	4.41 ± 0.75	29.21 ± 4.03	n = 174	All Methods & Instruments
1.20	2.90	3.70	4.40	28.70	n = 174	Median value, All Methods & Instruments
						<Instruments>
1.47 ± 0.05	3.86 ± 0.10	5.03 ± 0.05	5.77 ± 0.14	34.15 ± 1.18	n = 3	Abbott Architect
1.58 ± 0.14	3.98 ± 0.27	4.88 ± 0.30	5.74 ± 0.11	37.12 ± 1.38	n = 6	Abbott AxSym
1.10 ± 0.07	2.77 ± 0.14	3.68 ± 0.10	4.30 ± 0.21	27.39 ± 1.63	n = 10	Beckman Coulter ACCESS
1.04 ± 0.09	2.74 ± 0.23	3.68 ± 0.28	4.10 ± 0.30	26.20 ± 1.57	n = 20	Beckman Coulter UniCel DxI 800
1.83 ± 1.16	4.40 ± 0.43	5.18 ± 0.38	6.16 ± 0.49	30.83 ± 1.06	n = 8	Ortho Vitros ECI/ECiQ
1.34 ± 0.09	3.36 ± 0.18	4.25 ± 0.22	5.20 ± 0.29	35.63 ± 1.95	n = 9	Roche cobas e601
1.30 ± 0.00	3.33 ± 0.14	4.20 ± 0.14	5.24 ± 0.18	35.33 ± 1.66	n = 8	Roche Elecsys
1.27 ± 0.07	3.26 ± 0.14	4.10 ± 0.16	4.99 ± 0.21	34.41 ± 1.44	n = 6	Roche MODULAR E
1.26 ± 0.14	2.93 ± 0.20	3.75 ± 0.27	4.44 ± 0.28	26.72 ± 1.93	n = 57	Siemens ADVIA Centaur
1.43 ± 0.09	3.00 ± 0.24	3.83 ± 0.09	4.40 ± 0.30	25.24 ± 2.02	n = 4	Siemens ADVIA Centaur CP
1.15 ± 0.07	2.44 ± 0.19	3.29 ± 0.26	3.73 ± 0.29	32.75 ± 1.82	n = 9	Siemens Immulite 1000
1.08 ± 0.10	2.22 ± 0.14	3.04 ± 0.25	3.43 ± 0.23	29.57 ± 1.82	n = 22	Siemens Immulite 2000
1.20 ± 0.07	2.30 ± 0.14	3.13 ± 0.11	3.49 ± 0.13	31.61 ± 1.10	n = 6	Siemens Immulite 2500
1.28 ± 0.20	3.08 ± 0.67	3.97 ± 0.71	4.68 ± 0.93	31.40 ± 4.19	n = 13	Mean of Above Means
						<Reagents>
1.53 ± 0.13	3.93 ± 0.22	4.94 ± 0.25	5.75 ± 0.13	36.23 ± 1.97	n = 9	Abbott
1.06 ± 0.09	2.75 ± 0.20	3.69 ± 0.22	4.18 ± 0.30	26.61 ± 1.67	n = 30	Beckman Coulter
1.86 ± 1.08	4.32 ± 0.47	5.14 ± 0.37	6.07 ± 0.54	30.57 ± 1.39	n = 9	Ortho Clinical Diagnostics
1.32 ± 0.08	3.31 ± 0.17	4.19 ± 0.19	5.16 ± 0.25	35.25 ± 1.78	n = 23	Roche Elecsys/Modular E/e601/e411
1.27 ± 0.14	2.94 ± 0.21	3.76 ± 0.26	4.44 ± 0.28	26.63 ± 1.98	n = 61	Siemens ADVIA/ADVIA Centaur
1.12 ± 0.10	2.28 ± 0.18	3.12 ± 0.27	3.50 ± 0.26	30.72 ± 2.25	n = 37	Siemens Immulite
1.33 ± 0.27	3.23 ± 0.75	4.12 ± 0.78	4.85 ± 0.98	30.92 ± 4.12	n = 6	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Progesterone (ng/mL)

Specimen: E46	Specimen: E47	Specimen: E48	Specimen: E49	Specimen: E50	Number	Instrument or Reagent System
-----	-----	-----	-----	-----	-----	-----
10.12 ± 1.47	5.34 ± 0.83	11.27 ± 2.04	56.64 ± 14.84	50.09 ± 11.17	n = 150	All Methods & Instruments
10.10	5.20	11.00	57.90	51.50	n = 150	Median value, All Methods & Instruments
 <Instruments>						
10.18 ± 1.03	5.14 ± 0.34	10.70 ± 0.69	53.42 ± 12.95	47.88 ± 7.05	n = 4	Abbott AxSym
11.44 ± 1.29	5.85 ± 0.47	11.47 ± 0.84	63.68 ± 14.07	50.73 ± 7.57	n = 8	Beckman Coulter ACCESS
11.77 ± 1.50	6.07 ± 0.61	12.28 ± 0.93	60.87 ± 16.03	50.87 ± 9.63	n = 14	Beckman Coulter UniCel DxI 800
12.21 ± 2.48	6.19 ± 0.20	13.19 ± 1.36	62.88 ± 26.56	54.65 ± 20.28	n = 3	Gamma Counter
10.75 ± 0.34	4.32 ± 0.15	10.00 ± 0.43	56.68 ± 3.40	47.53 ± 3.88	n = 4	LC/MS/MS
9.47 ± 0.40	4.88 ± 0.50	8.26 ± 0.43	41.07 ± 2.30	36.44 ± 1.95	n = 5	Ortho Vitros ECi/ECiQ
11.29 ± 0.38	4.57 ± 0.15	10.16 ± 0.38	63.33 ± 8.22	56.68 ± 2.08	n = 7	Roche cobas e601
12.06 ± 0.28	4.77 ± 0.05	10.62 ± 0.19	54.07 ± 7.20	58.29 ± 1.96	n = 6	Roche Elecsys
11.32 ± 0.46	4.55 ± 0.18	10.13 ± 0.37	58.49 ± 2.03	56.76 ± 2.24	n = 8	Roche MODULAR E
9.47 ± 1.18	5.97 ± 0.81	13.61 ± 1.70	66.79 ± 9.41	57.66 ± 6.20	n = 42	Siemens ADVIA Centaur
9.55 ± 0.99	5.87 ± 0.69	13.24 ± 0.65	54.91 ± 1.99	48.21 ± 2.74	n = 3	Siemens ADVIA Centaur CP
9.75 ± 0.78	4.87 ± 0.48	9.79 ± 0.72	32.67 ± 17.26	30.70 ± 14.56	n = 9	Siemens Immulite 1000
9.05 ± 0.49	4.96 ± 0.46	9.46 ± 0.84	42.45 ± 4.78	36.95 ± 3.58	n = 25	Siemens Immulite 2000
9.30 ± 0.58	5.31 ± 0.34	10.11 ± 0.81	48.07 ± 6.72	42.42 ± 3.95	n = 6	Siemens Immulite 2500
10.52 ± 1.20	5.21 ± 0.67	10.83 ± 1.62	55.37 ± 9.58	49.08 ± 8.72	n = 14	Mean of Above Means
 <Reagents>						
10.71 ± 1.51	5.29 ± 0.43	11.07 ± 1.09	56.60 ± 12.96	49.98 ± 7.42	n = 5	Abbott
11.65 ± 1.44	5.99 ± 0.57	11.97 ± 0.97	61.85 ± 15.44	50.75 ± 8.87	n = 22	Beckman Coulter
10.75 ± 0.34	4.32 ± 0.15	10.00 ± 0.43	56.68 ± 3.40	47.53 ± 3.88	n = 4	In-House
9.47 ± 0.40	4.88 ± 0.50	8.26 ± 0.43	41.07 ± 2.30	36.44 ± 1.95	n = 5	Ortho Clinical Diagnostics
11.58 ± 0.60	4.64 ± 0.20	10.33 ± 0.50	59.98 ± 0.05	56.90 ± 2.20	n = 22	Roche Elecsys/Modular E/e601/e411
9.48 ± 1.17	5.96 ± 0.80	13.57 ± 1.64	65.88 ± 9.68	57.06 ± 6.52	n = 45	Siemens ADVIA/ADVIA Centaur
9.21 ± 0.62	5.00 ± 0.48	9.64 ± 0.85	43.24 ± 8.93	37.75 ± 7.13	n = 40	Siemens Immulite
10.40 ± 1.06	5.13 ± 0.64	10.61 ± 1.63	55.85 ± 9.23	48.51 ± 8.28	n = 7	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Qualitative hCG report:

[AB1] Abbott		Specimen:E46	Specimen:E47	Specimen:E48	Specimen:E49	Specimen:E50
-----		-----	-----	-----	-----	-----
	Negative	1	2	0	0	0
	Indeterminant	1	0	0	0	0
	Positive	0	0	2	2	2
[AD1] American Diagnostics		Specimen:E46	Specimen:E47	Specimen:E48	Specimen:E49	Specimen:E50
-----		-----	-----	-----	-----	-----
	Negative	2	2	0	0	0
	Indeterminant	0	0	0	0	0
	Positive	0	0	2	2	2
[BC1] Beckman Coulter		Specimen:E46	Specimen:E47	Specimen:E48	Specimen:E49	Specimen:E50
-----		-----	-----	-----	-----	-----
	Negative	34	37	0	0	0
	Indeterminant	3	0	0	0	0
	Positive	0	0	37	37	37
[CD1] Cardinal Health		Specimen:E46	Specimen:E47	Specimen:E48	Specimen:E49	Specimen:E50
-----		-----	-----	-----	-----	-----
	Negative	6	7	0	0	0
	Indeterminant	1	0	0	0	0
	Positive	0	0	7	7	7
[FI1] Fisher		Specimen:E46	Specimen:E47	Specimen:E48	Specimen:E49	Specimen:E50
-----		-----	-----	-----	-----	-----
	Negative	44	48	0	0	0
	Indeterminant	1	0	0	0	0
	Positive	3	0	48	48	48
[GZ1] Genzyme		Specimen:E46	Specimen:E47	Specimen:E48	Specimen:E49	Specimen:E50
-----		-----	-----	-----	-----	-----
	Negative	9	11	0	0	0
	Indeterminant	1	0	0	0	0
	Positive	1	0	11	11	11
[IM1] Inverness Medical		Specimen:E46	Specimen:E47	Specimen:E48	Specimen:E49	Specimen:E50
-----		-----	-----	-----	-----	-----
	Negative	4	5	0	0	0
	Indeterminant	1	0	0	0	0
	Positive	0	0	5	5	5

Statistical Summary (Mean and Standard Deviation)

[JJ1] Ortho Clinical Diagnostics		Specimen:E46	Specimen:E47	Specimen:E48	Specimen:E49	Specimen:E50
Negative		2	2	0	0	0
Indeterminant		0	0	0	0	0
Positive		0	0	2	2	2
[PM1] Polymedco		Specimen:E46	Specimen:E47	Specimen:E48	Specimen:E49	Specimen:E50
Negative		5	5	0	0	0
Indeterminant		0	0	0	0	0
Positive		0	0	5	5	5
[QQ2] Quidel QuickVue One-Step hCG Combo		Specimen:E46	Specimen:E47	Specimen:E48	Specimen:E49	Specimen:E50
Negative		18	23	0	0	0
Indeterminant		2	0	0	0	0
Positive		3	0	23	23	23
[QQ1] Quidel QuickVue± One-Step hCG Combo		Specimen:E46	Specimen:E47	Specimen:E48	Specimen:E49	Specimen:E50
Negative		18	20	0	0	0
Indeterminant		0	0	0	0	0
Positive		2	0	20	20	20
[R02] Roche Hitachi and Modular D/P		Specimen:E46	Specimen:E47	Specimen:E48	Specimen:E49	Specimen:E50
Negative		3	3	0	0	0
Indeterminant		0	0	0	0	0
Positive		0	0	3	3	3
[R01] Roche Integra and MIRA		Specimen:E46	Specimen:E47	Specimen:E48	Specimen:E49	Specimen:E50
Negative		2	2	0	0	0
Indeterminant		0	0	0	0	0
Positive		0	0	2	2	2
[BY1] Siemens ADVIA/ADVIA Centaur		Specimen:E46	Specimen:E47	Specimen:E48	Specimen:E49	Specimen:E50
Negative		10	21	0	0	0
Indeterminant		9	0	0	0	0
Positive		2	0	21	21	21

Statistical Summary (Mean and Standard Deviation)

[DA5] Siemens Dimension		Specimen:E46	Specimen:E47	Specimen:E48	Specimen:E49	Specimen:E50
-----		-----	-----	-----	-----	-----
	Negative	7	7	0	0	0
	Indeterminant	0	0	0	0	0
	Positive	0	0	7	7	7
[DA6] Siemens Dimension LOCI		Specimen:E46	Specimen:E47	Specimen:E48	Specimen:E49	Specimen:E50
-----		-----	-----	-----	-----	-----
	Negative	2	2	0	0	0
	Indeterminant	0	0	0	0	0
	Positive	0	0	2	2	2
[DP5] Siemens Immulite		Specimen:E46	Specimen:E47	Specimen:E48	Specimen:E49	Specimen:E50
-----		-----	-----	-----	-----	-----
	Negative	5	5	0	0	0
	Indeterminant	0	0	0	0	0
	Positive	0	0	5	5	5
[SB1] Stanbio		Specimen:E46	Specimen:E47	Specimen:E48	Specimen:E49	Specimen:E50
-----		-----	-----	-----	-----	-----
	Negative	15	15	0	0	0
	Indeterminant	0	0	0	0	0
	Positive	0	0	15	15	15
[ZZZ] Reagent Not Listed		Specimen:E46	Specimen:E47	Specimen:E48	Specimen:E49	Specimen:E50
-----		-----	-----	-----	-----	-----
	Negative	16	20	0	0	0
	Indeterminant	3	0	0	0	0
	Positive	1	0	20	20	20
[---] All Methods & Instruments		Specimen:E46	Specimen:E47	Specimen:E48	Specimen:E49	Specimen:E50
-----		-----	-----	-----	-----	-----
	Negative	203	237	0	0	0
	Indeterminant	22	0	0	0	0
	Positive	12	0	237	237	237

Statistical Summary (Mean and Standard Deviation)

Triiodothyronine (T3, ng/dL)

Specimen: E46	Specimen: E47	Specimen: E48	Specimen: E49	Specimen: E50	Number	Instrument or Reagent System
66.5 ± 13.85	487.7 ± 82.08	110.3 ± 13.26	122.3 ± 16.62	257.0 ± 23.05	n = 195	All Methods & Instruments
64.0	495.0	111.0	122.0	257.0	n = 195	Median value, All Methods & Instruments
40.0	223.0	56.0	74.0	168.0	n = 2	[---] Results of LC_MS_MS measurement*
						<Instruments>
62.2 ± 2.80	407.2 ± 54.59	84.2 ± 0.41	106.6 ± 5.23	236.7 ± 9.03	n = 6	Abbott Architect
73.6 ± 9.46	498.8 ± 18.33	96.8 ± 8.22	119.6 ± 13.94	243.8 ± 12.06	n = 11	Abbott AxSym
68.3 ± 5.12	370.3 ± 15.92	102.1 ± 6.91	111.9 ± 4.74	223.3 ± 13.34	n = 14	Beckman Coulter ACCESS
76.3 ± 8.84	368.8 ± 27.60	102.5 ± 9.52	109.2 ± 9.75	234.1 ± 11.27	n = 20	Beckman Coulter UniCel DxI 800
73.8 ± 2.06	493.6 ± 16.50	116.4 ± 2.53	136.0 ± 0.79	258.0 ± 5.45	n = 6	Ortho Vitros Eci/ECiQ
93.2 ± 6.54	454.4 ± 30.57	117.5 ± 9.38	129.4 ± 7.54	255.1 ± 17.27	n = 9	Roche cobas e601
95.1 ± 10.79	490.2 ± 34.57	121.6 ± 7.90	131.9 ± 5.50	257.2 ± 7.77	n = 5	Roche Elecsys
91.8 ± 5.63	464.8 ± 17.86	116.4 ± 6.27	127.5 ± 3.37	251.9 ± 8.83	n = 12	Roche MODULAR E
61.0 ± 6.82	550.9 ± 50.84	116.1 ± 10.20	120.6 ± 12.00	271.0 ± 15.50	n = 58	Siemens ADVIA Centaur
49.4 ± 11.76	449.1 ± 26.05	86.8 ± 20.37	101.9 ± 19.52	248.8 ± 18.54	n = 11	Siemens Dimension RxL
64.6 ± 4.03	408.6 ± 17.87	101.2 ± 2.11	121.3 ± 7.15	248.8 ± 15.81	n = 4	Siemens Dimension Vista
56.8 ± 4.21	568.5 ± 18.58	118.2 ± 3.33	150.9 ± 14.35	279.9 ± 18.58	n = 7	Siemens Immulite 1000
56.3 ± 5.28	531.6 ± 36.91	112.3 ± 10.65	142.1 ± 9.23	273.6 ± 19.92	n = 17	Siemens Immulite 2000
59.8 ± 1.46	573.1 ± 14.99	114.4 ± 6.05	152.1 ± 2.04	291.2 ± 4.33	n = 4	Siemens Immulite 2500
64.5 ± 0.57	457.0 ± 13.34	98.0 ± 3.16	117.7 ± 2.26	239.9 ± 6.34	n = 4	Tosoh Bioscience
68.4 ± 14.02	472.7 ± 68.03	108.0 ± 12.10	124.5 ± 15.58	253.2 ± 18.21	n = 15	Mean of Above Means
						<Reagents>
68.7 ± 9.74	478.1 ± 52.37	91.8 ± 9.78	114.0 ± 13.02	241.5 ± 11.89	n = 17	Abbott
72.4 ± 8.40	368.6 ± 22.94	102.2 ± 8.47	110.0 ± 8.21	230.1 ± 12.73	n = 34	Beckman Coulter
74.0 ± 1.71	492.5 ± 14.83	116.1 ± 2.35	136.0 ± 0.69	259.2 ± 5.78	n = 7	Ortho Clinical Diagnostics
92.7 ± 6.60	465.1 ± 25.54	118.1 ± 7.64	129.1 ± 5.80	254.2 ± 11.74	n = 27	Roche Elecsys/Modular E/e601/e411
60.7 ± 6.78	549.0 ± 50.64	115.9 ± 9.91	120.2 ± 11.83	270.9 ± 15.22	n = 60	Siemens ADVIA/ADVIA Centaur
52.2 ± 12.77	441.6 ± 32.61	89.6 ± 19.09	104.7 ± 18.67	248.9 ± 19.62	n = 13	Siemens Dimension
57.2 ± 4.74	550.0 ± 35.74	114.4 ± 9.95	146.3 ± 11.86	278.4 ± 19.42	n = 28	Siemens Immulite
64.3 ± 0.51	453.7 ± 16.93	98.5 ± 3.63	117.5 ± 2.74	242.4 ± 5.58	n = 3	Tosoh ST AIA
66.3 ± 11.12	476.9 ± 56.05	106.2 ± 12.16	121.2 ± 13.72	252.6 ± 15.87	n = 8	Mean of Above Means

*Values of LC_MS_MS measurements were results of multiple analysis of the specimens (CV% < 6%) at Bioanalytical Core Laboratory, Georgetown University, Washington, DC.

Reference:

Soukhovaa N, Soldin OP, Soldin SJ. Isotope dilution tandem mass spectrometric method for T4/T3. Clinica Chimica Acta 2004;343:185-90.

Gu J, Soldin OP, Soldin SJ. Simultaneous quantification of free triiodothyronine and free thyroxine by isotope dilution tandem mass spectrometry. Clin Biochem 2007;40:1386-91.

Statistical Summary (Mean and Standard Deviation)

Thyroxin (T4, µg/dL)

Specimen: E46	Specimen: E47	Specimen: E48	Specimen: E49	Specimen: E50	Number	Instrument or Reagent System
3.83 ± 0.61	17.94 ± 2.19	6.85 ± 0.61	8.24 ± 0.86	13.48 ± 1.40	n = 240	All Methods & Instruments
3.70	17.70	6.80	8.20	13.40	n = 240	Median value, All Methods & Instruments
3.40	12.60	5.30	7.80	11.60	n = 2	[---] Results of LC_MS_MS measurement*
<Instruments>						
4.15 ± 0.39	16.51 ± 0.84	6.21 ± 0.38	7.88 ± 0.40	13.37 ± 1.01	n = 7	Abbott Architect
4.55 ± 0.51	17.47 ± 0.68	6.54 ± 0.43	7.41 ± 0.39	13.81 ± 0.63	n = 13	Abbott AxSym
3.40 ± 0.28	20.68 ± 1.59	7.24 ± 0.55	8.80 ± 0.76	12.87 ± 1.20	n = 20	Beckman Coulter ACCESS
4.55 ± 0.41	16.99 ± 0.32	7.23 ± 0.44	8.95 ± 0.63	14.83 ± 0.55	n = 10	Beckman Coulter AU Chemistry System
3.30 ± 0.40	20.51 ± 1.43	7.22 ± 0.50	8.75 ± 0.56	13.10 ± 0.86	n = 24	Beckman Coulter UniCel DxI 800
4.00 ± 0.46	18.38 ± 0.41	6.03 ± 0.34	7.93 ± 0.23	13.35 ± 0.90	n = 3	Gamma Counter
3.43 ± 0.21	19.54 ± 1.10	6.81 ± 0.41	8.18 ± 0.52	14.18 ± 0.89	n = 13	Ortho Vitros Eci/ECiQ
4.45 ± 0.13	15.27 ± 0.48	6.21 ± 0.25	7.57 ± 0.26	12.66 ± 0.58	n = 9	Roche cobas e601
4.45 ± 0.36	15.67 ± 1.13	6.03 ± 0.32	7.43 ± 0.68	13.00 ± 0.99	n = 3	Roche Elecsys
4.84 ± 0.39	16.72 ± 0.59	6.55 ± 0.36	7.78 ± 0.24	13.33 ± 0.34	n = 3	Roche MODULAR D/P
4.59 ± 0.22	16.16 ± 0.65	6.48 ± 0.33	7.93 ± 0.36	13.30 ± 0.79	n = 13	Roche MODULAR E
3.55 ± 0.30	16.21 ± 0.78	6.58 ± 0.27	7.56 ± 0.35	12.30 ± 0.53	n = 55	Siemens ADVIA Centaur
4.17 ± 0.48	19.03 ± 1.01	7.46 ± 0.47	9.22 ± 0.54	15.62 ± 0.51	n = 18	Siemens Dimension RxL
4.95 ± 0.49	21.82 ± 0.78	8.45 ± 0.06	10.62 ± 0.13	18.58 ± 1.11	n = 5	Siemens Dimension Vista
4.37 ± 0.51	18.95 ± 0.63	7.63 ± 0.42	9.19 ± 0.37	16.25 ± 0.54	n = 3	Siemens Dimension Xpand
3.61 ± 0.30	20.21 ± 1.66	7.16 ± 0.53	9.22 ± 0.71	15.16 ± 1.38	n = 9	Siemens Immulite 1000
3.73 ± 0.31	18.67 ± 0.75	6.88 ± 0.36	8.58 ± 0.60	14.24 ± 0.88	n = 16	Siemens Immulite 2000
3.92 ± 0.21	17.65 ± 0.46	7.14 ± 0.18	9.01 ± 0.23	14.05 ± 0.63	n = 4	Siemens Immulite 2500
3.61 ± 0.12	17.36 ± 1.24	7.00 ± 0.35	8.45 ± 0.43	13.93 ± 0.82	n = 6	Tosoh Bioscience
4.09 ± 0.55	18.01 ± 1.93	6.85 ± 0.57	8.37 ± 0.78	13.77 ± 1.07	n = 19	Mean of Above Means
<Reagents>						
4.40 ± 0.50	17.17 ± 0.87	6.43 ± 0.44	7.59 ± 0.48	13.69 ± 0.81	n = 20	Abbott
3.35 ± 0.34	20.59 ± 1.51	7.23 ± 0.53	8.78 ± 0.65	13.00 ± 1.02	n = 44	Beckman Coulter
4.92 ± 0.31	16.65 ± 0.51	6.71 ± 0.41	8.07 ± 0.69	13.65 ± 0.72	n = 4	Microgenics CEDIA
4.49 ± 0.40	17.36 ± 0.91	7.25 ± 0.46	8.90 ± 0.66	14.83 ± 0.59	n = 9	Microgenics DRI
3.45 ± 0.20	19.63 ± 1.07	6.85 ± 0.39	8.22 ± 0.50	14.26 ± 0.89	n = 14	Ortho Clinical Diagnostics
4.51 ± 0.22	15.79 ± 0.80	6.32 ± 0.36	7.73 ± 0.40	12.98 ± 0.75	n = 27	Roche Elecsys/Modular E/e601/e411
3.55 ± 0.30	16.23 ± 0.81	6.59 ± 0.28	7.57 ± 0.36	12.31 ± 0.56	n = 56	Siemens ADVIA/ADVIA Centaur
4.31 ± 0.53	19.30 ± 1.24	7.63 ± 0.56	9.34 ± 0.66	15.83 ± 0.80	n = 25	Siemens Dimension
3.72 ± 0.31	18.84 ± 1.24	6.99 ± 0.38	8.82 ± 0.64	14.41 ± 1.04	n = 29	Siemens Immulite
3.55 ± 0.12	16.91 ± 1.07	7.02 ± 0.46	8.27 ± 0.54	14.00 ± 1.01	n = 4	Tosoh ST AIA
4.01 ± 0.58	17.76 ± 1.66	6.89 ± 0.40	8.32 ± 0.63	13.86 ± 0.98	n = 10	Mean of Above Means

*Values of LC_MS_MS measurements were results of multiple analysis of the specimens (CV% < 6%) at Bioanalytical Core Laboratory, Georgetown University, Washington, DC.

Reference:

Soukhovaa N, Soldin OP, Soldin SJ. Isotope dilution tandem mass spectrometric method for T4/T3. Clinica Chimica Acta 2004;343:185-90.

Gu J, Soldin OP, Soldin SJ. Simultaneous quantification of free triiodothyronine and free thyroxine by isotope dilution tandem mass spectrometry. Clin Biochem 2007;40:1386-91.

Statistical Summary (Mean and Standard Deviation)

Total Beta hCG (mIU/mL)

Specimen: E46	Specimen: E47	Specimen: E48	Specimen: E49	Specimen: E50	Number	Instrument or Reagent System
4.5 ± 1.82	1.3 ± 1.07	59.3 ± 7.03	40.4 ± 4.79	51.6 ± 7.46	n = 238	All Methods & Instruments
4.0	1.0	60.0	41.0	53.0	n = 238	Median value, All Methods & Instruments
						<Instruments>
5.1 ± 1.16	1.0 ± 0.00	51.1 ± 2.05	36.8 ± 1.53	46.8 ± 2.32	n = 9	Abbott Architect
4.5 ± 0.57	1.4 ± 1.50	76.2 ± 3.00	45.0 ± 1.39	65.7 ± 1.40	n = 8	Abbott AxSym
4.5 ± 0.63	2.1 ± 2.25	62.2 ± 2.29	35.1 ± 1.70	53.8 ± 1.93	n = 38	Beckman Coulter ACCESS
4.0 ± 0.00	1.0 ± 0.53	63.3 ± 3.11	35.4 ± 1.45	54.9 ± 1.90	n = 22	Beckman Coulter UniCel DxI 800
3.6 ± 0.68	1.7 ± 1.64	52.8 ± 2.21	44.7 ± 1.65	46.1 ± 1.71	n = 20	Ortho Vitros Eci/ECiQ
2.7 ± 0.51	1.0 ± 0.00	65.3 ± 4.96	43.3 ± 3.16	59.8 ± 4.11	n = 3	Roche cobas e411
2.0 ± 0.00	0.6 ± 0.56	60.6 ± 2.54	39.5 ± 1.23	55.5 ± 2.11	n = 10	Roche cobas e601
2.6 ± 0.83	0.5 ± 0.57	64.7 ± 5.06	42.8 ± 3.11	58.3 ± 4.49	n = 7	Roche Elecsys
2.5 ± 0.61	0.9 ± 0.62	61.6 ± 2.15	40.3 ± 1.83	57.1 ± 2.70	n = 14	Roche MODULAR E
7.3 ± 1.15	2.0 ± 0.00	55.4 ± 3.19	41.8 ± 2.49	45.2 ± 2.89	n = 56	Siemens ADVIA Centaur
5.8 ± 0.41	2.0 ± 0.00	56.3 ± 4.02	45.2 ± 1.46	47.2 ± 1.27	n = 4	Siemens ADVIA Centaur CP
3.0 ± 0.00	1.0 ± 0.00	53.8 ± 0.89	41.4 ± 0.57	47.9 ± 0.81	n = 11	Siemens Dimension Vista
3.7 ± 0.69	1.0 ± 0.00	70.6 ± 4.00	39.6 ± 2.08	62.9 ± 3.28	n = 8	Siemens Immulite 1000
4.2 ± 0.63	1.0 ± 0.00	89.7 ± 9.47	49.9 ± 3.39	81.2 ± 7.28	n = 17	Siemens Immulite 2000
1.8 ± 1.54	1.0 ± 0.00	59.4 ± 8.43	28.0 ± 5.41	57.4 ± 6.45	n = 3	Siemens Immulite 2500
3.7 ± 1.42	1.2 ± 0.50	60.8 ± 7.56	41.0 ± 4.78	54.6 ± 7.74	n = 15	Mean of Above Means
						<Reagents>
4.8 ± 0.90	1.1 ± 0.84	62.5 ± 14.17	40.6 ± 5.01	55.7 ± 10.79	n = 17	Abbott
4.3 ± 0.60	1.7 ± 1.92	62.6 ± 2.76	35.2 ± 1.66	54.2 ± 1.99	n = 62	Beckman Coulter
3.6 ± 0.67	1.7 ± 1.58	53.0 ± 2.29	44.8 ± 1.70	46.2 ± 1.67	n = 21	Ortho Clinical Diagnostics
2.4 ± 0.63	0.7 ± 0.59	62.0 ± 3.68	40.6 ± 2.39	57.0 ± 3.30	n = 33	Roche Elecsys/Modular E/e601/e411
7.2 ± 1.20	2.0 ± 0.00	55.4 ± 3.27	42.0 ± 2.60	45.3 ± 2.84	n = 60	Siemens ADVIA/ADVIA Centaur
3.8 ± 0.80	0.8 ± 0.41	46.8 ± 12.92	41.5 ± 0.57	43.5 ± 7.65	n = 5	Siemens Dimension
3.0 ± 0.00	1.0 ± 0.00	53.7 ± 0.87	41.5 ± 0.57	47.7 ± 0.87	n = 8	Siemens Dimension LOCI
4.0 ± 0.74	1.0 ± 0.00	81.2 ± 14.45	45.5 ± 7.61	73.5 ± 12.54	n = 28	Siemens Immulite
3.8 ± 1.03	1.2 ± 0.46	58.0 ± 8.40	41.8 ± 2.71	51.0 ± 7.82	n = 8	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Testosterone (ng/dL)

Specimen: E46 -----	Specimen: E47 -----	Specimen: E48 -----	Specimen: E49 -----	Specimen: E50 -----	Number -----	Instrument or Reagent System -----
1601.0 ± 213.0 1593	1959.0 ± 97.0 1982	796.0 ± 271.0 827	287.80 ± 39.07 285.00	41.89 ± 12.58 40.80	n = 141 n = 141	All Methods & Instruments Median value, All Methods & Instruments
-----	-----	669.59 ± 85.81	190.28 ± 14.53	14.93 ± 3.04	n = 3	<Instruments> Abbott AxSym
1593.0 ± 151.0	2115.0 ± 402.0	839.16 ± 43.96	263.79 ± 13.78	33.25 ± 3.40	n = 8	Beckman Coulter ACCESS
1985.0 ± 205.0	1982.0 ± 211.0	796.85 ± 64.86	260.81 ± 19.09	36.10 ± 4.10	n = 15	Beckman Coulter UniCel DxI 800
-----	-----	845.34 ± 40.31	301.29 ± 35.05	32.00 ± 10.93	n = 7	Gamma Counter
1771.0 ± 142.0	2019.0 ± 178.0	1029.0 ± 248.0	274.00 ± 33.13	23.16 ± 8.66	n = 6	LC/MS/MS
-----	-----	-----	295.04 ± 9.22	33.18 ± 1.67	n = 3	Ortho Vitros Eci/ECiQ
-----	-----	721.46 ± 451.2	337.64 ± 16.22	41.48 ± 7.01	n = 6	Roche cobas e601
-----	-----	916.42 ± 42.75	315.44 ± 33.48	30.68 ± 6.57	n = 11	Roche Elecsys
-----	-----	-----	344.83 ± 15.63	40.85 ± 3.23	n = 6	Roche MODULAR E
1432.0 ± 155.0	1852.0 ± 228.0	1172.0 ± 204.0	278.07 ± 23.70	52.77 ± 7.37	n = 43	Siemens ADVIA Centaur
-----	-----	-----	469.40 ± 47.19	56.50 ± 8.72	n = 5	Siemens Immulite 1000
1399.0 ± 176.0	1827.0 ± 365.0	275.66 ± 387.3	309.33 ± 26.65	43.67 ± 8.32	n = 21	Siemens Immulite 2000
-----	-----	341.96 ± 442.4	293.55 ± 16.28	40.98 ± 9.36	n = 3	Siemens Immulite 2500
-----	-----	-----	293.96 ± 36.61	37.00 ± 10.68	n = 13	Mean of Above Means
-----	-----	669.59 ± 85.81	190.28 ± 14.53	14.93 ± 3.04	n = 3	<Reagents> Abbott
1661.0 ± 188.0	2030.0 ± 282.0	814.92 ± 60.30	261.73 ± 17.55	35.07 ± 4.44	n = 23	Beckman Coulter
1771.0 ± 142.0	2019.0 ± 178.0	1029.0 ± 248.0	266.71 ± 33.67	25.10 ± 7.60	n = 7	In-House
-----	-----	-----	295.04 ± 9.22	33.18 ± 1.67	n = 3	Ortho Clinical Diagnostics
-----	-----	720.89 ± 424.9	329.16 ± 31.11	36.57 ± 8.72	n = 22	Roche Elecsys/Modular E/e601/e411
1425.0 ± 157.0	1869.0 ± 215.0	1172.0 ± 204.0	277.59 ± 23.44	52.54 ± 7.43	n = 44	Siemens ADVIA/ADVIA Centaur
-----	-----	839.88 ± 40.79	301.53 ± 18.41	26.81 ± 5.88	n = 5	Siemens Coat-A-Count
1368.0 ± 179.0	1919.0 ± 391.0	1132.0 ± 103.0	310.14 ± 30.46	45.49 ± 9.80	n = 29	Siemens Immulite
-----	-----	-----	286.39 ± 33.86	33.58 ± 11.49	n = 8	Mean of Above Means

----- results of greater than the upper limit of detection of corresponding specific methods, rather than actual result values, were reported.

Statistical Summary (Mean and Standard Deviation)

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

Specimen: E46	Specimen: E47	Specimen: E48	Specimen: E49	Specimen: E50	Number	Instrument or Reagent System
-----	-----	-----	-----	-----	-----	-----
3.31 $\pm$ 0.38	1.10 $\pm$ 0.16	1.62 $\pm$ 0.19	2.82 $\pm$ 0.35	1.72 $\pm$ 0.20	n = 295	All Methods & Instruments
3.30	1.10	1.60	2.80	1.70	n = 295	Median value, All Methods & Instruments
<Instruments>						
2.93 $\pm$ 0.10	1.00 $\pm$ 0.00	1.41 $\pm$ 0.05	2.51 $\pm$ 0.08	1.56 $\pm$ 0.06	n = 9	Abbott Architect
3.33 $\pm$ 0.25	1.06 $\pm$ 0.09	1.51 $\pm$ 0.09	2.86 $\pm$ 0.12	1.66 $\pm$ 0.08	n = 12	Abbott AxSym
3.02 $\pm$ 0.17	0.96 $\pm$ 0.07	1.45 $\pm$ 0.11	2.56 $\pm$ 0.20	1.52 $\pm$ 0.12	n = 27	Beckman Coulter ACCESS
3.01 $\pm$ 0.23	1.00 $\pm$ 0.07	1.47 $\pm$ 0.13	2.56 $\pm$ 0.23	1.54 $\pm$ 0.14	n = 22	Beckman Coulter UniCel DxI 800
4.60 $\pm$ 0.18	1.21 $\pm$ 0.05	1.89 $\pm$ 0.07	3.52 $\pm$ 0.16	1.87 $\pm$ 0.08	n = 18	Ortho Vitros Eci/ECiQ
3.45 $\pm$ 0.19	1.40 $\pm$ 0.09	1.87 $\pm$ 0.14	3.17 $\pm$ 0.14	2.04 $\pm$ 0.10	n = 3	Roche cobas e411
3.38 $\pm$ 0.10	1.34 $\pm$ 0.06	1.84 $\pm$ 0.07	3.13 $\pm$ 0.06	1.95 $\pm$ 0.06	n = 12	Roche cobas e601
3.37 $\pm$ 0.15	1.36 $\pm$ 0.06	1.82 $\pm$ 0.07	3.12 $\pm$ 0.07	1.95 $\pm$ 0.07	n = 7	Roche Elecsys
3.44 $\pm$ 0.10	1.36 $\pm$ 0.06	1.86 $\pm$ 0.06	3.16 $\pm$ 0.09	2.00 $\pm$ 0.07	n = 18	Roche MODULAR E
3.35 $\pm$ 0.24	1.10 $\pm$ 0.07	1.65 $\pm$ 0.10	2.84 $\pm$ 0.20	1.78 $\pm$ 0.10	n = 69	Siemens ADVIA Centaur
3.12 $\pm$ 0.07	1.37 $\pm$ 0.05	1.74 $\pm$ 0.08	3.20 $\pm$ 0.10	1.93 $\pm$ 0.05	n = 7	Siemens Dimension EXL
3.13 $\pm$ 0.19	0.98 $\pm$ 0.05	1.50 $\pm$ 0.06	2.52 $\pm$ 0.16	1.58 $\pm$ 0.09	n = 25	Siemens Dimension RxL
3.07 $\pm$ 0.08	1.31 $\pm$ 0.06	1.63 $\pm$ 0.07	3.06 $\pm$ 0.11	1.85 $\pm$ 0.10	n = 9	Siemens Dimension Vista
2.99 $\pm$ 0.19	0.94 $\pm$ 0.06	1.43 $\pm$ 0.07	2.40 $\pm$ 0.18	1.57 $\pm$ 0.11	n = 7	Siemens Dimension Xpand
4.12 $\pm$ 0.15	1.13 $\pm$ 0.08	1.60 $\pm$ 0.09	2.75 $\pm$ 0.17	1.66 $\pm$ 0.14	n = 12	Siemens Immulite 1000
3.56 $\pm$ 0.18	1.03 $\pm$ 0.09	1.58 $\pm$ 0.12	2.59 $\pm$ 0.17	1.60 $\pm$ 0.11	n = 20	Siemens Immulite 2000
3.44 $\pm$ 0.30	1.02 $\pm$ 0.07	1.48 $\pm$ 0.09	2.63 $\pm$ 0.24	1.56 $\pm$ 0.08	n = 6	Siemens Immulite 2500
4.06 $\pm$ 0.23	1.25 $\pm$ 0.10	1.92 $\pm$ 0.09	3.26 $\pm$ 0.20	1.94 $\pm$ 0.09	n = 6	Tosoh Bioscience
3.31 $\pm$ 0.34	1.15 $\pm$ 0.18	1.64 $\pm$ 0.19	2.87 $\pm$ 0.35	1.75 $\pm$ 0.20	n = 18	Mean of Above Means
<Reagents>						
3.13 $\pm$ 0.30	1.02 $\pm$ 0.08	1.46 $\pm$ 0.09	2.70 $\pm$ 0.21	1.61 $\pm$ 0.09	n = 21	Abbott
3.02 $\pm$ 0.20	0.98 $\pm$ 0.08	1.46 $\pm$ 0.12	2.56 $\pm$ 0.21	1.53 $\pm$ 0.13	n = 49	Beckman Coulter
4.61 $\pm$ 0.19	1.21 $\pm$ 0.04	1.89 $\pm$ 0.07	3.53 $\pm$ 0.16	1.87 $\pm$ 0.08	n = 19	Ortho Clinical Diagnostics
3.42 $\pm$ 0.12	1.35 $\pm$ 0.06	1.85 $\pm$ 0.07	3.14 $\pm$ 0.08	1.98 $\pm$ 0.08	n = 38	Roche Elecsys/Modular E/e601/e411
3.23 $\pm$ 0.17	1.08 $\pm$ 0.07	1.63 $\pm$ 0.10	2.77 $\pm$ 0.17	1.82 $\pm$ 0.11	n = 36	Siemens ADVIA/ADVIA Centaur
3.10 $\pm$ 0.18	0.97 $\pm$ 0.06	1.49 $\pm$ 0.07	2.51 $\pm$ 0.20	1.58 $\pm$ 0.11	n = 36	Siemens Dimension
3.10 $\pm$ 0.08	1.35 $\pm$ 0.07	1.70 $\pm$ 0.08	3.14 $\pm$ 0.12	1.90 $\pm$ 0.08	n = 12	Siemens Dimension LOCI
3.70 $\pm$ 0.34	1.06 $\pm$ 0.10	1.57 $\pm$ 0.12	2.66 $\pm$ 0.21	1.62 $\pm$ 0.12	n = 37	Siemens Immulite
3.49 $\pm$ 0.23	1.11 $\pm$ 0.07	1.67 $\pm$ 0.09	2.92 $\pm$ 0.19	1.75 $\pm$ 0.08	n = 35	Siemens TSH-3
4.04 $\pm$ 0.26	1.26 $\pm$ 0.11	1.92 $\pm$ 0.11	3.23 $\pm$ 0.23	1.95 $\pm$ 0.11	n = 5	Tosoh AIA
3.38 $\pm$ 0.43	1.13 $\pm$ 0.15	1.66 $\pm$ 0.18	2.90 $\pm$ 0.33	1.76 $\pm$ 0.17	n = 10	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

T Uptake (Unit)

Specimen: E46 -----	Specimen: E47 -----	Specimen: E48 -----	Specimen: E49 -----	Specimen: E50 -----	Number -----	Instrument or Reagent System -----
1.029 ± 0.124	0.558 ± 0.050	0.788 ± 0.271	0.880 ± 0.208	0.828 ± 0.023	n = 27	All Methods & Instruments
1.000	0.560	0.850	0.910	0.830	n = 27	Median value, All Methods & Instruments
<Instruments>						
0.892 ± 0.017	0.531 ± 0.026	0.588 ± 0.033	0.764 ± 0.032	0.836 ± 0.019	n = 8	Abbott AxSym
0.973 ± 0.014	0.517 ± 0.005	0.560 ± 0.000	0.616 ± 0.010	0.594 ± 0.010	n = 3	Ortho Vitros ECi/ECiQ
1.151 ± 0.029	0.621 ± 0.044	0.940 ± 0.064	0.964 ± 0.039	0.836 ± 0.026	n = 3	Roche cobas e601
1.149 ± 0.022	0.607 ± 0.019	0.941 ± 0.031	0.968 ± 0.029	0.825 ± 0.019	n = 6	Roche MODULAR E
1.030 ± 0.072	2.010 ± 0.161	1.760 ± 0.099	1.464 ± 0.072	1.557 ± 0.084	n = 4	Siemens ADVIA Centaur
1.041 ± 0.111	0.569 ± 0.052	0.882 ± 0.415	0.921 ± 0.288	0.796 ± 0.098	n = 5	Mean of Above Means
<Reagents>						
0.892 ± 0.017	0.526 ± 0.027	0.594 ± 0.043	0.769 ± 0.033	0.831 ± 0.023	n = 9	Abbott
0.973 ± 0.014	0.517 ± 0.005	0.560 ± 0.000	0.616 ± 0.010	0.594 ± 0.010	n = 3	Ortho Clinical Diagnostics
1.145 ± 0.025	0.599 ± 0.036	0.944 ± 0.035	0.961 ± 0.032	0.827 ± 0.022	n = 11	Roche Elecsys/Modular E/e601/e411
1.030 ± 0.072	2.010 ± 0.161	1.760 ± 0.099	1.464 ± 0.072	1.557 ± 0.084	n = 4	Siemens ADVIA/ADVIA Centaur
1.007 ± 0.099	0.771 ± 0.601	0.895 ± 0.497	0.917 ± 0.335	0.895 ± 0.365	n = 4	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

T3-Uptake (%)

Specimen: E46	Specimen: E47	Specimen: E48	Specimen: E49	Specimen: E50	Number	Instrument or Reagent System
-----	-----	-----	-----	-----	-----	-----
30.99 ± 3.39	52.94 ± 7.57	46.39 ± 6.60	41.85 ± 4.26	43.71 ± 4.09	n = 147	All Methods & Instruments
31.00	51.20	45.90	42.20	43.70	n = 147	Median value, All Methods & Instruments
						<Instruments>
29.93 ± 1.94	44.85 ± 2.97	40.72 ± 2.21	36.94 ± 2.35	35.89 ± 1.91	n = 3	Abbott Architect
32.30 ± 0.95	45.30 ± 1.08	42.80 ± 1.61	36.94 ± 1.54	34.77 ± 0.71	n = 7	Abbott AxSym
36.28 ± 1.71	52.14 ± 2.53	46.56 ± 1.35	42.32 ± 1.41	43.36 ± 1.94	n = 14	Beckman Coulter ACCESS
27.84 ± 0.90	50.00 ± 0.00	46.12 ± 3.25	42.12 ± 2.32	44.74 ± 1.47	n = 10	Beckman Coulter AU Chemistry System
38.26 ± 2.51	50.15 ± 2.40	46.18 ± 2.35	42.76 ± 2.08	43.05 ± 2.38	n = 15	Beckman Coulter UniCel DxI 800
31.54 ± 0.55	65.00 ± 0.00	58.30 ± 1.38	50.83 ± 0.99	52.41 ± 1.34	n = 7	Ortho Vitros Eci/ECiq
26.56 ± 0.65	50.00 ± 0.00	46.57 ± 1.68	43.32 ± 1.13	44.44 ± 1.15	n = 3	Roche MODULAR D/P
32.07 ± 0.42	45.89 ± 1.91	36.94 ± 2.19	36.83 ± 0.62	41.05 ± 0.63	n = 5	Roche MODULAR E
31.50 ± 1.65	63.46 ± 2.98	54.39 ± 2.53	45.69 ± 2.20	47.26 ± 2.46	n = 36	Siemens ADVIA Centaur
30.08 ± 1.63	49.99 ± 2.05	40.23 ± 1.94	38.53 ± 1.62	41.53 ± 1.68	n = 11	Siemens Dimension RxL
30.50 ± 0.57	51.21 ± 1.46	41.70 ± 0.82	39.31 ± 0.90	42.50 ± 1.22	n = 4	Siemens Dimension Vista
28.65 ± 1.08	56.30 ± 3.58	44.70 ± 2.93	42.28 ± 2.64	45.07 ± 2.02	n = 6	Siemens Immulite 1000
28.76 ± 1.14	48.95 ± 3.49	42.61 ± 2.39	39.55 ± 2.39	41.85 ± 2.03	n = 13	Siemens Immulite 2000
26.77 ± 1.32	45.40 ± 3.08	39.49 ± 0.98	35.89 ± 1.89	40.45 ± 1.35	n = 3	Siemens Immulite 2500
26.93 ± 0.70	51.84 ± 0.76	43.37 ± 0.60	39.99 ± 0.92	43.33 ± 0.41	n = 4	Tosoh Bioscience
30.07 ± 3.02	50.05 ± 4.78	43.65 ± 4.36	40.41 ± 3.54	42.76 ± 3.58	n = 15	Mean of Above Means
						<Reagents>
31.88 ± 1.45	45.26 ± 1.66	42.34 ± 1.96	36.99 ± 1.83	34.94 ± 1.18	n = 10	Abbott
37.12 ± 2.45	51.01 ± 2.74	46.28 ± 2.00	42.53 ± 1.74	43.19 ± 2.16	n = 29	Beckman Coulter
27.22 ± 0.91	50.00 ± 0.00	47.58 ± 0.88	43.29 ± 0.83	45.25 ± 1.00	n = 10	Microgenics CEDIA
28.60 ± 0.64	50.28 ± 0.51	41.14 ± 0.10	38.72 ± 0.51	42.86 ± 0.10	n = 3	Microgenics DRI
31.54 ± 0.55	65.00 ± 0.00	58.30 ± 1.38	50.83 ± 0.99	52.41 ± 1.34	n = 7	Ortho Clinical Diagnostics
31.87 ± 0.72	45.41 ± 2.02	36.72 ± 2.03	36.60 ± 0.74	40.00 ± 2.00	n = 6	Roche Elecsys/Modular E/e601/e411
31.50 ± 1.65	63.46 ± 2.98	54.39 ± 2.53	45.69 ± 2.20	47.26 ± 2.46	n = 36	Siemens ADVIA/ADVIA Centaur
30.29 ± 1.41	50.01 ± 1.92	40.68 ± 1.67	38.66 ± 1.48	41.64 ± 1.52	n = 18	Siemens Dimension
28.45 ± 1.35	50.24 ± 5.28	42.62 ± 2.80	39.72 ± 3.13	42.40 ± 2.57	n = 22	Siemens Immulite
26.67 ± 0.77	51.53 ± 0.41	43.17 ± 0.59	39.71 ± 0.93	43.32 ± 0.49	n = 3	Tosoh ST AIA
30.20 ± 2.71	50.80 ± 5.57	44.43 ± 6.06	40.59 ± 3.90	43.17 ± 3.94	n = 10	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

Vitamin B12 (pg/mL)

Specimen: E46	Specimen: E47	Specimen: E48	Specimen: E49	Specimen: E50	Number	Instrument or Reagent System
-----	-----	-----	-----	-----	-----	-----
381.9 ± 40.65	292.3 ± 32.37	315.3 ± 35.94	432.2 ± 58.59	463.3 ± 58.90	n = 229	All Methods & Instruments
385.0	289.0	315.0	430.0	463.0	n = 229	Median value, All Methods & Instruments
						<Instruments>
378.7 ± 22.97	284.5 ± 15.31	315.6 ± 15.53	437.9 ± 29.21	456.5 ± 27.76	n = 14	Abbott AxSym
346.7 ± 20.37	282.3 ± 15.82	304.7 ± 19.10	415.4 ± 24.67	442.8 ± 26.97	n = 21	Beckman Coulter ACCESS
316.0 ± 20.11	267.4 ± 16.90	272.5 ± 18.90	363.9 ± 31.84	396.0 ± 25.59	n = 23	Beckman Coulter UniCel DxI 800
405.6 ± 21.54	328.3 ± 11.68	352.4 ± 14.84	461.8 ± 35.93	507.8 ± 41.78	n = 21	Ortho Vitros Eci/ECiQ
414.5 ± 8.26	254.4 ± 11.93	265.5 ± 7.22	457.0 ± 12.85	504.8 ± 13.30	n = 3	Roche cobas e411
406.9 ± 19.98	320.8 ± 18.66	343.3 ± 19.47	472.7 ± 22.67	503.4 ± 22.29	n = 13	Roche cobas e601
419.0 ± 17.51	277.7 ± 26.27	302.6 ± 25.97	466.1 ± 23.06	505.5 ± 27.46	n = 4	Roche Elecsys
413.2 ± 11.39	321.3 ± 13.27	349.3 ± 13.35	479.3 ± 21.03	502.0 ± 18.52	n = 16	Roche MODULAR E
385.0 ± 30.02	285.7 ± 29.80	308.9 ± 27.39	401.3 ± 36.20	429.3 ± 33.85	n = 69	Siemens ADVIA Centaur
396.3 ± 30.25	297.5 ± 8.12	336.9 ± 20.75	436.3 ± 14.12	459.9 ± 16.16	n = 3	Siemens ADVIA Centaur CP
426.4 ± 22.33	152.2 ± 22.12	267.2 ± 25.53	324.8 ± 16.97	432.2 ± 33.18	n = 7	Siemens Dimension Vista
400.6 ± 32.56	318.8 ± 21.49	348.2 ± 28.57	510.7 ± 41.35	548.9 ± 38.89	n = 5	Siemens Immulite 1000
359.1 ± 23.31	277.0 ± 16.82	307.5 ± 20.31	485.3 ± 37.59	521.9 ± 37.83	n = 20	Siemens Immulite 2000
372.5 ± 14.51	338.1 ± 26.26	377.4 ± 13.07	555.5 ± 24.67	529.0 ± 49.49	n = 3	Siemens Immulite 2500
464.5 ± 37.48	441.8 ± 27.59	485.7 ± 52.86	566.4 ± 41.21	613.8 ± 39.15	n = 4	Tosoh Bioscience
395.5 ± 33.32	295.9 ± 30.03	319.4 ± 38.07	457.2 ± 61.60	488.4 ± 52.84	n = 15	Mean of Above Means
						<Reagents>
378.7 ± 22.97	284.5 ± 15.31	315.6 ± 15.53	437.9 ± 29.21	456.5 ± 27.76	n = 14	Abbott
329.5 ± 25.96	274.2 ± 17.85	286.8 ± 25.34	389.8 ± 39.05	417.2 ± 36.17	n = 45	Beckman Coulter
405.6 ± 21.54	328.3 ± 11.68	352.4 ± 14.84	461.8 ± 35.93	507.8 ± 41.78	n = 21	Ortho Clinical Diagnostics
412.4 ± 16.24	316.3 ± 27.30	341.7 ± 27.49	473.5 ± 22.81	504.0 ± 21.85	n = 35	Roche Elecsys/Modular E/e601/e411
385.5 ± 30.09	286.3 ± 29.21	310.1 ± 27.82	403.2 ± 36.64	431.0 ± 34.24	n = 72	Siemens ADVIA/ADVIA Centaur
431.8 ± 17.40	155.8 ± 21.62	266.6 ± 20.31	329.3 ± 15.35	425.0 ± 25.56	n = 5	Siemens Dimension LOCI
365.2 ± 26.85	287.3 ± 26.85	319.4 ± 31.78	497.6 ± 42.78	526.3 ± 39.91	n = 29	Siemens Immulite
464.5 ± 37.48	441.8 ± 27.59	485.7 ± 52.86	566.4 ± 41.21	613.8 ± 39.15	n = 4	Tosoh AIA
396.4 ± 40.14	295.7 ± 63.61	314.4 ± 29.92	444.3 ± 69.72	478.1 ± 62.28	n = 8	Mean of Above Means

Statistical Summary (Mean and Standard Deviation)

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

Specimen: E46 -----	Specimen: E47 -----	Specimen: E48 -----	Specimen: E49 -----	Specimen: E50 -----	Number -----	Instrument or Reagent System -----
14.29 ± 2.92 14.90	77.35 ± 55.14 97.20	90.78 ± 62.29 110.00	27.06 ± 2.85 27.00	31.35 ± 3.74 32.00	n = 70 n = 70	All Methods & Instruments Median value, All Methods & Instruments
<Instruments>						
14.72 ± 2.21	42.45 ± 54.54	46.09 ± 61.19	27.84 ± 1.31	31.86 ± 1.43	n = 3	BioRad PhD System
15.70 ± 1.62	108.82 ± 12.39	126.31 ± 11.26	26.44 ± 2.30	31.15 ± 3.13	n = 32	DiaSorin Liaison
11.37 ± 1.01	82.43 ± 7.31	78.16 ± 32.01	22.23 ± 4.57	26.41 ± 4.03	n = 5	Gamma Counter
10.00 ± 1.88	16.70* ± 4.00	29.70* ± 6.50	28.37 ± 2.62	31.53 ± 3.72	n = 14	LC/MS/MS
15.10 ± 1.58	13.49 ± 1.16	67.30 ± 94.63	28.26 ± 3.04	33.21 ± 3.83	n = 11	Instrument Not Listed
13.53 ± 2.50	49.34 ± 43.13	66.30 ± 34.44	27.22 ± 1.98	31.41 ± 1.97	n = 5	Mean of Above Means
<Reagents>						
15.70 ± 1.62	108.82 ± 12.39	126.31 ± 11.26	26.44 ± 2.30	31.15 ± 3.13	n = 32	DiaSorin Liaison
11.47 ± 0.34	60.31 ± 36.75	55.85 ± 32.63	22.21 ± 1.10	26.10 ± 1.17	n = 3	DiaSorin Radioimmunoassay
15.12 ± 1.66	44.99 ± 68.94	61.99 ± 86.74	28.45 ± 2.76	33.13 ± 3.78	n = 16	Immuno Diagnostic Systems Enzyme Im
10.18 ± 1.84	16.70* ± 4.00	29.70* ± 6.50	28.71 ± 2.36	31.87 ± 3.17	n = 14	In-House
12.00 ± 3.61	84.02 ± 51.21	89.58 ± 55.99	25.54 ± 0.90	28.23 ± 4.26	n = 3	Reagent Not Listed
12.83 ± 2.39	62.10 ± 36.59	69.64 ± 37.82	26.51 ± 2.45	30.26 ± 2.79	n = 5	Mean of Above Means

* The statistical analysis was conducted based on results of 5 of 14 laboratories that reported actual values; other 9 laboratories reported zero, < 5.0 or unreportable values.