



Comprehensive Chemistry

Name	Line No.	Specimen 1			Specimen 2			Specimen 3			Specimen 4			Specimen 5			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	2.5 - 5.6	S 4.08	0.52	0.4 - 1.1	S 0.74	0.11	234.1 - 545.3	S 389.68	51.87	102.3 - 221.5	S 161.91	19.87	117.2 - 350.6	S 233.89	38.9	11
Initial Grouping by Sensitivity or Principle																	
Iuminometric	2	2.7 - 5.6	S 4.13	0.48	0.4 - 1.1	S 0.74	0.12	195.5 - 540.3	S 367.93	57.47	84.8 - 219.7	S 152.27	22.49	114.6 - 334.9	S 224.76	36.73	18
Total Population																	
Whole Population	3	1.4 - 6.5	S 3.92	0.84	0 - 1.4	S 0.71	0.23	186.0 - 533.3	S 359.63	57.87	82.7 - 216.0	S 149.35	22.21	113.3 - 328.3	S 220.8	35.82	27
Amylase																	
Initial Grouping by Reagent and Instrument																	
Abbott Aeroset/Architect & Abbott Architect c, ci, i	1	58 - 108	P 83.4	2.9	11 - 21	P 16.0	1.0	140 - 260	P 200.1	7.5	63 - 116	P 89.3	3.5	88 - 164	P 126.1	5.3	13
Beckman Olympus & Beck Olym AU 400/600/5400	2	43 - 80	P 61.4	3.1	8 - 15	P 11.7	0.9	106 - 196	P 150.9	6.4	47 - 87	P 67.3	3.3	66 - 123	P 94.9	4.6	18
Beckman Olympus & Beckman AU 480	3	43 - 79	P 61.0	4.4	8 - 15	P 11.7	1.0	108 - 201	P 154.8	9.4	49 - 91	P 69.8	5.1	68 - 127	P 97.5	6.2	15
Ortho Vitros & Ortho Vitros 3600, 5600	4	64 - 119	P 91.6	5.9	21 - 39	P 30.0	0.0	87 - 161	P 124.2	5.7	34 - 64	P 49.1	4.6	54 - 100	P 77.1	4.6	14
Ortho Vitros & Ortho Vitros not DT or ECi	5	61 - 114	P 87.6	7.1	21 - 39	P 30.0	0.0	87 - 161	P 123.6	4.5	37 - 69	P 53.3	3.3	54 - 101	P 77.8	3.7	14
Roche Cobas & Roche e/c, 1XX, X000, Elec series	6	61 - 113	P 87.2	2.8	11 - 21	P 16.3	0.8	128 - 237	P 182.6	4.5	57 - 105	P 80.8	2.0	80 - 148	P 114.2	3.2	10
Siemens Dimension & Siemens Dimension EXL	7	54 - 101	P 77.8	1.2	10 - 19	P 14.6	0.8	144 - 268	P 206.4	2.9	65 - 120	P 92.2	1.5	91 - 170	P 130.6	2.2	52
Siemens Dimension & Siemens Dimension Xpand	8	55 - 102	P 78.5	1.7	10 - 19	P 14.7	0.7	147 - 272	P 209.5	4.3	65 - 121	P 92.9	2.3	92 - 171	P 131.4	2.9	12
Initial Grouping by Reagent																	
Abbott Aeroset/Architect	9	58 - 108	P 83.4	2.9	11 - 21	P 16.0	1.0	140 - 260	P 200.1	7.5	63 - 116	P 89.3	3.5	88 - 164	P 126.1	5.3	13
Beckman Olympus	10	43 - 80	P 61.8	4.1	8 - 15	P 11.8	1.0	108 - 200	P 154.2	9.2	48 - 90	P 69.2	4.9	68 - 126	P 96.9	6.1	36
Ortho Vitros	11	63 - 117	P 90.0	6.7	21 - 39	P 30.0	0.0	87 - 162	P 124.7	5.6	36 - 67	P 51.5	4.5	55 - 101	P 77.9	4.7	32
Roche Cobas	12	61 - 113	P 87.1	2.1	11 - 21	P 16.3	0.6	127 - 237	P 182.1	3.7	58 - 108	P 82.7	6.4	79 - 147	P 112.9	7.0	25
Siemens Dimension	13	55 - 101	P 77.9	1.7	10 - 19	P 14.6	0.8	145 - 269	P 207.1	3.9	65 - 120	P 92.3	1.9	92 - 170	P 130.8	2.5	68
Initial Grouping by Sensitivity or Principle																	
Standardized methods	14	59 - 109	P 83.7	7.0	12 - 22	P 16.6	2.7	139 - 258	P 198.1	19.5	62 - 115	P 88.8	8.3	87 - 162	P 124.7	12.7	49
All Beckman	15	43 - 80	P 61.8	4.1	8 - 15	P 11.8	1.0	108 - 200	P 154.2	9.2	48 - 90	P 69.2	4.9	68 - 126	P 96.9	6.1	36
Vitros and related	16	63 - 117	P 90.0	6.7	21 - 39	P 30.0	0.0	87 - 162	P 124.7	5.6	36 - 67	P 51.5	4.5	55 - 101	P 77.9	4.7	32
Roche and related	17	61 - 113	P 87.1	2.1	11 - 21	P 16.3	0.6	127 - 237	P 182.1	3.7	58 - 108	P 82.7	6.4	79 - 147	P 112.9	7.0	25
Siemens and related	18	55 - 102	P 78.2	2.3	10 - 19	P 14.7	0.9	145 - 269	P 206.6	4.9	64 - 120	P 92.0	2.3	91 - 170	P 130.4	3.2	70
Total Population																	
Whole Population	19	56 - 103	P 79.6	10.3	12 - 22	P 17.2	5.9	127 - 235	P 180.8	31.8	56 - 104	P 80.3	15.5	80 - 148	P 113.7	20.7	216
Bilirubin, Direct Comprehensive																	
Initial Grouping by Reagent and Instrument																	
Abbott acid diazo & Abbott Architect c, ci, i	1	0 - 0.6	C 0.2	0.0	0 - 0.7	C 0.27	0.05	1.3 - 2.1	C 1.66	0.14	0.5 - 1.3	C 0.86	0.09	0.7 - 1.5	C 1.15	0.1	14
Beckman Coulter & Beck Coult Unicel DXC	2	0 - 0.5	C 0.07	0.04	0 - 0.6	C 0.15	0.05	0.5 - 1.4	C 0.95	0.09	0.1 - 0.9	C 0.46	0.08	0.2 - 1.0	C 0.61	0.08	11
Beckman Olympus & Beck Olym AU 400/600/5400	3	0 - 0.5	C 0.11	0.03	0 - 0.6	C 0.22	0.04	0.9 - 1.7	C 1.34	0.08	0.3 - 1.1	C 0.69	0.06	0.5 - 1.3	C 0.91	0.06	14
Beckman Olympus & Beckman AU 480	4	0 - 0.5	C 0.12	0.06	0 - 0.6	C 0.21	0.03	1.0 - 1.8	C 1.44	0.18	0.3 - 1.1	C 0.73	0.08	0.6 - 1.4	C 1.0	0.12	10
Ortho Vitros & Ortho Vitros 3600, 5600	5	0 - 0.6	C 0.15	0.22	0 - 0.5	C 0.08	0.12	0.5 - 1.3	C 0.9	0.63	0 - 0.7	C 0.33	0.4	0.1 - 0.9	C 0.48	0.48	12
Siemens Dimension DBI & Siemens Dimension EXL	6	0 - 0.5	C 0.1	0.0	0 - 0.5	C 0.1	0.0	0.5 - 1.3	C 0.93	0.07	0 - 0.8	C 0.44	0.05	0.2 - 1.0	C 0.61	0.06	43
Initial Grouping by Reagent																	
Abbott acid diazo	7	0 - 0.6	C 0.2	0.0	0 - 0.7	C 0.27	0.05	1.3 - 2.1	C 1.66	0.14	0.5 - 1.3	C 0.86	0.09	0.7 - 1.5	C 1.15	0.1	14
Beckman Coulter	8	0 - 0.5	C 0.12	0.11	0 - 0.6	C 0.18	0.05	0.7 - 1.5	C 1.09	0.24	0.1 - 0.9	C 0.54	0.14	0.3 - 1.1	C 0.73	0.19	17
Beckman Olympus	9	0 - 0.5	C 0.11	0.04	0 - 0.6	C 0.22	0.04	1.0 - 1.8	C 1.38	0.13	0.3 - 1.1	C 0.71	0.07	0.5 - 1.4	C 0.95	0.1	26
Ortho Vitros	10	0 - 0.5	C 0.1	0.19	0 - 0.5	C 0.06	0.11	0.4 - 1.2	C 0.79	0.59	0 - 0.6	C 0.23	0.37	0 - 0.8	C 0.39	0.45	25
Roche acid diazo	11	0 - 0.5	C 0.11	0.1	0 - 0.6	C 0.15	0.05	0.5 - 1.3	C 0.85	0.11	0 - 0.8	C 0.43	0.07	0.2 - 1.0	C 0.57	0.07	15

Siemens Dimension DBI	12	0 - 0.5	C 0.09	0.02	0 - 0.5	C 0.1	0.02	0.5 - 1.3	C 0.94	0.07	0 - 0.8	C 0.44	0.05	0.2 - 1.0	C 0.61	0.06	55
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Initial Grouping bySensitivityor Principle

Acid diazo methods	13	0 - 0.5	C 0.13	0.12	0 - 0.5	C 0.14	0.09	0.7 - 1.5	C 1.05	0.41	0.1 - 0.9	C 0.49	0.26	0.3 - 1.1	C 0.68	0.32	145
Diazonium ion methods	14	0 - 0.5	C 0.13	0.08	0 - 0.6	C 0.21	0.04	1.0 - 1.8	C 1.4	0.2	0.3 - 1.1	C 0.71	0.1	0.6 - 1.4	C 0.96	0.13	33
Other	15	0 - 0.5	C 0.1	0.09	0 - 0.6	C 0.16	0.07	0.5 - 1.3	C 0.94	0.39	0 - 0.8	C 0.44	0.24	0.2 - 1.0	C 0.63	0.29	14

Total Population

Whole Population	16	0 - 0.5	C 0.13	0.11	0 - 0.6	C 0.16	0.09	0.7 - 1.5	C 1.11	0.41	0.1 - 0.9	C 0.53	0.25	0.3 - 1.1	C 0.73	0.31	197
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Cortisol

Initial Grouping byReagent

Beckman Coulter Access	1	8 - 13	P 10.7	1.1	4 - 6	P 5.2	0.5	25 - 42	P 33.5	1.9	13 - 21	P 17.2	1.3	17 - 28	P 22.2	1.6	13
Roche Elecsys	2	9 - 15	P 12.4	0.8	3 - 5	P 4.0	0.0	23 - 39	P 31.3	3.1	12 - 19	P 15.4	1.2	15 - 25	P 20.3	2.0	17

Initial Grouping bySensitivityor Principle

luminometric	3	9 - 14	P 11.6	1.3	3 - 6	P 4.6	0.6	24 - 40	P 32.2	3.4	12 - 21	P 16.5	1.7	16 - 27	P 21.5	2.4	41
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Total Population

Whole Population	4	9 - 15	P 11.8	1.5	4 - 6	P 4.7	0.7	24 - 41	P 32.6	3.8	12 - 21	P 16.6	1.8	16 - 27	P 21.7	2.5	53
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Creatine Kinase, Total

Initial Grouping byReagent and Instrument

Abbott & Abbott Architect c, ci, i	1	118 - 219	P 168.5	2.9	15 - 29	P 22.0	1.1	231 - 430	P 330.5	10.7	106 - 197	P 151.2	3.7	149 - 276	P 212.5	5.8	13
Beckman Coulter & Beck Coult UniceL DXC	2	117 - 217	P 167.2	2.0	15 - 28	P 21.6	1.0	234 - 434	P 333.9	7.3	107 - 199	P 153.0	5.2	152 - 281	P 216.5	3.8	13
Beckman Olympus & Beck Olym AU 400/600/5400	3	101 - 188	P 144.6	6.2	13 - 24	P 18.4	1.0	208 - 386	P 297.2	21.5	93 - 174	P 133.5	6.3	132 - 246	P 189.2	9.9	20
Beckman Olympus & Beckman AU 480	4	102 - 190	P 146.4	5.7	13 - 24	P 18.3	1.4	200 - 372	P 286.3	15.5	91 - 169	P 130.1	7.2	129 - 239	P 184.1	10.1	11
Ortho Vitros & Ortho Vitros 3600, 5600	5	128 - 238	P 182.7	10.1	14 - 27	P 20.5	1.1	148 - 276	P 212.0	13.6	90 - 167	P 128.3	9.5	117 - 218	P 167.8	10.5	15
Ortho Vitros & Ortho Vitros not DT or ECi	6	127 - 235	P 181.0	9.9	14 - 26	P 20.0	0.0	150 - 278	P 214.2	16.9	89 - 166	P 127.7	9.6	120 - 222	P 170.8	10.0	11
Siemens Dimension & Siemens Dimension EXL	7	117 - 218	P 167.7	3.7	15 - 27	P 20.8	1.2	222 - 412	P 317.0	16.2	103 - 192	P 147.4	5.5	145 - 269	P 207.1	8.8	20
Siemens Dimension IFCC & Siemens Dimension EXL	8	116 - 216	P 166.1	3.5	14 - 26	P 19.8	1.2	219 - 406	P 312.2	10.6	102 - 189	P 145.4	3.9	143 - 266	P 204.9	5.5	34

Initial Grouping byReagent

Abbott	9	118 - 219	P 168.5	2.9	15 - 29	P 22.0	1.1	231 - 430	P 330.5	10.7	106 - 197	P 151.2	3.7	149 - 276	P 212.5	5.8	13
Beckman Coulter	10	115 - 213	P 164.2	7.7	15 - 27	P 20.9	1.7	230 - 427	P 328.4	12.7	105 - 196	P 150.4	7.8	149 - 277	P 212.8	9.6	17
Beckman Olympus	11	102 - 189	P 145.7	6.1	13 - 24	P 18.5	1.2	206 - 383	P 294.4	19.7	93 - 173	P 133.0	6.9	132 - 245	P 188.3	10.3	34
Ortho Vitros	12	127 - 235	P 180.8	10.3	14 - 26	P 20.3	0.8	149 - 277	P 213.1	15.4	90 - 167	P 128.4	9.7	119 - 220	P 169.3	10.6	29
Roche Cobas	13	114 - 213	P 163.5	10.0	15 - 28	P 21.6	1.5	221 - 411	P 316.4	20.9	104 - 193	P 148.6	4.9	146 - 271	P 208.5	7.6	24
Siemens Dimension	14	117 - 218	P 167.5	4.1	15 - 27	P 20.8	1.3	220 - 409	P 314.4	17.3	102 - 190	P 146.4	5.9	144 - 267	P 205.7	8.9	27
Siemens Dimension IFCC	15	116 - 216	P 166.2	3.5	14 - 26	P 20.0	1.3	218 - 404	P 311.0	12.0	102 - 188	P 145.0	4.1	142 - 264	P 203.4	8.0	44

Initial Grouping bySensitivityor Principle

IFCC standardized methods	16	113 - 210	P 161.2	11.2	14 - 27	P 20.4	2.4	216 - 402	P 309.1	24.1	101 - 187	P 143.8	9.7	141 - 262	P 201.8	13.7	193
Vitros and related	17	127 - 235	P 180.8	10.3	14 - 26	P 20.3	0.8	149 - 277	P 213.1	15.4	90 - 167	P 128.4	9.7	119 - 220	P 169.3	10.6	29

Total Population

Whole Population	18	115 - 213	P 163.9	12.9	14 - 27	P 20.4	2.2	208 - 386	P 297.2	39.4	99 - 184	P 141.8	11.0	138 - 257	P 197.7	17.2	225
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Gamma-Glutamyltransferase (GGT)

Initial Grouping byReagent and Instrument

Beckman Olympus & Beck Olym AU 400/600/5400	1	19 - 39	C 29.3	1.9	2 - 22	C 12.4	0.8	133 - 200	P 166.6	10.7	60 - 90	P 74.9	4.4	84 - 127	P 105.6	6.8	18
Beckman Olympus & Beckman AU 480	2	20 - 40	C 30.2	1.1	3 - 23	C 12.8	0.6	137 - 206	P 171.5	6.6	62 - 93	P 77.1	2.8	87 - 130	P 108.4	3.6	10
Siemens Dimension & Siemens Dimension EXL	3	39 - 59	C 48.7	2.0	15 - 35	C 24.9	2.0	196 - 294	P 244.9	5.6	92 - 138	P 114.7	2.8	127 - 191	P 158.9	3.7	22

Initial Grouping byReagent

Beckman Coulter	4	19 - 39	C 28.6	2.4	6 - 26	C 15.5	1.9	163 - 245	P 204.1	21.1	73 - 110	P 91.8	9.7	104 - 156	P 129.7	13.3	14
Beckman Olympus	5	20 - 40	C 29.8	1.7	3 - 23	C 12.6	0.8	135 - 203	P 168.9	9.6	61 - 91	P 75.9	4.1	86 - 129	P 107.2	6.2	31
Ortho Vitros	6	28 - 48	C 37.8	1.4	13 - 33	C 23.1	1.0	224 - 337	P 280.5	11.1	116 - 174	P 145.2	6.4	157 - 236	P 196.3	8.7	18
Roche Cobas	7	22 - 42	C 32.0	1.3	4 - 24	C 13.8	1.0	152 - 228	P 189.7	9.1	69 - 104	P 86.8	8.4	95 - 142	P 118.7	10.4	19
Siemens Dimension	8	39 - 59	C 48.8	2.2	15 - 35	C 24.9	2.1	197 - 295	P 246.1	8.0	92 - 138	P 115.1	3.6	128 - 192	P 159.7	5.0	28

Initial Grouping bySensitivityor Principle

Standardized methods	9	21 - 41	C 31.2	4.2	4 - 24	C 13.5	1.7	144 - 217	P 180.6	20.1	65 - 97	P 81.1	11.9	91 - 136	P 113.2	15.7	79
Abbott and Beckman Coulter	10	21 - 41	C 30.6	3.8	5 - 25	C 15.4	1.7	164 - 246	P 204.8	18.8	74 - 110	P 92.0	8.6	104 - 156	P 129.7	11.8	20
Vitros and related	11	28 - 48	C 37.8	1.4	13 - 33	C 23.1	1.0	224 - 337	P 280.5	11.1	116 - 174	P 145.2	6.4	157 - 236	P 196.3	8.7	18
Siemens and related	12	39 - 59	C 48.8	2.2	15 - 35	C 24.9	2.1	197 - 295	P 246.1	8.0	92 - 138	P 115.1	3.6	128 - 192	P 159.7	5.0	28

Total Population

Whole Population	13	25 - 45	C 35.4	7.8	7 - 27	C 17.0	5.1	166 - 250	P 208.1	40.4	77 - 116	P 96.6	24.0	107 - 161	P 134.2	31.6	150
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Human Chorionic Gonadotropin (hCG)

Initial Grouping by Reagent and Instrument

Beckman Coulter Access & Beckman Coulter Access	1	55 - 70	S 62.7	2.5	54 - 65	S 59.4	1.9	1575 - 2529	S 2052.0	159.0	636 - 818	S 726.9	30.3	922 - 1136	S 1028.6	35.6	30
Ortho Vitros ECI & Ortho Vitros 3600, 5600	2	43 - 59	S 51.2	2.8	48 - 70	S 59.4	3.6	1498 - 1833	S 1665.4	55.9	633 - 795	S 714.2	26.9	918 - 1145	S 1031.8	37.9	11
Roche Elecsys & Roche e411/e601/E170/E2010	3	48 - 66	S 56.6	3.0	29 - 82	S 55.6	8.7	955 - 2240	S 1597.2	214.1	402 - 1008	S 704.9	101.0	590 - 1437	S 1013.6	141.1	17
Roche HCG Stat & Roche e411/e601/E170/E2010	4	46 - 61	S 53.3	2.5	31 - 39	S 35.0	1.4	939 - 1207	S 1073.0	44.8	387 - 532	S 459.5	24.1	562 - 787	S 674.3	37.4	10
Roche HCG+b & Roche e411/e601/E170/E2010	5	46 - 69	S 57.3	3.8	48 - 67	S 57.6	3.2	1325 - 2056	S 1690.6	121.9	593 - 876	S 734.8	47.1	803 - 1334	S 1068.8	88.5	16
Siemens Advia & Siemens Centaur/Centaur CP	6	56 - 74	S 64.7	3.0	44 - 60	S 52.0	2.7	493 - 1861	S 1177.0	227.8	456 - 600	S 527.7	24.0	616 - 768	S 692.2	25.3	11
Siemens Dimension & Siemens Dimension EXL	7	48 - 58	S 52.7	1.6	50 - 61	S 55.6	1.8	1242 - 1844	S 1542.8	100.4	583 - 719	S 650.8	22.6	807 - 1050	S 928.5	40.5	26
Siemens Dimension LOCI & Siemens Dimension EXL	8	47 - 58	S 52.3	1.9	49 - 61	S 54.9	1.9	1202 - 1887	S 1544.4	114.2	575 - 692	S 633.7	19.6	793 - 987	S 889.8	32.3	12
Siemens Immulite & Siemens Immulite 1000	9	45 - 68	S 56.7	3.9	77 - 115	S 96.3	6.4	1998 - 3601	S 2799.5	267.2	944 - 1486	S 1214.6	90.3	1299 - 2143	S 1721.0	140.8	25
Tosoh Total b-hCG & Tosoh AIA ST	10	47 - 58	S 52.5	2.0	60 - 80	S 69.8	3.2	1675 - 2352	S 2013.5	112.9	712 - 1005	S 858.9	48.9	1051 - 1419	S 1234.9	61.2	10
Tosoh beta-hCG & Tosoh AIA	11	45 - 65	S 54.6	3.3	66 - 79	S 72.4	2.2	1581 - 2492	S 2036.6	151.8	426 - 1307	S 866.5	147.0	468 - 1984	S 1226.0	252.7	14
Tosoh beta-hCG & Tosoh AIA ST	12	47 - 60	S 53.5	2.3	64 - 80	S 72.1	2.8	1450 - 2448	S 1948.8	166.3	575 - 1128	S 851.3	92.2	919 - 1548	S 1233.8	104.8	12
bioMerieux Vidas & bioMerieux mini Vidas/Vidas	13	42 - 68	S 54.9	4.4	42 - 64	S 52.9	3.6	910 - 2084	S 1497.3	195.7	486 - 842	S 663.7	59.3	680 - 1265	S 972.4	97.6	10

Initial Grouping by Reagent

Beckman Coulter Access	14	54 - 71	S 62.3	2.9	53 - 67	S 59.7	2.3	1567 - 2515	S 2041.2	158.1	602 - 839	S 720.4	39.4	900 - 1155	S 1027.8	42.5	39
Ortho Vitros ECI	15	41 - 60	S 50.5	3.2	48 - 70	S 58.9	3.6	1478 - 1840	S 1659.2	60.3	641 - 792	S 716.1	25.2	926 - 1149	S 1037.5	37.3	13
Roche Elecsys	16	47 - 66	S 56.6	3.3	34 - 78	S 55.7	7.4	1049 - 2200	S 1624.5	191.7	448 - 969	S 708.4	86.8	653 - 1387	S 1020.1	122.3	25
Roche HCG Stat	17	45 - 61	S 53.0	2.6	30 - 40	S 34.7	1.6	942 - 1201	S 1071.5	43.0	388 - 528	S 458.2	23.3	559 - 783	S 670.8	37.4	11
Roche HCG+b	18	46 - 68	S 57.2	3.6	48 - 66	S 57.3	3.0	1356 - 2021	S 1688.5	111.0	598 - 868	S 732.6	45.0	828 - 1297	S 1062.3	78.1	24
Siemens Advia	19	56 - 74	S 64.7	3.0	44 - 60	S 52.0	2.7	493 - 1861	S 1177.0	227.8	456 - 600	S 527.7	24.0	616 - 768	S 692.2	25.3	11
Siemens Dimension	20	48 - 57	S 52.8	1.6	50 - 61	S 55.6	1.7	1251 - 1828	S 1539.2	96.2	581 - 719	S 649.9	23.0	807 - 1045	S 926.1	39.7	29
Siemens Dimension LOCI	21	46 - 58	S 52.2	2.0	48 - 62	S 55.3	2.3	1217 - 1878	S 1547.2	110.2	549 - 732	S 640.5	30.3	788 - 1001	S 894.7	35.5	13
Siemens Immulite	22	43 - 70	S 56.5	4.5	65 - 125	S 94.7	9.9	1367 - 4038	S 2702.2	445.2	705 - 1657	S 1181.1	158.7	924 - 2412	S 1667.7	248.0	28
Tosoh Total b-hCG	23	46 - 58	S 52.2	2.0	60 - 79	S 69.5	3.1	0 - 3556	S 1772.8	594.3	275 - 1304	S 789.4	171.5	188 - 2027	S 1107.5	306.5	13
Tosoh beta-hCG	24	45 - 63	S 54.1	2.9	65 - 80	S 72.3	2.5	1500 - 2489	S 1994.5	164.8	487 - 1231	S 859.2	124.0	641 - 1818	S 1229.8	196.2	26
bioMerieux Vidas	25	42 - 68	S 54.9	4.4	42 - 64	S 52.9	3.6	910 - 2084	S 1497.3	195.7	486 - 842	S 663.7	59.3	680 - 1265	S 972.4	97.6	10

Initial Grouping by Sensitivity or Principle

IFCC standardized	26	42 - 72	S 56.8	4.9	31 - 83	S 57.0	8.8	699 - 2644	S 1671.7	324.2	344 - 1034	S 688.7	115.1	468 - 1504	S 985.7	172.6	197
Total Beta methods	27	46 - 60	S 52.8	2.4	43 - 90	S 66.6	7.9	11 - 3428	S 1719.8	569.6	245 - 1282	S 763.6	172.7	187 - 1965	S 1076.2	296.3	15
Vitros and related	28	41 - 60	S 50.5	3.2	48 - 70	S 58.9	3.6	1478 - 1840	S 1659.2	60.3	641 - 792	S 716.1	25.2	926 - 1149	S 1037.5	37.3	13
Siemens Immulite and related	29	43 - 70	S 56.4	4.5	66 - 126	S 95.9	9.9	1410 - 3943	S 2676.5	422.3	725 - 1618	S 1171.3	148.9	967 - 2335	S 1651.2	228.0	35

Total Population

Whole Population	30	41 - 71	S 56.1	5.1	16 - 110	S 62.8	15.7	349 - 3271	S 1809.8	487.1	150 - 1369	S 759.4	203.2	215 - 1943	S 1079.1	288.0	262
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Iron

Initial Grouping by Reagent and Instrument

Abbott Architect & Abbott Architect c, ci, i	1	127 - 191	P 158.9	3.7	27 - 40	P 33.4	3.1	176 - 264	P 219.6	4.3	87 - 130	P 108.3	3.1	116 - 175	P 145.5	3.4	11
Beck Oly tripyridyltriazine & Beck Olym AU 400/600/5400	2	125 - 187	P 155.9	9.9	26 - 40	P 33.1	2.0	188 - 282	P 235.1	7.5	90 - 135	P 112.5	4.7	122 - 182	P 151.9	8.2	10
Ortho Vitros & Ortho Vitros 3600, 5600	3	148 - 222	P 184.8	11.5	20 - 31	P 25.5	3.0	199 - 298	P 248.2	13.6	89 - 134	P 111.8	6.5	125 - 187	P 156.0	9.1	13
Roche Cobas & Roche Cobas 6000	4	126 - 190	P 158.0	4.6	30 - 45	P 37.1	3.6	179 - 269	P 223.9	4.9	89 - 134	P 111.7	4.2	119 - 179	P 149.0	4.2	12
Siemens Dimension & Siemens Dimension EXL	5	120 - 180	P 149.7	1.9	25 - 38	P 31.7	1.0	169 - 254	P 211.4	2.4	83 - 125	P 103.9	1.5	112 - 168	P 139.6	1.9	32

Initial Grouping by Reagent

Abbott Architect	6	127 - 191	P 158.9	3.7	27 - 40	P 33.4	3.1	176 - 264	P 219.6	4.3	87 - 130	P 108.3	3.1	116 - 175	P 145.5	3.4	11
Beck Oly tripyridyltriazine	7	127 - 190	P 158.5	8.3	27 - 41	P 33.8	2.3	190 - 285	P 237.2	7.4	91 - 136	P 113.5	4.2	123 - 184	P 153.6	6.8	18
Beckman Coulter	8	125 - 187	P 156.1	7.6	26 - 39	P 32.4	2.8	182 - 273	P 227.2	13.9	88 - 132	P 110.1	5.9	119 - 178	P 148.3	7.7	20
Beckman Olympus Ferene	9	126 - 189	P 157.6	5.4	26 - 39	P 32.8	1.7	187 - 280	P 233.6	7.1	90 - 135	P 112.2	3.4	122 - 183	P 152.6	5.2	13
Carolina	10	120 - 180	P 149.8	11.1	24 - 37	P 30.6	2.5	164 - 247	P 205.5	17.2	82 - 122	P 102.0	6.6	109 - 163	P 135.7	7.4	10
Ortho Vitros	11	148 - 222	P 184.6	9.6	18 - 28	P 23.0	3.9	203 - 304	P 253.6	14.6	91 - 136	P 113.3	5.8	127 - 191	P 159.1	8.7	25
Roche Cobas	12	125 - 188	P 156.7	5.7	29 - 43	P 36.1	4.1	178 - 267	P 222.5	6.2	88 - 133	P 110.6	4.9	118 - 178	P 148.1	4.4	24
Siemens Dimension	13	120 - 180	P 149.9	2.0	25 - 38	P 31.8	1.0	169 - 254	P 211.5	2.5	83 - 125	P 103.9	1.5	112 - 168	P 139.6	1.9	43

Initial Grouping by Sensitivity or Principle

Ferene-based	14	122 - 183	P 152.7	7.0	26 - 38	P 31.9	2.4	172 - 258	P 215.3	13.2	84 - 127	P 105.5	5.4	114 - 171	P 142.1	7.6	82
Ferrozine-based	15	126 - 188	P 157.0	12.5	26 - 39	P 32.6	4.8	174 - 262	P 218.1	14.0	85 - 128	P 106.4	7.7	115 - 173	P 144.1	8.8	70
Tripyridyltriazine (TPTZ)	16	127 - 190	P 158.5	8.3	27 - 41	P 33.8	2.3	190 - 285	P 237.2	7.4	91 - 136	P 113.5	4.2	123 - 184	P 153.6	6.8	18
All other methods	17	148 - 222	P 184.6	9.6	18 - 28	P 23.0	3.9	203 - 304	P 253.6	14.6	91 - 136	P 113.3	5.8	127 - 191	P 159.1	8.7	25

Total Population

Whole Population	18	127 - 191	P 158.9	14.0	25 - 37	P 31.2	4.8	179 - 268	P 223.3	18.6	86 - 129	P 107.6	7.0	117 - 175	P 146.1	10.0	197
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Lactic Acid

Initial Grouping by Reagent and Instrument

Siemens Dimension & Siemens Dimension EXL	1	0.3 - 0.9	C 0.62	0.11	0 - 0.6	C 0.26	0.07	5.0 - 8.3	P 6.67	0.18	2.1 - 3.5	P 2.78	0.15	3.1 - 5.1	P 4.09	0.12	38
Initial Grouping by Reagent																	
Ortho Vitros	2	0.4 - 1.0	C 0.68	0.06	0.2 - 0.8	C 0.5	0.0	4.5 - 7.6	P 6.06	0.21	1.9 - 3.2	P 2.53	0.09	2.8 - 4.7	P 3.78	0.15	12
Siemens Dimension	3	0.3 - 0.9	C 0.61	0.11	0 - 0.6	C 0.25	0.09	5.0 - 8.3	P 6.67	0.22	2.1 - 3.5	P 2.77	0.16	3.1 - 5.1	P 4.07	0.15	47
Initial Grouping by Sensitivity or Principle																	
Luminometric	4	0.3 - 0.9	C 0.63	0.11	0 - 0.6	C 0.3	0.13	4.9 - 8.2	P 6.54	0.33	2.0 - 3.4	P 2.72	0.18	3.0 - 5.0	P 4.01	0.19	59
Total Population																	
Whole Population	5	0.3 - 0.9	C 0.63	0.1	0 - 0.6	C 0.28	0.13	4.9 - 8.2	P 6.54	0.34	2.0 - 3.4	P 2.72	0.17	3.0 - 5.0	P 3.99	0.19	82

Lactate Dehydrogenase, Total (LDH)

Initial Grouping by Reagent and Instrument

Beckman Coulter & Beck Coulter Unicel DXC	1	108 - 162	P 134.8	2.7	102 - 153	P 127.3	2.9	483 - 725	P 603.9	10.9	263 - 395	P 329.0	6.3	338 - 507	P 422.7	7.6	11
Beckman Olympus & Beck Olym AU 400/600/5400	2	109 - 164	P 136.6	5.9	98 - 148	P 123.1	5.0	490 - 735	P 612.8	21.1	258 - 386	P 321.9	12.3	336 - 503	P 419.4	15.9	14
Ortho Vitros & Ortho Vitros not DT or ECI	3	351 - 526	P 438.2	14.1	379 - 569	P 473.8	9.7	1725 - 2587	P 2156.2	178.1	964 - 1446	P 1204.6	32.9	1267 - 1901	P 1584.0	68.1	12
Siemens Flex LDI & Siemens Dimension EXL	4	132 - 198	P 164.8	5.2	117 - 175	P 145.8	4.1	583 - 875	P 729.0	15.8	307 - 461	P 384.1	12.4	402 - 604	P 503.1	11.1	26
Initial Grouping by Reagent																	
Beckman Coulter	5	108 - 162	P 135.3	2.6	101 - 152	P 126.8	3.5	488 - 731	P 609.4	13.0	263 - 394	P 328.2	7.3	339 - 508	P 423.2	9.2	17
Beckman Olympus	6	110 - 166	P 138.0	9.1	100 - 150	P 125.4	7.7	498 - 747	P 622.8	33.8	262 - 393	P 327.8	18.7	341 - 512	P 426.4	23.2	25
Ortho Vitros	7	338 - 507	P 422.5	59.7	369 - 553	P 460.7	62.4	1675 - 2512	P 2093.6	331.0	939 - 1409	P 1173.9	158.3	1227 - 1841	P 1534.0	212.9	21
Roche Cobas	8	134 - 200	P 167.0	7.6	125 - 188	P 156.4	5.1	608 - 912	P 760.1	23.0	329 - 493	P 410.8	27.8	413 - 620	P 516.4	33.1	18
Siemens Dimension	9	133 - 200	P 166.6	6.1	119 - 179	P 148.9	5.4	584 - 876	P 730.1	13.5	307 - 461	P 383.9	6.7	404 - 605	P 504.5	9.9	14
Siemens Flex LDI	10	132 - 198	P 164.8	5.1	117 - 175	P 146.2	4.1	585 - 878	P 731.3	16.4	307 - 461	P 384.3	11.8	403 - 605	P 503.8	11.1	32
Initial Grouping by Sensitivity or Principle																	
IFCC Standardized	11	132 - 198	P 165.3	7.8	122 - 183	P 152.7	8.2	602 - 904	P 753.0	22.7	321 - 482	P 401.7	25.8	410 - 615	P 512.1	28.1	30
Other no cofactor	12	106 - 159	P 132.1	17.2	98 - 147	P 122.5	15.2	463 - 694	P 578.2	71.1	249 - 374	P 311.8	34.9	321 - 481	P 400.9	45.1	16
Siemens and related	13	122 - 182	P 151.9	15.5	110 - 165	P 137.1	11.9	542 - 813	P 677.3	60.9	286 - 429	P 357.7	30.9	373 - 560	P 466.3	42.2	89
Vitros and related	14	338 - 507	P 422.5	59.7	369 - 553	P 460.7	62.4	1675 - 2512	P 2093.6	331.0	939 - 1409	P 1173.9	158.3	1227 - 1841	P 1534.0	212.9	21
Total Population																	
Whole Population	15	150 - 225	P 187.5	91.4	148 - 221	P 184.5	111.4	686 - 1030	P 858.1	468.8	381 - 571	P 475.8	281.0	495 - 742	P 618.4	369.9	164

Lipase

Initial Grouping by Reagent and Instrument

Beckman Olympus & Beck Olym AU 400/600/5400	1	30 - 55	P 42.6	5.7	10 - 19	P 14.4	2.7	48 - 89	P 68.4	8.1	25 - 46	P 35.5	3.3	32 - 60	P 46.1	3.5	14
Beckman Olympus & Beckman AU 480	2	30 - 55	P 42.3	3.1	10 - 19	P 14.9	2.3	47 - 87	P 67.0	4.8	25 - 46	P 35.7	3.1	32 - 60	P 46.1	3.9	13
Ortho Vitros & Ortho Vitros 3600, 5600	3	130 - 242	P 186.0	8.4	108 - 201	P 154.5	4.3	448 - 833	P 640.7	47.3	253 - 470	P 361.8	17.6	317 - 588	P 452.6	20.8	14
Ortho Vitros & Ortho Vitros not DT or ECI	4	132 - 244	P 187.9	4.3	104 - 194	P 148.9	3.8	434 - 805	P 619.6	28.5	251 - 466	P 358.8	9.1	313 - 582	P 447.7	6.8	11
Siemens Dimension & Siemens Dimension EXL	5	153 - 284	P 218.5	20.3	44 - 83	P 63.5	7.9	165 - 307	P 236.0	12.9	94 - 175	P 134.6	11.3	118 - 220	P 169.2	11.3	10
Siemens LIPL, liquid & Siemens Dimension EXL	6	150 - 278	P 213.7	7.6	43 - 80	P 61.9	2.2	164 - 305	P 234.9	6.0	94 - 175	P 134.5	3.6	118 - 220	P 168.9	4.3	36
Initial Grouping by Reagent																	
Beckman Olympus	7	30 - 55	P 42.5	4.5	10 - 19	P 14.6	2.5	47 - 88	P 67.8	6.6	25 - 46	P 35.6	3.2	32 - 60	P 46.1	3.7	28
Ortho Vitros	8	131 - 243	P 187.3	6.8	107 - 199	P 152.7	5.4	442 - 821	P 631.8	39.7	253 - 470	P 361.4	14.1	316 - 587	P 451.9	16.1	28
Roche Cobas Integra	9	36 - 66	P 50.9	2.5	11 - 20	P 15.3	1.1	40 - 75	P 57.7	4.3	23 - 43	P 33.4	2.3	29 - 54	P 41.8	3.0	15
Siemens Dimension	10	151 - 281	P 216.2	18.0	44 - 81	P 62.4	7.2	165 - 306	P 235.3	11.8	94 - 174	P 134.1	9.8	118 - 219	P 168.6	10.1	15
Siemens LIPL, liquid	11	150 - 278	P 214.1	7.6	43 - 80	P 61.9	2.2	165 - 307	P 236.3	9.8	95 - 176	P 135.2	5.8	119 - 221	P 169.8	7.6	44
Initial Grouping by Sensitivity or Principle																	
Enzymatic/colorimetric	12	110 - 205	P 157.8	75.8	47 - 88	P 67.3	49.2	191 - 355	P 273.0	204.2	109 - 203	P 156.2	117.3	136 - 253	P 194.9	146.2	128
Colorimetric	13	32 - 59	P 45.5	7.2	12 - 22	P 17.0	4.0	39 - 73	P 56.4	7.9	24 - 45	P 34.3	5.0	29 - 54	P 41.8	5.6	40
Total Population																	
Whole Population	14	87 - 162	P 124.8	81.9	37 - 69	P 53.3	46.9	147 - 274	P 210.4	197.4	85 - 158	P 121.3	112.5	106 - 196	P 150.9	140.7	181

Magnesium mg/dL

Initial Grouping by Reagent and Instrument

Abbott & Abbott Architect c, ci, i	1	1.2 - 1.9	P 1.55	0.09	0.6 - 1.0	P 0.83	0.05	3.1 - 5.1	P 4.11	0.14	1.6 - 2.7	P 2.15	0.06	2.1 - 3.5	P 2.82	0.09	13
Beckman Coulter & Beck Coulter Unicel DXC	2	1.0 - 1.7	P 1.34	0.06	0.7 - 1.2	P 0.99	0.03	3.1 - 5.2	P 4.19	0.15	1.7 - 2.8	P 2.24	0.07	2.2 - 3.6	P 2.88	0.09	14
Beckman Olympus & Beck Olym AU 400/600/5400	3	1.0 - 1.6	P 1.31	0.06	0.7 - 1.2	P 0.99	0.05	3.2 - 5.3	P 4.24	0.18	1.7 - 2.9	P 2.29	0.11	2.2 - 3.7	P 2.95	0.12	16
Beckman Olympus & Beckman AU 480	4	1.0 - 1.7	P 1.33	0.07	0.8 - 1.3	P 1.0	0.0	3.2 - 5.4	P 4.29	0.13	1.8 - 3.0	P 2.37	0.06	2.3 - 3.8	P 3.0	0.12	12
Ortho Vitros & Ortho Vitros 3600, 5600	5	0.8 - 1.4	P 1.11	0.06	0.7 - 1.2	P 0.98	0.08	3.4 - 5.6	P 4.5	0.14	1.8 - 3.1	P 2.44	0.07	2.3 - 3.9	P 3.12	0.07	15
Ortho Vitros & Ortho Vitros not DT or ECI	6	0.9 - 1.4	P 1.14	0.06	0.7 - 1.2	P 0.99	0.07	3.4 - 5.7	P 4.55	0.09	1.8 - 3.0	P 2.44	0.07	2.4 - 3.9	P 3.16	0.08	19
Roche Cobas & Roche Cobas 6000	7	1.0 - 1.7	P 1.33	0.05	0.8 - 1.3	P 1.06	0.05	3.3 - 5.5	P 4.41	0.08	1.8 - 3.0	P 2.42	0.06	2.3 - 3.8	P 3.06	0.06	12

Roche Cobas & Roche e/c, 1XX, X000, Elec series	8	1.0 - 1.6	P 1.32	0.06	0.8 - 1.3	P 1.04	0.05	3.3 - 5.5	P 4.39	0.12	1.8 - 3.0	P 2.38	0.07	2.3 - 3.8	P 3.05	0.1	12
Siemens Dimension & Siemens Dimension EXL	9	1.0 - 1.6	P 1.27	0.07	0.7 - 1.2	P 0.95	0.06	3.3 - 5.5	P 4.4	0.12	1.7 - 2.9	P 2.33	0.09	2.3 - 3.8	P 3.03	0.09	51
Siemens Dimension & Siemens Dimension Xpand	10	1.0 - 1.6	P 1.28	0.06	0.7 - 1.2	P 0.95	0.06	3.3 - 5.5	P 4.38	0.09	1.7 - 2.9	P 2.3	0.07	2.3 - 3.8	P 3.01	0.08	13
Initial Grouping by Reagent																	
Abbott	11	1.2 - 1.9	P 1.55	0.09	0.6 - 1.0	P 0.83	0.05	3.1 - 5.1	P 4.11	0.14	1.6 - 2.7	P 2.15	0.06	2.1 - 3.5	P 2.82	0.09	13
Beckman Coulter	12	1.0 - 1.7	P 1.33	0.07	0.7 - 1.2	P 0.99	0.05	3.2 - 5.3	P 4.21	0.17	1.7 - 2.8	P 2.25	0.1	2.2 - 3.6	P 2.9	0.11	22
Beckman Olympus	13	1.0 - 1.7	P 1.32	0.06	0.8 - 1.2	P 1.0	0.04	3.2 - 5.3	P 4.27	0.17	1.7 - 2.9	P 2.32	0.1	2.2 - 3.7	P 2.97	0.12	32
Ortho Vitros	14	0.8 - 1.4	P 1.13	0.06	0.7 - 1.2	P 0.99	0.07	3.4 - 5.7	P 4.53	0.12	1.8 - 3.1	P 2.44	0.07	2.4 - 3.9	P 3.14	0.08	38
Roche Cobas	15	1.0 - 1.7	P 1.32	0.05	0.8 - 1.3	P 1.04	0.05	3.3 - 5.4	P 4.36	0.13	1.8 - 3.0	P 2.38	0.07	2.3 - 3.8	P 3.03	0.09	30
Siemens Dimension	16	1.0 - 1.6	P 1.27	0.08	0.7 - 1.2	P 0.95	0.07	3.3 - 5.5	P 4.4	0.12	1.7 - 2.9	P 2.33	0.08	2.3 - 3.8	P 3.03	0.09	70
Initial Grouping by Sensitivity or Principle																	
Calmagite-based	17	1.0 - 1.7	P 1.34	0.13	0.8 - 1.3	P 1.01	0.08	3.1 - 5.2	P 4.14	0.23	1.7 - 2.8	P 2.28	0.13	2.2 - 3.6	P 2.91	0.13	29
Arsenazo	18	1.2 - 2.0	P 1.59	0.11	0.7 - 1.1	P 0.9	0.11	3.1 - 5.2	P 4.12	0.2	1.6 - 2.7	P 2.15	0.12	2.1 - 3.5	P 2.78	0.18	22
Magon (Xylidyl Blue)-based	19	1.0 - 1.7	P 1.32	0.09	0.7 - 1.2	P 0.99	0.08	3.2 - 5.3	P 4.24	0.2	1.7 - 2.9	P 2.33	0.16	2.2 - 3.7	P 2.97	0.15	52
All other methods	20	0.9 - 1.5	P 1.21	0.11	0.8 - 1.3	P 1.01	0.07	3.3 - 5.6	P 4.45	0.15	1.8 - 3.0	P 2.41	0.08	2.3 - 3.9	P 3.09	0.1	68
MTB (methylthymol blue)	21	1.0 - 1.6	P 1.27	0.08	0.7 - 1.2	P 0.95	0.07	3.3 - 5.5	P 4.4	0.12	1.7 - 2.9	P 2.33	0.08	2.3 - 3.8	P 3.03	0.09	70
Total Population																	
Whole Population	22	1.0 - 1.6	P 1.3	0.14	0.7 - 1.2	P 0.98	0.08	3.2 - 5.4	P 4.33	0.21	1.7 - 2.9	P 2.33	0.13	2.3 - 3.7	P 3.0	0.15	242

Magnesium mEq/L

Total Population																	
Whole Population	1	1.0 - 1.6	P 1.28	0.18	0.7 - 1.1	P 0.92	0.19	2.8 - 4.7	P 3.76	0.35	1.6 - 2.6	P 2.11	0.26	2.0 - 3.3	P 2.68	0.32	13

Thyroid Stimulating Hormone

Initial Grouping by Reagent and Instrument																	
Abbott CMIA & Abbott Architect c, ci, i	1	2.1 - 2.6	S 2.35	0.1	0.4 - 0.7	S 0.52	0.05	6.6 - 9.4	S 7.99	0.47	3.1 - 4.3	S 3.73	0.19	4.3 - 6.1	S 5.21	0.3	22
Beckman Coulter Access & Beckman Coulter Access	2	2.0 - 3.0	S 2.5	0.18	0.4 - 0.7	S 0.52	0.05	5.6 - 10.3	S 7.92	0.79	3.1 - 4.3	S 3.71	0.2	4.2 - 6.3	S 5.23	0.34	74
Beckman Coulter Access & Beckman Coulter Dxl	3	2.0 - 3.0	S 2.51	0.18	0.4 - 0.7	S 0.52	0.05	5.9 - 9.6	S 7.72	0.61	2.9 - 4.5	S 3.72	0.26	4.1 - 6.0	S 5.02	0.32	13
MP Biomedicals & All gamma counters	4	1.4 - 3.9	S 2.62	0.42	0.6 - 1.8	S 1.21	0.19	6.3 - 10.3	S 8.28	0.67	4.2 - 6.5	S 5.34	0.38	5.2 - 8.1	S 6.64	0.48	21
Ortho Vitros & Ortho Vitros 3600, 5600	5	2.3 - 2.9	S 2.58	0.09	0.4 - 0.6	C 0.5	0.0	9.3 - 11.7	S 10.49	0.39	4.4 - 5.6	S 5.01	0.19	6.2 - 7.9	S 7.07	0.29	15
Roche Elecsys & Roche Cobas 6000	6	2.6 - 3.0	S 2.83	0.06	0.6 - 0.8	C 0.7	0.0	6.9 - 8.9	S 7.89	0.34	3.8 - 4.4	S 4.14	0.1	5.1 - 6.1	S 5.56	0.17	10
Roche Elecsys & Roche e/c, 1XX, X000, Elec series	7	2.4 - 3.1	S 2.75	0.13	0.5 - 0.8	S 0.69	0.05	6.6 - 8.7	S 7.66	0.34	3.5 - 4.6	S 4.08	0.18	4.8 - 6.0	S 5.39	0.21	13
Roche Elecsys & Roche e411/e601/E170/E2010	8	2.4 - 3.1	S 2.76	0.1	0.6 - 0.8	C 0.7	0.0	6.5 - 9.0	S 7.72	0.41	3.7 - 4.6	S 4.12	0.15	4.9 - 6.1	S 5.5	0.22	28
Siemens Advia & Siemens Centaur/Centaur CP	9	1.7 - 3.4	S 2.57	0.28	0.4 - 0.7	S 0.56	0.06	7.2 - 10.2	S 8.7	0.51	3.4 - 5.0	S 4.18	0.27	4.3 - 7.1	S 5.74	0.47	15
Siemens Dimension & Siemens Dimension Xpand	10	1.9 - 3.1	S 2.51	0.21	0.3 - 0.6	S 0.48	0.06	6.9 - 9.8	S 8.34	0.48	2.9 - 4.8	S 3.86	0.33	4.2 - 6.4	S 5.31	0.37	16
Siemens Dimension LOCI & Siemens Dimension EXL	11	2.2 - 2.9	S 2.56	0.12	0.4 - 0.6	C 0.51	0.03	6.3 - 8.6	S 7.46	0.39	3.0 - 4.2	S 3.6	0.19	4.3 - 5.6	S 4.98	0.22	46
Siemens Immulite 3rd gen & Siemens Immulite 1000	12	2.3 - 3.4	S 2.82	0.19	0.4 - 0.7	S 0.55	0.06	7.1 - 10.1	S 8.59	0.5	3.4 - 5.0	S 4.2	0.25	5.0 - 6.5	S 5.73	0.25	15
Tosoh AIA & Tosoh AIA	13	2.2 - 3.6	S 2.94	0.24	0.5 - 0.9	S 0.72	0.07	7.9 - 11.9	S 9.9	0.67	3.9 - 5.8	S 4.87	0.32	5.2 - 8.3	S 6.72	0.51	34
Tosoh AIA & Tosoh AIA ST	14	2.1 - 3.9	S 2.99	0.29	0.5 - 1.0	S 0.73	0.08	7.0 - 12.4	S 9.7	0.89	3.5 - 6.2	S 4.84	0.45	4.8 - 8.7	S 6.72	0.65	18
Initial Grouping by Reagent																	
Abbott CMIA	15	2.1 - 2.6	S 2.35	0.1	0.4 - 0.7	S 0.52	0.05	6.6 - 9.4	S 7.99	0.47	3.1 - 4.3	S 3.73	0.19	4.3 - 6.1	S 5.21	0.3	22
Beckman Coulter Access	16	2.0 - 3.0	S 2.5	0.18	0.4 - 0.7	S 0.51	0.05	5.6 - 10.2	S 7.89	0.76	3.1 - 4.4	S 3.71	0.21	4.2 - 6.2	S 5.2	0.34	90
MP Biomedicals	17	1.4 - 3.9	S 2.62	0.42	0.6 - 1.8	S 1.21	0.19	6.3 - 10.3	S 8.28	0.67	4.2 - 6.5	S 5.34	0.38	5.2 - 8.1	S 6.64	0.48	21
Ortho Vitros	18	2.3 - 2.9	S 2.57	0.1	0.4 - 0.6	S 0.51	0.03	9.1 - 11.9	S 10.48	0.46	4.4 - 5.8	S 5.07	0.23	6.2 - 8.0	S 7.09	0.31	22
Roche Elecsys	19	2.5 - 3.1	S 2.77	0.11	0.6 - 0.8	C 0.7	0.02	6.6 - 8.9	S 7.75	0.37	3.7 - 4.6	S 4.12	0.15	4.9 - 6.1	S 5.49	0.21	56
Siemens Advia	20	1.7 - 3.4	S 2.55	0.29	0.4 - 0.7	S 0.56	0.06	7.0 - 10.3	S 8.63	0.56	3.3 - 5.0	S 4.15	0.29	4.2 - 7.2	S 5.68	0.51	16
Siemens Dimension	21	2.0 - 3.1	S 2.57	0.19	0.3 - 0.7	S 0.5	0.06	6.4 - 9.8	S 8.1	0.57	3.0 - 4.6	S 3.8	0.28	4.0 - 6.5	S 5.26	0.42	27
Siemens Dimension LOCI	22	2.2 - 2.9	S 2.56	0.12	0.4 - 0.6	C 0.51	0.03	6.3 - 8.6	S 7.45	0.4	3.0 - 4.2	S 3.59	0.19	4.3 - 5.6	S 4.97	0.23	47
Siemens Immulite 3rd gen	23	2.2 - 3.4	S 2.81	0.2	0.4 - 0.7	S 0.54	0.06	7.1 - 10.3	S 8.7	0.55	3.5 - 4.8	S 4.18	0.22	4.9 - 6.6	S 5.73	0.28	21
Tosoh AIA	24	2.2 - 3.7	S 2.96	0.26	0.5 - 0.9	S 0.72	0.07	7.6 - 12.1	S 9.83	0.75	3.7 - 6.0	S 4.86	0.37	5.1 - 8.4	S 6.72	0.56	53
Initial Grouping by Sensitivity or Principle																	
Standardized methods	25	1.9 - 3.3	S 2.57	0.23	0.1 - 1.0	S 0.56	0.15	4.7 - 11.6	S 8.12	1.15	2.4 - 5.5	S 3.98	0.52	3.3 - 7.6	S 5.49	0.72	225
Tosoh and RIA	26	1.9 - 3.8	S 2.84	0.31	0 - 1.6	S 0.77	0.26	6.1 - 12.2	S 9.14	1.02	3.0 - 6.5	S 4.74	0.59	4.3 - 8.5	S 6.4	0.71	103
Siemens non Immulite	27	2.1 - 3.0	S 2.56	0.15	0.4 - 0.6	S 0.51	0.04	6.0 - 9.4	S 7.69	0.56	2.9 - 4.4	S 3.67	0.25	4.1 - 6.1	S 5.08	0.34	74
Total Population																	
Whole Population	28	1.8 - 3.5	S 2.64	0.27	0 - 1.2	S 0.61	0.2	4.8 - 11.8	S 8.31	1.15	2.2 - 6.0	S 4.12	0.63	3.2 - 8.1	S 5.65	0.81	407

Thyroxine, Free (FT4)

Initial Grouping by Reagent and Instrument																	
Abbott CMIA & Abbott Architect c, ci, i	1	1.1 - 1.5	S 1.33	0.07	2.6 - 3.8	S 3.16	0.2	2.6 - 6.2	S 4.39	0.6	3.0 - 4.8	S 3.86	0.3	2.8 - 5.1	S 3.95	0.37	20
Beckman Coulter Access & Beckman Coulter Access	2	0.7 - 1.1	S 0.86	0.07	2.8 - 4.3	S 3.57	0.25	2.2 - 3.7	S 2.95	0.25	2.6 - 3.7	S 3.12	0.18	2.4 - 3.6	S 3.01	0.19	54

Beckman Coulter Access & Beckman Coulter Dxl	3	0.6 - 1.0	S 0.78	0.06	3.1 - 4.5	S 3.81	0.24	2.5 - 3.4	S 2.92	0.15	2.5 - 3.8	S 3.19	0.22	2.5 - 3.5	S 3.01	0.15	13
MP Biomedicals & All gamma counters	4	0.8 - 1.6	S 1.17	0.13	1.1 - 1.9	S 1.5	0.14	2.0 - 3.7	S 2.85	0.29	1.4 - 2.5	S 1.92	0.19	1.7 - 2.7	S 2.18	0.17	20
Ortho Vitros & Ortho Vitros 3600, 5600	5	1.1 - 1.7	S 1.4	0.08	6.8 - 7.1	S 6.95	0.05	6.8 - 7.1	S 6.95	0.05	6.8 - 7.1	S 6.95	0.05	6.8 - 7.1	S 6.95	0.05	15
Roche Elecsys & Roche e411/e601/E170/E2010	6	1.2 - 1.4	S 1.28	0.04	3.0 - 4.6	S 3.79	0.27	3.7 - 4.6	S 4.16	0.16	3.6 - 4.4	S 4.0	0.12	3.6 - 4.4	S 4.03	0.13	10
Siemens Advia/Centaur/CP/XP & Siemens Centaur/Centaur CP	7	0.8 - 1.7	S 1.25	0.13	2.2 - 4.3	S 3.25	0.34	2.3 - 3.9	S 3.08	0.27	2.4 - 3.7	S 3.08	0.22	2.3 - 3.7	S 3.02	0.22	13
Siemens Dimension & Siemens Dimension Xpand	8	0.4 - 1.2	S 0.78	0.13	3.0 - 5.1	S 4.03	0.35	2.9 - 4.9	S 3.93	0.34	3.1 - 5.0	S 4.04	0.32	3.0 - 4.9	S 3.95	0.33	12
Siemens Dimension LOCI & Siemens Dimension EXL	9	0.9 - 1.3	S 1.08	0.06	4.2 - 6.2	S 5.22	0.33	3.7 - 5.0	S 4.39	0.22	4.1 - 5.4	S 4.75	0.21	4.0 - 5.1	S 4.52	0.19	42
Tosoh AIA & Tosoh AIA	10	0.9 - 1.4	S 1.18	0.08	3.7 - 5.7	S 4.69	0.34	3.8 - 5.2	S 4.47	0.24	4.0 - 5.1	S 4.55	0.18	3.9 - 5.1	S 4.48	0.19	22
Initial Grouping by Reagent																	
Abbott CMIA	11	1.1 - 1.5	S 1.33	0.07	2.6 - 3.8	S 3.16	0.2	2.6 - 6.2	S 4.39	0.6	3.0 - 4.8	S 3.86	0.3	2.8 - 5.1	S 3.95	0.37	20
Beckman Coulter Access	12	0.6 - 1.1	S 0.84	0.07	2.8 - 4.4	S 3.61	0.27	2.2 - 3.6	S 2.94	0.23	2.6 - 3.7	S 3.13	0.19	2.5 - 3.6	S 3.01	0.19	70
MP Biomedicals	13	0.8 - 1.6	S 1.17	0.13	1.1 - 1.9	S 1.5	0.14	2.0 - 3.7	S 2.85	0.29	1.4 - 2.5	S 1.92	0.19	1.7 - 2.7	S 2.18	0.17	20
Ortho Vitros	14	1.1 - 1.7	S 1.41	0.09	6.8 - 7.1	S 6.94	0.05	6.8 - 7.1	S 6.94	0.05	6.8 - 7.1	S 6.94	0.05	6.8 - 7.1	S 6.94	0.05	21
Roche Elecsys	15	1.1 - 1.4	S 1.29	0.05	3.0 - 4.9	S 3.93	0.32	3.6 - 4.9	S 4.24	0.22	3.6 - 4.6	S 4.1	0.18	3.5 - 4.7	S 4.1	0.2	29
Siemens Advia/Centaur/CP/XP	16	0.8 - 1.7	S 1.25	0.13	2.2 - 4.3	S 3.25	0.34	2.3 - 3.9	S 3.08	0.27	2.4 - 3.7	S 3.08	0.22	2.3 - 3.7	S 3.02	0.22	13
Siemens Dimension	17	0.3 - 1.4	S 0.88	0.18	2.6 - 6.3	S 4.42	0.61	3.0 - 5.2	S 4.1	0.37	3.0 - 5.5	S 4.25	0.43	3.0 - 5.2	S 4.11	0.36	18
Siemens Dimension LOCI	18	0.9 - 1.3	S 1.08	0.06	4.2 - 6.2	S 5.21	0.33	3.7 - 5.0	S 4.39	0.22	4.1 - 5.4	S 4.74	0.21	4.0 - 5.1	S 4.51	0.18	43
Siemens Immulite (1-step)	19	1.0 - 1.4	S 1.21	0.08	3.1 - 6.8	S 4.94	0.62	2.8 - 4.2	S 3.49	0.23	3.1 - 4.9	S 4.01	0.29	3.1 - 4.5	S 3.76	0.23	11
Tosoh AIA	20	0.9 - 1.4	S 1.16	0.08	3.7 - 5.8	S 4.73	0.36	3.8 - 5.1	S 4.49	0.22	4.0 - 5.1	S 4.58	0.18	3.9 - 5.1	S 4.5	0.19	30
Initial Grouping by Sensitivity or Principle																	
Standardized methods	21	0.4 - 1.8	S 1.09	0.22	0.8 - 6.4	S 3.62	0.94	1.3 - 6.0	S 3.65	0.77	1.1 - 6.0	S 3.56	0.82	1.2 - 5.9	S 3.54	0.78	187
Vitros and related	22	1.1 - 1.7	S 1.41	0.09	6.8 - 7.1	S 6.94	0.05	6.8 - 7.1	S 6.94	0.05	6.8 - 7.1	S 6.94	0.05	6.8 - 7.1	S 6.94	0.05	21
Siemens non-Immulite	23	0.6 - 1.6	S 1.06	0.17	2.1 - 7.2	S 4.68	0.85	2.4 - 5.7	S 4.09	0.55	2.3 - 6.4	S 4.33	0.68	2.3 - 6.0	S 4.15	0.61	74
All Immulite	24	0.9 - 1.5	S 1.24	0.1	3.1 - 6.7	S 4.93	0.6	2.9 - 4.2	S 3.52	0.22	3.2 - 4.9	S 4.05	0.3	3.0 - 4.6	S 3.82	0.26	13
Total Population																	
Whole Population	25	0.5 - 1.8	S 1.12	0.22	0.4 - 8.0	S 4.19	1.26	0.8 - 7.2	S 3.99	1.07	0.6 - 7.4	S 4.02	1.14	0.6 - 7.3	S 3.95	1.1	300

Thyroxine, Total (TT4)

Initial Grouping by Reagent and Instrument

Abbott CMIA & Abbott Architect c, ci, i	1	7.5 - 11.2	P 9.32	0.34	5.5 - 8.2	P 6.84	0.29	12.0 - 18.0	P 14.97	0.67	8.1 - 12.2	P 10.14	0.39	9.6 - 14.4	P 12.01	0.73	10
Beckman Coulter Access & Beckman Coulter Access	2	5.8 - 8.8	P 7.31	0.65	6.4 - 9.6	P 7.97	0.54	12.4 - 18.6	P 15.52	0.88	9.8 - 14.7	P 12.22	0.6	10.7 - 16.1	P 13.41	0.63	23
Siemens Dimension & Siemens Dimension EXL	3	9.1 - 13.6	P 11.33	0.63	6.4 - 9.6	P 8.01	0.39	14.3 - 21.5	P 17.89	0.79	9.7 - 14.6	P 12.16	0.52	11.5 - 17.2	P 14.37	0.63	16

Initial Grouping by Reagent

Abbott CMIA	4	7.5 - 11.2	P 9.32	0.34	5.5 - 8.2	P 6.84	0.29	12.0 - 18.0	P 14.97	0.67	8.1 - 12.2	P 10.14	0.39	9.6 - 14.4	P 12.01	0.73	10
Beckman Coulter Access	5	5.8 - 8.7	P 7.29	0.62	6.6 - 9.8	P 8.19	0.65	12.5 - 18.8	P 15.63	0.98	9.9 - 14.9	P 12.38	0.77	10.9 - 16.3	P 13.57	0.78	33
Roche Elecsys	6	7.0 - 10.4	P 8.7	0.4	5.6 - 8.4	P 7.03	0.27	12.6 - 18.9	P 15.75	0.85	8.6 - 12.8	P 10.69	0.41	9.7 - 14.6	P 12.17	0.8	15
Siemens Dimension	7	9.2 - 13.8	P 11.51	0.87	6.6 - 9.8	P 8.19	0.65	14.5 - 21.8	P 18.13	1.07	9.9 - 14.8	P 12.33	0.77	11.6 - 17.4	P 14.48	0.87	22
Tosoh AIA	8	6.5 - 9.7	P 8.12	0.79	5.9 - 8.8	P 7.32	0.65	13.4 - 20.1	P 16.79	1.45	9.0 - 13.5	P 11.28	0.8	10.6 - 15.9	P 13.23	1.02	10

Initial Grouping by Sensitivity or Principle

Standardized methods	9	7.5 - 11.3	P 9.38	1.45	6.0 - 8.9	P 7.45	0.73	13.3 - 19.9	P 16.61	2.22	9.1 - 13.6	P 11.34	1.18	10.5 - 15.8	P 13.16	1.64	86
Beckman Coulter and related	10	5.8 - 8.7	P 7.29	0.62	6.6 - 9.8	P 8.19	0.65	12.5 - 18.8	P 15.63	0.98	9.9 - 14.9	P 12.38	0.77	10.9 - 16.3	P 13.57	0.78	33

Total Population

Whole Population	11	7.1 - 10.6	P 8.82	1.58	6.1 - 9.2	P 7.65	0.78	13.1 - 19.6	P 16.35	2.01	9.3 - 14.0	P 11.63	1.18	10.6 - 15.9	P 13.27	1.47	119
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Triiodothyronine, Total (TT3)

Initial Grouping by Reagent and Instrument

Beckman Coulter Access & Beckman Coulter Access	1	1.05 - 1.54	S 1.293	0.083	0.85 - 1.2	S 1.027	0.059	2.07 - 2.91	S 2.487	0.14	1.39 - 1.8	S 1.598	0.068	1.6 - 2.14	S 1.871	0.09	20
Beckman Coulter Access & Beckman Coulter Dxl	2	1.02 - 1.84	S 1.433	0.137	0.76 - 1.33	S 1.045	0.095	2.18 - 3.7	S 2.941	0.253	1.3 - 2.25	S 1.775	0.157	1.56 - 2.73	S 2.145	0.196	10
MP Biomedicals & All gamma counters	3	1.55 - 2.64	S 2.095	0.181	0.29 - 0.89	S 0.588	0.1	3.09 - 3.47	S 3.278	0.063	1.23 - 1.95	S 1.59	0.12	1.74 - 2.58	S 2.159	0.14	15

Initial Grouping by Reagent

Beckman Coulter Access	4	0.97 - 1.73	S 1.349	0.128	0.81 - 1.25	S 1.033	0.073	1.78 - 3.53	S 2.658	0.292	1.25 - 2.08	S 1.665	0.139	1.4 - 2.55	S 1.974	0.191	31
MP Biomedicals	5	1.55 - 2.64	S 2.095	0.181	0.29 - 0.89	S 0.588	0.1	3.09 - 3.47	S 3.278	0.063	1.23 - 1.95	S 1.59	0.12	1.74 - 2.58	S 2.159	0.14	15
Roche Elecsys	6	0.41 - 0.89	S 0.648	0.081	0.71 - 1.6	S 1.154	0.148	1.8 - 2.77	S 2.283	0.161	1.43 - 2.17	S 1.804	0.123	1.63 - 2.3	S 1.967	0.111	23

Initial Grouping by Sensitivity or Principle

Standardized methods	7	0.2 - 1.28	S 0.74	0.182	0.66 - 1.6	S 1.13	0.158	1.12 - 3.03	S 2.073	0.319	1.05 - 2.29	S 1.673	0.207	1.06 - 2.54	S 1.803	0.247	38
Beckman Coulter and related	8	0.45 - 2.74	S 1.597	0.381	0.21 - 1.56	S 0.885	0.226	1.72 - 3.99	S 2.855	0.378	1.23 - 2.05	S 1.64	0.138	1.45 - 2.62	S 2.036	0.196	46

Total Population

Whole Population	9	0 - 2.67	S 1.135	0.511	0 - 2.59	S 1.086	0.5	0 - 7.93	S 2.993	1.647	0.03 - 3.48	S 1.751	0.575	0 - 4.13	S 2.019	0.702	104
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T-Uptake % of Total

Initial Grouping by Reagent and Instrument

Beckman Coulter Access & Beckman Coulter Access	1	31 - 38	S 34.5	1.1	46 - 71	S 58.1	4.2	39 - 56	S 47.2	2.8	45 - 62	S 53.5	2.9	42 - 59	S 50.8	2.8	15
Siemens Dimension & Siemens Dimension EXL	2	26 - 32	S 28.9	0.9	41 - 53	S 47.3	2.0	39 - 45	S 42.1	1.0	37 - 54	S 45.5	2.9	39 - 50	S 44.3	1.9	11

Initial Grouping by Reagent

Beckman Coulter Access	3	29 - 41	S 35.0	2.0	46 - 72	S 58.8	4.3	38 - 55	S 46.8	2.8	45 - 61	S 53.4	2.7	43 - 58	S 50.5	2.6	23
Siemens Dimension	4	25 - 33	S 29.1	1.4	41 - 54	S 47.5	2.1	38 - 47	S 42.4	1.5	37 - 54	S 45.4	2.8	38 - 51	S 44.4	2.2	15

Initial Grouping by Sensitivity or Principle

Beckman Coulter and Vitros	5	25 - 43	S 33.9	3.1	46 - 74	S 59.9	4.6	28 - 72	S 50.1	7.4	40 - 71	S 55.5	5.1	35 - 71	S 53.1	6.0	28
Standardized methods	6	14 - 39	S 26.5	4.1	25 - 78	S 51.3	8.7	26 - 55	S 40.6	4.9	33 - 59	S 45.7	4.3	32 - 55	S 43.5	3.9	39

Total Population

Whole Population	7	13 - 46	S 29.3	5.4	29 - 80	S 54.6	8.4	21 - 67	S 44.3	7.7	29 - 70	S 49.5	6.7	27 - 68	S 47.2	6.9	70
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T-Uptake Ratio to Normal**Initial Grouping by Reagent**

Roche Elecsys	1	1.03 - 1.25	S 1.138	0.037	0.37 - 0.83	S 0.6	0.077	0.27 - 0.71	S 0.489	0.073	0.4 - 0.74	S 0.57	0.058	0.36 - 0.77	S 0.566	0.069	10
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Initial Grouping by Sensitivity or Principle

Luminometric	2	0.57 - 2.0	S 1.285	0.24	0.28 - 0.84	S 0.559	0.093	0.08 - 1.09	S 0.586	0.169	0.41 - 0.77	S 0.588	0.06	0.34 - 0.88	S 0.607	0.09	14
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Total Population

Whole Population	3	0.57 - 2.0	S 1.285	0.24	0.28 - 0.84	S 0.559	0.093	0.08 - 1.09	S 0.586	0.169	0.41 - 0.77	S 0.588	0.06	0.34 - 0.88	S 0.607	0.09	14
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