



Comprehensive Chemistry

Name	Line No.	Specimen 6			Specimen 7			Specimen 8			Specimen 9			Specimen 10			No. of Labs
		Range & Type	Mean	SD	Range & Type	Mean	SD	Range & Type	Mean	SD	Range & Type	Mean	SD	Range & Type	Mean	SD	
Alpha-fetoprotein																	
Initial Grouping by Reagent																	
Roche Elecsys	1	29.7 - 44.8	S 37.27	2.53	148.2 - 215.6	S 181.91	11.22	206.0 - 295.3	S 250.65	14.89	219.2 - 315.1	S 267.17	15.98	121.0 - 172.5	S 146.79	8.58	11
Initial Grouping by Sensitivity or Principle																	
Luminometric	2	23.1 - 46.6	S 34.86	3.93	116.7 - 225.6	S 171.14	18.14	156.2 - 312.3	S 234.26	26.02	166.3 - 333.3	S 249.78	27.84	93.4 - 181.4	S 137.39	14.68	18
Total Population																	
Whole Population	3	23.6 - 46.5	S 35.04	3.82	117.0 - 222.8	S 169.92	17.62	156.1 - 308.2	S 232.15	25.33	166.3 - 330.5	S 248.36	27.37	93.1 - 178.3	S 135.74	14.2	26
Amylase																	
Initial Grouping by Reagent and Instrument																	
Abbott Aeroset/Architect & Abbott Architect c, ci, i	1	25 - 46	P 35.1	2.0	76 - 142	P 109.0	4.3	102 - 190	P 146.2	5.4	109 - 202	P 155.5	5.7	63 - 118	P 90.7	3.6	11
Beckman Olympus & Beck Olym AU 400/600/5400	2	18 - 34	P 26.4	1.9	58 - 107	P 82.5	4.9	77 - 144	P 110.6	7.1	81 - 151	P 116.1	7.1	48 - 89	P 68.8	4.5	20
Beckman Olympus & Beckman AU 480	3	19 - 35	P 26.9	1.5	58 - 108	P 82.9	4.2	78 - 144	P 110.8	6.3	82 - 152	P 116.9	6.4	48 - 90	P 69.2	3.2	14
Ortho Vitros & Ortho Vitros 3600, 5600	4	21 - 39	P 30.0	0.0	45 - 83	P 63.9	5.6	63 - 117	P 89.8	4.5	66 - 122	P 94.1	4.9	34 - 64	P 48.9	5.6	17
Ortho Vitros & Ortho Vitros not DT or ECI	5	21 - 39	P 30.0	0.0	44 - 83	P 63.5	4.4	63 - 116	P 89.5	4.3	67 - 124	P 95.3	4.1	38 - 70	P 54.0	3.6	14
Siemens Dimension & Siemens Dimension EXL	6	25 - 46	P 35.3	0.9	79 - 147	P 112.9	1.7	106 - 196	P 151.0	1.9	112 - 207	P 159.6	2.1	65 - 121	P 93.2	1.4	48
Initial Grouping by Reagent																	
Abbott Aeroset/Architect	7	25 - 46	P 35.1	2.0	76 - 142	P 109.0	4.3	102 - 190	P 146.2	5.4	109 - 202	P 155.5	5.7	63 - 118	P 90.7	3.6	11
Beckman Olympus	8	19 - 35	P 26.8	2.0	58 - 108	P 83.4	5.3	78 - 145	P 111.5	7.4	82 - 153	P 117.4	7.7	49 - 90	P 69.5	4.5	36
Ortho Vitros	9	21 - 39	P 30.0	0.0	45 - 83	P 63.8	5.0	63 - 116	P 89.5	4.3	66 - 123	P 94.5	4.6	36 - 67	P 51.3	5.3	33
Roche Cobas	10	23 - 43	P 32.8	1.9	68 - 126	P 96.9	2.9	91 - 168	P 129.4	3.2	96 - 179	P 137.4	4.2	57 - 105	P 80.8	2.5	22
Siemens Dimension	11	25 - 46	P 35.3	1.0	79 - 147	P 112.9	1.9	106 - 196	P 151.1	2.1	112 - 208	P 159.7	2.4	65 - 121	P 93.4	1.7	59
Initial Grouping by Sensitivity or Principle																	
Standardized methods	12	24 - 45	P 34.3	3.7	74 - 138	P 105.8	11.7	101 - 188	P 144.6	18.6	106 - 196	P 151.1	18.5	62 - 114	P 87.9	9.8	43
All Beckman	13	19 - 35	P 26.8	2.0	58 - 108	P 83.4	5.3	78 - 145	P 111.5	7.4	82 - 153	P 117.4	7.7	49 - 90	P 69.5	4.5	36
Vitros and related	14	21 - 39	P 30.0	0.0	45 - 83	P 63.8	5.0	63 - 116	P 89.5	4.3	66 - 123	P 94.5	4.6	36 - 67	P 51.3	5.3	33
Roche and related	15	23 - 43	P 32.8	1.9	68 - 126	P 96.9	2.9	91 - 168	P 129.4	3.2	96 - 179	P 137.4	4.2	57 - 105	P 80.8	2.5	22
Siemens and related	16	25 - 46	P 35.3	1.0	79 - 147	P 112.7	2.3	106 - 196	P 150.8	2.8	112 - 207	P 159.4	3.2	65 - 121	P 93.2	2.1	60
Total Population																	
Whole Population	17	23 - 42	P 32.3	3.8	67 - 124	P 95.6	18.9	90 - 168	P 129.2	24.9	95 - 177	P 136.4	26.0	55 - 103	P 79.1	16.2	199
Bilirubin Direct, Comp Chem																	
Initial Grouping by Reagent and Instrument																	
Abbott acid diazo & Abbott Architect c, ci, i	1	0.2 - 1.0	C 0.58	0.06	1.0 - 1.8	C 1.37	0.1	1.2 - 2.0	C 1.64	0.09	1.3 - 2.1	C 1.69	0.09	0.8 - 1.6	C 1.18	0.08	13
Beckman Olympus & Beck Olym AU 400/600/5400	2	0.1 - 0.9	C 0.46	0.09	0.7 - 1.5	C 1.11	0.14	1.0 - 1.8	C 1.41	0.16	1.0 - 1.9	C 1.45	0.14	0.5 - 1.4	C 0.95	0.11	16
Beckman Olympus & Beckman AU 480	3	0.1 - 0.9	C 0.52	0.06	0.8 - 1.6	C 1.2	0.1	1.1 - 1.9	C 1.5	0.1	1.2 - 2.0	C 1.55	0.1	0.6 - 1.4	C 1.03	0.07	11
Ortho Vitros & Ortho Vitros 3600, 5600	4	0 - 0.4	C 0.01	0.05	0 - 0.7	C 0.25	0.32	0 - 0.8	C 0.4	0.26	0 - 0.8	C 0.39	0.28	0 - 0.5	C 0.08	0.15	16
Ortho Vitros & Ortho Vitros not DT or ECI	5	0 - 0.4	C 0.0	0.0	0 - 0.7	C 0.31	0.29	0.1 - 0.9	C 0.53	0.38	0.1 - 0.9	C 0.54	0.38	0 - 0.6	C 0.2	0.26	10
Siemens Dimension DBI & Siemens Dimension EXL	6	0 - 0.6	C 0.24	0.05	0.3 - 1.1	C 0.7	0.07	0.5 - 1.3	C 0.93	0.07	0.6 - 1.4	C 0.96	0.07	0.2 - 1.0	C 0.57	0.07	43
Initial Grouping by Reagent																	
Abbott acid diazo	7	0.2 - 1.0	C 0.58	0.06	1.0 - 1.8	C 1.37	0.1	1.2 - 2.0	C 1.64	0.09	1.3 - 2.1	C 1.69	0.09	0.8 - 1.6	C 1.18	0.08	13
Beckman Coulter	8	0 - 0.8	C 0.38	0.08	0.5 - 1.3	C 0.92	0.2	0.8 - 1.6	C 1.16	0.26	0.8 - 1.6	C 1.21	0.26	0.4 - 1.2	C 0.79	0.17	14
Beckman Olympus	9	0.1 - 0.9	C 0.48	0.08	0.7 - 1.5	C 1.14	0.13	1.0 - 1.9	C 1.45	0.15	1.1 - 1.9	C 1.49	0.13	0.6 - 1.4	C 0.98	0.1	28
Ortho Vitros	10	0 - 0.4	C 0.01	0.04	0 - 0.7	C 0.26	0.3	0 - 0.8	C 0.42	0.31	0 - 0.8	C 0.42	0.32	0 - 0.5	C 0.11	0.2	29
Roche acid diazo	11	0 - 0.7	C 0.27	0.05	0.3 - 1.1	C 0.69	0.02	0.5 - 1.3	C 0.88	0.05	0.5 - 1.3	C 0.92	0.05	0.2 - 1.0	C 0.59	0.03	15
Siemens Dimension DBI	12	0 - 0.6	C 0.24	0.05	0.3 - 1.1	C 0.71	0.07	0.5 - 1.3	C 0.94	0.07	0.6 - 1.4	C 0.97	0.08	0.2 - 1.0	C 0.57	0.07	51
Initial Grouping by Sensitivity or Principle																	

Acid diazo methods	13	0 - 0.7	C 0.26	0.18	0.3 - 1.1	C 0.73	0.39	0.6 - 1.4	C 0.96	0.43	0.6 - 1.4	C 0.99	0.44	0.2 - 1.0	C 0.59	0.35	138
Diazonium ion methods	14	0 - 0.9	C 0.45	0.1	0.7 - 1.5	C 1.08	0.2	1.0 - 1.8	C 1.38	0.23	1.0 - 1.8	C 1.41	0.24	0.5 - 1.3	C 0.93	0.16	36
Other	15	0 - 0.7	C 0.33	0.15	0.5 - 1.3	C 0.87	0.23	0.7 - 1.5	C 1.09	0.26	0.7 - 1.5	C 1.1	0.25	0.3 - 1.1	C 0.71	0.2	10
Total Population																	
Whole Population	16	0 - 0.7	C 0.3	0.18	0.4 - 1.2	C 0.8	0.37	0.6 - 1.4	C 1.04	0.42	0.7 - 1.5	C 1.08	0.43	0.3 - 1.1	C 0.66	0.34	188

Cortisol

Initial Grouping by Reagent

Beckman Coulter Access	1	6 - 10	P 7.9	0.6	14 - 24	P 19.3	0.8	19 - 31	P 24.8	0.8	20 - 33	P 26.1	1.1	13 - 21	P 16.8	0.8	16
Roche Elecsys	2	5 - 9	P 7.0	0.4	14 - 23	P 18.6	0.7	18 - 31	P 24.6	1.1	20 - 33	P 26.2	1.3	12 - 20	P 15.7	0.6	15

Initial Grouping by Sensitivity or Principle

Immuno-not FPIA	3	6 - 10	P 8.3	1.1	15 - 25	P 20.3	3.0	19 - 31	P 25.2	3.4	20 - 34	P 26.9	3.6	13 - 22	P 17.3	2.4	12
luminometric	4	6 - 10	P 7.7	0.8	15 - 24	P 19.4	1.3	19 - 31	P 25.0	1.2	20 - 33	P 26.5	1.6	12 - 21	P 16.6	1.1	41
Total Population																	
Whole Population	5	6 - 10	P 7.8	0.9	15 - 24	P 19.5	1.9	19 - 31	P 25.0	1.9	20 - 33	P 26.5	2.2	13 - 21	P 16.7	1.5	56

Creatine Kinase, Total

Initial Grouping by Reagent and Instrument

Beckman Olympus & Beck Olym AU 400/600/5400	1	32 - 60	P 46.0	3.1	113 - 209	P 160.8	8.6	153 - 283	P 217.9	9.1	162 - 301	P 231.6	12.4	93 - 173	P 132.8	7.9	21
Beckman Olympus & Beckman AU 480	2	31 - 58	P 44.9	2.5	111 - 207	P 159.1	6.4	153 - 284	P 218.1	9.0	161 - 298	P 229.4	9.9	91 - 169	P 130.0	5.7	10
Ortho Vitros & Ortho Vitros 3600, 5600	3	31 - 57	P 43.8	2.7	106 - 196	P 151.1	11.7	136 - 252	P 193.9	9.8	143 - 265	P 203.6	12.2	88 - 163	P 125.1	7.1	15
Ortho Vitros & Ortho Vitros not DT or ECI	4	29 - 54	P 41.2	5.3	103 - 192	P 147.6	13.6	136 - 252	P 193.8	14.9	137 - 255	P 196.4	7.6	85 - 158	P 121.3	6.0	10
Roche Cobas & Roche Cobas 6000, 8000	5	35 - 66	P 50.6	1.7	126 - 233	P 179.5	5.1	170 - 317	P 243.5	7.5	181 - 335	P 257.9	7.5	103 - 191	P 147.0	4.1	10
Siemens Dimension & Siemens Dimension EXL	6	33 - 61	P 47.1	2.1	123 - 228	P 175.4	3.4	167 - 311	P 239.0	4.7	177 - 329	P 252.8	4.1	101 - 187	P 144.0	2.2	19
Siemens Dimension IFCC & Siemens Dimension EXL 7	7	34 - 63	P 48.2	2.1	124 - 230	P 176.9	2.9	169 - 314	P 241.8	4.7	179 - 332	P 255.6	5.2	102 - 189	P 145.6	3.9	31

Initial Grouping by Reagent

Beckman Coulter	8	34 - 64	P 49.2	5.1	120 - 223	P 171.7	11.5	165 - 306	P 235.5	14.8	174 - 324	P 249.2	16.3	99 - 184	P 141.7	10.4	13
Beckman Olympus	9	32 - 59	P 45.7	2.9	112 - 208	P 160.0	7.8	152 - 283	P 217.7	8.9	161 - 300	P 230.6	11.4	92 - 171	P 131.8	7.2	33
Ortho Vitros	10	30 - 55	P 42.5	4.3	105 - 195	P 149.9	12.2	136 - 252	P 194.1	11.7	141 - 262	P 201.2	10.9	87 - 161	P 123.9	6.8	27
Roche Cobas	11	35 - 66	P 50.4	3.3	125 - 232	P 178.5	4.7	170 - 316	P 242.8	6.6	180 - 334	P 257.0	6.9	103 - 191	P 146.8	4.2	23
Siemens Dimension	12	33 - 62	P 47.4	2.0	123 - 229	P 176.0	4.1	168 - 312	P 240.1	6.1	178 - 330	P 254.1	6.0	101 - 188	P 144.5	3.2	24
Siemens Dimension IFCC	13	34 - 63	P 48.1	2.6	124 - 230	P 176.8	4.0	169 - 314	P 241.3	5.7	179 - 332	P 255.5	6.2	102 - 189	P 145.2	4.5	39

Initial Grouping by Sensitivity or Principle

IFCC standardized methods	14	34 - 63	P 48.1	4.1	120 - 223	P 171.5	12.4	164 - 304	P 233.7	17.6	173 - 322	P 247.4	18.6	99 - 184	P 141.4	10.1	170
Vitros and related	15	30 - 55	P 42.5	4.3	105 - 195	P 149.9	12.2	136 - 252	P 194.1	11.7	141 - 262	P 201.2	10.9	87 - 161	P 123.9	6.8	27
Total Population																	
Whole Population	16	33 - 61	P 47.3	4.5	118 - 219	P 168.5	14.4	160 - 297	P 228.2	21.7	169 - 314	P 241.2	23.6	97 - 181	P 139.0	11.4	199

Gamma-Glutamyltransferase (GGT)

Initial Grouping by Reagent and Instrument

Beckman Olympus & Beck Olym AU 400/600/5400	1	21 - 41	C 31.2	1.7	80 - 119	P 99.5	5.5	107 - 160	P 133.5	6.8	113 - 169	P 141.2	7.3	66 - 99	P 82.5	4.1	15
Siemens Dimension & Siemens Dimension EXL	2	42 - 63	P 52.2	2.0	120 - 179	P 149.5	3.6	157 - 235	P 196.2	4.0	167 - 250	P 208.2	4.7	101 - 151	P 125.7	3.0	20

Initial Grouping by Reagent

Beckman Olympus	3	22 - 42	C 31.5	1.8	80 - 120	P 99.7	5.1	107 - 160	P 133.6	6.1	113 - 170	P 141.3	6.7	66 - 99	P 82.8	4.1	23
Ortho Vitros	4	49 - 74	P 61.7	2.2	150 - 225	P 187.1	5.3	194 - 290	P 242.0	6.3	205 - 307	P 255.9	7.3	127 - 190	P 158.2	4.4	15
Roche Cobas	5	24 - 44	C 34.1	1.4	87 - 130	P 108.7	4.4	117 - 175	P 145.9	3.7	124 - 186	P 155.2	4.2	72 - 108	P 90.3	3.1	15
Siemens Dimension	6	42 - 63	P 52.4	2.1	120 - 180	P 150.2	4.0	158 - 237	P 197.3	4.6	167 - 251	P 209.0	5.0	101 - 151	P 126.1	3.1	24

Initial Grouping by Sensitivity or Principle

Standardized methods	7	24 - 44	C 33.5	3.3	85 - 127	P 106.0	10.1	114 - 171	P 142.4	13.6	120 - 181	P 150.5	13.7	71 - 106	P 88.2	8.5	60
Abbott and Beckman Coulter	8	28 - 48	C 38.1	3.6	96 - 144	P 120.1	10.4	129 - 193	P 161.1	14.3	137 - 205	P 170.8	15.9	83 - 124	P 103.6	18.1	16
Vitros and related	9	49 - 74	P 61.7	2.2	150 - 225	P 187.1	5.3	194 - 290	P 242.0	6.3	205 - 307	P 255.9	7.3	127 - 190	P 158.2	4.4	15
Siemens and related	10	42 - 63	P 52.4	2.1	120 - 180	P 150.2	4.0	158 - 237	P 197.3	4.6	167 - 251	P 209.0	5.0	101 - 151	P 126.1	3.1	24

Total Population

Whole Population	11	32 - 52	C 41.5	11.0	102 - 152	P 127.0	29.9	135 - 202	P 168.2	37.3	142 - 214	P 178.1	39.4	85 - 128	P 106.5	26.4	118
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Human Chorionic Gonadotropin (hCG)

Initial Grouping by Reagent and Instrument

Beckman Coulter Access & Beckman Coulter Access	1	215 - 264	S 239.7	8.2	839 - 1022	S 930.7	30.4	1100 - 1336	S 1218.0	39.5	863 - 1839	S 1351.0	162.6	683 - 870	S 776.7	31.1	30
Ortho Vitros ECI & Ortho Vitros 3600, 5600	2	220 - 273	S 246.5	8.9	894 - 1040	S 966.7	24.3	1228 - 1423	S 1325.7	32.6	1285 - 1502	S 1393.5	36.1	732 - 851	S 791.5	19.8	12
Roche Elecsys & Roche e411/e601/E170/E2010	3	184 - 279	S 231.4	15.8	734 - 1094	S 913.6	60.0	985 - 1501	S 1243.2	86.0	1033 - 1611	S 1321.8	96.3	581 - 910	S 745.5	54.7	24

Roche HCG Stat & Roche e411/e601/E170/E2010	4	182 - 214	S 197.9	5.4	723 - 880	S 801.6	26.1	990 - 1197	S 1093.3	34.4	1023 - 1307	S 1165.1	47.4	571 - 730	S 650.5	26.6	10
Roche HCG+b & Roche e411/e601/E170/E2010	5	197 - 264	S 230.9	11.2	767 - 1040	S 903.3	45.6	1050 - 1430	S 1239.8	63.3	1118 - 1507	S 1312.3	64.9	652 - 850	S 751.0	32.9	16
Siemens Advia & Siemens Centaur/Centaur CP	6	177 - 236	S 206.3	9.8	571 - 823	S 696.9	42.1	683 - 1088	S 885.2	67.5	724 - 1146	S 935.2	70.3	506 - 674	S 589.9	28.0	13
Siemens Dimension & Siemens Dimension EXL	7	211 - 265	S 237.7	8.9	766 - 982	S 874.0	36.1	991 - 1637	S 1313.9	107.7	1138 - 1669	S 1403.7	88.4	649 - 802	S 725.1	25.5	23
Siemens Dimension LOCI & Siemens Dimension EXL	8	209 - 265	S 237.3	9.3	718 - 988	S 852.7	45.0	713 - 1777	S 1244.9	177.3	1090 - 1650	S 1369.9	93.3	605 - 849	S 726.8	40.7	11
Siemens Immulite & Siemens Immulite 1000	9	327 - 434	S 380.1	17.8	961 - 1705	S 1333.0	124.1	1514 - 2112	S 1812.9	99.7	1265 - 2518	S 1891.6	208.9	924 - 1323	S 1123.7	66.4	19
Tosoh Total b-hCG & Tosoh AIA ST	10	246 - 313	S 279.5	11.2	764 - 1472	S 1118.0	118.1	1295 - 1942	S 1618.8	107.9	1546 - 1861	S 1703.6	52.5	870 - 1057	S 963.5	31.2	10
Tosoh beta-hCG & Tosoh AIA	11	255 - 302	S 278.6	8.0	453 - 1696	S 1074.3	207.2	1230 - 1833	S 1531.8	100.4	1271 - 2103	S 1687.1	138.8	806 - 1060	S 932.9	42.4	15
Tosoh beta-hCG & Tosoh AIA ST	12	237 - 314	S 275.3	12.9	1001 - 1354	S 1177.6	58.9	1397 - 1785	S 1591.3	64.7	1285 - 2087	S 1685.7	133.6	786 - 1149	S 967.8	60.5	17

Initial Grouping by Reagent

Beckman Coulter Access	13	214 - 265	S 239.3	8.6	834 - 1036	S 934.9	33.5	1075 - 1370	S 1222.8	49.2	866 - 1830	S 1348.0	160.5	680 - 878	S 779.0	33.1	38
Ortho Vitros ECI	14	220 - 273	S 246.5	8.9	894 - 1040	S 966.7	24.3	1228 - 1423	S 1325.7	32.6	1285 - 1502	S 1393.5	36.1	732 - 851	S 791.5	19.8	12
Roche Elecsys	15	189 - 274	S 231.7	14.2	750 - 1085	S 917.8	55.8	1012 - 1484	S 1248.1	78.6	1068 - 1585	S 1326.5	86.2	600 - 894	S 746.9	48.9	31
Roche HCG Stat	16	182 - 214	S 197.9	5.4	723 - 880	S 801.6	26.1	990 - 1197	S 1093.3	34.4	1023 - 1307	S 1165.1	47.4	571 - 730	S 650.5	26.6	10
Roche HCG+b	17	198 - 262	S 230.0	10.7	781 - 1029	S 905.1	41.2	1067 - 1419	S 1243.0	58.8	1129 - 1507	S 1317.7	63.0	649 - 850	S 749.7	33.5	25
Siemens Advia	18	177 - 236	S 206.3	9.8	571 - 823	S 696.9	42.1	683 - 1088	S 885.2	67.5	724 - 1146	S 935.2	70.3	506 - 674	S 589.9	28.0	13
Siemens Dimension	19	212 - 264	S 237.8	8.8	763 - 982	S 872.2	36.4	993 - 1646	S 1319.6	108.9	1139 - 1679	S 1408.9	89.9	648 - 800	S 724.3	25.3	24
Siemens Dimension LOCI	20	209 - 268	S 238.6	9.9	692 - 1037	S 864.3	57.6	734 - 1753	S 1243.2	169.8	1084 - 1641	S 1362.3	92.8	595 - 874	S 734.9	46.5	12
Siemens Immulite	21	324 - 433	S 378.4	18.0	981 - 1694	S 1337.5	119.0	1498 - 2129	S 1813.2	105.1	1264 - 2503	S 1883.5	206.5	925 - 1314	S 1119.2	64.8	21
Tosoh Total b-hCG	22	249 - 311	S 279.8	10.3	380 - 1743	S 1061.8	227.1	1312 - 1930	S 1620.9	103.1	1552 - 1853	S 1702.3	50.2	442 - 1394	S 917.6	158.7	12
Tosoh beta-hCG	23	230 - 320	S 274.7	15.0	637 - 1608	S 1122.9	161.8	1203 - 1905	S 1553.9	116.9	1199 - 2148	S 1673.8	158.2	714 - 1175	S 944.6	76.9	34

Initial Grouping by Sensitivity or Principle

IFCC standardized	24	167 - 307	S 237.1	23.5	520 - 1315	S 917.9	132.5	706 - 1814	S 1259.9	184.7	709 - 1995	S 1352.0	214.2	455 - 1074	S 764.4	103.1	202
Total Beta methods	25	186 - 352	S 269.1	27.7	337 - 1713	S 1024.6	229.4	902 - 2178	S 1539.9	212.8	1016 - 2222	S 1619.2	201.0	359 - 1401	S 879.9	173.7	14
Vitros and related	26	220 - 273	S 246.5	8.9	894 - 1040	S 966.7	24.3	1228 - 1423	S 1325.7	32.6	1285 - 1502	S 1393.5	36.1	732 - 851	S 791.5	19.8	12
Siemens Immulite and related	27	312 - 445	S 378.7	22.1	983 - 1719	S 1350.7	122.6	1428 - 2208	S 1818.2	130.1	1273 - 2525	S 1899.0	208.5	913 - 1340	S 1126.4	71.2	26
Total Population																	
Whole Population	28	110 - 395	S 252.9	47.5	405 - 1539	S 971.6	189.0	597 - 2067	S 1332.1	245.1	621 - 2226	S 1423.4	267.6	360 - 1254	S 807.4	149.0	256

Iron

Initial Grouping by Reagent and Instrument

Abbott Architect & Abbott Architect c, ci, i	1	37 - 56	P 46.6	1.0	93 - 140	P 116.7	2.0	122 - 183	P 152.6	3.0	129 - 194	P 161.3	3.8	80 - 119	P 99.4	1.8	11
Beck Oly tripyridyltriazine & Beck Olym AU 400/600/5400	2	38 - 58	P 48.1	2.2	98 - 148	P 123.0	5.8	130 - 195	P 162.1	5.9	137 - 205	P 171.0	6.2	83 - 124	P 103.4	5.2	10
Ortho Vitros & Ortho Vitros 3600, 5600	3	34 - 51	P 42.1	4.2	100 - 151	P 125.6	4.5	135 - 203	P 169.1	4.5	143 - 214	P 178.4	4.6	84 - 125	P 104.5	3.6	14
Roche Cobas & Roche Cobas 6000, 8000	4	42 - 62	P 51.9	3.1	98 - 147	P 122.8	4.4	126 - 190	P 158.0	3.7	132 - 198	P 165.3	3.5	85 - 127	P 106.2	4.2	11
Siemens Dimension & Siemens Dimension EXL	5	36 - 54	P 45.2	1.0	91 - 137	P 113.9	1.1	119 - 178	P 148.4	1.4	125 - 188	P 156.4	1.9	78 - 117	P 97.2	1.0	27

Initial Grouping by Reagent

Abbott Architect	6	37 - 56	P 46.6	1.0	93 - 140	P 116.7	2.0	122 - 183	P 152.6	3.0	129 - 194	P 161.3	3.8	80 - 119	P 99.4	1.8	11
Beck Oly tripyridyltriazine	7	39 - 59	P 49.2	2.9	100 - 150	P 124.9	5.4	133 - 199	P 166.2	8.4	141 - 211	P 175.7	9.3	85 - 128	P 106.3	6.5	18
Beckman Coulter	8	39 - 58	P 48.6	3.6	99 - 149	P 124.1	6.6	130 - 195	P 162.9	7.8	138 - 207	P 172.7	9.1	85 - 127	P 105.9	5.3	17
Beckman Olympus Ferene	9	38 - 57	P 47.8	3.6	98 - 148	P 123.0	6.3	130 - 195	P 162.2	7.4	137 - 206	P 171.5	8.0	84 - 125	P 104.4	5.5	11
Ortho Vitros	10	33 - 50	P 41.3	4.4	102 - 153	P 127.2	5.3	136 - 204	P 170.4	7.6	145 - 218	P 181.3	7.3	84 - 126	P 105.3	5.0	24
Roche Cobas	11	40 - 60	P 50.4	2.9	97 - 145	P 120.9	4.7	125 - 187	P 156.1	3.6	131 - 196	P 163.7	3.7	83 - 124	P 103.5	4.1	24
Siemens Dimension	12	36 - 54	P 45.3	1.1	91 - 137	P 113.8	1.4	119 - 178	P 148.4	1.7	125 - 188	P 156.4	1.9	78 - 117	P 97.2	1.2	37

Initial Grouping by Sensitivity or Principle

Ferene-based	13	36 - 55	P 45.5	3.2	93 - 139	P 115.8	6.1	121 - 182	P 151.6	8.1	128 - 192	P 160.2	8.4	79 - 118	P 98.7	4.8	74
Ferrozine-based	14	39 - 58	P 48.4	4.3	96 - 144	P 120.1	7.4	125 - 187	P 155.9	9.3	131 - 197	P 164.0	10.7	82 - 123	P 102.7	6.6	67
Tripyridyltriazine (TPTZ)	15	39 - 59	P 49.2	2.9	100 - 150	P 124.9	5.4	133 - 199	P 166.2	8.4	141 - 211	P 175.7	9.3	85 - 128	P 106.3	6.5	18
All other methods	16	33 - 50	P 41.3	4.4	102 - 153	P 127.2	5.3	136 - 204	P 170.4	7.6	145 - 218	P 181.3	7.3	84 - 126	P 105.3	5.0	24
Total Population																	
Whole Population	17	37 - 56	P 46.4	4.7	96 - 144	P 119.9	7.7	126 - 189	P 157.4	11.0	133 - 199	P 166.2	12.0	82 - 122	P 101.9	6.4	188

Lactic Acid

Initial Grouping by Reagent and Instrument

Ortho Vitros & Ortho Vitros 3600, 5600	1	0.4 - 1.0	C 0.69	0.03	2.5 - 4.1	P 3.27	0.07	3.4 - 5.7	P 4.58	0.17	3.6 - 6.1	P 4.86	0.12	2.0 - 3.3	P 2.62	0.04	10
Siemens Dimension & Siemens Dimension EXL	2	0.5 - 1.1	C 0.79	0.1	2.6 - 4.4	P 3.53	0.08	3.7 - 6.2	P 4.94	0.13	3.9 - 6.6	P 5.26	0.12	2.1 - 3.6	P 2.85	0.1	35
Initial Grouping by Reagent																	
Ortho Vitros	3	0.4 - 1.0	C 0.69	0.04	2.5 - 4.1	P 3.27	0.08	3.4 - 5.7	P 4.56	0.16	3.6 - 6.1	P 4.84	0.12	2.0 - 3.3	P 2.6	0.08	17
Siemens Dimension	4	0.5 - 1.1	C 0.79	0.1	2.7 - 4.4	P 3.54	0.1	3.7 - 6.2	P 4.95	0.13	3.9 - 6.6	P 5.26	0.13	2.1 - 3.6	P 2.85	0.1	40

Initial Grouping by Sensitivity or Principle

luminometric	5	0.5 - 1.1	C 0.76	0.1	2.6 - 4.3	P 3.46	0.16	3.6 - 6.0	P 4.83	0.23	3.9 - 6.4	P 5.14	0.23	2.1 - 3.5	P 2.78	0.15	57
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Total Population																	
Whole Population	6	0.5 - 1.1	C 0.76	0.09	2.6 - 4.3	P 3.45	0.15	3.6 - 6.0	P 4.81	0.23	3.8 - 6.4	P 5.12	0.22	2.1 - 3.5	P 2.76	0.17	73

Lactate Dehydrogenase, Total (LDH)

Initial Grouping by Reagent and Instrument

Beckman Olympus & Beck Olym AU 400/600/5400	1	139 - 208	P 173.6	8.9	304 - 456	P 380.3	20.2	387 - 581	P 484.1	26.3	407 - 610	P 508.3	25.5	265 - 398	P 331.5	18.4	15
Beckman Olympus & Beckman AU 480	2	143 - 214	P 178.2	4.7	311 - 467	P 388.9	8.6	396 - 594	P 495.0	9.7	412 - 619	P 515.6	11.4	269 - 404	P 336.8	9.6	10
Ortho Vitros & Ortho Vitros not DT or ECI	3	528 - 792	P 660.2	12.6	1120 - 1680	P 1400.2	26.5	1441 - 2162	P 1801.4	24.8	1512 - 2268	P 1890.3	26.4	970 - 1455	P 1212.4	19.4	10
Siemens Flex LDI & Siemens Dimension EXL	4	164 - 246	P 205.3	7.9	360 - 540	P 449.6	12.0	457 - 685	P 570.7	12.9	481 - 721	P 600.9	12.4	314 - 471	P 392.1	9.3	24

Initial Grouping by Reagent

Beckman Olympus	5	141 - 212	P 176.4	8.4	308 - 462	P 385.3	17.7	392 - 588	P 490.3	22.2	410 - 616	P 513.1	21.7	268 - 402	P 335.0	16.0	27
Ortho Vitros	6	527 - 791	P 659.2	11.1	1120 - 1680	P 1399.9	22.4	1435 - 2152	P 1793.2	37.0	1501 - 2251	P 1875.9	45.4	973 - 1459	P 1215.7	16.7	16
Roche Cobas	7	173 - 259	P 215.9	13.8	374 - 562	P 468.1	28.9	474 - 711	P 592.5	35.6	494 - 741	P 617.9	40.7	325 - 488	P 406.3	26.5	15
Siemens Dimension	8	164 - 246	P 204.8	5.4	358 - 537	P 447.3	8.8	453 - 679	P 565.9	10.9	479 - 718	P 598.6	15.1	311 - 466	P 388.4	7.4	11
Siemens Flex LDI	9	164 - 247	P 205.5	7.5	360 - 541	P 450.5	11.8	457 - 685	P 571.0	12.6	481 - 721	P 600.9	12.1	314 - 471	P 392.3	9.2	28

Initial Grouping by Sensitivity or Principle

IFCC Standardized	10	171 - 256	P 213.2	11.7	372 - 558	P 465.3	23.5	473 - 709	P 591.2	28.4	494 - 741	P 617.2	32.1	324 - 485	P 404.5	21.1	26
Other no cofactor	11	140 - 209	P 174.4	17.6	295 - 442	P 368.4	37.1	374 - 560	P 467.0	59.0	387 - 580	P 483.6	53.2	257 - 385	P 320.9	34.3	17
Siemens and related	12	153 - 230	P 191.8	15.9	335 - 503	P 418.8	34.9	425 - 637	P 530.7	43.3	447 - 670	P 558.2	46.8	292 - 437	P 364.5	30.2	76
Vitros and related	13	527 - 791	P 659.2	11.1	1120 - 1680	P 1399.9	22.4	1435 - 2152	P 1793.2	37.0	1501 - 2251	P 1875.9	45.4	973 - 1459	P 1215.7	16.7	16

Total Population

Whole Population	14	200 - 300	P 249.9	146.4	426 - 639	P 532.8	306.9	532 - 798	P 664.6	372.3	561 - 842	P 701.8	394.7	367 - 551	P 459.2	255.2	145
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Lipase

Initial Grouping by Reagent and Instrument

Beckman Olympus & Beck Olym AU 400/600/5400	1	13 - 24	P 18.5	2.0	27 - 51	P 39.1	3.3	34 - 63	P 48.7	3.7	36 - 67	P 51.6	3.2	24 - 45	P 34.9	3.6	15
Beckman Olympus & Beckman AU 480	2	13 - 24	P 18.5	1.0	28 - 52	P 40.0	2.0	35 - 65	P 49.7	1.8	37 - 68	P 52.4	2.6	24 - 45	P 34.8	1.7	12
Ortho Vitros & Ortho Vitros 3600, 5600	3	149 - 277	P 212.7	7.4	310 - 576	P 442.9	18.0	383 - 710	P 546.5	20.2	397 - 737	P 566.7	20.6	273 - 507	P 390.1	13.8	16
Ortho Vitros & Ortho Vitros not DT or ECI	4	145 - 270	P 207.4	5.3	302 - 561	P 431.4	16.5	372 - 691	P 531.3	19.7	389 - 723	P 555.8	22.5	268 - 498	P 383.1	14.6	11
Siemens Dimension & Siemens Dimension EXL	5	54 - 100	P 77.0	4.5	104 - 193	P 148.5	5.9	129 - 240	P 184.3	6.9	135 - 250	P 192.3	6.9	93 - 172	P 132.2	5.9	11
Siemens LIPL, liquid & Siemens Dimension EXL	6	53 - 98	P 75.2	4.7	104 - 194	P 148.9	5.8	130 - 241	P 185.3	7.2	136 - 252	P 193.8	9.1	93 - 172	P 132.3	5.9	33

Initial Grouping by Reagent

Beckman Olympus	7	13 - 24	P 18.5	1.6	28 - 51	P 39.5	2.9	34 - 64	P 49.1	3.0	36 - 68	P 52.0	3.0	24 - 45	P 34.9	2.9	27
Ortho Vitros	8	147 - 273	P 210.3	7.1	306 - 568	P 436.7	19.1	377 - 701	P 539.2	21.7	392 - 729	P 560.6	22.9	271 - 503	P 386.6	14.7	28
Roche Cobas Integra	9	12 - 23	P 17.7	1.3	24 - 45	P 34.7	2.8	30 - 56	P 43.1	3.5	31 - 58	P 44.7	3.7	21 - 40	P 30.4	2.5	15
Siemens Dimension	10	54 - 100	P 77.3	4.2	105 - 194	P 149.6	6.0	130 - 241	P 185.5	7.0	136 - 252	P 194.1	7.7	93 - 173	P 133.0	5.8	13
Siemens LIPL, liquid	11	53 - 98	P 75.2	4.5	104 - 194	P 149.3	6.0	130 - 241	P 185.6	6.9	136 - 253	P 194.5	8.7	93 - 173	P 132.7	5.7	39

Initial Grouping by Sensitivity or Principle

Enzymatic/colorimetric	12	63 - 117	P 89.8	71.3	127 - 235	P 181.0	148.1	159 - 295	P 226.8	184.2	164 - 304	P 233.6	188.8	112 - 209	P 160.5	131.1	119
Colorimetric	13	14 - 27	P 20.4	5.6	27 - 50	P 38.4	6.6	33 - 62	P 47.6	15.5	33 - 61	P 47.1	5.3	24 - 44	P 33.6	5.1	39

Total Population

Whole Population	14	50 - 92	P 71.1	67.8	99 - 184	P 141.5	140.6	124 - 231	P 177.4	175.4	128 - 237	P 182.4	180.1	88 - 163	P 125.5	124.4	165
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Magnesium mg/dL

Initial Grouping by Reagent and Instrument

Abbott & Abbott Architect c, ci, i	1	1.1 - 1.8	P 1.45	0.14	2.1 - 3.5	P 2.84	0.09	2.7 - 4.4	P 3.54	0.11	2.8 - 4.6	P 3.72	0.15	1.9 - 3.1	P 2.52	0.08	13
Beckman Olympus & Beck Olym AU 400/600/5400	2	1.2 - 2.0	P 1.59	0.08	2.2 - 3.7	P 2.95	0.09	2.7 - 4.5	P 3.63	0.09	2.9 - 4.7	P 3.8	0.13	2.0 - 3.3	P 2.61	0.08	20
Beckman Olympus & Beckman AU 480	3	1.2 - 2.0	P 1.61	0.06	2.3 - 3.8	P 3.01	0.09	2.8 - 4.7	P 3.72	0.16	2.9 - 4.8	P 3.85	0.09	2.0 - 3.3	P 2.66	0.08	14
Ortho Vitros & Ortho Vitros 3600, 5600	4	1.3 - 2.1	P 1.72	0.04	2.4 - 4.0	P 3.24	0.13	3.0 - 5.0	P 4.01	0.09	3.1 - 5.2	P 4.17	0.16	2.2 - 3.6	P 2.89	0.06	17
Ortho Vitros & Ortho Vitros not DT or ECI	5	1.3 - 2.1	P 1.71	0.07	2.4 - 4.0	P 3.19	0.11	3.0 - 4.9	P 3.94	0.09	3.1 - 5.1	P 4.11	0.09	2.1 - 3.5	P 2.84	0.1	18
Roche Cobas & Roche Cobas 6000, 8000	6	1.2 - 2.0	P 1.64	0.06	2.3 - 3.8	P 3.06	0.1	2.8 - 4.7	P 3.74	0.11	2.9 - 4.9	P 3.91	0.09	2.0 - 3.4	P 2.72	0.08	11
Roche Cobas & Roche e/c, 1XX, X000, Elec series	7	1.2 - 2.0	P 1.59	0.05	2.2 - 3.7	P 2.98	0.08	2.8 - 4.6	P 3.68	0.09	2.9 - 4.8	P 3.86	0.11	2.0 - 3.3	P 2.65	0.07	11
Siemens Dimension & Siemens Dimension EXL	8	1.2 - 1.9	P 1.56	0.09	2.2 - 3.7	P 2.99	0.12	2.8 - 4.6	P 3.71	0.13	2.9 - 4.8	P 3.87	0.13	2.0 - 3.3	P 2.65	0.11	50

Initial Grouping by Reagent

Abbott	9	1.1 - 1.8	P 1.45	0.14	2.1 - 3.5	P 2.84	0.09	2.7 - 4.4	P 3.54	0.11	2.8 - 4.6	P 3.72	0.15	1.9 - 3.1	P 2.52	0.08	13
Beckman Coulter	10	1.2 - 2.0	P 1.57	0.08	2.2 - 3.7	P 2.97	0.12	2.7 - 4.6	P 3.65	0.13	2.9 - 4.8	P 3.81	0.11	2.0 - 3.3	P 2.6	0.11	15
Beckman Olympus	11	1.2 - 2.0	P 1.6	0.07	2.2 - 3.7	P 2.98	0.09	2.8 - 4.6	P 3.67	0.13	2.9 - 4.8	P 3.81	0.12	2.0 - 3.3	P 2.63	0.08	37
Ortho Vitros	12	1.3 - 2.1	P 1.71	0.05	2.4 - 4.0	P 3.22	0.12	3.0 - 5.0	P 3.98	0.09	3.1 - 5.2	P 4.14	0.13	2.1 - 3.6	P 2.86	0.09	37
Roche Cobas	13	1.2 - 2.0	P 1.61	0.06	2.3 - 3.8	P 3.02	0.09	2.8 - 4.6	P 3.7	0.11	2.9 - 4.8	P 3.88	0.1	2.0 - 3.3	P 2.68	0.08	25
Siemens Dimension	14	1.2 - 2.0	P 1.57	0.1	2.2 - 3.8	P 3.0	0.12	2.8 - 4.7	P 3.74	0.14	2.9 - 4.9	P 3.89	0.13	2.0 - 3.3	P 2.66	0.11	65

Initial Grouping by Sensitivity or Principle

Calmagite-based	15	1.2 - 2.0	P 1.63	0.15	2.3 - 3.8	P 3.04	0.17	2.8 - 4.6	P 3.69	0.16	2.9 - 4.8	P 3.84	0.19	2.0 - 3.3	P 2.63	0.11	22
Arsenazo	16	1.1 - 1.9	P 1.49	0.16	2.1 - 3.5	P 2.82	0.13	2.6 - 4.4	P 3.48	0.19	2.7 - 4.6	P 3.64	0.2	1.9 - 3.1	P 2.5	0.13	22
Magon (Xylidyl Blue)-based	17	1.2 - 2.0	P 1.61	0.12	2.2 - 3.7	P 2.97	0.16	2.8 - 4.6	P 3.67	0.19	2.9 - 4.8	P 3.81	0.19	2.0 - 3.3	P 2.62	0.12	61
All other methods	18	1.3 - 2.1	P 1.67	0.08	2.4 - 3.9	P 3.14	0.15	2.9 - 4.8	P 3.86	0.17	3.0 - 5.0	P 4.03	0.17	2.1 - 3.5	P 2.79	0.12	62
MTB (methylthymol blue)	19	1.2 - 2.0	P 1.57	0.1	2.2 - 3.8	P 3.0	0.12	2.8 - 4.7	P 3.74	0.14	2.9 - 4.9	P 3.89	0.13	2.0 - 3.3	P 2.66	0.11	65
Total Population																	
Whole Population	20	1.2 - 2.0	P 1.6	0.12	2.3 - 3.8	P 3.02	0.17	2.8 - 4.7	P 3.72	0.2	2.9 - 4.9	P 3.88	0.2	2.0 - 3.3	P 2.67	0.14	232

Magnesium mEq/L

Total Population																	
Whole Population	1	1.0 - 1.7	P 1.35	0.17	1.8 - 3.0	P 2.42	0.25	2.3 - 3.8	P 3.01	0.36	2.4 - 4.0	P 3.18	0.42	1.6 - 2.7	P 2.14	0.26	8

Thyroid Stimulating Hormone

Initial Grouping by Reagent and Instrument

Abbott Cmia & Abbott Architect c, ci, i	1	0.9 - 1.4	S 1.14	0.09	3.3 - 5.2	S 4.26	0.32	4.7 - 6.7	S 5.72	0.34	4.9 - 7.0	S 5.99	0.35	2.8 - 4.2	S 3.5	0.23	21
Beckman Coulter Access & Beckman Coulter Access	2	1.0 - 1.4	S 1.21	0.08	3.4 - 5.5	S 4.46	0.34	4.4 - 7.8	S 6.1	0.57	4.6 - 8.2	S 6.44	0.6	3.0 - 4.5	S 3.74	0.25	61
Beckman Coulter Access & Beckman Coulter Dxl	3	1.0 - 1.4	S 1.17	0.07	3.6 - 5.0	S 4.31	0.25	4.6 - 6.9	S 5.74	0.38	5.0 - 7.5	S 6.25	0.41	2.9 - 4.3	S 3.61	0.23	13
MP Biomedicals & All gamma counters	4	1.3 - 3.0	S 2.16	0.27	5.1 - 6.3	S 5.68	0.2	5.2 - 8.3	S 6.75	0.51	4.8 - 9.0	S 6.94	0.7	3.1 - 5.9	S 4.52	0.47	19
Ortho Vitros & Ortho Vitros 3600, 5600	5	1.4 - 1.9	S 1.67	0.08	5.8 - 6.7	S 6.22	0.15	7.6 - 8.9	S 8.25	0.2	8.1 - 9.4	S 8.72	0.22	4.7 - 5.5	S 5.14	0.13	18
Roche Elecsys & Roche Cobas 6000, 8000	6	1.3 - 1.6	S 1.43	0.05	4.3 - 5.0	S 4.62	0.12	5.3 - 6.6	S 5.95	0.21	5.4 - 7.0	S 6.2	0.27	3.7 - 4.2	S 3.93	0.08	10
Roche Elecsys & Roche e/c, 1XX, X000, Elec series	7	1.3 - 1.6	S 1.45	0.07	4.2 - 4.9	S 4.59	0.12	5.3 - 6.4	S 5.83	0.18	5.6 - 6.7	S 6.14	0.17	3.6 - 4.2	S 3.9	0.1	11
Roche Elecsys & Roche e411/e601/E170/E2010	8	1.3 - 1.6	S 1.44	0.06	4.1 - 5.1	S 4.62	0.16	5.2 - 6.5	S 5.87	0.22	5.5 - 6.8	S 6.14	0.23	3.5 - 4.3	S 3.91	0.13	35
Siemens Dimension & Siemens Dimension Xpand	9	1.1 - 1.4	S 1.29	0.05	4.0 - 5.4	S 4.66	0.24	5.5 - 7.2	S 6.35	0.29	5.8 - 7.8	S 6.83	0.33	3.4 - 4.3	S 3.85	0.15	14
Siemens Dimension LOCI & Siemens Dimension EXL	10	1.0 - 1.4	S 1.19	0.07	3.6 - 4.8	S 4.19	0.19	4.7 - 6.5	S 5.56	0.3	4.8 - 6.8	S 5.81	0.34	3.0 - 4.0	S 3.5	0.18	42
Siemens Immulite 3rd gen & Siemens Immulite 1000	11	0.9 - 1.6	S 1.24	0.12	3.9 - 5.5	S 4.69	0.26	5.0 - 7.8	S 6.41	0.46	5.7 - 7.6	S 6.61	0.32	3.1 - 4.8	S 3.95	0.28	11
Siemens TSH Ultra & Siemens Centaur/Centaur CP	12	1.0 - 1.8	S 1.38	0.13	3.4 - 7.0	S 5.2	0.59	5.3 - 8.1	S 6.7	0.46	5.3 - 8.7	S 6.98	0.56	3.2 - 5.2	S 4.19	0.33	10
Tosoh AIA & Tosoh AIA	13	1.2 - 1.9	S 1.57	0.11	4.6 - 6.4	S 5.53	0.29	5.7 - 8.8	S 7.25	0.51	5.9 - 9.4	S 7.64	0.57	3.7 - 5.6	S 4.64	0.32	30
Tosoh AIA & Tosoh AIA ST	14	1.2 - 1.9	S 1.56	0.13	4.2 - 6.8	S 5.52	0.43	6.6 - 7.9	S 7.23	0.22	6.0 - 8.9	S 7.44	0.49	3.4 - 5.6	S 4.53	0.37	18

Initial Grouping by Reagent

Abbott Cmia	15	0.9 - 1.4	S 1.14	0.09	3.3 - 5.2	S 4.26	0.32	4.7 - 6.7	S 5.72	0.34	4.9 - 7.0	S 5.99	0.35	2.8 - 4.2	S 3.5	0.23	21
Beckman Coulter Access	16	1.0 - 1.4	S 1.2	0.08	3.4 - 5.4	S 4.44	0.33	4.4 - 7.7	S 6.04	0.56	4.7 - 8.1	S 6.41	0.57	3.0 - 4.5	S 3.72	0.25	75
MP Biomedicals	17	1.3 - 3.0	S 2.16	0.27	5.1 - 6.3	S 5.68	0.2	5.2 - 8.3	S 6.75	0.51	4.8 - 9.0	S 6.94	0.7	3.1 - 5.9	S 4.52	0.47	19
Ortho Vitros	18	1.4 - 1.9	S 1.66	0.09	5.2 - 7.1	S 6.16	0.31	6.8 - 9.5	S 8.14	0.44	7.1 - 10.1	S 8.62	0.5	4.3 - 5.9	S 5.08	0.26	24
Roche Elecsys	19	1.3 - 1.6	S 1.44	0.06	4.2 - 5.1	S 4.62	0.15	5.2 - 6.5	S 5.88	0.22	5.5 - 6.9	S 6.16	0.23	3.6 - 4.3	S 3.92	0.12	60
Siemens Dimension	20	1.1 - 1.5	S 1.27	0.06	3.6 - 5.4	S 4.48	0.29	4.5 - 7.5	S 6.02	0.5	4.8 - 8.1	S 6.47	0.55	3.0 - 4.4	S 3.71	0.23	23
Siemens Dimension LOCI	21	1.0 - 1.4	S 1.19	0.07	3.6 - 4.8	S 4.18	0.19	4.6 - 6.5	S 5.54	0.31	4.8 - 6.8	S 5.81	0.34	2.9 - 4.1	S 3.48	0.19	43
Siemens Immulite 3rd gen	22	0.9 - 1.6	S 1.27	0.12	3.6 - 6.1	S 4.85	0.41	4.9 - 8.0	S 6.46	0.52	5.5 - 8.0	S 6.75	0.42	3.2 - 4.8	S 3.99	0.26	17
Siemens TSH Ultra	23	1.0 - 1.8	S 1.38	0.13	3.4 - 7.0	S 5.2	0.59	5.3 - 8.1	S 6.7	0.46	5.3 - 8.7	S 6.98	0.56	3.2 - 5.2	S 4.19	0.33	10
Tosoh AIA	24	1.2 - 1.9	S 1.56	0.12	4.5 - 6.6	S 5.52	0.35	5.9 - 8.5	S 7.23	0.44	5.9 - 9.2	S 7.56	0.55	3.6 - 5.6	S 4.59	0.34	49

Initial Grouping by Sensitivity or Principle

Standardized methods	25	0.7 - 2.0	S 1.33	0.21	2.8 - 6.7	S 4.75	0.64	3.8 - 8.8	S 6.28	0.84	3.9 - 9.3	S 6.62	0.9	2.4 - 5.5	S 3.97	0.51	211
Tosoh and RIA	26	0.6 - 2.6	S 1.6	0.34	4.0 - 6.7	S 5.38	0.46	5.2 - 8.6	S 6.94	0.57	5.2 - 9.3	S 7.23	0.68	3.1 - 5.7	S 4.42	0.44	92
Siemens non Immulite	27	1.0 - 1.4	S 1.22	0.08	3.5 - 5.1	S 4.28	0.28	4.4 - 7.1	S 5.71	0.45	4.5 - 7.6	S 6.04	0.52	2.9 - 4.3	S 3.56	0.23	66

Total Population																	
Whole Population	28	0.6 - 2.2	S 1.38	0.27	2.9 - 6.8	S 4.83	0.66	3.9 - 8.8	S 6.34	0.83	4.0 - 9.3	S 6.67	0.88	2.4 - 5.6	S 4.01	0.53	369

Thyroxine, Free (FT4)

Initial Grouping by Reagent and Instrument

Abbott Cmia & Abbott Architect c, ci, i	1	1.2 - 1.6	S 1.39	0.07	2.6 - 5.3	S 3.95	0.44	2.6 - 7.2	S 4.9	0.76	3.0 - 7.3	S 5.14	0.72	2.4 - 4.3	S 3.38	0.32	19
Beckman Coulter Access & Beckman Coulter Access	2	1.3 - 1.8	S 1.52	0.08	2.6 - 3.8	S 3.19	0.2	3.0 - 4.3	S 3.65	0.23	3.0 - 4.5	S 3.75	0.24	2.2 - 3.6	S 2.9	0.22	46
Beckman Coulter Access & Beckman Coulter Dxl	3	1.2 - 1.9	S 1.55	0.13	2.9 - 4.1	S 3.52	0.19	3.4 - 4.6	S 4.04	0.2	3.3 - 4.8	S 4.08	0.25	2.6 - 3.6	S 3.12	0.17	13
MP Biomedicals & All gamma counters	4	0.2 - 1.1	S 0.64	0.15	1.5 - 3.8	S 2.63	0.39	2.6 - 4.5	S 3.51	0.32	2.4 - 5.3	S 3.88	0.49	1.3 - 2.8	S 2.08	0.26	18
Ortho Vitros & Ortho Vitros 3600, 5600	5	4.7 - 4.9	C 4.8	0.0	6.8 - 7.1	S 6.93	0.04	6.8 - 7.1	S 6.93	0.04	6.8 - 7.1	S 6.93	0.04	6.8 - 7.1	S 6.93	0.04	15
Roche Elecsys & Roche e411/e601/E170/E2010	6	1.5 - 2.1	S 1.79	0.1	3.6 - 5.3	S 4.46	0.28	4.6 - 7.0	S 5.8	0.39	4.9 - 7.2	S 6.04	0.37	3.1 - 4.5	S 3.83	0.24	13
Siemens Advia/Centaur/CP/XP & Siemens Centaur/Centaur CP	7	1.0 - 1.7	S 1.33	0.11	2.3 - 4.3	S 3.32	0.33	2.9 - 5.4	S 4.15	0.42	2.8 - 5.9	S 4.32	0.51	2.0 - 3.7	S 2.84	0.29	13
Siemens Dimension LOCI & Siemens Dimension EXL	8	1.6 - 2.0	S 1.83	0.07	5.0 - 6.3	S 5.63	0.22	6.6 - 8.2	S 7.4	0.26	6.9 - 8.5	S 7.71	0.26	4.2 - 5.3	S 4.72	0.19	38
Tosoh AIA & Tosoh AIA	9	1.5 - 2.6	S 2.02	0.19	4.1 - 6.3	S 5.16	0.37	4.7 - 7.5	S 6.11	0.47	5.0 - 7.8	S 6.41	0.46	3.7 - 5.3	S 4.5	0.28	19

Initial Grouping by Reagent

Abbott Cmia	10	1.2 - 1.6	S 1.39	0.07	2.6 - 5.3	S 3.95	0.44	2.6 - 7.2	S 4.9	0.76	3.0 - 7.3	S 5.14	0.72	2.4 - 4.3	S 3.38	0.32	19
Beckman Coulter Access	11	1.2 - 1.8	S 1.53	0.1	2.5 - 4.0	S 3.26	0.24	2.9 - 4.6	S 3.74	0.27	3.0 - 4.7	S 3.82	0.28	2.3 - 3.6	S 2.95	0.23	60

MP Biomedicals	12	0.2 - 1.1	S 0.64	0.15	1.5 - 3.8	S 2.63	0.39	2.6 - 4.5	S 3.51	0.32	2.4 - 5.3	S 3.88	0.49	1.3 - 2.8	S 2.08	0.26	18
Ortho Vitros	13	4.3 - 5.1	S 4.7	0.12	6.8 - 7.1	S 6.93	0.05	6.8 - 7.1	S 6.93	0.05	6.8 - 7.1	S 6.93	0.05	6.8 - 7.1	S 6.93	0.05	21
Roche Elecsys	14	1.4 - 2.1	S 1.74	0.11	3.7 - 5.1	S 4.39	0.24	4.6 - 6.7	S 5.66	0.35	5.0 - 6.9	S 5.94	0.31	3.2 - 4.4	S 3.78	0.21	32
Siemens Advia/Centaur/CP/XP	15	1.0 - 1.7	S 1.33	0.11	2.3 - 4.3	S 3.32	0.33	2.9 - 5.4	S 4.15	0.42	2.8 - 5.9	S 4.32	0.51	2.0 - 3.7	S 2.84	0.29	13
Siemens Dimension	16	1.1 - 2.6	S 1.89	0.25	3.1 - 6.8	S 4.93	0.61	2.8 - 8.8	S 5.79	1.0	2.7 - 9.1	S 5.88	1.06	2.9 - 5.6	S 4.29	0.45	14
Siemens Dimension LOCI	17	1.6 - 2.0	S 1.83	0.07	5.0 - 6.3	S 5.63	0.22	6.5 - 8.3	S 7.37	0.29	6.7 - 8.6	S 7.67	0.32	4.2 - 5.3	S 4.72	0.19	39
Siemens Immulite (1-step)	18	1.6 - 2.2	S 1.94	0.1	4.0 - 5.5	S 4.73	0.25	4.3 - 6.4	S 5.37	0.36	4.9 - 6.5	S 5.67	0.26	3.4 - 4.6	S 4.01	0.19	10
Tosoh AIA	19	1.5 - 2.6	S 2.06	0.19	4.1 - 6.3	S 5.22	0.36	4.7 - 7.7	S 6.22	0.5	5.2 - 7.8	S 6.48	0.44	3.7 - 5.4	S 4.57	0.29	25
Initial Grouping bySensitivityor Principle																	
Standardized methods	20	0.3 - 2.9	S 1.57	0.43	1.1 - 6.6	S 3.89	0.91	1.4 - 8.1	S 4.72	1.12	1.4 - 8.4	S 4.91	1.16	0.9 - 5.8	S 3.37	0.82	165
Vitros and related	21	4.3 - 5.1	S 4.7	0.12	6.8 - 7.1	S 6.93	0.05	6.8 - 7.1	S 6.93	0.05	6.8 - 7.1	S 6.93	0.05	6.8 - 7.1	S 6.93	0.05	21
Siemens non-Immulite	22	1.0 - 2.5	S 1.74	0.25	2.1 - 7.9	S 5.02	0.96	2.2 - 10.6	S 6.4	1.39	2.2 - 11.1	S 6.65	1.47	1.9 - 6.6	S 4.25	0.78	66
All Immulite	23	1.6 - 2.3	S 1.98	0.12	4.0 - 5.5	S 4.74	0.24	4.3 - 6.7	S 5.5	0.39	5.0 - 6.5	S 5.73	0.26	3.5 - 4.5	S 4.0	0.17	13
Total Population																	
Whole Population	24	0 - 3.3	S 1.69	0.55	0.8 - 8.2	S 4.46	1.23	1.1 - 9.6	S 5.35	1.41	1.2 - 9.9	S 5.54	1.44	0.2 - 7.6	S 3.9	1.23	266

Thyroxine, Total (TT4)

Initial Grouping byReagent and Instrument

Abbott CMA & Abbott Architect c, ci, i	1	2.9 - 4.9	C 3.85	0.3	9.8 - 14.7	P 12.29	0.65	12.9 - 19.4	P 16.16	0.85	14.0 - 21.0	P 17.47	0.7	8.1 - 12.1	P 10.07	0.6	10
Beckman Coulter Access & Beckman Coulter Access	2	3.3 - 5.3	C 4.34	0.28	11.0 - 16.5	P 13.71	0.66	13.7 - 20.6	P 17.14	0.87	14.2 - 21.4	P 17.8	1.01	9.3 - 14.0	P 11.66	0.64	16
Siemens Dimension & Siemens Dimension EXL	3	3.4 - 5.4	C 4.36	0.53	10.2 - 15.3	P 12.75	0.45	13.1 - 19.7	P 16.39	0.82	14.0 - 21.0	P 17.47	0.54	8.5 - 12.8	P 10.65	0.65	17

Initial Grouping byReagent

Abbott CMA	4	2.9 - 4.9	C 3.85	0.3	9.8 - 14.7	P 12.29	0.65	12.9 - 19.4	P 16.16	0.85	14.0 - 21.0	P 17.47	0.7	8.1 - 12.1	P 10.07	0.6	10
Beckman Coulter Access	5	3.3 - 5.3	C 4.32	0.3	11.0 - 16.4	P 13.7	0.59	13.7 - 20.5	P 17.1	0.85	14.2 - 21.2	P 17.7	0.97	9.4 - 14.1	P 11.72	0.66	25
Roche Elecsys	6	2.9 - 4.9	C 3.94	0.23	8.7 - 13.1	P 10.89	0.64	11.6 - 17.3	P 14.44	0.84	12.2 - 18.3	P 15.22	0.87	7.4 - 11.2	P 9.31	0.56	16
Siemens Dimension	7	3.4 - 5.4	C 4.37	0.51	10.3 - 15.4	P 12.85	0.76	13.3 - 19.9	P 16.6	1.11	14.1 - 21.2	P 17.64	0.87	8.6 - 12.9	P 10.73	0.72	21

Initial Grouping bySensitivityor Principle

Standardized methods	8	3.0 - 5.0	C 4.03	0.4	9.7 - 14.6	P 12.17	1.26	12.7 - 19.1	P 15.92	1.76	13.5 - 20.2	P 16.83	1.81	8.1 - 12.2	P 10.18	1.0	89
Beckman Coulter and related	9	3.3 - 5.3	C 4.32	0.3	11.0 - 16.4	P 13.7	0.59	13.7 - 20.5	P 17.1	0.85	14.2 - 21.2	P 17.7	0.97	9.4 - 14.1	P 11.72	0.66	25

Total Population

Whole Population	10	3.1 - 5.1	C 4.1	0.4	10.0 - 15.0	P 12.53	1.33	12.9 - 19.4	P 16.18	1.71	13.6 - 20.5	P 17.05	1.72	8.4 - 12.6	P 10.52	1.13	115
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Triiodothyronine, Total (TT3)

Initial Grouping byReagent and Instrument

Beckman Coulter Access & Beckman Coulter Access	1	0.62 - 1.38	S 0.998	0.127	1.23 - 2.03	S 1.631	0.133	1.55 - 2.3	S 1.921	0.125	1.66 - 2.38	S 2.022	0.12	1.09 - 1.89	S 1.489	0.133	17
Beckman Coulter Access & Beckman Coulter Dxl	2	0.63 - 1.3	S 0.964	0.111	1.39 - 2.01	S 1.697	0.103	1.73 - 2.42	S 2.075	0.115	1.74 - 2.56	S 2.154	0.137	1.22 - 1.89	S 1.556	0.113	10
MP Biomedicals & All gamma counters	3	0.15 - 1.2	S 0.675	0.174	0.9 - 2.42	S 1.658	0.253	1.28 - 3.11	S 2.195	0.305	1.47 - 3.15	S 2.312	0.281	0.91 - 1.76	S 1.337	0.141	11
Siemens Advia & Siemens Centaur/Centaur CP	4	0.79 - 1.19	S 0.993	0.067	1.3 - 1.72	S 1.513	0.07	1.39 - 1.94	S 1.666	0.093	1.43 - 1.97	S 1.7	0.09	1.16 - 1.63	S 1.396	0.078	11

Initial Grouping byReagent

Beckman Coulter Access	5	0.62 - 1.35	S 0.986	0.122	1.27 - 2.04	S 1.655	0.127	1.55 - 2.4	S 1.978	0.142	1.65 - 2.5	S 2.071	0.142	1.12 - 1.9	S 1.514	0.13	27
MP Biomedicals	6	0.15 - 1.2	S 0.675	0.174	0.9 - 2.42	S 1.658	0.253	1.28 - 3.11	S 2.195	0.305	1.47 - 3.15	S 2.312	0.281	0.91 - 1.76	S 1.337	0.141	11
Roche Elecsys	7	0.93 - 1.5	S 1.213	0.096	1.5 - 2.08	S 1.791	0.096	1.73 - 2.36	S 2.047	0.106	1.75 - 2.52	S 2.135	0.127	1.39 - 1.97	S 1.677	0.097	24
Siemens Advia	8	0.8 - 1.2	S 0.999	0.068	1.31 - 1.73	S 1.518	0.069	1.39 - 1.96	S 1.676	0.094	1.44 - 1.98	S 1.708	0.09	1.17 - 1.64	S 1.404	0.079	12

Initial Grouping bySensitivityor Principle

Standardized methods	9	0.69 - 1.53	S 1.108	0.141	1.0 - 2.25	S 1.625	0.209	1.04 - 2.62	S 1.834	0.263	0.99 - 2.79	S 1.892	0.3	0.96 - 2.09	S 1.525	0.188	45
Beckman Coulter and related	10	0.3 - 1.49	S 0.896	0.198	1.14 - 2.18	S 1.656	0.173	1.36 - 2.72	S 2.041	0.226	1.48 - 2.81	S 2.141	0.222	1.0 - 1.93	S 1.463	0.155	38

Total Population

Whole Population	11	0 - 2.09	S 1.025	0.354	0.06 - 3.29	S 1.674	0.539	0 - 3.94	S 1.964	0.659	0 - 4.11	S 2.046	0.69	0.04 - 3.02	S 1.527	0.497	101
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T-Uptake % of Total

Initial Grouping byReagent and Instrument

Siemens Dimension & Siemens Dimension EXL	1	37 - 51	S 44.0	2.4	37 - 52	S 44.5	2.4	36 - 54	S 44.9	2.9	38 - 54	S 45.6	2.7	37 - 51	S 44.2	2.4	11
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Initial Grouping byReagent

Beckman Coulter Access	2	45 - 62	S 53.8	2.8	45 - 59	S 52.1	2.4	42 - 61	S 51.5	3.1	43 - 59	S 51.2	2.7	45 - 60	S 52.6	2.5	13
Siemens Dimension	3	37 - 51	S 43.8	2.3	38 - 51	S 44.5	2.3	37 - 53	S 45.0	2.7	38 - 53	S 45.6	2.5	37 - 51	S 44.2	2.4	13

Initial Grouping bySensitivityor Principle

Beckman Coulter and Vitros	4	40 - 74	S 57.4	5.7	37 - 75	S 56.2	6.3	35 - 76	S 55.7	6.8	35 - 76	S 55.5	6.8	38 - 75	S 56.5	6.1	19
Standardized methods	5	26 - 68	S 46.9	6.9	36 - 56	S 45.6	3.4	32 - 59	S 45.5	4.3	33 - 58	S 45.5	4.3	35 - 57	S 45.7	3.7	34

Total Population

Whole Population	6	26 - 75	S 50.4	8.2	28 - 70	S 49.0	7.0	26 - 71	S 48.8	7.4	26 - 71	S 48.6	7.4	28 - 71	S 49.3	7.1	55
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T-Uptake Ratio to Normal

Initial Grouping by Sensitivity or Principle

Luminometric	1	0.33 - 0.89	S 0.609	0.093	0.18 - 0.79	S 0.483	0.103	0.29 - 0.38	S 0.334	0.016	0.17 - 0.42	S 0.295	0.041	0.3 - 0.73	S 0.515	0.073	11
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Total Population

Whole Population	2	0.33 - 0.89	S 0.609	0.093	0.18 - 0.79	S 0.483	0.103	0.29 - 0.38	S 0.334	0.016	0.17 - 0.42	S 0.295	0.041	0.3 - 0.73	S 0.515	0.073	11
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Fructosamine - Polylysine

Initial Grouping by Sensitivity or Principle

All Methods	1	62 - 153	C 107.5	6.7	132 - 246	P 189.0	31.4	162 - 302	P 232.3	49.5	167 - 311	P 239.0	52.4	120 - 222	P 170.8	24.8	4
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Total Population

Whole Population	2	62 - 153	C 107.5	6.7	132 - 246	P 189.0	31.4	162 - 302	P 232.3	49.5	167 - 311	P 239.0	52.4	120 - 222	P 170.8	24.8	4
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