MEDICAL LABORATORY
EVALUATION

PARTICIPANT SUMMARY
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Chemistry
2018 MLE-M2

ACP | Medical Laboratory Evaluation

Total Commitment to Education and Service
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EVALUATION CRITERIA

For quantitative procedures, a mean and standard deviation (SD) are calculated for each peer group. Acceptable performance is established on a target value mean ± the limits listed below.

Acetaminophen	± 20%	Lactate (Lactic Acid)	± 0.4 mmol/L or 3 SD *
Acetone	80% Consensus	LDL Cholesterol	± 2 SD or 30% *
Albumin	± 10%	Lipase	± 30%
Alcohol	± 25%	LH	± 2 SD
Alpha-fetoprotein	± 3 SD	Lithium	± 0.3 mmol/L or 20% *
Alkaline Phosphatase	± 30%	Magnesium	± 25%
ALT (SGPT)	± 20%	Myoglobin	± 2 SD or 30% *
Ammonia	± 2 SD or 5% *	NT-proBNP	± 2 SD or 25% *
Amylase	± 30%	Parathyroid Hormone, Intact	± 2 SD
Apoliprotein A1	± 30%	Phenobarbital	± 20%
Apoliprotein B	± 30%	Phenytoin	± 25%
AST (SGOT)	± 20%	Phosphorus	± 0.3 mg/dL or 10.7% *
B-Type Natriuretic Peptide (BNP)	± 2 SD or 25% *	Potassium	± 0.5 mmol/L
Beta-2 Microglobulin	± 3 SD	Progesterone	± 30%
Bilirubin, Direct	± 2 SD	Prolactin	± 3.6 ng/mL or 30% *
Bilirubin, Total	± 0.4 mg/dL or 20% *	Protein, Total (Serum)	± 10%
Bilirubin, Neonatal (Total)	± 0.4 mg/dL or 20% *	Protein, Total (Urine)	± 44%
C-Peptide	± 2 SD	PSA	± 0.9 ng/mL or 30% *
CA 125	± 2 SD or 30% *	PSA, Free	± 0.9 ng/mL or 30% *
CA 15-3	± 2 SD or 30% *	pCO_2	± 5 mmHg or 8% *
CA 19-9	± 2 SD or 30% *	pH	± 0.04
CA 27/29	± 2 SD or 30% *	pO2	± 3 SD
Calcium	± 1.0 mg/dL	Salicylate	± 20%
Calcium, Ionized	± 3 SD	SHBG	± 3 SD
Carbamazepine	± 25%	Sodium	± 4.0 mmol/L
CEA	± 1.2 ng/mL 30%	T_3 Uptake (% Uptake)	± 3 SD
Chloride	± 5%	T3, Free	± 3 SD
Cholesterol	± 10%	T4, Free	± 3 SD
CK-MB (Quantitative)	± 3 SD	tCO_2	± 20%
CO_2	± 20%	Testosterone	± 30%
Cortisol	± 25%	Testosterone, Bioavailable	± 3 SD
Creatine Kinase	± 30%	Testosterone, Free	± 3 SD
Creatinine (Serum)	± 0.3 mg/dL or 15% *	Theophylline	± 25%
Creatinine (Urine)	± 17%	Thyroglobulin	± 2 SD
D-Dimer	± 2 SD or 30% *	Thyroglobulin Antibody	± 2 SD
DHEA-S	± 30%	Thyroid Peroxidase Antibody (TPO)	± 2 SD
Digoxin	± 0.2 mg/dL or 20% *	Thyroxine, Total T_4	± 1.0 µg/dL or 20% *
Estradiol	± 2 SD	TIBC	± 2 SD or 20% *
Ferritin	± 30%	Transferrin	± 10%
Folate	± 0.9 ng/mL or 30%*	Triglyceride	± 25%
FSH	± 25%	Triiodothyronine, Total T_3	± 3 SD
Gentamicin	± 25%	Troponin I	± 2 SD or 30% *
GGT	± 2 SD or 20% *	Troponin T	± 2 SD or 30% *
Glucose, Serum	± 6 mg/dL or 10% *	TSH	± 3 SD
Glucose, Whole Blood	± 12 mg/dL or 20% *	UIBC	± 2 SD or 20% *
Glycohemoglobin	± 6%	Urea Nitrogen	± 2.0 mg/dL or 9% *
HDL Cholesterol	± 30%	Uric Acid	± 17%
HCG, Serum—Qualitative	80% Consensus	Urine Drug Screen	80% Consensus
HCG, Serum—Quantitative	± 3 SD	Valproic Acid	± 25%
Hematocrit	± 6%	Vancomycin	± 25%
Hemoglobin	± 7%	Vitamin B_{12}	± 30%
Homocysteine	± 30%	Vitamin D	± 2 SD
Insulin	± 2 SD	Troponin I	± 2 SD or 30% *
Iron	± 20%	Troponin T	± 30%
Lactate Dehydrogenase	± 20%		

*Whichever is greater

Sodium (mmol/L)

Specimen IST-6 / Specimen IST-7

Instrument	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	100	156.0	0.6	0.4	156	151 - 160	101	126.5	0.7	0.6	127	122 - 131
All i-STAT Instruments	100	156.0	0.6	0.4	156	151 - 160	101	126.5	0.7	0.6	127	122 - 131
i-STAT - waived	92	156.0	0.6	0.4	156	151 - 160	93	126.5	0.7	0.6	127	122 - 131 -

Specimen IST-8 / Specimen IST-9

Instrument	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	86	138.1	0.5	0.4	138	134 - 143	87	140.8	0.5	0.4	141	136 - 145
All i-STAT Instruments	86	138.1	0.5	0.4	138	134 - 143	87	140.8	0.5	0.4	141	136 - 145
i-STAT - waived	78	138.1	0.5	0.4	138	134 - 143	79	140.8	0.5	0.4	141	136 - 145

Specimen IST-10

Instrument	Labs	Mean	SD	CV	Median	Range
All Method	87	149.4	0.6	0.4	149	145 - 154
All i-STAT Instruments	87	149.4	0.6	0.4	149	145 - 154
i-STAT - waived	80	149.4	0.6	0.4	149	145 - 154

Potassium (mmol/L)

Specimen IST-6 / Specimen IST-7

Instrument	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	101	4.60	0.01	0.3	4.6	4.1 - 5.2	100	2.27	0.05	2.0	2.3	1.7 - 2.8
All i-STAT Instruments	101	4.60	0.01	0.3	4.6	4.1 - 5.2	100	2.27	0.05	2.0	2.3	1.7 - 2.8
i-STAT - moderate	10	4.60	0.01	0.0	4.6	4.1 - 5.1	10	2.26	0.05	2.3	2.3	1.7 - 2.8
i-STAT - waived	91	4.60	0.01	0.3	4.6	4.1 - 5.2	90	2.27	0.05	2.0	2.3	1.7 - 2.8

Specimen IST-8 / Specimen IST-9

Instrument	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	87	4.40	0.01	0.0	4.4	3.9 - 4.9	88	3.80	0.01	0.0	3.8	3.3 - 4.3
All i-STAT Instruments	87	4.40	0.01	0.0	4.4	3.9 - 4.9	88	3.80	0.01	0.0	3.8	3.3 - 4.3
i-STAT - moderate	10	4.40	0.01	0.0	4.4	3.9 - 4.9	10	3.80	0.01	0.0	3.8	3.3 - 4.3
i-STAT - waived	77	4.40	0.01	0.0	4.4	3.9 - 4.9	78	3.80	0.01	0.0	3.8	3.3 - 4.3

Specimen IST-10

Instrument	Labs	Mean	SD	CV	Median	Range
All Method	88	6.19	0.03	0.6	6.2	5.6 - 6.7
All i-STAT Instruments	88	6.19	0.03	0.6	6.2	5.6 - 6.7
i-STAT - moderate	10	6.20	0.01	0.0	6.2	5.7 - 6.7
i-STAT - waived	79	6.19	0.04	0.6	6.2	5.6 - 6.7

Chloride (mmol/L)

	Specimen IST-6						Specimen IST-7					
Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	100	97.0	0.7	0.7	97	92 - 102	99	79.4	0.7	0.9	79	75 - 84
All i-STAT Instruments	100	97.0	0.7	0.7	97	92 - 102	99	79.4	0.7	0.9	79	75 - 84
i-STAT - moderate	10	96.7	1.3	1.3	97	91 - 102	10	79.2	0.9	1.2	79	75 - 84
i-STAT - waived	89	97.1	0.6	0.6	97	92 - 102	90	79.4	0.7	0.9	79	75 - 84

	Specimen IST-8						Specimen IST-9					
All Method	86	91.1	0.6	0.6	91	86 - 96	88	86.5	0.6	0.7	87	82 - 91
All i-STAT Instruments	86	91.1	0.6	0.6	91	86 - 96	88	86.5	0.6	0.7	87	82 - 91
i-STAT - moderate	10	91.0	1.2	1.3	91	86 - 96	10	86.4	0.7	0.8	87	82 - 91
i-STAT - waived	78	91.1	0.6	0.6	91	86 - 96	78	86.5	0.6	0.7	87	82 - 91

	Specimen IST-10					
All Method	86	105.0	0.6	0.5	105	99 - 111
All i-STAT Instruments	86	105.0	0.6	0.5	105	99 - 111
i-STAT - moderate	10	104.3	1.3	1.2	105	99 - 110
i-STAT - waived	79	105.0	0.6	0.5	105	99 - 111

tCO$_2$ (mmol/L)

	Specimen IST-6						Specimen IST-7					
Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	98	25.5	0.9	3.4	26	20 - 31	96	23.6	0.8	3.4	24	18 - 29
All i-STAT Instruments	98	25.5	0.9	3.4	26	20 - 31	96	23.6	0.8	3.4	24	18 - 29
i-STAT - waived	90	25.5	0.9	3.4	26	20 - 31	88	23.6	0.8	3.3	24	18 - 29

	Specimen IST-8						Specimen IST-9					
All Method	85	28.0	0.9	3.2	28	22 - 34	87	25.9	1.0	4.0	26	20 - 32
All i-STAT Instruments	85	28.0	0.9	3.2	28	22 - 34	87	25.9	1.0	4.0	26	20 - 32
i-STAT - waived	78	27.9	0.9	3.2	28	22 - 34	79	25.9	1.1	4.1	26	20 - 32

	Specimen IST-10					
All Method	85	18.6	0.6	3.3	19	14 - 23
All i-STAT Instruments	85	18.6	0.6	3.3	19	14 - 23
i-STAT - waived	77	18.6	0.6	3.4	19	14 - 23

Urea Nitrogen (BUN) (mg/dL)

Specimen IST-6

Instrument	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
												Specimen IST-7
All Method	100	57.0	1.0	1.8	57	51 - 63	101	9.4	0.5	5.5	9	7 - 12
All i-STAT Instruments	100	57.0	1.0	1.8	57	51 - 63	101	9.4	0.5	5.5	9	7 - 12
i-STAT - waived	91	57.0	1.0	1.7	57	51 - 63	92	9.4	0.5	5.5	9	7 - 12

Specimen IST-8 / Specimen IST-9

Instrument	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	89	36.6	0.7	2.0	37	33 - 40	87	61.5	0.9	1.5	61	55 - 68
All i-STAT Instruments	89	36.6	0.7	2.0	37	33 - 40	87	61.5	0.9	1.5	61	55 - 68
i-STAT - waived	80	36.6	0.7	2.0	37	33 - 40	78	61.6	0.9	1.5	61	56 - 68

Specimen IST-10

Instrument	Labs	Mean	SD	CV	Median	Range
All Method	89	22.3	0.5	2.2	22	20 - 25
All i-STAT Instruments	89	22.3	0.5	2.2	22	20 - 25
i-STAT - waived	80	22.3	0.5	2.2	22	20 - 25

Glucose (mg/dL)

Specimen IST-6 / Specimen IST-7

Instrument	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	100	196.5	2.0	1.0	196	176 - 217	102	50.8	0.8	1.6	51	44 - 57
All i-STAT Instruments	100	196.5	2.0	1.0	196	176 - 217	102	50.8	0.8	1.6	51	44 - 57
i-STAT - waived	91	196.5	2.0	1.0	196	176 - 217	93	50.8	0.8	1.6	51	44 - 57

Specimen IST-8 / Specimen IST-9

Instrument	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	86	87.7	1.2	1.3	88	78 - 97	86	144.7	1.2	0.8	145	130 - 160
All i-STAT Instruments	86	87.7	1.2	1.3	88	78 - 97	86	144.7	1.2	0.8	145	130 - 160
i-STAT - waived	77	87.6	1.2	1.4	88	78 - 97	77	144.7	1.2	0.8	145	130 - 160

Specimen IST-10

Instrument	Labs	Mean	SD	CV	Median	Range
All Method	89	85.4	0.9	1.1	85	76 - 94
All i-STAT Instruments	89	85.4	0.9	1.1	85	76 - 94
i-STAT - waived	80	85.4	0.9	1.1	85	76 - 94

Hematocrit (percent)

Instrument	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
			Specimen IST-6							Specimen IST-7		
All Method	14	32.1	0.4	1.1	32	30 - 35	14	15.0	0.1	0.0	15	14 - 16
All i-STAT Instruments	14	32.1	0.4	1.1	32	30 - 35	14	15.0	0.1	0.0	15	14 - 16
i-STAT - waived	13	32.2	0.4	1.2	32	30 - 35	13	15.0	0.1	0.0	15	14 - 16
			Specimen IST-8							Specimen IST-9		
All Method	11	36.0	0.6	1.8	36	33 - 39	11	26.0	3.0	11.4	25	24 - 28
All i-STAT Instruments	11	36.0	0.6	1.8	36	33 - 39	11	26.0	3.0	11.4	25	24 - 28
i-STAT - waived	10	36.0	0.7	2.0	36	33 - 39	10	26.2	3.3	12.5	25	24 - 28
			Specimen IST-10									
All Method	11	26.8	0.4	1.5	27	25 - 29						
All i-STAT Instruments	11	26.8	0.4	1.5	27	25 - 29						
i-STAT - waived	10	26.8	0.4	1.7	27	25 - 29						

Hemoglobin (g/dL)

Instrument	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
			Specimen IST-6							Specimen IST-7		
All Method	15	11.08	0.37	3.3	10.9	10.3 - 11.9	15	5.10	0.01	0.0	5.1	4.7 - 5.5
All i-STAT Instruments	15	11.08	0.37	3.3	10.9	10.3 - 11.9	15	5.10	0.01	0.0	5.1	4.7 - 5.5
i-STAT - waived	14	11.09	0.38	3.4	10.9	10.3 - 11.9	14	5.10	0.01	0.0	5.1	4.7 - 5.5
			Specimen IST-8							Specimen IST-9		
All Method	11	12.22	0.22	1.8	12.2	11.3 - 13.1	11	8.85	1.01	11.4	8.5	8.2 - 9.5
All i-STAT Instruments	11	12.22	0.22	1.8	12.2	11.3 - 13.1	11	8.85	1.01	11.4	8.5	8.2 - 9.5
i-STAT - waived	10	12.22	0.25	2.0	12.2	11.3 - 13.1	10	8.92	1.11	12.5	8.5	8.2 - 9.6
			Specimen IST-10									
All Method	11	9.13	0.16	1.8	9.2	8.4 - 9.8						
All i-STAT Instruments	11	9.13	0.16	1.8	9.2	8.4 - 9.8						
i-STAT - waived	10	9.12	0.18	2.0	9.2	8.4 - 9.8						

Creatinine (mg/dL)

	Specimen IST-6						**Specimen IST-7**				
Instrument	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_
All Method	110	4.86	0.17	3.4	4.9	4.1 - 5.6	112	0.41	0.05	11.9	0.4	0.1 - 0.8
All i-STAT Instruments	110	4.86	0.17	3.4	4.9	4.1 - 5.6	112	0.41	0.05	11.9	0.4	0.1 - 0.8
i-STAT - waived	101	4.86	0.17	3.5	4.9	4.1 - 5.6	103	0.41	0.05	11.8	0.4	0.1 - 0.8

	Specimen IST-8						**Specimen IST-9**				
All Method	86	2.63	0.08	3.1	2.6	2.2 - 3.1	86	5.97	0.18	3.0	6.0	5.0 - 6.9
All i-STAT Instruments	86	2.63	0.08	3.1	2.6	2.2 - 3.1	86	5.97	0.18	3.0	6.0	5.0 - 6.9
i-STAT - waived	77	2.63	0.08	3.1	2.6	2.2 - 3.1	77	5.97	0.19	3.1	6.0	5.0 - 6.9

	Specimen IST-10					
All Method	87	1.10	0.04	3.4	1.1	0.8 - 1.5
All i-STAT Instruments	87	1.10	0.04	3.4	1.1	0.8 - 1.5
i-STAT - waived	78	1.10	0.04	3.4	1.1	0.8 - 1.5

Ionized Calcium (mmol/L)

	Specimen IST-6						**Specimen IST-7**				
Instrument	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_
All Method	93	0.965	0.007	0.8	0.96	0.94 - 0.99	91	0.599	0.005	0.9	0.60	0.58 - 0.62
All i-STAT Instruments	93	0.965	0.007	0.8	0.96	0.94 - 0.99	91	0.599	0.005	0.9	0.60	0.58 - 0.62
i-STAT - waived	85	0.966	0.007	0.8	0.97	0.94 - 0.99	83	0.599	0.005	0.9	0.60	0.58 - 0.62

	Specimen IST-8						**Specimen IST-9**				
All Method	84	1.325	0.009	0.7	1.32	1.29 - 1.36	84	2.217	0.020	0.9	2.21	2.15 - 2.28
All i-STAT Instruments	84	1.325	0.009	0.7	1.32	1.29 - 1.36	84	2.217	0.020	0.9	2.21	2.15 - 2.28
i-STAT - waived	76	1.324	0.009	0.7	1.32	1.29 - 1.36	76	2.216	0.020	0.9	2.21	2.15 - 2.28

	Specimen IST-10					
All Method	83	0.781	0.007	0.9	0.78	0.75 - 0.81
All i-STAT Instruments	83	0.781	0.007	0.9	0.78	0.75 - 0.81
i-STAT - waived	75	0.781	0.007	1.0	0.78	0.75 - 0.81

Albumin (g/dL)

Reagent/Instrument	Specimen CH-6						Specimen CH-7					
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	238	3.78	0.51	13.5	4.0	3.4 - 4.2	235	2.37	0.22	9.5	2.4	2.1 - 2.7
All Bromocresol Green Reagents	169	4.09	0.18	4.4	4.1	3.6 - 4.5	168	2.47	0.17	7.0	2.5	2.2 - 2.8
All Bromocresol Purple Reagents	67	3.02	0.09	2.9	3.0	2.7 - 3.4	65	2.10	0.07	3.4	2.1	1.8 - 2.4
Abaxis Piccolo												
Abaxis Piccolo - waived	21	2.98	0.09	3.2	3.0	2.6 - 3.3	21	2.15	0.06	2.8	2.1	1.9 - 2.4
All Chemistry Instruments	30	2.98	0.09	3.1	3.0	2.6 - 3.3	28	2.15	0.06	2.7	2.1	1.9 - 2.4
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	24	4.16	0.11	2.5	4.2	3.7 - 4.6	23	2.61	0.09	3.3	2.6	2.3 - 2.9
Beckman AU												
Beckman AU systems	37	4.09	0.08	2.0	4.1	3.6 - 4.5	37	2.44	0.06	2.4	2.4	2.1 - 2.7
Horiba ABX Pentra												
Horiba ABX Pentra 400	20	3.97	0.14	3.5	4.0	3.5 - 4.4	20	2.54	0.08	3.0	2.5	2.2 - 2.8
Roche Integra												
Roche Integra	20	4.30	0.11	2.7	4.3	3.8 - 4.8	20	2.59	0.07	2.9	2.6	2.3 - 2.9
Siemens Healthcare												
Siemens Dimension	34	3.04	0.07	2.2	3.0	2.7 - 3.4	34	2.06	0.06	2.9	2.1	1.8 - 2.3
All Chemistry Instruments	35	3.04	0.07	2.2	3.0	2.7 - 3.4	35	2.07	0.06	2.9	2.1	1.8 - 2.3
VITROS												
VITROS 250,350,400 500,700,750,950	32	3.91	0.15	3.9	3.9	3.5 - 4.4	32	2.21	0.08	3.4	2.2	1.9 - 2.5
All Chemistry Instruments	38	3.93	0.16	4.2	3.9	3.5 - 4.4	38	2.21	0.07	3.3	2.2	1.9 - 2.5

Albumin (g/dL)

Reagent/Instrument	Specimen CH-8						Specimen CH-9					
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	217	3.15	0.35	11.0	3.3	2.8 - 3.5	216	2.14	0.20	9.3	2.2	1.9 - 2.4
All Bromocresol Green Reagents	169	3.31	0.18	5.4	3.3	2.9 - 3.7	168	2.19	0.18	8.3	2.2	1.9 - 2.5
All Bromocresol Purple Reagents	46	2.57	0.06	2.3	2.6	2.3 - 2.9	46	1.93	0.07	3.7	1.9	1.7 - 2.2
Abaxis Piccolo												
Abaxis Piccolo - waived	3	-	-	-	2.6	2.3 - 2.9	3	-	-	-	1.9	1.7 - 2.2
All Chemistry Instruments	9	-	-	-	2.6	2.3 - 2.9	9	-	-	-	2.0	1.7 - 2.2
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	23	3.42	0.09	2.7	3.4	3.0 - 3.8	24	2.36	0.09	3.7	2.3	2.1 - 2.6
Beckman AU												
Beckman AU systems	37	3.31	0.08	2.3	3.3	2.9 - 3.7	36	2.15	0.07	3.2	2.2	1.9 - 2.4
Horiba ABX Pentra												
Horiba ABX Pentra 400	20	3.30	0.11	3.5	3.3	2.9 - 3.7	20	2.32	0.07	2.9	2.3	2.0 - 2.6
Roche Integra												
Roche Integra	20	3.49	0.09	2.7	3.5	3.1 - 3.9	20	2.28	0.07	3.1	2.3	2.0 - 2.6
Siemens Healthcare												
Siemens Dimension	34	2.56	0.06	2.4	2.6	2.3 - 2.9	34	1.90	0.05	2.6	1.9	1.7 - 2.1
All Chemistry Instruments	35	2.56	0.06	2.3	2.6	2.3 - 2.9	35	1.90	0.05	2.7	1.9	1.7 - 2.1
VITROS												
VITROS 250,350,400 500,700,750,950	32	3.08	0.13	4.2	3.1	2.7 - 3.4	32	1.93	0.06	3.3	1.9	1.7 - 2.2
All Chemistry Instruments	38	3.07	0.12	3.9	3.1	2.7 - 3.4	38	1.92	0.07	3.5	1.9	1.7 - 2.2

Albumin (g/dL)

Specimen CH-10

Reagent/Instrument	Labs	Mean	SD	CV	Median	Range
All Method	219	3.67	0.44	12.0	3.8	3.3 - 4.1
All Bromocresol Green Reagents	168	3.89	0.16	4.2	3.9	3.5 - 4.3
All Bromocresol Purple Reagents	48	2.90	0.06	2.1	2.9	2.6 - 3.2
Abaxis Piccolo						
Abaxis Piccolo - waived	3	-	-	-	2.8	2.5 - 3.2
All Chemistry Instruments	11	2.86	0.07	2.4	2.9	2.5 - 3.2
Alfa Wassermann						
Alfa Wassermann ACE Alera/Axcel	24	3.97	0.12	2.9	4.0	3.5 - 4.4
Beckman AU						
Beckman AU systems	37	3.88	0.09	2.2	3.9	3.4 - 4.3
Horiba ABX Pentra						
Horiba ABX Pentra 400	20	3.81	0.11	2.9	3.8	3.4 - 4.2
Roche Integra						
Roche Integra	20	4.09	0.11	2.7	4.1	3.6 - 4.5
Siemens Healthcare						
Siemens Dimension	34	2.91	0.05	1.8	2.9	2.6 - 3.2
All Chemistry Instruments	35	2.91	0.05	1.8	2.9	2.6 - 3.3
VITROS						
VITROS 250,350,400 500,700,750,950	32	3.76	0.16	4.4	3.7	3.3 - 4.2
All Chemistry Instruments	38	3.76	0.16	4.2	3.7	3.3 - 4.2

Bilirubin, Direct (mg/dL)

Specimen CH-6 & Specimen CH-7

Reagent/Instrument	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	142	0.98	0.31	31.8	1.0	0.3 - 1.7	141	0.41	0.15	37.8	0.4	0.0 - 0.8
All Alfa Wassermann Reagents	19	1.25	0.19	15.0	1.3	0.8 - 1.7	19	0.53	0.09	17.8	0.5	0.3 - 0.8
All Roche Reagents	21	0.70	0.11	15.4	0.7	0.4 - 1.0	21	0.27	0.05	17.1	0.3	0.1 - 0.4
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	19	1.25	0.19	15.0	1.3	0.8 - 1.7	19	0.53	0.09	17.8	0.5	0.3 - 0.8
Beckman AU												
Beckman AU systems	27	1.03	0.11	10.7	1.0	0.8 - 1.3	27	0.46	0.06	12.7	0.5	0.3 - 0.6
Horiba ABX Pentra												
Horiba ABX Pentra 400	11	1.17	0.12	10.2	1.1	0.9 - 1.5	11	0.45	0.05	11.5	0.5	0.3 - 0.6
Roche Integra												
Roche Integra	13	0.75	0.08	10.4	0.7	0.5 - 1.0	12	0.30	0.01	0.0	0.3	0.2 - 0.4
Siemens Healthcare												
Siemens Dimension	24	0.74	0.07	9.7	0.8	0.5 - 0.9	25	0.28	0.04	14.6	0.3	0.1 - 0.4
All Chemistry Instruments	26	0.75	0.07	9.5	0.8	0.6 - 0.9	27	0.28	0.04	14.1	0.3	0.2 - 0.4
VITROS-BuBc and Bc												
VITROS 250,350,400 500,700,750,950	17	1.04	0.43	41.5	1.2	0.1 - 2.0	17	0.42	0.27	63.3	0.5	0.0 - 1.0
All Chemistry Instruments	21	1.04	0.42	40.6	1.2	0.1 - 1.9	21	0.43	0.26	60.0	0.5	0.0 - 1.0

Specimen CH-8 & Specimen CH-9

Reagent/Instrument	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	142	0.71	0.24	34.0	0.8	0.2 - 1.2	141	0.31	0.13	42.3	0.3	0.0 - 0.6
All Alfa Wassermann Reagents	19	0.92	0.14	15.1	0.9	0.6 - 1.2	19	0.41	0.07	18.0	0.4	0.2 - 0.6
All Roche Reagents	21	0.50	0.07	14.9	0.5	0.3 - 0.7	19	0.20	0.01	0.0	0.2	0.1 - 0.3
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	19	0.92	0.14	15.1	0.9	0.6 - 1.2	19	0.41	0.07	18.0	0.4	0.2 - 0.6
Beckman AU												
Beckman AU systems	27	0.77	0.08	10.1	0.8	0.6 - 1.0	27	0.36	0.05	14.2	0.4	0.2 - 0.5
Horiba ABX Pentra												
Horiba ABX Pentra 400	11	0.85	0.08	9.7	0.8	0.6 - 1.1	11	0.35	0.05	15.1	0.3	0.2 - 0.5
Roche Integra												
Roche Integra	13	0.53	0.05	9.1	0.5	0.4 - 0.7	12	0.20	0.01	0.0	0.2	0.1 - 0.3
Siemens Healthcare												
Siemens Dimension	24	0.52	0.06	11.3	0.5	0.4 - 0.7	25	0.19	0.04	23.4	0.2	0.1 - 0.3
All Chemistry Instruments	26	0.52	0.06	11.2	0.5	0.4 - 0.7	27	0.19	0.05	24.6	0.2	0.0 - 0.3
VITROS-BuBc and Bc												
VITROS 250,350,400 500,700,750,950	17	0.72	0.36	49.7	0.8	0.0 - 1.5	17	0.35	0.24	69.9	0.4	0.0 - 0.9
All Chemistry Instruments	21	0.72	0.35	48.3	0.8	0.0 - 1.5	21	0.35	0.23	65.1	0.4	0.0 - 0.9

Bilirubin, Direct (mg/dL)

Specimen CH-10

Reagent/Instrument	Labs	Mean	SD	CV	Median	Range
All Method	142	0.93	0.30	32.2	1.0	0.3 - 1.6
All Alfa Wassermann Reagents	19	1.23	0.15	12.4	1.2	0.9 - 1.6
All Roche Reagents	21	0.66	0.10	14.9	0.7	0.4 - 0.9
Alfa Wassermann						
Alfa Wassermann ACE Alera/Axcel	19	1.23	0.15	12.4	1.2	0.9 - 1.6
Beckman AU						
Beckman AU systems	27	1.00	0.14	13.9	1.0	0.7 - 1.3
Horiba ABX Pentra						
Horiba ABX Pentra 400	11	1.14	0.11	9.9	1.1	0.9 - 1.4
Roche Integra						
Roche Integra	13	0.71	0.06	9.1	0.7	0.5 - 0.9
Siemens Healthcare						
Siemens Dimension	24	0.69	0.07	10.8	0.7	0.5 - 0.9
All Chemistry Instruments	26	0.69	0.07	10.7	0.7	0.5 - 0.9
VITROS-BuBc and Bc						
VITROS 250,350,400 500,700,750,950	17	0.98	0.41	42.5	1.1	0.1 - 1.9
All Chemistry Instruments	21	0.97	0.40	41.2	1.1	0.1 - 1.8

Bilirubin, Total (mg/dL)

Reagent/Instrument	Specimen CH-6						Specimen CH-7					
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	238	2.64	0.35	13.2	2.7	2.1 - 3.2	235	0.98	0.13	13.6	1.0	0.5 - 1.4
All Alfa Wassermann Reagents	31	3.10	0.19	6.0	3.1	2.4 - 3.8	31	1.19	0.08	7.0	1.2	0.7 - 1.6
All Horiba Pentra Reagents	20	2.60	0.14	5.3	2.6	2.0 - 3.2	20	0.94	0.07	7.2	0.9	0.5 - 1.4
All Roche T. bili Special Reagents	22	2.36	0.13	5.7	2.4	1.8 - 2.9	22	0.85	0.07	7.9	0.9	0.4 - 1.3
Abaxis Piccolo												
Abaxis Piccolo - waived	21	2.15	0.23	10.8	2.1	1.7 - 2.6	21	0.89	0.09	9.6	0.9	0.4 - 1.3
All Chemistry Instruments	30	2.14	0.21	10.0	2.1	1.7 - 2.6	28	0.89	0.08	9.1	0.9	0.4 - 1.3
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	30	3.10	0.19	6.1	3.1	2.4 - 3.8	30	1.19	0.08	7.1	1.2	0.7 - 1.6
Beckman AU												
Beckman AU systems	36	2.81	0.19	6.7	2.8	2.2 - 3.4	36	1.06	0.07	6.6	1.1	0.6 - 1.5
ELITechGroup Envoy 500												
ELITechGroup Envoy 500	10	2.55	0.30	11.6	2.6	2.0 - 3.1	10	0.88	0.14	15.9	0.9	0.4 - 1.3
Horiba ABX Pentra												
Horiba ABX Pentra 400	20	2.60	0.14	5.3	2.6	2.0 - 3.2	20	0.94	0.07	7.2	0.9	0.5 - 1.4
Roche Integra-T. bili Gen.3												
Roche Integra	10	2.36	0.08	3.6	2.4	1.8 - 2.9	10	0.86	0.05	6.0	0.9	0.4 - 1.3
All Chemistry Instruments	12	2.37	0.09	3.8	2.4	1.8 - 2.9	12	0.86	0.05	6.0	0.9	0.4 - 1.3
Siemens Healthcare												
Siemens Dimension	33	2.62	0.15	5.7	2.6	2.0 - 3.2	34	0.93	0.08	8.6	0.9	0.5 - 1.4
All Chemistry Instruments	34	2.63	0.15	5.6	2.6	2.1 - 3.2	35	0.93	0.08	8.5	0.9	0.5 - 1.4
VITROS - TBIL												
VITROS 250,350,400 500,700,750,950	30	2.89	0.19	6.5	2.9	2.3 - 3.5	29	1.03	0.10	9.4	1.0	0.6 - 1.5
All Chemistry Instruments	35	2.85	0.23	7.9	2.9	2.2 - 3.5	35	1.01	0.11	10.8	1.0	0.6 - 1.5

Bilirubin, Total (mg/dL)

Reagent/Instrument	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
			Specimen CH-8							*Specimen CH-9*		
All Method	217	1.87	0.22	12.0	1.9	1.4 - 2.3	215	0.72	0.10	14.3	0.7	0.3 - 1.2
All Alfa Wassermann Reagents	31	2.18	0.13	5.9	2.2	1.7 - 2.7	31	0.88	0.06	6.4	0.9	0.4 - 1.3
All Horiba Pentra Reagents	20	1.81	0.10	5.5	1.8	1.4 - 2.3	20	0.66	0.07	10.5	0.7	0.2 - 1.1
All Roche T. bili Special Reagents	22	1.64	0.09	5.5	1.7	1.2 - 2.1	22	0.62	0.05	8.1	0.6	0.2 - 1.1
Abaxis Piccolo												
Abaxis Piccolo - waived	3	-	-	-	1.4	1.4 - 2.3	3	-	-	-	0.7	0.3 - 1.2
All Chemistry Instruments	9	-	-	-	1.5	1.0 - 1.9	9	-	-	-	0.7	0.3 - 1.2
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	30	2.18	0.13	6.0	2.2	1.7 - 2.7	30	0.88	0.06	6.5	0.9	0.4 - 1.3
Beckman AU												
Beckman AU systems	36	1.96	0.13	6.5	2.0	1.5 - 2.4	36	0.77	0.06	7.6	0.8	0.3 - 1.2
ELITechGroup Envoy 500												
ELITechGroup Envoy 500	10	1.68	0.20	12.2	1.8	1.2 - 2.1	10	0.70	0.19	27.8	0.7	0.3 - 1.1
Horiba ABX Pentra												
Horiba ABX Pentra 400	20	1.81	0.10	5.5	1.8	1.4 - 2.3	20	0.66	0.07	10.5	0.7	0.2 - 1.1
Roche Integra-T. bili Gen.3												
Roche Integra	10	1.64	0.05	3.1	1.6	1.2 - 2.1	10	0.62	0.04	6.8	0.6	0.2 - 1.1
All Chemistry Instruments	12	1.64	0.05	3.1	1.6	1.2 - 2.1	12	0.62	0.04	6.3	0.6	0.2 - 1.1
Siemens Healthcare												
Siemens Dimension	32	1.82	0.08	4.3	1.8	1.4 - 2.3	34	0.67	0.06	9.2	0.7	0.2 - 1.1
All Chemistry Instruments	33	1.82	0.08	4.2	1.8	1.4 - 2.3	35	0.67	0.06	9.1	0.7	0.2 - 1.1
VITROS - TBIL												
VITROS 250,350,400 500,700,750,950	29	1.96	0.13	6.7	2.0	1.5 - 2.4	29	0.73	0.08	11.0	0.7	0.3 - 1.2
All Chemistry Instruments	36	1.94	0.19	9.9	2.0	1.5 - 2.4	35	0.71	0.09	13.0	0.7	0.3 - 1.2

Bilirubin, Total (mg/dL)

Specimen CH-10

Reagent/Instrument	Labs	Mean	SD	CV	Median	Range
All Method	219	2.50	0.31	12.6	2.5	1.9 - 3.0
All Alfa Wassermann Reagents	31	2.91	0.18	6.3	2.9	2.3 - 3.5
All Horiba Pentra Reagents	20	2.42	0.11	4.7	2.4	1.9 - 2.9
All Roche T. bili Special Reagents	22	2.19	0.13	5.8	2.2	1.7 - 2.7
Abaxis Piccolo						
Abaxis Piccolo - waived	3	-	-	-	1.8	1.4 - 2.3
All Chemistry Instruments	11	1.89	0.14	7.6	1.9	1.4 - 2.3
Alfa Wassermann						
Alfa Wassermann ACE Alera/Axcel	30	2.91	0.19	6.4	2.9	2.3 - 3.5
Beckman AU						
Beckman AU systems	36	2.62	0.20	7.7	2.6	2.0 - 3.2
ELITechGroup Envoy 500						
ELITechGroup Envoy 500	10	2.36	0.31	13.3	2.4	1.8 - 2.9
Horiba ABX Pentra						
Horiba ABX Pentra 400	20	2.42	0.11	4.7	2.4	1.9 - 2.9
Roche Integra-T. bili Gen.3						
Roche Integra	10	2.21	0.09	4.0	2.2	1.7 - 2.7
All Chemistry Instruments	12	2.21	0.09	4.1	2.2	1.7 - 2.7
Siemens Healthcare						
Siemens Dimension	32	2.46	0.12	5.1	2.5	1.9 - 3.0
All Chemistry Instruments	33	2.46	0.12	5.0	2.5	1.9 - 3.0
VITROS - TBIL						
VITROS 250,350,400 500,700,750,950	30	2.68	0.20	7.6	2.7	2.1 - 3.3
All Chemistry Instruments	36	2.61	0.25	9.7	2.6	2.0 - 3.2

Calcium (mg/dL)

Reagent/Instrument	Specimen CH-6						Specimen CH-7					
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	240	12.36	0.34	2.8	12.4	11.3 - 13.4	238	8.62	0.28	3.3	8.6	7.6 - 9.7
All Arsenazo Methods	119	12.31	0.34	2.7	12.3	11.3 - 13.4	117	8.70	0.33	3.8	8.7	7.7 - 9.8
All CPC Methods	118	12.41	0.34	2.7	12.4	11.4 - 13.5	118	8.56	0.21	2.4	8.6	7.5 - 9.6
Abaxis Piccolo												
Abaxis Piccolo - waived	21	12.34	0.33	2.7	12.3	11.3 - 13.4	21	8.73	0.25	2.9	8.8	7.7 - 9.8
All Chemistry Instruments	29	12.30	0.36	2.9	12.3	11.3 - 13.3	27	8.73	0.23	2.6	8.8	7.7 - 9.8
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	32	12.34	0.33	2.7	12.4	11.3 - 13.4	32	8.95	0.29	3.2	9.0	7.9 - 10.0
Beckman AU												
Beckman AU systems	38	12.23	0.34	2.7	12.3	11.2 - 13.3	37	8.54	0.15	1.8	8.6	7.5 - 9.6
ELITechGroup Envoy 500												
ELITechGroup Envoy 500	10	11.90	0.23	1.9	11.9	10.9 - 12.9	10	8.16	0.22	2.7	8.2	7.1 - 9.2
Horiba ABX Pentra												
Horiba ABX Pentra 400	16	12.71	0.20	1.5	12.6	11.7 - 13.8	17	8.66	0.15	1.7	8.7	7.6 - 9.7
Roche Integra												
Roche Integra	20	12.49	0.24	1.9	12.5	11.4 - 13.5	20	8.62	0.19	2.2	8.6	7.6 - 9.7
Siemens Healthcare												
Siemens Dimension	33	12.37	0.32	2.6	12.4	11.3 - 13.4	33	8.46	0.25	3.0	8.5	7.4 - 9.5
All Chemistry Instruments	35	12.36	0.31	2.5	12.3	11.3 - 13.4	35	8.45	0.25	3.0	8.5	7.4 - 9.5
VITROS												
VITROS 250,350,400 500,700,750,950	31	12.33	0.26	2.1	12.3	11.3 - 13.4	31	8.63	0.22	2.6	8.6	7.6 - 9.7
All Chemistry Instruments	37	12.34	0.26	2.1	12.3	11.3 - 13.4	37	8.63	0.23	2.6	8.6	7.6 - 9.7

Calcium (mg/dL)

Reagent/Instrument	Specimen CH-8						Specimen CH-9					
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	220	10.56	0.31	2.9	10.6	9.5 - 11.6	217	8.00	0.28	3.5	8.0	7.0 - 9.1
All Arsenazo Methods	98	10.63	0.34	3.2	10.6	9.6 - 11.7	97	8.07	0.35	4.4	8.0	7.0 - 9.1
All CPC Methods	119	10.50	0.27	2.6	10.5	9.5 - 11.6	118	7.93	0.20	2.5	7.9	6.9 - 9.0
Abaxis Piccolo												
Abaxis Piccolo - waived	3	-	-	-	10.5	9.6 - 11.7	3	-	-	-	8.3	7.0 - 9.1
All Chemistry Instruments	8	-	-	-	10.7	9.6 - 11.7	8	-	-	-	8.3	7.2 - 9.2
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	32	10.81	0.26	2.4	10.8	9.8 - 11.9	32	8.35	0.25	3.0	8.4	7.3 - 9.4
Beckman AU												
Beckman AU systems	38	10.39	0.25	2.4	10.4	9.3 - 11.4	38	7.90	0.19	2.4	7.9	6.8 - 8.9
ELITechGroup Envoy 500												
ELITechGroup Envoy 500	10	10.06	0.17	1.7	10.1	9.0 - 11.1	10	7.76	0.95	12.3	7.5	6.7 - 8.8
Horiba ABX Pentra												
Horiba ABX Pentra 400	17	10.74	0.21	2.0	10.7	9.7 - 11.8	17	8.00	0.17	2.2	7.9	7.0 - 9.0
Roche Integra												
Roche Integra	20	10.60	0.23	2.1	10.6	9.6 - 11.6	20	7.99	0.20	2.5	8.0	6.9 - 9.0
Siemens Healthcare												
Siemens Dimension	33	10.40	0.24	2.3	10.4	9.4 - 11.5	32	7.88	0.21	2.6	7.9	6.8 - 8.9
All Chemistry Instruments	35	10.40	0.23	2.2	10.4	9.3 - 11.4	34	7.87	0.20	2.6	7.9	6.8 - 8.9
VITROS												
VITROS 250,350,400 500,700,750,950	31	10.63	0.25	2.4	10.6	9.6 - 11.7	31	7.98	0.21	2.6	8.0	6.9 - 9.0
All Chemistry Instruments	37	10.62	0.25	2.4	10.6	9.6 - 11.7	37	7.99	0.20	2.5	8.0	6.9 - 9.0

Calcium (mg/dL)

Specimen CH-10

Reagent/Instrument	Labs	Mean	SD	CV	Median	Range
All Method	222	11.89	0.33	2.8	11.9	10.8 - 12.9
All Arsenazo Methods	100	11.92	0.34	2.9	11.9	10.9 - 13.0
All CPC Methods	119	11.87	0.33	2.8	11.9	10.8 - 12.9
Abaxis Piccolo						
Abaxis Piccolo - waived	3	-	-	-	11.9	10.9 - 13.0
All Chemistry Instruments	10	11.92	0.23	1.9	11.9	10.9 - 13.0
Alfa Wassermann						
Alfa Wassermann ACE Alera/Axcel	32	12.07	0.32	2.6	12.1	11.0 - 13.1
Beckman AU						
Beckman AU systems	38	11.71	0.32	2.7	11.8	10.7 - 12.8
ELITechGroup Envoy 500						
ELITechGroup Envoy 500	10	11.42	0.13	1.2	11.4	10.4 - 12.5
Horiba ABX Pentra						
Horiba ABX Pentra 400	17	12.16	0.19	1.6	12.1	11.1 - 13.2
Roche Integra						
Roche Integra	20	11.93	0.25	2.1	11.9	10.9 - 13.0
Siemens Healthcare						
Siemens Dimension	33	11.81	0.33	2.8	11.8	10.8 - 12.9
All Chemistry Instruments	35	11.81	0.32	2.7	11.8	10.8 - 12.9
VITROS						
VITROS 250,350,400 500,700,750,950	31	11.91	0.29	2.4	11.9	10.9 - 13.0
All Chemistry Instruments	37	11.92	0.29	2.4	11.9	10.9 - 13.0

Creatinine (mg/dL)

Reagent/Instrument	Specimen CH-6						Specimen CH-7				
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	236	4.12	0.21	5.2	4.1	3.5 - 4.8	231	1.43	0.09	6.0	1.4	1.1 - 1.8
All Alfa Wassermann Reagents	31	4.06	0.19	4.7	4.1	3.4 - 4.7	30	1.54	0.11	7.4	1.5	1.2 - 1.9
All Roche Reagents	28	3.89	0.25	6.3	3.9	3.3 - 4.5	28	1.40	0.10	6.9	1.4	1.0 - 1.7
All VITROS Reagents	37	4.27	0.10	2.3	4.3	3.6 - 5.0	38	1.39	0.05	3.4	1.4	1.0 - 1.7
Abaxis Piccolo											
Abaxis Piccolo - waived	21	4.25	0.14	3.3	4.3	3.6 - 4.9	21	1.51	0.15	9.6	1.5	1.2 - 1.9
All Chemistry Instruments	29	4.26	0.14	3.3	4.3	3.6 - 5.0	27	1.51	0.13	8.9	1.5	1.2 - 1.9
Alfa Wassermann											
Alfa Wassermann ACE Alera/Axcel	30	4.06	0.19	4.7	4.1	3.4 - 4.7	29	1.54	0.12	7.5	1.5	1.2 - 1.9
Beckman AU											
Beckman AU systems	36	4.08	0.11	2.7	4.1	3.4 - 4.7	37	1.41	0.05	3.3	1.4	1.1 - 1.8
All Chemistry Instruments	37	4.08	0.11	2.7	4.1	3.4 - 4.7	38	1.41	0.05	3.3	1.4	1.1 - 1.8
ELITechGroup Envoy 500											
ELITechGroup Envoy 500	10	3.87	0.12	3.0	3.9	3.2 - 4.5	10	1.41	0.06	4.0	1.4	1.1 - 1.8
Horiba ABX Pentra											
Horiba ABX Pentra 400	20	4.00	0.13	3.2	4.0	3.4 - 4.6	20	1.38	0.06	4.6	1.4	1.0 - 1.7
Roche Integra											
Roche Integra	20	3.83	0.17	4.5	3.8	3.2 - 4.5	19	1.39	0.04	2.9	1.4	1.0 - 1.7
Siemens Healthcare											
Siemens Dimension	33	4.27	0.12	2.9	4.3	3.6 - 5.0	33	1.48	0.06	4.1	1.5	1.1 - 1.8
All Chemistry Instruments	35	4.27	0.12	2.9	4.3	3.6 - 5.0	35	1.47	0.06	4.1	1.5	1.1 - 1.8
VITROS - CREA											
VITROS 250,350,400 500,700,750,950	22	4.27	0.13	3.0	4.3	3.6 - 5.0	22	1.39	0.05	3.8	1.4	1.0 - 1.7
All Chemistry Instruments	27	4.29	0.09	2.2	4.3	3.6 - 5.0	28	1.39	0.05	3.3	1.4	1.0 - 1.7

Creatinine (mg/dL)

			Specimen CH-8						Specimen CH-9			
Reagent/Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	215	2.80	0.13	4.5	2.8	2.3 - 3.3	214	0.98	0.09	9.1	1.0	0.6 - 1.3
All Alfa Wassermann Reagents	31	2.85	0.15	5.1	2.8	2.4 - 3.3	31	1.09	0.07	6.6	1.1	0.7 - 1.4
All Roche Reagents	27	2.70	0.16	6.0	2.7	2.2 - 3.2	27	0.94	0.09	9.9	0.9	0.6 - 1.3
All VITROS Reagents	38	2.83	0.09	3.2	2.8	2.4 - 3.3	38	0.94	0.05	5.2	0.9	0.6 - 1.3
Abaxis Piccolo												
Abaxis Piccolo - waived	3	-	-	-	2.9	2.3 - 3.3	3	-	-	-	1.1	0.6 - 1.3
All Chemistry Instruments	8	-	-	-	2.9	2.4 - 3.4	8	-	-	-	1.1	0.8 - 1.5
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	30	2.85	0.15	5.2	2.9	2.4 - 3.3	30	1.09	0.07	6.7	1.1	0.7 - 1.4
Beckman AU												
Beckman AU systems	37	2.78	0.08	3.0	2.8	2.3 - 3.2	37	0.94	0.06	5.9	0.9	0.6 - 1.3
All Chemistry Instruments	38	2.78	0.09	3.2	2.8	2.3 - 3.2	38	0.94	0.06	5.9	0.9	0.6 - 1.3
ELITechGroup Envoy 500												
ELITechGroup Envoy 500	10	2.71	0.09	3.2	2.7	2.3 - 3.2	10	1.11	0.32	28.6	1.0	0.8 - 1.5
Horiba ABX Pentra												
Horiba ABX Pentra 400	20	2.75	0.10	3.6	2.8	2.3 - 3.2	20	0.94	0.05	5.2	0.9	0.6 - 1.3
Roche Integra												
Roche Integra	19	2.67	0.13	5.0	2.7	2.2 - 3.1	20	0.94	0.07	8.0	0.9	0.6 - 1.3
Siemens Healthcare												
Siemens Dimension	33	2.85	0.09	3.1	2.9	2.4 - 3.3	33	1.02	0.06	5.7	1.0	0.7 - 1.4
All Chemistry Instruments	35	2.85	0.09	3.0	2.9	2.4 - 3.3	35	1.01	0.07	7.0	1.0	0.7 - 1.4
VITROS - CREA												
VITROS 250,350,400 500,700,750,950	22	2.82	0.09	3.3	2.8	2.3 - 3.3	22	0.93	0.05	4.9	0.9	0.6 - 1.3
All Chemistry Instruments	28	2.84	0.09	3.2	2.8	2.4 - 3.3	28	0.93	0.05	5.1	0.9	0.6 - 1.3

Creatinine (mg/dL)

Specimen CH-10

Reagent/Instrument	Labs	Mean	SD	CV	Median	Range
All Method	219	3.74	0.19	5.0	3.8	3.1 - 4.4
All Alfa Wassermann Reagents	31	3.72	0.20	5.4	3.8	3.1 - 4.3
All Roche Reagents	28	3.55	0.23	6.3	3.5	3.0 - 4.1
All VITROS Reagents	37	3.86	0.09	2.3	3.9	3.2 - 4.5
Abaxis Piccolo						
Abaxis Piccolo - waived	3	-	-	-	3.7	3.2 - 4.4
All Chemistry Instruments	10	3.82	0.10	2.7	3.9	3.2 - 4.4
Alfa Wassermann						
Alfa Wassermann ACE Alera/Axcel	30	3.72	0.21	5.5	3.8	3.1 - 4.3
Beckman AU						
Beckman AU systems	35	3.72	0.09	2.4	3.7	3.1 - 4.3
All Chemistry Instruments	37	3.71	0.10	2.8	3.7	3.1 - 4.3
ELITechGroup Envoy 500						
ELITechGroup Envoy 500	10	3.61	0.11	3.0	3.6	3.0 - 4.2
Horiba ABX Pentra						
Horiba ABX Pentra 400	20	3.67	0.16	4.2	3.7	3.1 - 4.3
Roche Integra						
Roche Integra	20	3.50	0.17	5.0	3.5	2.9 - 4.1
Siemens Healthcare						
Siemens Dimension	33	3.86	0.11	2.8	3.9	3.2 - 4.5
All Chemistry Instruments	35	3.87	0.11	2.8	3.9	3.2 - 4.5
VITROS - CREA						
VITROS 250,350,400 500,700,750,950	21	3.86	0.09	2.2	3.9	3.2 - 4.5
All Chemistry Instruments	27	3.87	0.08	2.1	3.9	3.2 - 4.5

Glucose (mg/dL)

		Specimen CH-6						Specimen CH-7			
Reagent/Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	251	212.3	7.7	3.6	213	191 - 234	246	93.1	4.0	4.3	93	83 - 103
All Alfa Wassermann Reagents	34	218.1	6.2	2.9	218	196 - 240	35	97.1	2.6	2.7	97	87 - 107
All Horiba Pentra Reagents	20	213.8	6.1	2.9	214	192 - 236	20	93.5	2.8	3.0	94	84 - 103
All Roche Reagents	28	212.6	4.1	1.9	213	191 - 234	28	92.8	2.3	2.5	93	83 - 103
Abaxis Piccolo												
Abaxis Piccolo - waived	21	205.3	2.4	1.2	205	184 - 226	21	91.5	1.1	1.2	91	82 - 101
All Chemistry Instruments	29	205.3	2.5	1.2	205	184 - 226	27	91.5	1.0	1.1	92	82 - 101
Alere Cholestech LDX												
All Chemistry Instruments	10	207.3	11.3	5.4	205	186 - 229	9	-	-	-	88	75 - 93
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	33	217.9	6.3	2.9	218	196 - 240	34	97.0	2.6	2.7	97	87 - 107
Beckman AU												
Beckman AU systems	38	215.1	5.4	2.5	215	193 - 237	38	94.2	2.6	2.8	95	84 - 104
ELITechGroup Envoy 500												
ELITechGroup Envoy 500	10	225.4	8.0	3.5	229	202 - 248	10	99.8	2.8	2.8	101	89 - 110
Horiba ABX Pentra												
Horiba ABX Pentra 400	20	213.8	6.1	2.9	214	192 - 236	20	93.5	2.8	3.0	94	84 - 103
Roche Integra												
Roche Integra	20	212.6	3.5	1.6	212	191 - 234	20	92.9	2.1	2.3	93	83 - 103
Siemens Healthcare												
Siemens Dimension	32	214.3	3.0	1.4	215	192 - 236	32	94.3	1.5	1.6	94	84 - 104
All Chemistry Instruments	35	213.3	4.3	2.0	215	191 - 235	35	93.8	2.0	2.2	94	84 - 104
VITROS												
VITROS 250,350,400 500,700,750,950	32	204.6	5.8	2.8	207	184 - 226	32	86.8	2.7	3.2	86	78 - 96
All Chemistry Instruments	37	204.6	5.4	2.7	206	184 - 226	37	86.9	2.7	3.1	87	78 - 96

Glucose (mg/dL)

| | Specimen CH-8 | | | | | | Specimen CH-9 | | | | |
Reagent/Instrument	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	221	153.8	6.0	3.9	154	138 - 170	221	73.5	3.7	5.0	74	66 - 81
All Alfa Wassermann Reagents	34	158.6	4.4	2.8	159	142 - 175	34	77.1	2.2	2.9	77	69 - 85
All Horiba Pentra Reagents	20	154.3	5.0	3.2	154	138 - 170	20	73.9	2.4	3.3	74	66 - 82
All Roche Reagents	28	154.0	3.1	2.0	155	138 - 170	28	73.3	1.8	2.4	73	65 - 81
Abaxis Piccolo												
Abaxis Piccolo - waived	3	-	-	-	148	138 - 170	3	-	-	-	73	66 - 81
All Chemistry Instruments	8	-	-	-	148	133 - 164	8	-	-	-	73	65 - 81
Alere Cholestech LDX												
All Chemistry Instruments	2	-	-	-	147	132 - 162	2	-	-	-	66	59 - 73
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	34	158.6	4.4	2.8	159	142 - 175	34	77.1	2.2	2.9	77	69 - 85
Beckman AU												
Beckman AU systems	38	155.6	3.8	2.4	156	140 - 172	38	74.5	2.0	2.7	74	67 - 82
ELITechGroup Envoy 500												
ELITechGroup Envoy 500	10	163.4	4.0	2.5	165	147 - 180	10	81.1	9.0	11.1	79	72 - 90
Horiba ABX Pentra												
Horiba ABX Pentra 400	20	154.3	5.0	3.2	154	138 - 170	20	73.9	2.4	3.3	74	66 - 82
Roche Integra												
Roche Integra	20	154.2	2.7	1.8	155	138 - 170	20	73.6	1.9	2.5	74	66 - 81
Siemens Healthcare												
Siemens Dimension	33	154.8	2.5	1.6	155	139 - 171	32	74.5	1.3	1.8	74	67 - 82
All Chemistry Instruments	35	154.4	3.0	1.9	154	138 - 170	34	74.3	1.6	2.2	74	66 - 82
VITROS												
VITROS 250,350,400 500,700,750,950	32	145.0	4.3	3.0	146	130 - 160	32	67.9	2.0	2.9	68	61 - 75
All Chemistry Instruments	37	145.0	4.1	2.8	146	130 - 160	37	67.9	2.0	3.0	68	61 - 75

Glucose (mg/dL)

Specimen CH-10

Reagent/Instrument	Labs	Mean	SD	CV	Median	Range
All Method	220	196.2	6.3	3.2	196	176 - 216
All Alfa Wassermann Reagents	34	200.4	5.6	2.8	201	180 - 221
All Horiba Pentra Reagents	20	197.5	4.9	2.5	197	177 - 218
All Roche Reagents	28	196.0	3.7	1.9	196	176 - 216
Abaxis Piccolo						
Abaxis Piccolo - waived	3	-	-	-	190	170 - 209
All Chemistry Instruments	10	189.8	1.8	0.9	190	170 - 209
Alere Cholestech LDX						
All Chemistry Instruments	2	-	-	-	194	174 - 213
Alfa Wassermann						
Alfa Wassermann ACE Alera/Axcel	34	200.4	5.6	2.8	201	180 - 221
Beckman AU						
Beckman AU systems	38	198.5	4.8	2.4	199	178 - 219
ELITechGroup Envoy 500						
ELITechGroup Envoy 500	10	208.3	6.8	3.2	209	187 - 230
Horiba ABX Pentra						
Horiba ABX Pentra 400	20	197.5	4.9	2.5	197	177 - 218
Roche Integra						
Roche Integra	20	196.0	3.4	1.8	196	176 - 216
Siemens Healthcare						
Siemens Dimension	32	197.3	2.9	1.5	198	177 - 218
All Chemistry Instruments	35	196.6	3.7	1.9	197	176 - 217
VITROS						
VITROS 250,350,400 500,700,750,950	32	187.8	5.8	3.1	190	169 - 207
All Chemistry Instruments	37	187.7	5.5	2.9	189	168 - 207

Iron (µg/dL)

Reagent/Instrument	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
			Specimen CH-6							**Specimen CH-7**		
All Method	88	198.0	16.6	8.4	198	158 - 238	86	71.4	5.2	7.3	71	57 - 86
All Roche Reagents	12	201.1	8.0	4.0	202	160 - 242	12	77.6	5.5	7.1	77	62 - 94
Beckman AU												
Beckman AU systems	22	211.0	6.0	2.8	212	168 - 254	22	75.8	3.1	4.2	76	60 - 91
Siemens Healthcare												
Siemens Dimension	18	188.4	2.7	1.4	189	150 - 227	18	71.2	2.3	3.2	71	56 - 86
All Chemistry Instruments	19	188.4	2.7	1.4	189	150 - 227	18	70.8	1.5	2.2	71	56 - 85
VITROS												
All Chemistry Instruments	11	221.4	10.3	4.7	223	177 - 266	11	66.8	4.9	7.4	68	53 - 81
			Specimen CH-8							**Specimen CH-9**		
All Method	88	134.7	9.8	7.2	135	107 - 162	85	51.7	4.9	9.4	52	41 - 63
All Roche Reagents	12	137.8	2.4	1.8	138	110 - 166	12	55.5	2.4	4.2	55	44 - 67
Beckman AU												
Beckman AU systems	22	143.7	4.2	3.0	145	114 - 173	22	54.9	3.5	6.3	55	43 - 66
Siemens Healthcare												
Siemens Dimension	17	129.7	1.6	1.2	130	103 - 156	16	50.9	0.9	1.7	51	40 - 62
All Chemistry Instruments	18	129.8	1.6	1.2	130	103 - 156	17	50.9	0.9	1.8	51	40 - 62
VITROS												
All Chemistry Instruments	11	142.6	10.2	7.1	142	114 - 172	11	44.3	6.1	13.9	45	35 - 54

Reagent/Instrument	Labs	Mean	SD	CV	Median	Range
			Specimen CH-10			
All Method	88	179.0	14.2	7.9	179	143 - 215
All Roche Reagents	12	180.5	4.5	2.5	181	144 - 217
Beckman AU						
Beckman AU systems	22	191.1	5.2	2.7	193	152 - 230
Siemens Healthcare						
Siemens Dimension	18	171.7	2.7	1.6	172	137 - 207
All Chemistry Instruments	19	171.9	2.7	1.6	172	137 - 207
VITROS						
All Chemistry Instruments	11	197.7	9.1	4.6	196	158 - 238

Lactate (Lactic Acid) (mmol/L)

| | | Specimen CH-6 | | | | | | | Specimen CH-7 | | | |
Method	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	5	6.10	0.19	3.1	6.1	5.5 - 6.7	5	1.52	0.08	5.5	1.5	1.2 - 1.8

		Specimen CH-8							Specimen CH-9			
All Method	5	3.80	0.16	4.2	3.8	3.3 - 4.3	5	0.78	0.04	5.7	0.8	0.6 - 1.0

		Specimen CH-10					
All Method	5	5.50	0.16	2.9	5.5	5.0 - 6.0

Magnesium (mg/dL)

| | | Specimen CH-6 | | | | | | | Specimen CH-7 | | | |
Reagent/Instrument	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	118	4.04	0.20	4.9	4.1	3.0 - 5.1	114	1.98	0.11	5.5	2.0	1.4 - 2.5
All Horiba Pentra Reagents	15	3.84	0.20	5.3	3.8	2.8 - 4.8	15	1.96	0.15	7.7	2.0	1.4 - 2.5
All Roche Reagents	23	3.97	0.11	2.9	4.0	2.9 - 5.0	23	1.97	0.06	2.8	2.0	1.4 - 2.5
Beckman AU												
Beckman AU systems	24	4.05	0.10	2.5	4.1	3.0 - 5.1	24	1.99	0.06	3.1	2.0	1.4 - 2.5
Horiba ABX Pentra												
Horiba ABX Pentra 400	15	3.84	0.20	5.3	3.8	2.8 - 4.8	15	1.96	0.15	7.7	2.0	1.4 - 2.5
Roche Integra												
Roche Integra	16	3.92	0.09	2.3	3.9	2.9 - 4.9	16	1.96	0.06	3.2	2.0	1.4 - 2.5
Siemens Healthcare												
Siemens Dimension	19	4.09	0.07	1.8	4.1	3.0 - 5.2	19	1.96	0.07	3.5	2.0	1.4 - 2.5
All Chemistry Instruments	20	4.09	0.07	1.8	4.1	3.0 - 5.2	20	1.97	0.07	3.4	2.0	1.4 - 2.5
VITROS												
VITROS 250,350,400 500,700,750,950	17	4.32	0.11	2.6	4.3	3.2 - 5.4	17	2.09	0.10	4.9	2.1	1.5 - 2.7
All Chemistry Instruments	21	4.30	0.11	2.5	4.3	3.2 - 5.4	21	2.09	0.09	4.5	2.1	1.5 - 2.7

Magnesium (mg/dL)

Reagent/Instrument	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
			Specimen CH-8							**Specimen CH-9**		
All Method	115	3.03	0.16	5.1	3.0	2.2 - 3.8	116	1.64	0.09	5.6	1.6	1.2 - 2.1
All Horiba Pentra Reagents	15	2.88	0.19	6.6	2.9	2.1 - 3.6	15	1.59	0.14	8.7	1.6	1.1 - 2.0
All Roche Reagents	22	3.01	0.07	2.3	3.0	2.2 - 3.8	23	1.66	0.06	3.6	1.7	1.2 - 2.1
Beckman AU												
Beckman AU systems	24	3.02	0.09	2.9	3.0	2.2 - 3.8	24	1.64	0.07	4.3	1.6	1.2 - 2.1
Horiba ABX Pentra												
Horiba ABX Pentra 400	15	2.88	0.19	6.6	2.9	2.1 - 3.6	15	1.59	0.14	8.7	1.6	1.1 - 2.0
Roche Integra												
Roche Integra	16	2.98	0.05	1.8	3.0	2.2 - 3.8	16	1.64	0.05	3.1	1.6	1.2 - 2.1
Siemens Healthcare												
Siemens Dimension	19	3.03	0.10	3.5	3.0	2.2 - 3.8	19	1.59	0.08	4.9	1.6	1.1 - 2.0
All Chemistry Instruments	20	3.03	0.10	3.4	3.0	2.2 - 3.8	20	1.60	0.08	4.8	1.6	1.1 - 2.0
VITROS												
VITROS 250,350,400 500,700,750,950	17	3.23	0.13	3.9	3.2	2.4 - 4.1	17	1.72	0.10	5.5	1.7	1.2 - 2.2
All Chemistry Instruments	21	3.22	0.12	3.6	3.2	2.4 - 4.1	21	1.71	0.09	5.0	1.7	1.2 - 2.2

Specimen CH-10

Reagent/Instrument	Labs	Mean	SD	CV	Median	Range
All Method	116	3.76	0.19	5.0	3.8	2.8 - 4.8
All Horiba Pentra Reagents	15	3.52	0.25	7.0	3.6	2.6 - 4.4
All Roche Reagents	23	3.71	0.10	2.6	3.7	2.7 - 4.7
Beckman AU						
Beckman AU systems	24	3.75	0.10	2.6	3.8	2.8 - 4.7
Horiba ABX Pentra						
Horiba ABX Pentra 400	15	3.52	0.25	7.0	3.6	2.6 - 4.4
Roche Integra						
Roche Integra	16	3.68	0.09	2.3	3.7	2.7 - 4.6
Siemens Healthcare						
Siemens Dimension	19	3.78	0.09	2.4	3.8	2.8 - 4.8
All Chemistry Instruments	20	3.79	0.09	2.3	3.8	2.8 - 4.8
VITROS						
VITROS 250,350,400 500,700,750,950	17	4.01	0.11	2.6	4.0	3.0 - 5.1
All Chemistry Instruments	20	3.99	0.07	1.8	4.0	2.9 - 5.0

Phosphorus (mg/dL)

		Specimen CH-6						Specimen CH-7			
Reagent/Instrument	**Labs**	**Mean**	**SD**	**CV**	**Median**	**Range**	**Labs**	**Mean**	**SD**	**CV**	**Median**	**Range**
All Method	86	4.73	0.21	4.5	4.7	4.2 - 5.3	87	2.41	0.14	5.7	2.4	2.1 - 2.8
All Alfa Wassermann Reagents	8	4.45	0.35	7.8	4.5	3.9 - 5.0	8	2.39	0.16	6.9	2.4	2.0 - 2.7
All Roche Reagents	16	4.71	0.14	2.9	4.7	4.2 - 5.3	16	2.39	0.09	3.6	2.4	2.0 - 2.7
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	10	4.45	0.35	7.8	4.5	3.9 - 5.0	10	2.39	0.16	6.9	2.4	2.0 - 2.7
Beckman AU												
Beckman AU systems	21	4.63	0.23	5.0	4.6	4.1 - 5.2	21	2.30	0.12	5.0	2.3	2.0 - 2.7
Horiba ABX Pentra												
Horiba ABX Pentra 400	10	5.04	0.17	3.4	5.1	4.5 - 5.6	10	2.53	0.07	2.8	2.5	2.2 - 2.9
Roche Integra												
Roche Integra	12	4.69	0.14	2.9	4.7	4.1 - 5.2	12	2.38	0.08	3.5	2.4	2.0 - 2.7
Siemens Healthcare												
Siemens Dimension	14	4.84	0.13	2.8	4.8	4.3 - 5.4	13	2.44	0.05	2.1	2.4	2.1 - 2.8
VITROS												
VITROS 250,350,400 500,700,750,950	10	4.60	0.19	4.1	4.6	4.1 - 5.1	10	2.54	0.11	4.4	2.5	2.2 - 2.9
VITROS 5600	5	4.70	0.16	3.4	4.7	4.1 - 5.3	5	2.56	0.17	6.5	2.6	2.2 - 2.9
All Chemistry Instruments	15	4.64	0.18	3.8	4.6	4.1 - 5.2	15	2.55	0.13	5.0	2.6	2.2 - 2.9

		Specimen CH-8						Specimen CH-9			
Reagent/Instrument	**Labs**	**Mean**	**SD**	**CV**	**Median**	**Range**	**Labs**	**Mean**	**SD**	**CV**	**Median**	**Range**
All Method	86	3.59	0.17	4.6	3.6	3.2 - 4.0	87	2.04	0.13	6.5	2.0	1.7 - 2.4
All Alfa Wassermann Reagents	10	3.44	0.22	6.4	3.5	3.0 - 3.9	8	2.03	0.13	6.3	2.1	1.7 - 2.4
All Roche Reagents	16	3.56	0.11	3.1	3.6	3.1 - 4.0	16	1.99	0.09	4.5	2.0	1.6 - 2.3
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	10	3.44	0.22	6.4	3.5	3.0 - 3.9	10	2.03	0.13	6.3	2.1	1.7 - 2.4
Beckman AU												
Beckman AU systems	21	3.47	0.18	5.3	3.5	3.0 - 3.9	21	1.94	0.10	5.0	1.9	1.6 - 2.3
Horiba ABX Pentra												
Horiba ABX Pentra 400	10	3.84	0.11	2.9	3.8	3.4 - 4.3	10	2.21	0.21	9.4	2.2	1.9 - 2.6
Roche Integra												
Roche Integra	12	3.54	0.11	3.1	3.5	3.1 - 4.0	12	1.98	0.10	4.9	2.0	1.6 - 2.3
Siemens Healthcare												
Siemens Dimension	14	3.68	0.13	3.4	3.7	3.2 - 4.1	14	2.09	0.11	5.1	2.1	1.7 - 2.4
VITROS												
VITROS 250,350,400 500,700,750,950	10	3.58	0.14	3.9	3.6	3.1 - 4.0	10	2.21	0.08	3.5	2.2	1.9 - 2.6
VITROS 5600	5	3.58	0.13	3.6	3.6	3.1 - 4.0	5	2.14	0.11	5.3	2.1	1.8 - 2.5
All Chemistry Instruments	15	3.58	0.13	3.7	3.6	3.1 - 4.0	15	2.19	0.09	4.3	2.2	1.8 - 2.5

Phosphorus (mg/dL)

Specimen CH-10

Reagent/Instrument	Labs	Mean	SD	CV	Median	Range
All Method	86	4.38	0.20	4.5	4.4	3.9 - 4.9
All Alfa Wassermann Reagents	8	4.15	0.26	6.2	4.3	3.7 - 4.6
All Roche Reagents	16	4.35	0.13	3.0	4.3	3.8 - 4.9
Alfa Wassermann						
Alfa Wassermann ACE Alera/Axcel	10	4.15	0.26	6.2	4.3	3.7 - 4.6
Beckman AU						
Beckman AU systems	21	4.28	0.23	5.3	4.3	3.8 - 4.8
Horiba ABX Pentra						
Horiba ABX Pentra 400	10	4.69	0.18	3.8	4.7	4.1 - 5.2
Roche Integra						
Roche Integra	12	4.33	0.11	2.6	4.3	3.8 - 4.8
Siemens Healthcare						
Siemens Dimension	14	4.46	0.13	3.0	4.4	3.9 - 5.0
VITROS						
VITROS 250,350,400 500,700,750,950	10	4.36	0.15	3.5	4.4	3.8 - 4.9
VITROS 5600	5	4.38	0.16	3.8	4.3	3.9 - 4.9
All Chemistry Instruments	15	4.36	0.15	3.4	4.4	3.8 - 4.9

Protein, Total (g/dL)

Reagent/Instrument	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
			Specimen CH-6							Specimen CH-7		
All Method	234	7.18	0.28	3.9	7.2	6.4 - 7.9	229	3.80	0.13	3.3	3.8	3.4 - 4.2
All Alfa Wassermann Reagents	30	7.37	0.18	2.4	7.4	6.6 - 8.2	31	3.84	0.10	2.5	3.8	3.4 - 4.3
All Horiba Pentra Reagents	20	7.15	0.23	3.2	7.2	6.4 - 7.9	20	3.75	0.14	3.7	3.8	3.3 - 4.2
All Roche Reagents	28	7.19	0.17	2.4	7.1	6.4 - 8.0	28	3.80	0.11	2.8	3.8	3.4 - 4.2
Abaxis Piccolo												
Abaxis Piccolo - waived	20	7.20	0.16	2.2	7.2	6.4 - 8.0	20	3.88	0.07	1.8	3.9	3.4 - 4.3
All Chemistry Instruments	29	7.22	0.17	2.3	7.2	6.4 - 8.0	27	3.88	0.06	1.6	3.9	3.4 - 4.3
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	29	7.37	0.18	2.4	7.4	6.6 - 8.2	30	3.84	0.10	2.5	3.8	3.4 - 4.3
Beckman AU												
Beckman AU systems	37	7.05	0.17	2.5	7.1	6.3 - 7.8	37	3.69	0.09	2.5	3.7	3.3 - 4.1
Horiba ABX Pentra												
Horiba ABX Pentra 400	20	7.15	0.23	3.2	7.2	6.4 - 7.9	20	3.75	0.14	3.7	3.8	3.3 - 4.2
Roche Integra												
Roche Integra	20	7.14	0.16	2.3	7.1	6.4 - 7.9	20	3.77	0.10	2.8	3.7	3.3 - 4.2
Siemens Healthcare												
Siemens Dimension	33	7.48	0.09	1.2	7.5	6.7 - 8.3	33	3.92	0.08	1.9	3.9	3.5 - 4.4
All Chemistry Instruments	34	7.48	0.09	1.2	7.5	6.7 - 8.3	34	3.93	0.08	1.9	3.9	3.5 - 4.4
VITROS												
VITROS 250,350,400 500,700,750,950	32	6.82	0.22	3.3	6.8	6.1 - 7.6	32	3.78	0.14	3.7	3.8	3.4 - 4.2
All Chemistry Instruments	38	6.83	0.22	3.2	6.8	6.1 - 7.6	37	3.76	0.12	3.1	3.8	3.3 - 4.2

Protein, Total (g/dL)

Reagent/Instrument			Specimen CH-8						Specimen CH-9			
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	213	5.52	0.18	3.3	5.5	4.9 - 6.1	212	3.24	0.13	3.9	3.2	2.9 - 3.6
All Alfa Wassermann Reagents	31	5.64	0.13	2.2	5.7	5.0 - 6.3	31	3.27	0.11	3.4	3.3	2.9 - 3.7
All Horiba Pentra Reagents	20	5.46	0.16	3.0	5.5	4.9 - 6.1	20	3.19	0.11	3.5	3.2	2.8 - 3.6
All Roche Reagents	28	5.53	0.13	2.4	5.5	4.9 - 6.1	28	3.22	0.11	3.4	3.2	2.8 - 3.6
Abaxis Piccolo												
Abaxis Piccolo - waived	3	-	-	-	5.5	4.9 - 6.1	3	-	-	-	3.3	2.9 - 3.6
All Chemistry Instruments	9	-	-	-	5.5	4.9 - 6.1	9	-	-	-	3.3	2.9 - 3.7
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	30	5.64	0.13	2.3	5.7	5.0 - 6.3	30	3.28	0.11	3.5	3.3	2.9 - 3.7
Beckman AU												
Beckman AU systems	37	5.41	0.13	2.4	5.4	4.8 - 6.0	37	3.13	0.09	2.7	3.1	2.8 - 3.5
Horiba ABX Pentra												
Horiba ABX Pentra 400	20	5.46	0.16	3.0	5.5	4.9 - 6.1	20	3.19	0.11	3.5	3.2	2.8 - 3.6
Roche Integra												
Roche Integra	20	5.49	0.13	2.3	5.5	4.9 - 6.1	20	3.20	0.11	3.6	3.2	2.8 - 3.6
Siemens Healthcare												
Siemens Dimension	33	5.72	0.08	1.3	5.7	5.1 - 6.3	32	3.35	0.07	2.0	3.4	3.0 - 3.7
All Chemistry Instruments	34	5.73	0.08	1.3	5.7	5.1 - 6.3	33	3.35	0.07	2.0	3.4	3.0 - 3.7
VITROS												
VITROS 250,350,400 500,700,750,950	31	5.37	0.15	2.7	5.4	4.8 - 6.0	32	3.26	0.12	3.8	3.3	2.9 - 3.6
All Chemistry Instruments	37	5.36	0.14	2.6	5.4	4.8 - 5.9	38	3.25	0.12	3.7	3.2	2.9 - 3.6

Protein, Total (g/dL)

Specimen CH-10

Reagent/Instrument	Labs	Mean	SD	CV	Median	Range
All Method	215	6.71	0.25	3.7	6.7	6.0 - 7.4
All Alfa Wassermann Reagents	29	6.92	0.13	1.9	6.9	6.2 - 7.7
All Horiba Pentra Reagents	20	6.67	0.22	3.3	6.7	5.9 - 7.4
All Roche Reagents	28	6.72	0.14	2.1	6.7	6.0 - 7.4
Abaxis Piccolo						
Abaxis Piccolo - waived	3	-	-	-	6.7	6.0 - 7.4
All Chemistry Instruments	11	6.71	0.14	2.0	6.7	6.0 - 7.4
Alfa Wassermann						
Alfa Wassermann ACE Alera/Axcel	28	6.92	0.14	2.0	6.9	6.2 - 7.7
Beckman AU						
Beckman AU systems	37	6.59	0.17	2.6	6.6	5.9 - 7.3
Horiba ABX Pentra						
Horiba ABX Pentra 400	20	6.67	0.22	3.3	6.7	5.9 - 7.4
Roche Integra						
Roche Integra	19	6.65	0.09	1.4	6.6	5.9 - 7.4
Siemens Healthcare						
Siemens Dimension	32	6.98	0.08	1.2	7.0	6.2 - 7.7
All Chemistry Instruments	33	6.98	0.08	1.1	7.0	6.2 - 7.7
VITROS						
VITROS 250,350,400 500,700,750,950	31	6.46	0.19	2.9	6.5	5.8 - 7.2
All Chemistry Instruments	37	6.46	0.18	2.8	6.5	5.8 - 7.2

Urea Nitrogen (mg/dL)

Reagent/Instrument	Specimen CH-6						Specimen CH-7					
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	236	35.8	2.5	6.9	36	32 - 40	234	13.3	1.2	8.8	13	11 - 16
All Alfa Wassermann Reagents	32	36.3	1.8	5.1	36	33 - 40	32	13.8	0.8	6.1	14	11 - 16
All Horiba Pentra Reagents	20	35.5	0.9	2.7	36	32 - 39	20	13.0	0.6	4.3	13	11 - 15
All Roche Reagents	28	36.8	1.3	3.5	37	33 - 41	28	13.5	0.6	4.3	14	11 - 16
Abaxis Piccolo												
Abaxis Piccolo - waived	19	34.9	0.7	2.1	35	31 - 39	20	12.0	0.5	4.3	12	9 - 14
All Chemistry Instruments	27	34.9	0.8	2.3	35	31 - 39	26	12.0	0.5	4.1	12	10 - 14
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	26	36.3	2.0	5.4	36	33 - 40	26	13.8	0.8	6.0	14	11 - 16
Beckman AU												
Beckman AU systems	37	37.6	1.3	3.4	38	34 - 41	37	14.1	0.6	4.0	14	12 - 17
ELITechGroup Envoy 500												
ELITechGroup Envoy 500	10	37.2	1.4	3.8	38	33 - 41	10	14.7	1.6	11.1	14	12 - 17
Horiba ABX Pentra												
Horiba ABX Pentra 400	20	35.5	0.9	2.7	36	32 - 39	20	13.0	0.6	4.3	13	11 - 15
Roche Integra												
Roche Integra	20	36.4	1.0	2.7	36	33 - 40	20	13.4	0.5	3.7	13	11 - 16
Siemens Healthcare												
Siemens Dimension	33	37.7	1.0	2.7	38	34 - 42	33	14.1	0.6	4.1	14	12 - 17
All Chemistry Instruments	35	37.6	1.0	2.7	38	34 - 42	35	14.1	0.6	4.3	14	12 - 17
VITROS												
VITROS 250,350,400 500,700,750,950	32	31.4	0.7	2.3	31	28 - 35	32	11.7	0.5	4.7	12	9 - 14
All Chemistry Instruments	38	31.4	0.8	2.4	31	28 - 35	38	11.6	0.6	4.8	12	9 - 14

Urea Nitrogen (mg/dL)

		Specimen CH-8						Specimen CH-9				
Reagent/Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	216	24.7	1.9	7.8	25	22 - 27	216	9.7	0.9	9.5	10	7 - 12
All Alfa Wassermann Reagents	32	25.2	1.4	5.5	25	22 - 28	31	10.1	0.4	4.2	10	8 - 13
All Horiba Pentra Reagents	20	24.2	0.9	3.7	24	22 - 27	20	9.6	0.6	6.3	10	7 - 12
All Roche Reagents	28	25.1	0.9	3.5	25	22 - 28	28	9.8	0.5	4.8	10	7 - 12
Abaxis Piccolo												
Abaxis Piccolo - waived	3	-	-	-	23	22 - 27	3	-	-	-	8	7 - 12
All Chemistry Instruments	8	-	-	-	23	20 - 26	8	-	-	-	8	6 - 11
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	26	25.3	1.5	5.8	25	23 - 28	25	10.1	0.4	4.3	10	8 - 13
Beckman AU												
Beckman AU systems	36	26.0	0.9	3.6	26	23 - 29	37	10.3	0.5	5.0	10	8 - 13
ELITechGroup Envoy 500												
ELITechGroup Envoy 500	10	25.7	0.7	2.6	26	23 - 29	10	11.6	3.3	28.8	11	9 - 14
Horiba ABX Pentra												
Horiba ABX Pentra 400	20	24.2	0.9	3.7	24	22 - 27	20	9.6	0.6	6.3	10	7 - 12
Roche Integra												
Roche Integra	20	24.9	0.7	3.0	25	22 - 28	20	9.8	0.4	4.6	10	7 - 12
Siemens Healthcare												
Siemens Dimension	33	26.1	0.9	3.3	26	23 - 29	33	10.1	0.6	5.7	10	8 - 13
All Chemistry Instruments	35	26.1	0.8	3.2	26	23 - 29	35	10.1	0.6	5.6	10	8 - 13
VITROS												
VITROS 250,350,400 500,700,750,950	31	21.6	0.6	2.6	22	19 - 24	32	8.4	0.5	5.9	8	6 - 11
All Chemistry Instruments	37	21.4	0.6	3.0	21	19 - 24	38	8.3	0.5	5.8	8	6 - 11

Urea Nitrogen (mg/dL)

Specimen CH-10

Reagent/Instrument	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_
All Method	219	32.6	2.4	7.5	33	29 - 36
All Alfa Wassermann Reagents	32	33.2	1.8	5.4	33	30 - 37
All Horiba Pentra Reagents	20	32.1	0.8	2.6	32	29 - 35
All Roche Reagents	28	33.3	1.1	3.4	33	30 - 37
Abaxis Piccolo						
Abaxis Piccolo - waived	3	-	-	-	31	28 - 35
All Chemistry Instruments	10	31.3	0.7	2.2	31	28 - 35
Alfa Wassermann						
Alfa Wassermann ACE Alera/Axcel	26	33.3	1.9	5.7	33	30 - 37
Beckman AU						
Beckman AU systems	37	34.1	1.2	3.5	34	30 - 38
ELITechGroup Envoy 500						
ELITechGroup Envoy 500	10	34.6	1.2	3.4	35	31 - 38
Horiba ABX Pentra						
Horiba ABX Pentra 400	20	32.1	0.8	2.6	32	29 - 35
Roche Integra						
Roche Integra	20	32.9	0.9	2.8	33	29 - 36
Siemens Healthcare						
Siemens Dimension	33	34.3	1.1	3.1	34	31 - 38
All Chemistry Instruments	35	34.3	1.1	3.1	34	31 - 38
VITROS						
VITROS 250,350,400 500,700,750,950	32	28.3	0.8	2.9	28	25 - 31
All Chemistry Instruments	38	28.3	0.8	2.8	28	25 - 31

Uric Acid (mg/dL)

| | | Specimen CH-6 | | | | | | Specimen CH-7 | | | |
Reagent/Instrument	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	146	9.49	0.32	3.4	9.5	7.8 - 11.2	143	3.62	0.21	5.9	3.6	3.0 - 4.3
All Alfa Wassermann Reagents	18	9.78	0.63	6.4	9.8	8.1 - 11.5	18	4.27	0.26	6.1	4.2	3.5 - 5.0
All Roche Reagents	22	9.50	0.23	2.4	9.5	7.8 - 11.2	22	3.57	0.08	2.2	3.6	2.9 - 4.2
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	18	9.78	0.63	6.4	9.8	8.1 - 11.5	18	4.27	0.26	6.1	4.2	3.5 - 5.0
Beckman AU												
Beckman AU systems	30	9.68	0.20	2.0	9.7	8.0 - 11.4	31	3.64	0.09	2.4	3.6	3.0 - 4.3
Horiba ABX Pentra												
Horiba ABX Pentra 400	13	9.39	0.15	1.6	9.4	7.7 - 11.0	13	3.51	0.12	3.4	3.5	2.9 - 4.2
Roche Integra												
Roche Integra	14	9.52	0.27	2.8	9.5	7.9 - 11.2	14	3.56	0.09	2.6	3.6	2.9 - 4.2
Siemens Healthcare												
Siemens Dimension	24	9.24	0.16	1.7	9.2	7.6 - 10.9	23	3.50	0.10	2.9	3.5	2.9 - 4.1
All Chemistry Instruments	25	9.24	0.16	1.7	9.2	7.6 - 10.9	24	3.50	0.10	2.9	3.5	2.9 - 4.1
VITROS												
VITROS 250,350,400 500,700,750,950	19	9.34	0.25	2.7	9.3	7.7 - 11.0	19	3.50	0.14	3.9	3.5	2.9 - 4.1
All Chemistry Instruments	25	9.37	0.23	2.5	9.4	7.7 - 11.0	25	3.51	0.13	3.7	3.5	2.9 - 4.2

| | | Specimen CH-8 | | | | | | Specimen CH-9 | | | |
Reagent/Instrument	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	147	6.59	0.24	3.6	6.6	5.4 - 7.8	145	2.66	0.30	11.4	2.6	2.2 - 3.2
All Alfa Wassermann Reagents	18	6.87	0.28	4.0	6.9	5.7 - 8.1	18	3.49	0.19	5.4	3.5	2.8 - 4.1
All Roche Reagents	22	6.60	0.15	2.3	6.6	5.4 - 7.8	22	2.56	0.07	2.6	2.6	2.1 - 3.0
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	18	6.87	0.28	4.0	6.9	5.7 - 8.1	18	3.49	0.19	5.4	3.5	2.8 - 4.1
Beckman AU												
Beckman AU systems	29	6.69	0.10	1.5	6.7	5.5 - 7.9	31	2.67	0.10	3.7	2.7	2.2 - 3.2
Horiba ABX Pentra												
Horiba ABX Pentra 400	13	6.51	0.16	2.4	6.5	5.4 - 7.7	12	2.54	0.07	2.6	2.6	2.1 - 3.0
Roche Integra												
Roche Integra	14	6.60	0.18	2.7	6.6	5.4 - 7.8	14	2.56	0.07	2.9	2.6	2.1 - 3.1
Siemens Healthcare												
Siemens Dimension	24	6.38	0.14	2.2	6.4	5.2 - 7.5	23	2.53	0.09	3.4	2.5	2.0 - 3.0
All Chemistry Instruments	25	6.39	0.14	2.1	6.4	5.3 - 7.5	24	2.53	0.09	3.4	2.5	2.0 - 3.0
VITROS												
VITROS 250,350,400 500,700,750,950	19	6.45	0.20	3.0	6.5	5.3 - 7.6	19	2.49	0.10	3.9	2.5	2.0 - 3.0
All Chemistry Instruments	25	6.46	0.19	2.9	6.5	5.3 - 7.6	25	2.50	0.09	3.7	2.5	2.0 - 3.0

Uric Acid (mg/dL)

Specimen CH-10

Reagent/Instrument	Labs	Mean	SD	CV	Median	Range
All Method	147	8.62	0.29	3.4	8.6	7.1 - 10.1
All Alfa Wassermann Reagents	18	8.79	0.31	3.5	8.9	7.2 - 10.3
All Roche Reagents	22	8.65	0.23	2.6	8.7	7.1 - 10.2
Alfa Wassermann						
Alfa Wassermann ACE Alera/Axcel	18	8.79	0.31	3.5	8.9	7.2 - 10.3
Beckman AU						
Beckman AU systems	30	8.78	0.19	2.2	8.8	7.2 - 10.3
Horiba ABX Pentra						
Horiba ABX Pentra 400	13	8.59	0.17	1.9	8.6	7.1 - 10.1
Roche Integra						
Roche Integra	14	8.65	0.28	3.2	8.7	7.1 - 10.2
Siemens Healthcare						
Siemens Dimension	24	8.39	0.18	2.2	8.4	6.9 - 9.9
All Chemistry Instruments	25	8.39	0.18	2.2	8.4	6.9 - 9.9
VITROS						
VITROS 250,350,400 500,700,750,950	19	8.46	0.26	3.0	8.5	7.0 - 9.9
All Chemistry Instruments	25	8.48	0.24	2.8	8.5	7.0 - 10.0

Chloride (mmol/L)

Method/Instrument	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
			Specimen CH-6							Specimen CH-7		
All Method	218	115.8	3.1	2.7	116	110 - 122	228	97.3	2.4	2.5	97	92 - 103
Abaxis Piccolo												
Abaxis Piccolo - waived	21	115.4	1.8	1.6	115	109 - 122	21	101.2	1.8	1.8	101	96 - 107
All Chemistry Instruments	29	115.1	1.9	1.6	115	109 - 121	27	101.0	1.7	1.7	101	95 - 107
ISE Diluted												
Beckman AU systems	38	112.8	1.0	0.9	113	107 - 119	38	97.2	0.9	0.9	97	92 - 103
Roche Integra	19	118.2	3.0	2.6	117	112 - 125	20	98.4	4.0	4.1	99	93 - 104
Siemens Dimension QuickLyte - Xpand/EXL	24	118.6	1.4	1.2	119	112 - 125	24	96.5	0.8	0.8	97	91 - 102
All Chemistry Instruments	111	116.0	3.6	3.1	116	110 - 122	113	96.6	2.1	2.2	97	91 - 102
ISE Undiluted												
Alfa Wassermann ACE Alera/Axcel	31	118.5	1.3	1.1	118	112 - 125	31	97.0	1.1	1.1	97	92 - 102
Horiba ABX Pentra 400	10	117.7	2.5	2.2	118	111 - 124	17	97.5	3.3	3.3	97	92 - 103
All Chemistry Instruments	43	118.2	1.9	1.6	118	112 - 125	50	97.1	2.1	2.2	97	92 - 102
VITROS												
VITROS 250,350,400 500,700,750,950	30	113.2	2.2	2.0	114	107 - 119	30	96.8	1.7	1.8	97	91 - 102
All Chemistry Instruments	36	113.4	2.2	2.0	114	107 - 120	36	96.9	1.6	1.7	97	92 - 102
			Specimen CH-8							Specimen CH-9		
All Method	202	106.5	2.2	2.0	107	101 - 112	211	94.2	2.4	2.6	94	89 - 99
Abaxis Piccolo												
Abaxis Piccolo - waived	3	-	-	-	108	102 - 114	3	-	-	-	96	92 - 103
All Chemistry Instruments	8	-	-	-	107	102 - 114	8	-	-	-	97	92 - 103
ISE Diluted												
Beckman AU systems	36	105.2	0.8	0.8	105	99 - 111	37	94.8	0.9	0.9	95	90 - 100
Roche Integra	20	109.2	4.5	4.1	108	103 - 115	20	95.5	4.0	4.2	96	90 - 101
Siemens Dimension QuickLyte - Xpand/EXL	24	107.8	0.7	0.6	108	102 - 114	24	92.9	0.7	0.8	93	88 - 98
All Chemistry Instruments	111	106.6	2.3	2.2	106	101 - 112	115	94.0	2.7	2.8	94	89 - 99
ISE Undiluted												
Alfa Wassermann ACE Alera/Axcel	31	107.3	0.9	0.9	107	101 - 113	31	93.7	1.3	1.4	94	89 - 99
Horiba ABX Pentra 400	17	108.4	4.0	3.7	108	102 - 114	17	94.4	2.6	2.7	95	89 - 100
All Chemistry Instruments	49	107.8	2.3	2.1	107	102 - 114	50	94.0	2.0	2.1	94	89 - 99
VITROS												
VITROS 250,350,400 500,700,750,950	30	105.5	2.0	1.9	106	100 - 111	30	94.5	2.0	2.1	95	89 - 100
All Chemistry Instruments	36	105.4	1.9	1.8	106	100 - 111	36	94.5	1.9	2.0	95	89 - 100

Chloride (mmol/L)

Specimen CH-10

Method/Instrument	Labs	Mean	SD	CV	Median	Range
All Method	208	113.4	3.2	2.8	114	107 - 120
Abaxis Piccolo						
Abaxis Piccolo - waived	3	-	-	-	112	106 - 119
All Chemistry Instruments	10	112.5	2.0	1.7	113	106 - 119
ISE Diluted						
Beckman AU systems	37	110.6	0.9	0.8	111	105 - 117
Roche Integra	19	115.9	3.6	3.1	115	110 - 122
Siemens Dimension QuickLyte - Xpand/EXL	24	115.5	1.0	0.8	116	109 - 122
All Chemistry Instruments	113	113.2	3.1	2.7	113	107 - 119
ISE Undiluted						
Alfa Wassermann ACE Alera/Axcel	31	115.3	1.2	1.0	115	109 - 122
Horiba ABX Pentra 400	14	115.7	4.6	4.0	117	109 - 122
All Chemistry Instruments	46	115.6	2.5	2.1	115	109 - 122
VITROS						
VITROS 250,350,400 500,700,750,950	30	111.5	2.8	2.5	112	105 - 118
All Chemistry Instruments	36	111.6	2.8	2.5	112	106 - 118

CO_2 (mmol/L)

	Specimen CH-6						Specimen CH-7					
Method/Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	228	33.4	2.9	8.7	33	26 - 41	228	19.1	2.1	10.9	19	15 - 23
Abaxis Piccolo												
Abaxis Piccolo - waived	19	31.1	1.5	4.9	31	24 - 38	19	19.4	1.0	4.9	19	15 - 24
All Chemistry Instruments	26	31.2	1.4	4.6	31	24 - 38	24	19.4	1.0	5.0	19	15 - 24
Enzymatic Reagent												
Alfa Wassermann ACE Alera/Axcel	19	33.7	3.3	9.9	35	26 - 41	19	19.7	2.3	11.7	20	15 - 24
Beckman AU systems	27	35.9	2.3	6.5	36	28 - 44	28	19.7	1.5	7.5	20	15 - 24
Horiba ABX Pentra 400	15	33.2	2.3	7.0	34	26 - 40	15	19.4	2.0	10.5	20	15 - 24
Roche Integra	17	33.1	1.5	4.5	33	26 - 40	17	19.1	1.7	9.2	19	15 - 23
Siemens Dimension	26	35.5	2.0	5.8	36	28 - 43	26	21.0	1.2	5.9	21	16 - 26
All Chemistry Instruments	122	34.2	2.8	8.2	35	27 - 42	120	19.9	1.8	8.9	20	15 - 24
ISE Diluted												
All Chemistry Instruments	22	34.4	3.4	9.9	35	27 - 42	22	19.4	1.9	9.8	20	15 - 24
ISE Undiluted												
Alfa Wassermann ACE Alera/Axcel	12	33.0	3.1	9.5	33	26 - 40	12	18.3	2.1	11.5	19	14 - 22
All Chemistry Instruments	19	33.3	3.3	9.9	34	26 - 40	19	18.7	1.9	10.2	19	14 - 23
VITROS												
VITROS 250,350,400 500,700,750,950	31	31.8	1.8	5.7	32	25 - 39	31	17.0	1.4	8.2	17	13 - 21
All Chemistry Instruments	35	31.9	1.7	5.4	32	25 - 39	37	16.9	1.5	8.7	17	13 - 21

	Specimen CH-8						Specimen CH-9					
All Method	211	26.1	2.6	10.0	26	20 - 32	212	16.3	2.1	12.7	17	13 - 20
Abaxis Piccolo												
Abaxis Piccolo - waived	3	-	-	-	26	20 - 32	3	-	-	-	15	12 - 20
All Chemistry Instruments	8	-	-	-	26	20 - 32	8	-	-	-	16	12 - 20
Enzymatic Reagent												
Alfa Wassermann ACE Alera/Axcel	19	26.3	3.2	12.0	27	21 - 32	19	16.7	1.9	11.5	17	13 - 21
Beckman AU systems	28	27.4	2.0	7.4	28	21 - 33	28	16.9	1.2	7.2	17	13 - 21
Horiba ABX Pentra 400	15	26.4	2.1	7.9	27	21 - 32	15	17.1	1.9	11.2	17	13 - 21
Roche Integra	17	25.6	2.0	7.7	25	20 - 31	17	15.9	1.9	12.0	16	12 - 20
Siemens Dimension	26	28.1	1.9	6.8	29	22 - 34	26	18.2	1.7	9.1	19	14 - 22
All Chemistry Instruments	120	26.9	2.3	8.4	27	21 - 33	122	17.0	1.9	11.0	17	13 - 21
ISE Diluted												
All Chemistry Instruments	22	26.8	2.6	9.8	27	21 - 33	22	16.5	1.8	11.2	17	13 - 20
ISE Undiluted												
Alfa Wassermann ACE Alera/Axcel	12	25.6	2.5	9.9	26	20 - 31	12	16.5	2.2	13.6	17	13 - 20
All Chemistry Instruments	19	25.5	2.7	10.7	26	20 - 31	19	16.6	1.9	11.2	17	13 - 20
VITROS												
VITROS 250,350,400 500,700,750,950	31	23.7	1.9	8.0	24	18 - 29	31	14.3	1.8	12.4	15	11 - 18
All Chemistry Instruments	37	23.7	1.8	7.7	24	18 - 29	37	14.3	1.7	11.9	15	11 - 18

CO₂ (mmol/L)

Specimen CH-10

Method/Instrument	Labs	Mean	SD	CV	Median	Range
All Method	213	30.7	3.2	10.4	31	24 - 37
Abaxis Piccolo						
Abaxis Piccolo - waived	3	-	-	-	30	23 - 36
All Chemistry Instruments	10	29.6	1.3	4.6	30	23 - 36
Enzymatic Reagent						
Alfa Wassermann ACE Alera/Axcel	19	30.3	3.3	11.1	31	24 - 37
Beckman AU systems	29	31.9	2.9	9.0	33	25 - 39
Horiba ABX Pentra 400	15	30.8	2.7	8.7	31	24 - 37
Roche Integra	17	29.9	2.5	8.4	30	23 - 36
Siemens Dimension	26	33.5	2.1	6.2	34	26 - 41
All Chemistry Instruments	123	31.3	3.0	9.6	32	25 - 38
ISE Diluted						
All Chemistry Instruments	22	31.8	3.3	10.2	32	25 - 39
ISE Undiluted						
Alfa Wassermann ACE Alera/Axcel	12	31.9	3.5	11.0	33	25 - 39
All Chemistry Instruments	19	31.8	3.0	9.6	32	25 - 39
VITROS						
VITROS 250,350,400 500,700,750,950	31	27.9	2.4	8.6	28	22 - 34
All Chemistry Instruments	36	27.8	2.5	8.9	28	22 - 34

Potassium (mmol/L)

			Specimen CH-6						Specimen CH-7			
Method/Instrument	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_
All Method	238	6.14	0.17	2.7	6.1	5.6 - 6.7	234	3.42	0.08	2.2	3.4	2.9 - 4.0
Abaxis Piccolo												
Abaxis Piccolo - waived	21	6.05	0.22	3.6	6.1	5.5 - 6.6	21	3.33	0.13	3.8	3.3	2.8 - 3.9
All Chemistry Instruments	29	6.06	0.21	3.5	6.1	5.5 - 6.6	27	3.32	0.14	4.1	3.3	2.8 - 3.9
ISE Diluted												
Beckman AU systems	38	6.00	0.07	1.1	6.0	5.4 - 6.5	38	3.40	0.04	1.3	3.4	2.8 - 3.9
Roche Integra	20	6.09	0.06	1.0	6.1	5.5 - 6.6	20	3.43	0.05	1.4	3.4	2.9 - 4.0
Siemens Dimension QuickLyte - Xpand/EXL	25	6.14	0.05	0.8	6.1	5.6 - 6.7	24	3.40	0.01	0.0	3.4	2.9 - 3.9
All Chemistry Instruments	116	6.08	0.11	1.8	6.1	5.5 - 6.6	114	3.41	0.05	1.5	3.4	2.9 - 4.0
ISE Undiluted												
Alfa Wassermann ACE Alera/Axcel	31	6.37	0.11	1.7	6.4	5.8 - 6.9	31	3.42	0.07	2.0	3.4	2.9 - 4.0
Horiba ABX Pentra 400	18	6.03	0.08	1.3	6.0	5.5 - 6.6	17	3.40	0.06	1.8	3.4	2.9 - 3.9
All Chemistry Instruments	53	6.24	0.19	3.0	6.3	5.7 - 6.8	52	3.42	0.07	2.0	3.4	2.9 - 4.0
VITROS												
VITROS 250,350,400 500,700,750,950	32	6.26	0.12	1.9	6.3	5.7 - 6.8	32	3.48	0.06	1.8	3.5	2.9 - 4.0
All Chemistry Instruments	38	6.26	0.11	1.8	6.3	5.7 - 6.8	38	3.48	0.07	1.9	3.5	2.9 - 4.0

			Specimen CH-8						Specimen CH-9			
	Labs	_Mean_	_SD_	_CV_	_Median_	_Range_	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_
All Method	218	4.78	0.09	2.0	4.8	4.2 - 5.3	216	2.98	0.08	2.6	3.0	2.4 - 3.5
Abaxis Piccolo												
Abaxis Piccolo - waived	3	-	-	-	4.7	4.2 - 5.3	3	-	-	-	2.9	2.3 - 3.4
All Chemistry Instruments	8	-	-	-	4.7	4.2 - 5.3	8	-	-	-	2.9	2.3 - 3.4
ISE Diluted												
Beckman AU systems	38	4.71	0.06	1.2	4.7	4.2 - 5.3	38	2.98	0.05	1.5	3.0	2.4 - 3.5
Roche Integra	20	4.78	0.05	1.1	4.8	4.2 - 5.3	19	3.00	0.01	0.0	3.0	2.5 - 3.5
Siemens Dimension QuickLyte - Xpand/EXL	25	4.79	0.04	0.9	4.8	4.2 - 5.3	25	2.96	0.05	1.7	3.0	2.4 - 3.5
All Chemistry Instruments	117	4.77	0.08	1.7	4.8	4.2 - 5.3	116	2.98	0.06	2.0	3.0	2.4 - 3.5
ISE Undiluted												
Alfa Wassermann ACE Alera/Axcel	31	4.82	0.07	1.4	4.8	4.3 - 5.4	30	2.93	0.07	2.4	2.9	2.4 - 3.5
Horiba ABX Pentra 400	18	4.69	0.07	1.4	4.7	4.1 - 5.2	18	3.01	0.10	3.2	3.0	2.5 - 3.6
All Chemistry Instruments	53	4.77	0.09	1.9	4.8	4.2 - 5.3	51	2.96	0.08	2.6	3.0	2.4 - 3.5
VITROS												
VITROS 250,350,400 500,700,750,950	32	4.87	0.09	1.8	4.9	4.3 - 5.4	32	3.04	0.07	2.2	3.0	2.5 - 3.6
All Chemistry Instruments	38	4.87	0.09	1.9	4.9	4.3 - 5.4	38	3.03	0.07	2.2	3.0	2.5 - 3.6

Potassium (mmol/L)

Specimen CH-10

Method/Instrument	Labs	Mean	SD	CV	Median	Range
All Method	218	5.75	0.13	2.2	5.7	5.2 - 6.3
Abaxis Piccolo						
Abaxis Piccolo - waived	3	-	-	-	5.6	5.2 - 6.2
All Chemistry Instruments	10	5.70	0.19	3.3	5.8	5.2 - 6.2
ISE Diluted						
Beckman AU systems	37	5.64	0.06	1.1	5.6	5.1 - 6.2
Roche Integra	20	5.72	0.06	1.0	5.7	5.2 - 6.3
Siemens Dimension QuickLyte - Xpand/EXL	25	5.74	0.05	0.9	5.7	5.2 - 6.3
All Chemistry Instruments	115	5.70	0.08	1.5	5.7	5.2 - 6.3
ISE Undiluted						
Alfa Wassermann ACE Alera/Axcel	30	5.88	0.09	1.5	5.9	5.3 - 6.4
Horiba ABX Pentra 400	18	5.64	0.06	1.1	5.7	5.1 - 6.2
All Chemistry Instruments	52	5.79	0.13	2.3	5.8	5.2 - 6.3
VITROS						
VITROS 250,350,400 500,700,750,950	32	5.89	0.11	1.8	5.9	5.3 - 6.4
All Chemistry Instruments	38	5.88	0.11	1.9	5.9	5.3 - 6.4

Sodium (mmol/L)

<u>Technical tip:</u> Incomplete or incorrect method reporting is a common cause of proficiency test failure, especially when it comes to the electrolytes. If your test method is "ISE Direct", it should be reported as <u>ISE Undiluted</u> on your MLE test result form (TRF). If your test method is "ISE Indirect", it should be reported as <u>ISE Diluted</u> on your MLE TRF. Be sure to check your package insert for the correct test method, or contact the manufacturer of the instrument or reagent.

Method/Instrument	\<Specimen CH-6\> Labs	Mean	SD	CV	Median	Range	\<Specimen CH-7\> Labs	Mean	SD	CV	Median	Range
All Method	239	162.3	4.9	3.0	161	158 - 167	238	133.3	2.7	2.0	133	129 - 138
Abaxis Piccolo												
Abaxis Piccolo - waived	21	164.3	2.5	1.5	165	160 - 169	21	135.6	1.8	1.3	136	131 - 140
All Chemistry Instruments	29	163.7	2.6	1.6	164	159 - 168	27	135.3	2.0	1.4	136	131 - 140
ISE Diluted												
Beckman AU systems	36	158.1	1.1	0.7	158	154 - 163	38	131.8	1.4	1.0	132	127 - 136
Roche Integra	20	158.4	1.3	0.9	159	154 - 163	20	132.6	1.2	0.9	133	128 - 137
Siemens Dimension QuickLyte - Xpand/EXL	25	160.2	1.4	0.9	160	156 - 165	26	134.8	1.2	0.9	135	130 - 139
All Chemistry Instruments	112	158.7	1.9	1.2	159	154 - 163	117	132.8	1.9	1.4	133	128 - 137
ISE Undiluted												
Alfa Wassermann ACE Alera/Axcel	32	164.8	1.4	0.8	165	160 - 169	32	130.8	1.0	0.8	131	126 - 135
Horiba ABX Pentra 400	18	162.5	1.6	1.0	162	158 - 167	18	131.4	1.1	0.9	131	127 - 136
All Chemistry Instruments	52	163.9	1.9	1.2	164	159 - 168	52	131.1	1.1	0.8	131	127 - 136
VITROS												
VITROS 250,350,400 500,700,750,950	32	170.2	2.3	1.3	170	166 - 175	32	137.3	1.7	1.3	137	133 - 142
All Chemistry Instruments	38	170.4	2.3	1.4	170	166 - 175	38	137.2	1.7	1.2	137	133 - 142

Method/Instrument	\<Specimen CH-8\> Labs	Mean	SD	CV	Median	Range	\<Specimen CH-9\> Labs	Mean	SD	CV	Median	Range
All Method	218	147.6	3.5	2.3	147	143 - 152	218	128.8	2.6	2.1	128	124 - 133
Abaxis Piccolo												
Abaxis Piccolo - waived	3	-	-	-	150	144 - 153	3	-	-	-	131	126 - 135
All Chemistry Instruments	8	-	-	-	149	144 - 153	8	-	-	-	130	126 - 135
ISE Diluted												
Beckman AU systems	36	145.4	1.3	0.9	146	141 - 150	38	127.7	1.2	1.0	128	123 - 132
Roche Integra	20	145.8	1.3	0.9	146	141 - 150	20	128.0	1.4	1.1	128	124 - 132
Siemens Dimension QuickLyte - Xpand/EXL	26	147.9	1.5	1.0	148	143 - 152	26	130.6	1.1	0.8	130	126 - 135
All Chemistry Instruments	115	145.9	1.8	1.3	146	141 - 150	117	128.6	1.8	1.4	128	124 - 133
ISE Undiluted												
Alfa Wassermann ACE Alera/Axcel	32	147.0	0.9	0.6	147	143 - 152	32	125.8	1.2	0.9	126	121 - 130
Horiba ABX Pentra 400	17	146.9	1.2	0.8	147	142 - 151	18	126.8	1.1	0.9	127	122 - 131
All Chemistry Instruments	51	146.9	1.1	0.8	147	142 - 151	52	126.3	1.3	1.1	126	122 - 131
VITROS												
VITROS 250,350,400 500,700,750,950	32	153.8	1.9	1.3	154	149 - 158	31	132.7	1.6	1.2	132	128 - 137
All Chemistry Instruments	38	153.8	1.9	1.2	154	149 - 158	37	132.6	1.5	1.2	132	128 - 137

Sodium (mmol/L)

Specimen CH-10

Method/Instrument	Labs	Mean	SD	CV	Median	Range
All Method	220	158.2	4.5	2.9	157	154 - 163
Abaxis Piccolo						
Abaxis Piccolo - waived	3	-	-	-	160	155 - 164
All Chemistry Instruments	10	159.5	1.7	1.1	160	155 - 164
ISE Diluted						
Beckman AU systems	38	154.4	1.5	1.0	154	150 - 159
Roche Integra	20	155.1	1.6	1.0	155	151 - 160
Siemens Dimension QuickLyte - Xpand/EXL	26	156.8	1.7	1.1	157	152 - 161
All Chemistry Instruments	117	155.2	2.0	1.3	155	151 - 160
ISE Undiluted						
Alfa Wassermann ACE Alera/Axcel	32	159.3	1.4	0.9	159	155 - 164
Horiba ABX Pentra 400	18	158.3	1.5	1.0	158	154 - 163
All Chemistry Instruments	52	159.0	1.5	0.9	159	154 - 163
VITROS						
VITROS 250,350,400 500,700,750,950	32	166.3	2.2	1.3	166	162 - 171
All Chemistry Instruments	38	166.3	2.1	1.3	166	162 - 171

TIBC – Calculated (µg/dL)

		Specimen CH-6						Specimen CH-7			
Method/Instrument	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_
All Method	12	371.6	111.1	29.9	430	149 - 594	12	165.7	35.7	21.6	182	94 - 238

		Specimen CH-8						Specimen CH-9			
All Method	12	268.4	72.9	27.2	304	122 - 415	11	132.4	22.3	16.8	139	87 - 177

		Specimen CH-10				
All Method	12	341.8	99.5	29.1	392	142 - 541

TIBC – Direct (µg/dL)

		Specimen CH-6						Specimen CH-7			
Method/Instrument	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_
All Method	25	345.4	20.2	5.9	343	276 - 415	26	168.6	33.6	19.9	173	101 - 236
Siemens Healthcare											
Siemens Dimension	14	335.2	9.4	2.8	334	268 - 403	14	141.2	7.9	5.6	143	112 - 170
All Chemistry Instruments	15	335.9	9.5	2.8	335	268 - 404	15	141.3	7.6	5.4	143	113 - 170

		Specimen CH-8						Specimen CH-9			
All Method	26	261.6	31.2	11.9	258	199 - 325	26	137.7	36.6	26.6	143	64 - 211
Siemens Healthcare											
Siemens Dimension	14	237.9	7.7	3.2	238	190 - 286	14	108.1	8.3	7.6	107	86 - 130
All Chemistry Instruments	15	238.8	8.1	3.4	238	191 - 287	15	107.9	8.0	7.4	106	86 - 130

		Specimen CH-10				
All Method	26	322.6	25.3	7.9	319	258 - 388
Siemens Healthcare						
Siemens Dimension	14	306.4	10.3	3.3	305	245 - 368
All Chemistry Instruments	15	308.1	11.9	3.9	305	246 - 370

UIBC – Direct (µg/dL)

| | **Specimen CH-6** | | | | | | **Specimen CH-7** | | | | |
Method/Instrument	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_
All Method	27	241.0	13.3	5.5	243	192 - 290	27	114.7	12.3	10.7	116	90 - 140
All Roche Reagents	11	231.0	11.0	4.8	232	184 - 278	11	105.1	7.0	6.6	106	84 - 127
Beckman AU												
Beckman AU systems	15	249.4	8.3	3.3	248	199 - 300	15	123.2	7.8	6.3	122	98 - 148

	Specimen CH-8						**Specimen CH-9**				
All Method	27	178.8	13.6	7.6	182	143 - 215	27	92.6	11.6	12.6	92	69 - 116
All Roche Reagents	11	168.6	9.7	5.7	171	134 - 203	11	84.3	6.7	7.9	87	67 - 102
Beckman AU												
Beckman AU systems	15	187.9	7.8	4.1	188	150 - 226	15	100.0	8.9	8.9	99	80 - 120

	Specimen CH-10					
All Method	27	223.0	15.3	6.8	227	178 - 268
All Roche Reagents	11	212.2	12.9	6.1	213	169 - 255
Beckman AU						
Beckman AU systems	15	232.4	9.6	4.2	230	185 - 279

ALT (SGPT) (IU/L)

			Specimen CH-6							Specimen CH-7			
Instrument/Reagent	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	232	216.9	19.6	9.0	217	173 - 261	228	71.6	8.9	12.5	71	57 - 86
All Alfa Wassermann Reagents	30	192.9	5.0	2.6	193	154 - 232	29	59.9	2.5	4.2	60	47 - 72
All Horiba Pentra Reagents	19	250.8	9.5	3.8	248	200 - 301	19	79.4	2.9	3.7	80	63 - 96
All Roche Reagents	28	220.0	6.1	2.8	219	176 - 264	28	69.5	2.1	3.0	69	55 - 84
Abaxis Piccolo												
Abaxis Piccolo - waived	20	199.5	3.8	1.9	200	159 - 240	20	68.4	2.3	3.4	68	54 - 83
All Chemistry Instruments	29	198.3	4.0	2.0	198	158 - 239	27	67.9	2.5	3.7	68	54 - 82
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	25	193.0	5.0	2.6	193	154 - 232	24	59.8	2.8	4.6	60	47 - 72
Beckman AU												
Beckman AU systems	36	202.8	4.9	2.4	203	162 - 244	35	63.2	1.3	2.0	63	50 - 76
ELITechGroup Envoy 500												
ELITechGroup Envoy 500	10	229.4	5.9	2.6	230	183 - 276	10	74.5	2.5	3.4	75	59 - 90
Horiba ABX Pentra												
Horiba ABX Pentra 400	19	250.8	9.5	3.8	248	200 - 301	19	79.4	2.9	3.7	80	63 - 96
Roche Integra												
Roche Integra	20	220.7	6.2	2.8	219	176 - 265	20	69.9	2.1	3.0	70	55 - 84
Siemens Healthcare ALTi												
Siemens Dimension	30	238.0	6.3	2.7	237	190 - 286	30	76.4	2.5	3.3	76	61 - 92
All Chemistry Instruments	31	237.6	6.5	2.7	236	190 - 286	31	76.2	2.6	3.4	76	60 - 92
VITROS												
VITROS 250,350,400 500,700,750,950	32	222.4	6.7	3.0	222	177 - 267	32	85.8	4.0	4.6	85	68 - 103
All Chemistry Instruments	38	221.4	7.1	3.2	221	177 - 266	36	85.3	4.1	4.9	85	68 - 103

ALT (SGPT) (IU/L)

Instrument/Reagent	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
			Specimen CH-8							Specimen CH-9		
All Method	210	146.4	13.8	9.4	149	117 - 176	211	47.7	8.9	18.7	47	38 - 58
All Alfa Wassermann Reagents	29	126.8	3.6	2.9	127	101 - 153	29	38.7	2.1	5.5	39	30 - 47
All Horiba Pentra Reagents	19	166.6	5.8	3.5	165	133 - 200	19	51.2	2.2	4.3	51	40 - 62
All Roche Reagents	28	145.6	4.2	2.9	146	116 - 175	28	44.6	1.6	3.5	44	35 - 54
Abaxis Piccolo												
Abaxis Piccolo - waived	3	-	-	-	135	117 - 176	3	-	-	-	44	38 - 58
All Chemistry Instruments	9	-	-	-	134	106 - 160	9	-	-	-	46	36 - 56
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	24	126.8	3.8	3.0	127	101 - 153	24	38.8	2.3	5.8	39	31 - 47
Beckman AU												
Beckman AU systems	36	133.3	3.2	2.4	133	106 - 160	36	40.6	1.2	2.9	40	32 - 49
ELITechGroup Envoy 500												
ELITechGroup Envoy 500	10	154.7	5.0	3.2	156	123 - 186	10	45.7	8.2	18.0	48	36 - 55
Horiba ABX Pentra												
Horiba ABX Pentra 400	19	166.6	5.8	3.5	165	133 - 200	19	51.2	2.2	4.3	51	40 - 62
Roche Integra												
Roche Integra	20	146.3	4.3	2.9	146	117 - 176	20	44.7	1.7	3.8	44	35 - 54
Siemens Healthcare ALTi												
Siemens Dimension	30	157.9	4.3	2.7	157	126 - 190	30	49.7	1.9	3.7	49	39 - 60
All Chemistry Instruments	31	157.7	4.4	2.8	157	126 - 190	31	49.6	1.9	3.8	49	39 - 60
VITROS												
VITROS 250,350,400 500,700,750,950	32	155.6	5.0	3.2	155	124 - 187	32	63.9	4.5	7.0	64	51 - 77
All Chemistry Instruments	38	154.3	6.3	4.1	155	123 - 186	36	63.3	4.7	7.5	63	50 - 76

ALT (SGPT) (IU/L)

Specimen CH-10

Instrument/Reagent	Labs	Mean	SD	CV	Median	Range
All Method	213	197.7	17.7	9.0	199	158 - 238
All Alfa Wassermann Reagents	31	173.9	5.3	3.1	175	139 - 209
All Horiba Pentra Reagents	19	227.7	8.9	3.9	226	182 - 274
All Roche Reagents	28	198.5	5.6	2.8	198	158 - 239
Abaxis Piccolo						
Abaxis Piccolo - waived	3	-	-	-	180	143 - 216
All Chemistry Instruments	11	179.5	3.6	2.0	180	143 - 216
Alfa Wassermann						
Alfa Wassermann ACE Alera/Axcel	25	174.2	5.4	3.1	175	139 - 210
Beckman AU						
Beckman AU systems	36	182.5	4.4	2.4	182	146 - 220
ELITechGroup Envoy 500						
ELITechGroup Envoy 500	10	211.1	5.8	2.7	210	168 - 254
Horiba ABX Pentra						
Horiba ABX Pentra 400	19	227.7	8.9	3.9	226	182 - 274
Roche Integra						
Roche Integra	20	199.3	5.8	2.9	198	159 - 240
Siemens Healthcare ALTi						
Siemens Dimension	30	214.6	6.4	3.0	214	171 - 258
All Chemistry Instruments	31	214.2	6.6	3.1	213	171 - 258
VITROS						
VITROS 250,350,400 500,700,750,950	32	203.6	6.0	2.9	203	162 - 245
All Chemistry Instruments	38	202.4	6.8	3.4	202	161 - 243

Alkaline Phosphatase (IU/L)

Instrument/Reagent	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
			Specimen CH-6							Specimen CH-7		
All Method	236	269.0	56.0	20.8	287	188 - 350	234	106.3	11.6	11.0	107	74 - 139
All Alfa Wassermann Reagents	31	286.9	15.4	5.4	289	200 - 374	31	107.7	6.3	5.8	108	75 - 141
All Horiba Pentra Reagents	20	327.0	20.0	6.1	323	228 - 426	20	122.4	7.3	5.9	121	85 - 160
All Roche Reagents	28	300.3	9.7	3.2	301	210 - 391	28	111.0	4.2	3.8	111	77 - 145
Abaxis Piccolo												
Abaxis Piccolo - waived	20	220.1	9.1	4.1	222	154 - 287	20	94.6	4.3	4.5	94	66 - 123
All Chemistry Instruments	29	221.3	9.1	4.1	222	154 - 288	27	94.4	4.3	4.5	94	66 - 123
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	25	287.4	14.6	5.1	289	201 - 374	25	107.9	6.4	5.9	109	75 - 141
Beckman AU												
Beckman AU systems	35	275.8	21.2	7.7	279	193 - 359	35	101.0	7.4	7.4	101	70 - 132
ELITechGroup Envoy 500												
ELITechGroup Envoy 500	10	277.7	13.0	4.7	282	194 - 362	10	105.9	4.0	3.8	107	74 - 138
Horiba ABX Pentra												
Horiba ABX Pentra 400	20	327.0	20.0	6.1	323	228 - 426	20	122.4	7.3	5.9	121	85 - 160
Roche Integra												
Roche Integra	19	299.8	10.4	3.5	301	209 - 390	19	110.7	4.4	4.0	111	77 - 144
All Chemistry Instruments	20	299.6	10.2	3.4	300	209 - 390	20	110.6	4.3	3.9	111	77 - 144
Siemens Healthcare ALPi												
Siemens Dimension	26	330.2	12.0	3.6	330	231 - 430	26	120.0	5.0	4.2	120	84 - 157
All Chemistry Instruments	27	330.4	11.8	3.6	330	231 - 430	27	120.3	5.0	4.2	120	84 - 157
VITROS												
VITROS 250,350,400 500,700,750,950	32	168.0	10.8	6.4	168	117 - 219	31	95.0	4.3	4.5	95	66 - 124
All Chemistry Instruments	38	170.7	12.6	7.4	169	119 - 222	37	95.5	4.5	4.7	95	66 - 125

Alkaline Phosphatase (IU/L)

Instrument/Reagent	Specimen CH-8						Specimen CH-9					
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	216	198.2	30.6	15.5	205	138 - 258	214	74.5	7.0	9.4	74	52 - 97
All Alfa Wassermann Reagents	31	204.3	12.2	6.0	205	143 - 266	31	73.9	4.1	5.6	74	51 - 97
All Horiba Pentra Reagents	20	231.4	14.8	6.4	228	161 - 301	20	85.2	5.8	6.8	84	59 - 111
All Roche Reagents	28	211.6	7.1	3.4	212	148 - 276	28	76.1	2.7	3.6	76	53 - 99
Abaxis Piccolo												
Abaxis Piccolo - waived	3	-	-	-	169	138 - 258	3	-	-	-	68	52 - 97
All Chemistry Instruments	9	-	-	-	168	116 - 217	9	-	-	-	68	46 - 88
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	25	204.5	12.6	6.2	206	143 - 266	25	73.9	4.2	5.6	75	51 - 97
Beckman AU												
Beckman AU systems	35	193.0	14.7	7.6	192	135 - 251	35	68.9	4.9	7.2	69	48 - 90
ELITechGroup Envoy 500												
ELITechGroup Envoy 500	10	199.3	8.0	4.0	199	139 - 260	10	74.5	6.2	8.3	75	52 - 97
Horiba ABX Pentra												
Horiba ABX Pentra 400	20	231.4	14.8	6.4	228	161 - 301	20	85.2	5.8	6.8	84	59 - 111
Roche Integra												
Roche Integra	19	210.5	7.6	3.6	213	147 - 274	19	76.0	3.0	3.9	77	53 - 99
All Chemistry Instruments	20	210.4	7.4	3.5	212	147 - 274	20	75.9	2.9	3.8	77	53 - 99
Siemens Healthcare ALPi												
Siemens Dimension	26	231.6	8.2	3.5	231	162 - 302	26	81.7	3.6	4.4	81	57 - 107
All Chemistry Instruments	27	231.9	8.2	3.5	231	162 - 302	27	81.8	3.5	4.3	81	57 - 107
VITROS												
VITROS 250,350,400 500,700,750,950	31	148.4	7.4	5.0	147	103 - 193	31	69.8	3.3	4.7	70	48 - 91
All Chemistry Instruments	38	148.9	9.3	6.3	148	104 - 194	37	70.0	3.2	4.6	71	49 - 92

Alkaline Phosphatase (IU/L)

Specimen CH-10

Instrument/Reagent	Labs	Mean	SD	CV	Median	Range
All Method	217	252.4	48.0	19.0	266	176 - 329
All Alfa Wassermann Reagents	31	265.4	14.5	5.5	266	185 - 346
All Horiba Pentra Reagents	20	298.7	24.9	8.3	293	209 - 389
All Roche Reagents	28	275.1	9.8	3.6	277	192 - 358
Abaxis Piccolo						
Abaxis Piccolo - waived	3	-	-	-	205	145 - 271
All Chemistry Instruments	11	208.4	6.1	2.9	207	145 - 271
Alfa Wassermann						
Alfa Wassermann ACE Alera/Axcel	25	265.8	15.0	5.7	267	186 - 346
Beckman AU						
Beckman AU systems	36	252.5	19.7	7.8	252	176 - 329
ELITechGroup Envoy 500						
ELITechGroup Envoy 500	10	257.3	12.6	4.9	260	180 - 335
Horiba ABX Pentra						
Horiba ABX Pentra 400	20	298.7	24.9	8.3	293	209 - 389
Roche Integra						
Roche Integra	19	273.8	10.2	3.7	279	191 - 356
All Chemistry Instruments	20	273.6	10.0	3.7	278	191 - 356
Siemens Healthcare ALPi						
Siemens Dimension	26	302.4	10.5	3.5	304	211 - 394
All Chemistry Instruments	27	302.6	10.4	3.4	304	211 - 394
VITROS						
VITROS 250,350,400 500,700,750,950	32	165.0	10.3	6.3	165	115 - 215
All Chemistry Instruments	38	167.4	11.3	6.8	167	117 - 218

AST (SGOT) (IU/L)

Instrument/Reagent	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
			Specimen CH-6							**Specimen CH-7**		
All Method	202	260.3	26.4	10.1	262	208 - 313	199	145.5	10.4	7.2	149	116 - 175
All Alfa Wassermann Reagents	31	240.5	9.0	3.8	242	192 - 289	30	139.7	6.4	4.6	140	111 - 168
All Horiba Pentra Reagents	20	275.5	15.8	5.7	273	220 - 331	19	158.6	4.4	2.8	158	126 - 191
All Roche Reagents	27	262.0	8.6	3.3	263	209 - 315	27	151.3	5.5	3.6	152	121 - 182
Abaxis Piccolo												
Abaxis Piccolo - waived	20	251.6	6.6	2.6	252	201 - 302	20	145.0	3.3	2.2	145	115 - 174
All Chemistry Instruments	29	250.9	6.7	2.7	251	200 - 302	27	145.2	3.1	2.2	145	116 - 175
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	25	241.0	8.7	3.6	241	192 - 290	24	140.5	5.9	4.2	140	112 - 169
Beckman AU												
Beckman AU systems	36	229.2	6.9	3.0	230	183 - 276	36	130.8	3.8	2.9	131	104 - 157
ELITechGroup Envoy 500												
ELITechGroup Envoy 500	10	265.7	16.8	6.3	268	212 - 319	10	154.0	8.5	5.5	156	123 - 185
Horiba ABX Pentra												
Horiba ABX Pentra 400	20	275.5	15.8	5.7	273	220 - 331	19	158.6	4.4	2.8	158	126 - 191
Roche Integra												
Roche Integra	19	262.1	8.7	3.3	264	209 - 315	19	151.6	5.9	3.9	152	121 - 182
Siemens Healthcare												
Siemens Dimension	34	275.8	6.4	2.3	276	220 - 331	35	154.4	4.7	3.0	155	123 - 186
All Chemistry Instruments	35	275.7	6.3	2.3	275	220 - 331	36	154.3	4.7	3.1	155	123 - 186
VITROS												
VITROS 250,350,400 500,700,750,950	32	301.9	10.7	3.6	304	241 - 363	32	150.3	6.3	4.2	150	120 - 181
All Chemistry Instruments	38	301.6	11.2	3.7	304	241 - 362	37	151.1	5.2	3.4	150	120 - 182

AST (SGOT) (IU/L)

Instrument/Reagent	Specimen CH-8						Specimen CH-9					
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	182	204.0	17.4	8.5	210	163 - 245	181	127.9	9.3	7.3	130	102 - 154
All Alfa Wassermann Reagents	31	191.2	7.7	4.0	191	152 - 230	31	123.5	6.0	4.9	123	98 - 149
All Horiba Pentra Reagents	20	220.1	10.5	4.8	219	176 - 265	20	140.1	7.4	5.3	140	112 - 169
All Roche Reagents	27	208.5	7.1	3.4	209	166 - 251	27	133.2	5.1	3.8	133	106 - 160
Abaxis Piccolo												
Abaxis Piccolo - waived	3	-	-	-	197	163 - 245	3	-	-	-	128	102 - 154
All Chemistry Instruments	9	-	-	-	198	159 - 240	9	-	-	-	128	102 - 154
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	25	191.5	7.9	4.1	190	153 - 230	25	123.8	6.0	4.9	124	99 - 149
Beckman AU												
Beckman AU systems	36	181.1	5.3	2.9	182	144 - 218	36	115.2	3.5	3.0	116	92 - 139
ELITechGroup Envoy 500												
ELITechGroup Envoy 500	10	211.9	13.4	6.3	212	169 - 255	10	136.0	9.7	7.1	137	108 - 164
Horiba ABX Pentra												
Horiba ABX Pentra 400	20	220.1	10.5	4.8	219	176 - 265	20	140.1	7.4	5.3	140	112 - 169
Roche Integra												
Roche Integra	19	208.7	7.7	3.7	209	166 - 251	19	133.7	5.3	4.0	133	106 - 161
Siemens Healthcare												
Siemens Dimension	35	216.1	5.9	2.7	214	172 - 260	34	134.4	3.2	2.3	135	107 - 162
All Chemistry Instruments	36	216.0	5.8	2.7	214	172 - 260	35	134.3	3.2	2.4	135	107 - 162
VITROS												
VITROS 250,350,400 500,700,750,950	32	222.1	8.6	3.9	222	177 - 267	32	130.2	5.3	4.1	130	104 - 157
All Chemistry Instruments	38	222.1	8.4	3.8	222	177 - 267	38	130.2	5.2	4.0	130	104 - 157

AST (SGOT) (IU/L)

Specimen CH-10

Instrument/Reagent	Labs	Mean	SD	CV	Median	Range
All Method	183	245.7	24.1	9.8	250	196 - 295
All Alfa Wassermann Reagents	31	228.4	8.2	3.6	229	182 - 275
All Horiba Pentra Reagents	20	260.8	12.5	4.8	260	208 - 313
All Roche Reagents	27	247.8	9.2	3.7	248	198 - 298
Abaxis Piccolo						
Abaxis Piccolo - waived	3	-	-	-	234	188 - 284
All Chemistry Instruments	11	236.0	4.8	2.0	234	188 - 284
Alfa Wassermann						
Alfa Wassermann ACE Alera/Axcel	25	228.4	8.2	3.6	229	182 - 275
Beckman AU						
Beckman AU systems	36	216.1	7.3	3.4	217	172 - 260
ELITechGroup Envoy 500						
ELITechGroup Envoy 500	10	252.8	15.4	6.1	252	202 - 304
Horiba ABX Pentra						
Horiba ABX Pentra 400	20	260.8	12.5	4.8	260	208 - 313
Roche Integra						
Roche Integra	19	248.0	9.3	3.8	249	198 - 298
Siemens Healthcare						
Siemens Dimension	34	259.2	5.3	2.0	259	207 - 312
All Chemistry Instruments	35	259.1	5.2	2.0	258	207 - 311
VITROS						
VITROS 250,350,400 500,700,750,950	32	279.9	8.7	3.1	281	223 - 336
All Chemistry Instruments	38	279.3	9.2	3.3	281	223 - 336

Creatine Kinase (IU/L)

		Specimen CH-6							Specimen CH-7			
Instrument/Reagent	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	93	238.4	24.4	10.2	244	166 - 310	91	82.1	5.8	7.1	84	57 - 107
All Alfa Wassermann Reagents	11	242.1	10.7	4.4	243	169 - 315	11	86.4	5.9	6.8	87	60 - 113
All Roche Reagents	11	253.0	10.9	4.3	257	177 - 329	11	85.9	2.3	2.7	87	60 - 112
Beckman AU												
Beckman AU systems	21	236.0	10.5	4.5	237	165 - 307	21	77.3	2.8	3.6	77	54 - 101
Siemens Healthcare CKI												
Siemens Dimension	18	256.0	9.1	3.6	257	179 - 333	18	83.9	2.4	2.9	85	58 - 110
VITROS												
VITROS 250,350,400 500,700,750,950	10	196.2	18.5	9.4	202	137 - 256	10	79.4	7.4	9.3	81	55 - 104
All Chemistry Instruments	13	191.5	20.4	10.6	198	134 - 250	13	77.8	7.5	9.6	79	54 - 102

		Specimen CH-8							Specimen CH-9			
All Method	91	167.8	12.4	7.4	171	117 - 219	92	52.0	4.6	8.8	52	36 - 68
All Alfa Wassermann Reagents	11	170.3	5.4	3.2	171	119 - 222	11	56.9	3.9	6.9	58	39 - 74
All Roche Reagents	11	176.0	6.2	3.5	178	123 - 229	11	54.7	2.0	3.7	55	38 - 72
Beckman AU												
Beckman AU systems	21	160.8	5.7	3.6	160	112 - 210	21	48.7	1.6	3.4	49	34 - 64
Siemens Healthcare CKI												
Siemens Dimension	18	175.7	5.5	3.2	178	122 - 229	18	52.9	2.1	3.9	53	37 - 69
VITROS												
VITROS 250,350,400 500,700,750,950	10	151.4	13.9	9.2	155	105 - 197	10	50.0	5.8	11.5	52	35 - 65
All Chemistry Instruments	13	147.9	15.0	10.1	151	103 - 193	13	49.7	5.4	10.9	51	34 - 65

		Specimen CH-10				
All Method	91	222.0	21.3	9.6	228	155 - 289
All Alfa Wassermann Reagents	10	226.1	8.7	3.8	229	158 - 294
All Roche Reagents	11	234.2	8.0	3.4	234	163 - 305
Beckman AU						
Beckman AU systems	21	219.0	11.7	5.3	216	153 - 285
Siemens Healthcare CKI						
Siemens Dimension	18	236.5	6.7	2.9	239	165 - 308
VITROS						
VITROS 250,350,400 500,700,750,950	10	187.6	16.7	8.9	192	131 - 244
All Chemistry Instruments	13	182.9	18.4	10.1	185	128 - 238

GGT (IU/L)

	Specimen CH-6						Specimen CH-7				
Instrument/Reagent	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	57	107.7	20.7	19.2	100	66 - 150	57	32.9	7.9	24.0	29	17 - 49
All Roche Reagents	13	98.2	2.2	2.2	98	78 - 118	13	28.4	1.0	3.4	29	22 - 35
Beckman AU												
Beckman AU systems	12	89.7	3.8	4.3	89	71 - 108	12	26.3	1.4	5.5	26	21 - 32
Siemens Healthcare												
Siemens Dimension	10	133.1	3.9	3.0	134	106 - 160	10	43.4	1.9	4.4	44	34 - 53
All Chemistry Instruments	11	133.5	4.0	3.0	134	106 - 161	11	43.5	1.9	4.3	44	34 - 53

	Specimen CH-8						Specimen CH-9				
All Method	54	71.5	15.3	21.4	65	40 - 103	54	20.6	5.7	27.7	17	9 - 33
All Roche Reagents	13	63.8	1.3	2.1	64	51 - 77	13	16.8	0.6	3.6	17	13 - 21
Beckman AU												
Beckman AU systems	12	58.4	2.5	4.3	58	46 - 71	12	16.0	0.4	2.7	16	12 - 20
Siemens Healthcare												
Siemens Dimension	10	89.5	2.4	2.7	90	71 - 108	10	29.3	1.9	6.4	30	23 - 36
All Chemistry Instruments	11	89.7	2.4	2.7	90	71 - 108	11	29.4	1.8	6.1	30	23 - 36

	Specimen CH-10					
All Method	53	97.7	20.0	20.5	89	57 - 138
All Roche Reagents	13	88.0	1.8	2.1	88	70 - 106
Beckman AU						
Beckman AU systems	12	81.2	3.2	3.9	80	64 - 98
Siemens Healthcare						
Siemens Dimension	10	121.2	2.7	2.2	121	96 - 146
All Chemistry Instruments	11	121.4	2.6	2.1	121	97 - 146

Amylase (IU/L)

| | Specimen CH-6 | | | | | | Specimen CH-7 | | | | |
Instrument/Reagent	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	79	134.9	27.2	20.2	144	94 - 176	79	43.9	8.3	18.8	47	30 - 58
All Roche Reagents	12	146.0	3.6	2.4	147	102 - 190	12	48.3	1.3	2.7	49	33 - 63
Beckman AU												
Beckman AU systems	17	120.6	4.8	4.0	119	84 - 157	17	38.6	1.7	4.4	39	27 - 51
Siemens Healthcare												
Siemens Dimension	11	163.6	3.0	1.9	164	114 - 213	11	52.3	2.6	4.9	52	36 - 68
VITROS												
VITROS 250,350,400 500,700,750,950	13	92.8	6.7	7.2	94	64 - 121	13	32.5	3.6	11.0	30	22 - 43
All Chemistry Instruments	16	93.1	6.9	7.4	94	65 - 122	16	32.0	3.3	10.5	30	22 - 42

| | Specimen CH-8 | | | | | | Specimen CH-9 | | | | |
Instrument/Reagent	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	74	89.5	17.6	19.7	97	62 - 117	73	30.3	3.2	10.7	30	21 - 40
All Roche Reagents	12	97.4	2.4	2.5	98	68 - 127	12	32.3	1.1	3.3	33	22 - 43
Beckman AU												
Beckman AU systems	17	79.9	3.3	4.1	80	55 - 104	15	24.9	1.0	4.0	25	17 - 33
Siemens Healthcare												
Siemens Dimension	11	108.4	2.0	1.9	109	75 - 141	11	33.0	0.9	2.7	33	23 - 43
VITROS												
VITROS 250,350,400 500,700,750,950	13	60.2	9.9	16.5	62	42 - 79	13	30.0	0.1	0.0	30	21 - 39
All Chemistry Instruments	15	62.8	4.9	7.9	63	43 - 82	16	30.0	0.1	0.0	30	21 - 39

| | Specimen CH-10 | | | | | |
Instrument/Reagent	Labs	Mean	SD	CV	Median	Range
All Method	75	121.3	24.3	20.1	130	84 - 158
All Roche Reagents	12	131.7	2.7	2.1	132	92 - 172
Beckman AU						
Beckman AU systems	17	108.7	4.6	4.3	109	76 - 142
Siemens Healthcare						
Siemens Dimension	11	148.5	2.5	1.7	149	103 - 193
VITROS						
VITROS 250,350,400 500,700,750,950	13	85.2	6.7	7.9	83	59 - 111
All Chemistry Instruments	16	85.3	6.5	7.7	83	59 - 111

Lactate Dehydrogenase (IU/L)

Instrument/Reagent	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
			Specimen CH-6							Specimen CH-7		
All Method	61	614.1	62.5	10.2	643	491 - 737	61	265.8	28.0	10.5	282	212 - 319
All Horiba Pentra Reagents	6	654.2	36.9	5.6	648	523 - 786	6	280.7	19.4	6.9	280	224 - 337
All Roche Reagents	19	657.7	13.5	2.1	657	526 - 790	19	288.2	5.7	2.0	287	230 - 346
Beckman AU												
Beckman AU systems	12	550.1	31.2	5.7	543	440 - 661	12	235.1	11.6	4.9	231	188 - 283
Horiba ABX Pentra												
Horiba ABX Pentra 400	10	654.2	36.9	5.6	648	523 - 786	10	280.7	19.4	6.9	280	224 - 337
Roche cobas c 501												
Roche cobas 6000 / c 501	10	667.2	9.5	1.4	671	533 - 801	10	288.0	6.3	2.2	289	230 - 346
Roche Integra												
Roche Integra	12	652.8	13.5	2.1	650	522 - 784	12	288.3	6.0	2.1	286	230 - 346
Siemens Healthcare LDI												
Siemens Dimension	11	629.6	12.0	1.9	628	503 - 756	11	266.4	10.8	4.0	270	213 - 320
VITROS												
VITROS 250,350,400 500,700,750,950	6	1997.2	64.3	3.2	2025	1597 - 2397	6	844.0	22.3	2.6	848	675 - 1013
VITROS 5600	4	1844.3	52.8	2.9	1864	1475 - 2214	4	849.5	11.0	1.3	849	679 - 1020
All Chemistry Instruments	10	1936.0	97.3	5.0	1918	1548 - 2324	10	846.2	18.0	2.1	848	676 - 1016

Lactate Dehydrogenase (IU/L)

		Specimen CH-8						Specimen CH-9				
All Method	61	443.4	45.3	10.2	469	354 - 533	61	207.0	22.0	10.6	220	165 - 249
All Horiba Pentra Reagents	6	471.7	31.2	6.6	468	377 - 567	6	221.3	16.3	7.4	221	177 - 266
All Roche Reagents	19	476.7	7.9	1.7	475	381 - 573	19	224.1	4.4	2.0	223	179 - 269
Beckman AU												
Beckman AU systems	12	394.9	18.3	4.6	391	315 - 474	12	181.6	8.8	4.9	180	145 - 218
Horiba ABX Pentra												
Horiba ABX Pentra 400	10	471.7	31.2	6.6	468	377 - 567	10	221.3	16.3	7.4	221	177 - 266
Roche cobas c 501												
Roche cobas 6000 / c 501	10	479.3	4.1	0.9	481	383 - 576	10	223.7	2.3	1.0	224	178 - 269
Roche Integra												
Roche Integra	12	475.3	9.3	2.0	474	380 - 571	12	224.3	5.3	2.4	223	179 - 270
Siemens Healthcare LDI												
Siemens Dimension	11	449.0	12.7	2.8	452	359 - 539	11	208.4	2.8	1.3	209	166 - 251
VITROS												
VITROS 250,350,400 500,700,750,950	6	1397.0	53.0	3.8	1415	1117 - 1677	6	664.5	20.2	3.0	669	531 - 798
VITROS 5600	4	1380.8	26.1	1.9	1378	1104 - 1657	4	665.3	4.8	0.7	667	532 - 799
All Chemistry Instruments	10	1390.5	43.1	3.1	1397	1112 - 1669	10	664.8	15.3	2.3	667	531 - 798

		Specimen CH-10				
All Method	61	566.2	59.5	10.5	597	452 - 680
All Horiba Pentra Reagents	6	613.0	39.4	6.4	608	490 - 736
All Roche Reagents	19	605.4	11.9	2.0	607	484 - 727
Beckman AU						
Beckman AU systems	12	502.8	24.6	4.9	498	402 - 604
Horiba ABX Pentra						
Horiba ABX Pentra 400	10	613.0	39.4	6.4	608	490 - 736
Roche cobas c 501						
Roche cobas 6000 / c 501	10	611.3	2.4	0.4	613	489 - 734
Roche Integra						
Roche Integra	12	602.0	14.0	2.3	597	481 - 723
Siemens Healthcare LDI						
Siemens Dimension	11	581.4	13.0	2.2	583	465 - 698
VITROS						
VITROS 250,350,400 500,700,750,950	6	1831.8	48.6	2.7	1840	1465 - 2199
VITROS 5600	4	1702.5	44.3	2.6	1712	1362 - 2043
All Chemistry Instruments	10	1780.1	80.2	4.5	1778	1424 - 2137

Lipase (IU/L)

| | Specimen CH-6 | | | | | | Specimen CH-7 | | | | |
Instrument/Reagent	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	34	54.1	5.9	10.9	60	37 - 71	34	24.0	2.4	10.1	26	16 - 32
All Roche Reagents	11	51.0	3.5	6.8	51	35 - 67	11	24.5	1.2	4.9	25	17 - 32
Beckman AU												
Beckman AU systems	11	58.3	3.6	6.1	59	40 - 76	11	24.5	2.7	10.9	25	17 - 32
Horiba ABX Pentra												
Horiba ABX Pentra 400	10	46.6	3.2	6.9	47	32 - 61	10	21.4	2.4	11.3	22	14 - 28
Siemens Healthcare												
Siemens Dimension	10	205.7	17.9	8.7	197	143 - 268	10	95.3	9.7	10.2	92	66 - 124
VITROS												
VITROS 250,350,400 500,700,750,950	7	577.7	24.3	4.2	576	404 - 752	7	267.6	8.6	3.2	268	187 - 348
All Chemistry Instruments	10	575.8	21.4	3.7	575	403 - 749	10	268.1	7.8	2.9	268	187 - 349

| | Specimen CH-8 | | | | | | Specimen CH-9 | | | | |
Instrument/Reagent	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	34	40.2	4.3	10.8	44	28 - 53	34	19.1	2.2	11.6	21	13 - 25
All Roche Reagents	11	38.5	2.1	5.4	39	26 - 51	11	20.0	0.9	4.6	20	14 - 26
Beckman AU												
Beckman AU systems	11	43.1	2.3	5.4	43	30 - 57	10	19.0	2.7	14.5	20	13 - 25
Horiba ABX Pentra												
Horiba ABX Pentra 400	10	33.4	1.5	4.5	33	23 - 44	10	17.6	2.1	11.8	18	12 - 23
Siemens Healthcare												
Siemens Dimension	10	151.9	13.9	9.1	147	106 - 198	10	78.4	6.0	7.6	74	54 - 102
VITROS												
VITROS 250,350,400 500,700,750,950	7	432.1	17.2	4.0	437	302 - 562	7	208.3	8.0	3.9	208	145 - 271
All Chemistry Instruments	10	431.4	15.0	3.5	430	302 - 561	10	208.4	7.0	3.4	208	145 - 271

| | Specimen CH-10 | | | | | |
Instrument/Reagent	Labs	Mean	SD	CV	Median	Range
All Method	34	49.9	5.3	10.7	55	34 - 65
All Roche Reagents	11	47.8	2.8	5.9	48	33 - 63
Beckman AU						
Beckman AU systems	11	53.6	3.4	6.4	55	37 - 70
Horiba ABX Pentra						
Horiba ABX Pentra 400	10	42.6	2.9	6.8	41	29 - 56
Siemens Healthcare						
Siemens Dimension	10	192.4	15.3	8.0	185	134 - 251
VITROS						
VITROS 250,350,400 500,700,750,950	7	539.1	23.6	4.4	542	377 - 701
All Chemistry Instruments	10	538.1	20.6	3.8	538	376 - 700

Alpha-fetoprotein (AFP) (ng/mL)

		Specimen CH-6							Specimen CH-7			
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	5	261.70	16.37	6.3	261.4	212.5 - 310.9	5	69.10	6.84	9.9	70.6	48.5 - 89.7

		Specimen CH-8							Specimen CH-9			
All Method	5	169.03	14.33	8.5	171.2	126.0 - 212.1	5	37.73	4.19	11.1	39.0	25.1 - 50.3

		Specimen CH-10				
All Method	5	236.63	15.83	6.7	239.5	189.1 - 284.2

Cortisol (µg/dL)

		Specimen CH-6							Specimen CH-7			
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	10	26.58	2.28	8.6	26.8	19.9 - 33.3	10	10.75	1.19	11.0	10.6	8.0 - 13.5

		Specimen CH-8							Specimen CH-9			
All Method	10	19.12	1.49	7.8	19.3	14.3 - 23.9	10	7.56	0.62	8.2	7.4	5.6 - 9.5

		Specimen CH-10				
All Method	10	24.62	1.96	8.0	25.0	18.4 - 30.8

T$_3$ Uptake (percent)

		Specimen CH-6						Specimen CH-7				
Method	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_
All Method	15	44.11	3.03	6.9	43.3	35.0 - 53.3	15	50.92	4.83	9.5	49.9	36.4 - 65.5

		Specimen CH-8						Specimen CH-9				
All Method	15	47.08	3.97	8.4	46.0	35.1 - 59.1	15	51.43	5.65	11.0	51.0	34.4 - 68.4

		Specimen CH-10				
All Method	15	45.25	3.45	7.6	44.0	34.9 - 55.6

Triiodothyronine (ng/mL)

		Specimen CH-6						Specimen CH-7				
Method	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_
All Method	47	2.21	0.49	22.3	2.5	0.7 - 3.7	47	1.59	0.28	17.6	1.6	0.7 - 2.5
All Abbott Instruments	11	1.64	0.05	3.3	1.6	1.4 - 1.9	11	1.48	0.04	3.0	1.5	1.3 - 1.7
All TOSOH Instruments	12	5.61	0.42	7.5	5.7	4.3 - 6.9	12	3.73	0.14	3.7	3.7	3.3 - 4.2
Abbott Architect	10	1.64	0.05	3.3	1.6	1.4 - 1.9	10	1.48	0.04	3.0	1.5	1.3 - 1.7
Beckman ACCESS / 2 / DxI	13	2.45	0.23	9.5	2.4	1.7 - 3.2	13	1.60	0.15	9.2	1.6	1.1 - 2.1
TOSOH ST AIA PACK	10	5.70	0.48	8.5	5.8	4.2 - 7.2	10	3.78	0.13	3.4	3.8	3.3 - 4.2

		Specimen CH-8						Specimen CH-9				
All Method	47	1.92	0.35	18.4	2.1	0.8 - 3.0	47	1.46	0.29	19.8	1.5	0.5 - 2.4
All Abbott Instruments	11	1.54	0.05	3.6	1.5	1.3 - 1.8	11	1.36	0.05	4.0	1.4	1.1 - 1.6
All TOSOH Instruments	12	4.78	0.25	5.3	4.7	4.0 - 5.6	12	3.20	0.14	4.4	3.2	2.7 - 3.7
Abbott Architect	10	1.54	0.05	3.6	1.5	1.3 - 1.8	10	1.36	0.05	4.0	1.4	1.1 - 1.6
Beckman ACCESS / 2 / DxI	13	2.03	0.14	7.1	2.1	1.5 - 2.5	13	1.45	0.11	7.2	1.5	1.1 - 1.8
TOSOH ST AIA	10	4.90	0.24	5.0	5.0	4.1 - 5.7	10	3.22	0.16	5.1	3.3	2.7 - 3.8

		Specimen CH-10				
All Method	47	2.15	0.46	21.5	2.4	0.7 - 3.6
All Abbott Instruments	11	1.60	0.07	4.4	1.6	1.3 - 1.9
All TOSOH Instruments	12	5.30	0.32	6.0	5.3	4.3 - 6.3
Abbott Architect	10	1.60	0.07	4.4	1.6	1.3 - 1.9
Beckman ACCESS / 2 / DxI	13	2.35	0.19	8.1	2.3	1.7 - 3.0
TOSOH ST AIA	10	5.42	0.33	6.2	5.5	4.4 - 6.5

Free T₃ (pg/mL)

		Specimen CH-6						Specimen CH-7				
Method	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_
All Method	34	6.11	1.12	18.4	5.9	2.7 - 9.5	34	5.20	0.82	15.7	5.5	2.7 - 7.7
All Roche Instruments	11	8.12	0.26	3.2	8.1	7.3 - 8.9	11	5.70	0.23	4.1	5.6	4.9 - 6.5
All TOSOH Instruments	12	13.45	1.31	9.7	13.6	9.5 - 17.4	12	10.27	1.08	10.6	10.5	7.0 - 13.6
Beckman ACCESS / 2 / DxI	16	5.53	0.42	7.5	5.5	4.2 - 6.8	16	4.71	0.30	6.4	4.7	3.7 - 5.7
TOSOH ST AIA PACK	10	13.03	1.19	9.1	13.5	9.4 - 16.7	10	9.90	1.11	11.2	9.8	6.5 - 13.3

		Specimen CH-8						Specimen CH-9				
All Method	34	5.78	0.98	17.0	5.8	2.8 - 8.8	34	4.64	0.74	16.0	4.8	2.4 - 6.9
All Abbott Instruments	11	7.20	0.20	2.8	7.1	6.6 - 7.8	11	4.80	0.36	7.5	4.8	3.7 - 5.9
All TOSOH Instruments	12	11.99	1.02	8.5	12.3	8.9 - 15.1	12	8.93	1.03	11.6	9.1	5.8 - 12.1
Beckman ACCESS / 2 / DxI	16	5.25	0.35	6.7	5.3	4.1 - 6.4	16	4.25	0.31	7.2	4.3	3.3 - 5.2
TOSOH ST AIA	10	11.67	1.06	9.1	12.1	8.4 - 14.9	10	8.53	0.97	11.4	8.8	5.6 - 11.5

		Specimen CH-10				
All Method	34	6.02	1.08	18.0	5.8	2.7 - 9.3
All Abbott Instruments	11	7.92	0.44	5.6	7.9	6.5 - 9.3
All TOSOH Instruments	12	13.10	1.01	7.7	13.2	10.0 - 16.2
Beckman ACCESS / 2 / DxI	16	5.44	0.36	6.5	5.5	4.3 - 6.6
TOSOH ST AIA	10	12.73	0.91	7.2	12.9	9.9 - 15.5

Thyroxine (µg/dL)

		Specimen CH-6						Specimen CH-7				
Method	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_
All Method	20	15.76	1.58	10.0	15.7	12.6 - 19.0	20	9.70	0.85	8.8	10.2	7.7 - 11.7
Beckman ACCESS / 2 / DxI	11	15.07	0.92	6.1	15.3	12.0 - 18.1	12	11.10	0.63	5.7	11.1	8.8 - 13.4

		Specimen CH-8						Specimen CH-9				
All Method	20	12.85	0.94	7.3	13.3	10.2 - 15.5	20	8.51	0.78	9.1	8.9	6.8 - 10.3
Beckman ACCESS / 2 / DxI	12	13.38	0.60	4.5	13.6	10.7 - 16.1	12	10.06	0.72	7.2	10.3	8.0 - 12.1

		Specimen CH-10				
All Method	20	14.70	1.53	10.4	14.7	11.7 - 17.7
Beckman ACCESS / 2 / DxI	12	14.55	0.83	5.7	14.6	11.6 - 17.5

Free Thyroxine (ng/dL)

| | | Specimen CH-6 | | | | | | Specimen CH-7 | | | | |
Method	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	146	3.66	0.75	20.5	3.9	1.4 - 6.0	146	3.90	0.72	18.4	4.0	1.7 - 6.1
All TOSOH Instruments	34	4.48	0.29	6.4	4.5	3.6 - 5.4	33	4.65	0.28	6.0	4.7	3.8 - 5.5
Abbott Architect	12	4.15	0.21	5.1	4.2	3.5 - 4.8	12	3.49	0.25	7.3	3.5	2.7 - 4.3
Beckman ACCESS / 2 / DxI	51	2.81	0.11	4.0	2.8	2.4 - 3.2	52	3.21	0.15	4.7	3.2	2.7 - 3.7
Siemens Dimension	21	4.16	0.21	5.0	4.2	3.5 - 4.8	21	4.58	0.34	7.3	4.6	3.5 - 5.6
TOSOH AIA PACK	16	4.48	0.30	6.8	4.5	3.5 - 5.4	16	4.71	0.40	8.6	4.7	3.4 - 6.0
TOSOH ST AIA PACK	18	4.47	0.28	6.3	4.5	3.6 - 5.4	18	4.67	0.28	5.9	4.8	3.8 - 5.5

| | | Specimen CH-8 | | | | | | Specimen CH-9 | | | | |
Method	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	146	3.70	0.73	19.8	3.8	1.4 - 6.0	146	4.04	0.74	18.2	4.0	1.8 - 6.3
All TOSOH Instruments	34	4.53	0.30	6.6	4.5	3.6 - 5.5	34	4.82	0.33	6.9	4.8	3.8 - 5.9
Abbott Architect	12	3.80	0.22	5.8	3.8	3.1 - 4.5	12	3.38	0.18	5.4	3.4	2.8 - 4.0
Beckman ACCESS / 2 / DxI	52	2.89	0.13	4.6	2.9	2.4 - 3.3	52	3.40	0.17	5.1	3.4	2.8 - 4.0
Siemens Dimension	21	4.31	0.23	5.2	4.3	3.6 - 5.0	21	4.79	0.37	7.7	4.9	3.6 - 5.9
TOSOH AIA PACK	16	4.51	0.35	7.9	4.4	3.4 - 5.6	16	4.88	0.39	8.0	4.9	3.6 - 6.1
TOSOH ST AIA PACK	18	4.55	0.25	5.5	4.6	3.7 - 5.4	18	4.78	0.28	5.8	4.8	3.9 - 5.7

| | | Specimen CH-10 | | | | |
Method	Labs	Mean	SD	CV	Median	Range
All Method	150	3.80	0.98	25.8	4.0	0.8 - 6.8
All TOSOH Instruments	33	4.47	0.30	6.7	4.5	3.5 - 5.4
Abbott Architect	12	4.06	0.30	7.3	4.1	3.1 - 5.0
Beckman ACCESS / 2 / DxI	50	2.82	0.11	4.0	2.8	2.4 - 3.2
Siemens Dimension	20	4.19	0.18	4.3	4.2	3.6 - 4.8
TOSOH AIA PACK	15	4.49	0.33	7.3	4.4	3.5 - 5.5
TOSOH ST AIA PACK	18	4.46	0.28	6.3	4.5	3.6 - 5.3

TSH (µU/mL)

Specimen CH-6 / Specimen CH-7

Method	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	185	6.12	0.76	12.4	6.0	3.8 - 8.4	185	1.93	0.26	13.4	1.8	1.1 - 2.8
All Abbott Instruments	13	5.53	0.20	3.6	5.6	4.9 - 6.2	13	1.72	0.09	5.2	1.7	1.4 - 2.0
All Roche Instruments	11	5.69	0.32	5.7	5.7	4.7 - 6.7	10	2.01	0.10	4.9	2.0	1.7 - 2.4
All TOSOH Instruments	45	7.03	0.48	6.8	7.0	5.6 - 8.5	45	2.24	0.12	5.3	2.3	1.8 - 2.6
Abbott Architect	13	5.53	0.20	3.6	5.6	4.9 - 6.2	13	1.72	0.09	5.2	1.7	1.4 - 2.0
Beckman ACCESS / 2 / DxI	61	5.75	0.41	7.1	5.7	4.5 - 7.0	61	1.78	0.09	5.2	1.8	1.4 - 2.1
Siemens Dimension	26	5.57	0.41	7.3	5.6	4.3 - 6.8	26	1.76	0.12	6.6	1.7	1.4 - 2.2
TOSOH AIA PACK	20	6.89	0.35	5.0	6.9	5.8 - 8.0	21	2.21	0.12	5.6	2.3	1.8 - 2.6
TOSOH ST AIA PACK	25	7.16	0.60	8.3	7.0	5.3 - 9.0	24	2.27	0.11	4.8	2.3	1.9 - 2.6

Specimen CH-8 / Specimen CH-9

Method	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	186	4.12	0.51	12.4	4.0	2.5 - 5.7	185	1.17	0.18	15.0	1.1	0.6 - 1.8
All Abbott Instruments	13	3.71	0.13	3.4	3.7	3.3 - 4.1	12	1.05	0.05	5.0	1.1	0.8 - 1.3
All Roche Instruments	11	4.03	0.21	5.1	4.1	3.4 - 4.7	11	1.26	0.05	4.0	1.3	1.1 - 1.5
All TOSOH Instruments	44	4.75	0.27	5.7	4.8	3.9 - 5.6	45	1.38	0.11	7.8	1.4	1.0 - 1.8
Abbott Architect	13	3.71	0.13	3.4	3.7	3.3 - 4.1	12	1.05	0.05	5.0	1.1	0.8 - 1.3
Beckman ACCESS / 2 / DxI	61	3.84	0.21	5.6	3.8	3.1 - 4.5	62	1.07	0.08	7.3	1.1	0.8 - 1.4
Siemens Dimension	26	3.74	0.26	7.0	3.7	2.9 - 4.6	26	1.06	0.09	8.1	1.1	0.8 - 1.4
TOSOH AIA PACK	21	4.67	0.36	7.7	4.8	3.5 - 5.8	21	1.34	0.09	6.9	1.4	1.0 - 1.7
TOSOH ST AIA PACK	24	4.78	0.28	5.8	4.8	3.9 - 5.7	24	1.42	0.11	7.7	1.4	1.0 - 1.8

Specimen CH-10

Method	Labs	Mean	SD	CV	Median	Range
All Method	183	5.54	0.64	11.6	5.4	3.6 - 7.5
All Abbott Instruments	13	5.04	0.16	3.2	5.1	4.5 - 5.6
All Roche Instruments	10	5.28	0.32	6.0	5.4	4.3 - 6.3
All TOSOH Instruments	44	6.28	0.28	4.4	6.3	5.4 - 7.2
Abbott Architect	13	5.04	0.16	3.2	5.1	4.5 - 5.6
Beckman ACCESS / 2 / DxI	61	5.20	0.36	6.9	5.2	4.1 - 6.3
Siemens Dimension	26	5.15	0.48	9.2	5.1	3.7 - 6.6
TOSOH AIA PACK	21	6.21	0.39	6.2	6.2	5.0 - 7.4
TOSOH ST AIA PACK	23	6.24	0.21	3.3	6.3	5.6 - 6.9

Serum hCG – Qualitative

Method	Specimen HCG-6		Specimen HCG-7	
	Positive	*Negative*	*Positive*	*Negative*
ALL METHODS	-	142	142	-
AimStep Combo Pregnancy	-	1	1	-
Alere hCG Cassette	-	1	1	-
Beckman ACCESS / 2 / DxI	-	1	1	-
Beckman Coulter ICON 20 hCG	-	66	66	-
Beckman Coulter ICON 25 hCG	-	4	4	-
BTNX Rapid Response hCG	-	2	2	-
Cardinal Health SP Brand combo	-	10	10	-
CONSULT diagnostics hCG Combo	-	11	11	-
Henry Schein One Step + Combo	-	5	5	-
i-STAT - moderate	-	1	1	-
McKesson hCG Combo Cassette	-	1	1	-
Medline hCG Combo Test Cassette	-	2	2	-
NDC Pro Advantage	-	1	1	-
PSS Select hCG Combo	-	2	2	-
Quidel QuickVue + One-Step	-	7	7	-
Quidel QuickVue One-Step Combo	-	17	17	-
Quidel QuickVue Semi-Q hCG	-	1	1	-
Sekisui OSOM hCG Combo Test	-	2	2	-
Stanbio QUPID Plus	-	3	3	-
TOSOH ST AIA PACK	-	1	1	-

Serum hCG – Qualitative

	Specimen HCG-8		Specimen HCG-9	
ALL METHODS	141	1	-	142
AimStep Combo Pregnancy	1	-	-	1
Alere hCG Cassette	1	-	-	1
Beckman ACCESS / 2 / Dxl	1	-	-	1
Beckman Coulter ICON 20 hCG	66	-	-	66
Beckman Coulter ICON 25 hCG	4	-	-	4
BTNX Rapid Response hCG	2	-	-	2
Cardinal Health SP Brand combo	9	1	-	10
CONSULT diagnostics hCG Combo	11	-	-	11
Henry Schein One Step + Combo	5	-	-	5
i-STAT - moderate	1	-	-	1
McKesson hCG Combo Cassette	1	-	-	1
Medline hCG Combo Test Cassette	2	-	-	2
NDC Pro Advantage	1	-	-	1
PSS Select hCG Combo	2	-	-	2
Quidel QuickVue + One-Step	7	-	-	7
Quidel QuickVue One-Step Combo	17	-	-	17
Quidel QuickVue Semi-Q hCG	1	-	-	1
Sekisui OSOM hCG Combo Test	2	-	-	2
Stanbio QUPID Plus	3	-	-	3
TOSOH ST AIA PACK	1	-	-	1

Serum hCG – Qualitative

<center>**Specimen HCG-10**</center>

Method	Positive	Negative
ALL METHODS	142	-
AimStep Combo Pregnancy	1	-
Alere hCG Cassette	1	-
Beckman ACCESS / 2 / Dxl	1	-
Beckman Coulter ICON 20 hCG	66	-
Beckman Coulter ICON 25 hCG	4	-
BTNX Rapid Response hCG	2	-
Cardinal Health SP Brand combo	10	-
CONSULT diagnostics hCG Combo	11	-
Henry Schein One Step + Combo	5	-
i-STAT - moderate	1	-
McKesson hCG Combo Cassette	1	-
Medline hCG Combo Test Cassette	2	-
NDC Pro Advantage	1	-
PSS Select hCG Combo	2	-
Quidel QuickVue + One-Step	7	-
Quidel QuickVue One-Step Combo	17	-
Quidel QuickVue Semi-Q hCG	1	-
Sekisui OSOM hCG Combo Test	2	-
Stanbio QUPID Plus	3	-
TOSOH ST AIA PACK	1	-

Serum hCG – Quantitative (mIU/mL)

	Specimen HCG-6						Specimen HCG-7					
Method	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	23	1.7	1.7	101.3	1	0 - 7	21	1157.2	171.3	14.8	1142	643 - 1672

	Specimen HCG-8						Specimen HCG-9					
All Method	23	244.9	38.6	15.7	246	129 - 361	23	1.6	1.7	102.6	1	0 - 7

	Specimen HCG-10					
All Method	22	3183.7	867.7	27.3	3291	580 - 5787

Cholesterol, Total (mg/dL)

Reagent/Instrument	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
			Specimen CH-6							**Specimen CH-7**		
All Method	218	203.9	7.8	3.8	204	183 - 225	217	95.1	5.0	5.2	95	85 - 105
All Alfa Wassermann Reagents	30	207.3	6.1	2.9	209	186 - 228	30	98.2	3.0	3.1	99	88 - 109
All Horiba Pentra Reagents	14	205.6	6.8	3.3	204	185 - 227	14	95.6	3.0	3.1	96	86 - 106
All Roche Reagents	17	203.6	5.3	2.6	203	183 - 225	17	95.4	2.9	3.1	96	85 - 105
Alere Cholestech LDX												
Alere Cholestech LDX - waived	35	211.8	9.2	4.4	212	190 - 233	34	100.0	0.2	0.2	100	90 - 111
All Chemistry Instruments	36	211.6	9.2	4.3	212	190 - 233	35	100.0	0.2	0.2	100	90 - 111
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	29	207.3	6.2	3.0	209	186 - 229	29	98.2	3.1	3.1	99	88 - 108
Beckman AU												
Beckman AU systems	31	201.5	3.1	1.6	202	181 - 222	31	93.0	1.6	1.8	93	83 - 103
ELITechGroup Envoy 500												
ELITechGroup Envoy 500	10	207.1	6.7	3.2	205	186 - 228	10	98.6	6.2	6.3	99	88 - 109
Horiba ABX Pentra												
Horiba ABX Pentra 400	14	205.6	6.8	3.3	204	185 - 227	14	95.6	3.0	3.1	96	86 - 106
Roche Integra												
Roche Integra	11	202.5	5.8	2.9	202	182 - 223	11	94.7	2.9	3.0	95	85 - 105
Siemens Healthcare												
Siemens Dimension	29	202.0	4.1	2.0	202	181 - 223	29	93.2	2.3	2.5	93	83 - 103
All Chemistry Instruments	31	201.4	4.5	2.2	201	181 - 222	31	92.8	2.7	2.9	93	83 - 103
VITROS												
VITROS 250,350,400 500,700,750,950	25	194.9	7.7	4.0	194	175 - 215	25	85.2	4.1	4.8	85	76 - 94
All Chemistry Instruments	29	195.7	7.5	3.8	197	176 - 216	28	85.9	3.3	3.9	86	77 - 95

Cholesterol, Total (mg/dL)

Reagent/Instrument	Specimen CH-8					Specimen CH-9				
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	179	148.9	5.1	3.4	148	133 - 164	174	75.4	5.8	7.7	76	67 - 83
All Alfa Wassermann Reagents	30	153.2	4.8	3.1	154	137 - 169	30	80.4	2.2	2.7	81	72 - 89
All Horiba Pentra Reagents	14	150.5	5.5	3.7	149	135 - 166	14	78.0	2.9	3.8	78	70 - 86
All Roche Reagents	17	150.1	3.5	2.3	150	135 - 166	17	77.5	2.7	3.5	77	69 - 86
Alere Cholestech LDX												
Alere Cholestech LDX - waived	5	-	-	-	156	142 - 174	4	-	-	-	100	90 - 110
All Chemistry Instruments	6	-	-	-	154	140 - 172	5	-	-	-	100	90 - 110
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	29	153.2	4.9	3.2	154	137 - 169	29	80.4	2.2	2.8	81	72 - 89
Beckman AU												
Beckman AU systems	31	147.6	2.3	1.6	148	132 - 163	31	75.1	1.4	1.9	75	67 - 83
ELITechGroup Envoy 500												
ELITechGroup Envoy 500	10	151.8	6.3	4.1	153	136 - 167	9	-	-	-	77	71 - 88
Horiba ABX Pentra												
Horiba ABX Pentra 400	14	150.5	5.5	3.7	149	135 - 166	14	78.0	2.9	3.8	78	70 - 86
Roche Integra												
Roche Integra	11	149.6	3.7	2.5	150	134 - 165	11	77.0	2.2	2.9	77	69 - 85
Siemens Healthcare												
Siemens Dimension	29	147.6	3.4	2.3	146	132 - 163	29	75.5	2.2	2.9	75	67 - 84
All Chemistry Instruments	31	147.4	3.5	2.4	146	132 - 163	31	75.3	2.5	3.3	75	67 - 83
VITROS												
VITROS 250,350,400 500,700,750,950	25	143.6	5.7	3.9	144	129 - 158	24	64.0	3.4	5.3	64	57 - 71
All Chemistry Instruments	29	143.8	5.4	3.7	144	129 - 159	28	64.4	3.7	5.8	64	57 - 71

Cholesterol, Total (mg/dL)

Specimen CH-10

Reagent/Instrument	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_
All Method	180	187.4	6.3	3.3	187	168 - 207
All Alfa Wassermann Reagents	30	190.7	6.3	3.3	191	171 - 210
All Horiba Pentra Reagents	14	189.6	5.9	3.1	189	170 - 209
All Roche Reagents	17	187.9	4.1	2.2	188	169 - 207
Alere Cholestech LDX						
Alere Cholestech LDX - waived	5	-	-	-	202	182 - 223
All Chemistry Instruments	6	-	-	-	199	180 - 221
Alfa Wassermann						
Alfa Wassermann ACE Alera/Axcel	29	190.7	6.4	3.3	191	171 - 210
Beckman AU						
Beckman AU systems	31	186.0	3.2	1.7	186	167 - 205
ELITechGroup Envoy 500						
ELITechGroup Envoy 500	10	191.5	8.4	4.4	193	172 - 211
Horiba ABX Pentra						
Horiba ABX Pentra 400	14	189.6	5.9	3.1	189	170 - 209
Roche Integra						
Roche Integra	11	187.4	4.2	2.2	188	168 - 207
Siemens Healthcare						
Siemens Dimension	29	185.7	4.2	2.3	186	167 - 205
All Chemistry Instruments	31	185.1	4.7	2.6	185	166 - 204
VITROS						
VITROS 250,350,400 500,700,750,950	25	182.3	6.7	3.7	184	164 - 201
All Chemistry Instruments	29	182.9	6.5	3.6	184	164 - 202

LDL Cholesterol - Calculated (mg/dL)

Specimen CH-6

Method	Labs	Mean	SD	CV	Median	Range
All Method	123	69.5	15.1	21.8	72	39 - 100
Calculated-Trig/5						
Alfa Wassermann ACE Alera/Axcel	21	85.0	7.8	9.2	85	59 - 111
Beckman AU systems	20	73.1	4.5	6.2	72	51 - 95
Horiba ABX Pentra 400	12	84.7	7.2	8.6	85	59 - 111
Siemens Dimension	14	58.2	5.3	9.1	57	40 - 76
VITROS 250,350,400 500,700,750,950	21	50.7	8.9	17.6	51	32 - 69
All Chemistry Instruments	115	69.3	15.0	21.6	72	39 - 100

Specimen CH-7

Method	Labs	Mean	SD	CV	Median	Range
All Method	131	28.8	7.9	27.5	30	12 - 45
Calculated-Trig/5						
Alfa Wassermann ACE Alera/Axcel	21	34.4	3.2	9.2	34	24 - 45
Beckman AU systems	21	30.3	3.1	10.2	30	21 - 40
Horiba ABX Pentra 400	12	36.4	4.1	11.3	35	25 - 48
Siemens Dimension	14	21.4	3.2	15.0	22	15 - 28
VITROS 250,350,400 500,700,750,950	21	18.8	3.5	18.5	19	11 - 26
All Chemistry Instruments	123	28.8	8.0	27.7	30	12 - 45

Specimen CH-8

Method	Labs	Mean	SD	CV	Median	Range
All Method	128	49.7	10.5	21.2	52	28 - 71
Calculated-Trig/5						
Alfa Wassermann ACE Alera/Axcel	21	59.9	5.9	9.8	60	41 - 78
Beckman AU systems	20	52.3	2.7	5.2	52	36 - 68
Horiba ABX Pentra 400	12	59.1	7.2	12.2	59	41 - 77
Siemens Dimension	14	38.4	4.3	11.1	39	26 - 50
VITROS 250,350,400 500,700,750,950	21	38.8	5.2	13.5	40	27 - 51
All Chemistry Instruments	120	49.6	10.5	21.2	52	28 - 71

Specimen CH-9

Method	Labs	Mean	SD	CV	Median	Range
All Method	123	20.7	7.9	38.2	23	4 - 37
Calculated-Trig/5						
Alfa Wassermann ACE Alera/Axcel	21	26.1	2.3	8.7	26	18 - 34
Beckman AU systems	21	22.8	1.9	8.5	23	15 - 30
Horiba ABX Pentra 400	12	28.4	4.2	14.7	27	19 - 37
Siemens Dimension	14	15.4	3.0	19.6	16	9 - 22
VITROS 250,350,400 500,700,750,950	19	8.3	2.3	27.8	9	3 - 13
All Chemistry Instruments	115	20.7	7.9	37.9	23	5 - 37

Specimen CH-10

Method	Labs	Mean	SD	CV	Median	Range
All Method	121	63.3	13.4	21.2	65	36 - 91
Calculated-Trig/5						
Alfa Wassermann ACE Alera/Axcel	21	76.3	6.3	8.3	76	53 - 100
Beckman AU systems	20	67.0	3.9	5.9	68	46 - 88
Horiba ABX Pentra 400	11	76.8	7.7	10.0	74	53 - 100
Siemens Dimension	13	51.5	4.9	9.6	52	36 - 67
VITROS 250,350,400 500,700,750,950	21	47.7	6.4	13.4	47	33 - 62
All Chemistry Instruments	113	63.1	13.3	21.0	65	36 - 90

LDL Cholesterol - Direct (mg/dL)

			Specimen CH-6						Specimen CH-7		
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	62	76.1	14.1	18.5	72	47 - 105	63	36.2	6.6	18.3	35	22 - 50
Alfa Wass. ACE HDL-C / LDL-C												
Alfa Wassermann ACE Alera/Axcel	5	74.6	10.4	13.9	71	52 - 97	5	35.0	2.8	8.1	35	24 - 46
Beckman AU Direct HDL / LDL												
Beckman AU systems	14	63.2	1.8	2.8	64	44 - 83	14	30.6	0.8	2.5	31	21 - 40
Horiba ABX Pentra												
Horiba ABX Pentra 400	5	82.2	7.3	8.8	82	57 - 107	5	39.6	4.5	11.4	42	27 - 52
Roche LDL Direct												
Roche Integra	5	102.4	2.1	2.0	102	71 - 134	5	48.4	1.3	2.8	49	33 - 63
All Chemistry Instruments	10	101.2	2.9	2.9	102	70 - 132	10	47.3	1.6	3.3	47	33 - 62
Siemens Automated LDL												
Siemens Dimension	13	78.7	6.1	7.7	79	55 - 103	13	38.2	3.3	8.6	39	26 - 50

			Specimen CH-8						Specimen CH-9		
All Method	63	56.1	10.4	18.6	55	35 - 77	61	30.2	5.1	16.8	29	20 - 41
Alfa Wass. ACE HDL-C / LDL-C												
Alfa Wassermann ACE Alera/Axcel	5	53.0	2.8	5.3	52	37 - 69	5	27.4	1.5	5.5	28	19 - 36
Beckman AU Direct HDL / LDL												
Beckman AU systems	14	46.8	1.2	2.5	47	32 - 61	14	25.5	0.5	2.0	26	17 - 34
Horiba ABX Pentra												
Horiba ABX Pentra 400	5	60.8	7.1	11.7	63	42 - 80	5	33.0	3.2	9.6	34	23 - 43
Roche LDL Direct												
Roche Integra	5	76.2	1.6	2.2	77	53 - 100	5	40.0	0.7	1.8	40	28 - 52
All Chemistry Instruments	10	74.9	2.3	3.0	75	52 - 98	10	39.1	1.2	3.1	39	27 - 51
Siemens Automated LDL												
Siemens Dimension	13	58.5	4.7	8.0	59	40 - 76	13	31.1	2.9	9.4	32	21 - 41

			Specimen CH-10		
All Method	62	70.4	13.1	18.6	67	44 - 97
Alfa Wass. ACE HDL-C / LDL-C						
Alfa Wassermann ACE Alera/Axcel	5	65.0	4.2	6.4	64	45 - 85
Beckman AU Direct HDL / LDL						
Beckman AU systems	14	58.4	2.0	3.5	58	40 - 76
Horiba ABX Pentra						
Horiba ABX Pentra 400	5	75.6	7.0	9.3	79	52 - 99
Roche LDL Direct						
Roche Integra	5	94.8	1.3	1.4	95	66 - 124
All Chemistry Instruments	10	94.1	2.1	2.3	94	65 - 123
Siemens Automated LDL						
Siemens Dimension	13	72.8	6.0	8.3	73	50 - 95

Cholesterol, HDL (mg/dL)

Reagent/Instrument	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
			Specimen CH-6						Specimen CH-7			
All Method	211	94.6	10.4	11.0	98	66 - 124	210	40.7	5.0	12.4	40	28 - 53
All Dex-Sulfate 50,000 MW Methods	39	100.0	1.3	1.3	100	70 - 130	42	37.6	3.4	9.2	37	26 - 49
All Direct Methods	121	93.4	12.0	12.8	90	65 - 122	120	41.7	5.7	13.6	40	29 - 55
Alere Cholestech LDX												
Alere Cholestech LDX - waived	31	100.0	0.1	0.0	100	70 - 130	32	36.2	2.5	6.9	36	25 - 48
All Chemistry Instruments	32	100.0	0.1	0.0	100	70 - 130	33	36.5	2.8	7.7	36	25 - 48
Alfa Wass. ACE HDL-C / LDL-C												
Alfa Wassermann ACE Alera/Axcel	15	83.3	6.4	7.6	84	58 - 109	15	39.5	3.3	8.3	40	27 - 52
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	11	82.1	4.8	5.8	82	57 - 107	11	39.5	1.4	3.6	39	27 - 52
Beckman AU Direct HDL / LDL												
Beckman AU systems	23	87.7	3.9	4.4	88	61 - 115	23	38.3	2.2	5.7	39	26 - 50
Horiba ABX Pentra												
Horiba ABX Pentra 400	14	80.0	3.4	4.3	79	56 - 104	14	35.4	1.8	5.0	36	24 - 46
Roche HDL Direct												
All Chemistry Instruments	13	105.0	5.3	5.0	104	73 - 137	13	46.4	2.9	6.2	46	32 - 61
Siemens Automated HDL												
Siemens Dimension	25	104.1	2.4	2.3	104	72 - 136	25	48.9	1.2	2.4	49	34 - 64
All Chemistry Instruments	27	103.6	2.8	2.7	104	72 - 135	27	48.8	1.2	2.4	49	34 - 64
VITROS dHDL Slide												
VITROS 250,350,400 500,700,750,950	19	98.6	5.1	5.1	100	69 - 129	19	42.2	2.1	5.0	42	29 - 55
All Chemistry Instruments	20	98.8	5.0	5.1	100	69 - 129	20	42.2	2.1	4.9	43	29 - 55

Cholesterol, HDL (mg/dL)

Reagent/Instrument	Specimen CH-8						Specimen CH-9					
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	179	67.5	7.9	11.7	66	47 - 88	178	33.3	4.1	12.4	33	23 - 44
All Dex-Sulfate 50,000 MW Methods	15	70.9	4.2	5.9	70	49 - 93	15	31.5	3.4	10.8	32	22 - 41
All Direct Methods	116	67.5	8.6	12.8	65	47 - 88	116	33.7	4.8	14.3	33	23 - 44
Alere Cholestech LDX												
Alere Cholestech LDX - waived	5	-	-	-	69	49 - 93	5	-	-	-	28	22 - 41
All Chemistry Instruments	6	-	-	-	72	50 - 94	6	-	-	-	29	19 - 38
Alfa Wass. ACE HDL-C / LDL-C												
Alfa Wassermann ACE Alera/Axcel	15	61.6	4.4	7.2	61	43 - 81	15	32.7	2.4	7.4	33	22 - 43
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	11	59.9	3.9	6.6	61	41 - 78	11	32.8	1.6	4.9	33	22 - 43
Beckman AU Direct HDL / LDL												
Beckman AU systems	23	62.8	3.0	4.8	63	43 - 82	23	31.0	1.7	5.4	31	21 - 41
Horiba ABX Pentra												
Horiba ABX Pentra 400	14	58.6	4.3	7.3	58	40 - 77	14	28.3	1.3	4.5	28	19 - 37
Roche HDL Direct												
All Chemistry Instruments	14	77.7	7.7	10.0	75	54 - 102	14	37.4	3.6	9.7	36	26 - 49
Siemens Automated HDL												
Siemens Dimension	25	77.8	1.7	2.2	77	54 - 102	25	39.8	1.0	2.5	40	27 - 52
All Chemistry Instruments	27	77.5	1.9	2.5	77	54 - 101	27	39.7	1.0	2.6	40	27 - 52
VITROS dHDL Slide												
VITROS 250,350,400 500,700,750,950	19	69.7	4.3	6.2	69	48 - 91	19	33.8	1.7	5.1	34	23 - 44
All Chemistry Instruments	20	69.8	4.2	6.0	70	48 - 91	20	33.9	1.7	5.1	34	23 - 45

Cholesterol, HDL (mg/dL)

Specimen CH-10

Reagent/Instrument	Labs	Mean	SD	CV	Median	Range
All Method	177	86.5	10.0	11.5	85	60 - 113
All Dex-Sulfate 50,000 MW Methods	13	94.2	5.5	5.8	95	65 - 123
All Direct Methods	116	85.9	10.4	12.1	84	60 - 112
Alere Cholestech LDX						
Alere Cholestech LDX - waived	3	-	-	-	100	65 - 123
All Chemistry Instruments	4	-	-	-	100	68 - 128
Alfa Wass. ACE HDL-C / LDL-C						
Alfa Wassermann ACE Alera/Axcel	15	77.7	5.6	7.2	78	54 - 101
Alfa Wassermann						
Alfa Wassermann ACE Alera/Axcel	11	74.4	4.0	5.3	74	52 - 97
Beckman AU Direct HDL / LDL						
Beckman AU systems	23	80.9	3.3	4.1	81	56 - 106
Horiba ABX Pentra						
Horiba ABX Pentra 400	14	74.0	3.2	4.3	74	51 - 97
Roche HDL Direct						
All Chemistry Instruments	13	96.5	5.4	5.6	95	67 - 126
Siemens Automated HDL						
Siemens Dimension	25	96.6	2.3	2.4	97	67 - 126
All Chemistry Instruments	27	96.3	2.4	2.5	96	67 - 126
VITROS dHDL Slide						
VITROS 250,350,400 500,700,750,950	19	92.1	4.4	4.8	91	64 - 120
All Chemistry Instruments	20	92.3	4.4	4.7	91	64 - 120

Triglycerides (mg/dL)

Reagent/Instrument	Specimen CH-6						Specimen CH-7					
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	213	203.2	10.7	5.2	202	152 - 255	212	119.9	6.2	5.2	121	89 - 150
All Alfa Wassermann Reagents	29	201.7	5.5	2.7	202	151 - 253	29	122.8	3.3	2.7	123	92 - 154
All Horiba Pentra Reagents	14	202.0	4.3	2.1	203	151 - 253	14	122.6	7.6	6.2	121	91 - 154
All Roche Reagents	17	200.8	5.1	2.5	201	150 - 252	16	121.8	3.0	2.5	121	91 - 153
Alere Cholestech LDX												
Alere Cholestech LDX - waived	33	205.1	8.0	3.9	207	153 - 257	33	121.2	5.2	4.3	120	90 - 152
All Chemistry Instruments	34	204.9	7.9	3.9	206	153 - 257	34	121.0	5.1	4.3	120	90 - 152
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	28	201.6	5.6	2.8	202	151 - 253	28	122.6	3.3	2.7	123	91 - 154
Beckman AU												
Beckman AU systems	31	200.3	6.3	3.2	201	150 - 251	31	119.2	3.7	3.1	119	89 - 149
ELITechGroup Envoy 500												
ELITechGroup Envoy 500	10	197.7	5.6	2.8	198	148 - 248	10	119.4	4.8	4.0	119	89 - 150
Horiba ABX Pentra												
Horiba ABX Pentra 400	14	202.0	4.3	2.1	203	151 - 253	14	122.6	7.6	6.2	121	91 - 154
Roche Integra												
Roche Integra	11	199.1	4.8	2.4	200	149 - 249	11	121.9	3.5	2.9	122	91 - 153
Siemens Healthcare												
Siemens Dimension	29	191.2	2.6	1.4	191	143 - 240	29	109.7	2.2	2.0	109	82 - 138
All Chemistry Instruments	29	191.2	2.6	1.4	191	143 - 240	29	109.7	2.2	2.0	109	82 - 138
VITROS												
VITROS 250,350,400 500,700,750,950	25	220.4	6.2	2.8	222	165 - 276	25	123.8	4.1	3.3	124	92 - 155
All Chemistry Instruments	29	221.2	6.3	2.9	222	165 - 277	29	124.0	3.9	3.1	125	93 - 155

Triglycerides (mg/dL)

Reagent/Instrument	Specimen CH-8						Specimen CH-9					
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	182	162.2	8.2	5.0	163	121 - 203	182	105.9	6.0	5.6	107	79 - 133
All Alfa Wassermann Reagents	28	164.6	3.6	2.2	165	123 - 206	29	110.3	2.6	2.4	110	82 - 138
All Horiba Pentra Reagents	14	162.6	3.9	2.4	163	121 - 204	14	107.6	3.5	3.3	107	80 - 135
All Roche Reagents	17	162.6	3.5	2.2	162	121 - 204	17	108.7	2.7	2.5	108	81 - 136
Alere Cholestech LDX												
Alere Cholestech LDX - waived	5	-	-	-	167	124 - 207	5	-	-	-	110	82 - 138
All Chemistry Instruments	6	-	-	-	164	123 - 206	6	-	-	-	109	81 - 137
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	27	164.5	3.7	2.3	165	123 - 206	28	110.3	2.7	2.4	110	82 - 138
Beckman AU												
Beckman AU systems	31	160.4	5.4	3.3	161	120 - 201	31	105.5	3.2	3.0	105	79 - 132
ELITechGroup Envoy 500												
ELITechGroup Envoy 500	10	159.8	3.9	2.5	159	119 - 200	10	106.2	5.0	4.7	105	79 - 133
Horiba ABX Pentra												
Horiba ABX Pentra 400	14	162.6	3.9	2.4	163	121 - 204	14	107.6	3.5	3.3	107	80 - 135
Roche Integra												
Roche Integra	11	162.1	3.5	2.2	161	121 - 203	11	108.6	2.5	2.3	109	81 - 136
Siemens Healthcare												
Siemens Dimension	29	151.6	2.7	1.8	151	113 - 190	29	96.0	2.3	2.4	96	72 - 120
All Chemistry Instruments	29	151.6	2.7	1.8	151	113 - 190	31	96.7	3.6	3.7	96	72 - 121
VITROS												
VITROS 250,350,400 500,700,750,950	25	172.5	4.6	2.7	174	129 - 216	25	109.7	3.9	3.5	110	82 - 138
All Chemistry Instruments	29	172.9	4.5	2.6	174	129 - 217	29	109.7	3.6	3.3	110	82 - 138

Triglycerides (mg/dL)

Specimen CH-10

Reagent/Instrument	Labs	Mean	SD	CV	Median	Range
All Method	182	190.8	10.7	5.6	190	143 - 239
All Alfa Wassermann Reagents	30	190.9	6.9	3.6	192	143 - 239
All Horiba Pentra Reagents	14	190.1	5.6	3.0	190	142 - 238
All Roche Reagents	17	189.5	4.5	2.4	189	142 - 237
Alere Cholestech LDX						
Alere Cholestech LDX - waived	5	-	-	-	197	146 - 245
All Chemistry Instruments	6	-	-	-	194	145 - 243
Alfa Wassermann						
Alfa Wassermann ACE Alera/Axcel	29	190.8	7.1	3.7	192	143 - 239
Beckman AU						
Beckman AU systems	31	188.4	6.7	3.6	189	141 - 236
ELITechGroup Envoy 500						
ELITechGroup Envoy 500	10	187.7	6.5	3.5	189	140 - 235
Horiba ABX Pentra						
Horiba ABX Pentra 400	14	190.1	5.6	3.0	190	142 - 238
Roche Integra						
Roche Integra	11	188.0	4.2	2.2	189	141 - 235
Siemens Healthcare						
Siemens Dimension	29	179.2	3.1	1.7	179	134 - 225
All Chemistry Instruments	29	179.2	3.1	1.7	179	134 - 225
VITROS						
VITROS 250,350,400 500,700,750,950	25	206.9	6.3	3.1	209	155 - 259
All Chemistry Instruments	29	207.5	6.3	3.0	209	155 - 260

Acetaminophen (µg/mL)

Method		Specimen CH-6						Specimen CH-7				
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	5	104.70	3.25	3.1	104.7	78.5 - 130.9	5	39.00	0.57	1.5	39.0	29.2 - 48.8

Method		Specimen CH-8						Specimen CH-9				
All Method	5	72.35	0.35	0.5	72.4	54.2 - 90.5	5	29.00	0.42	1.5	29.0	21.7 - 36.3

Method		Specimen CH-10				
All Method	5	95.10	0.85	0.9	95.1	71.3 - 118.9

Carbamazepine (µg/mL)

Method		Specimen CH-6						Specimen CH-7				
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	6	12.83	1.19	9.3	12.3	9.6 - 16.1	6	5.60	0.26	4.7	5.5	4.2 - 7.0

Method		Specimen CH-8						Specimen CH-9				
All Method	6	9.10	0.26	2.9	9.0	6.8 - 11.4	6	4.43	0.23	5.2	4.3	3.3 - 5.6

Method		Specimen CH-10				
All Method	6	11.43	0.58	5.0	11.1	8.5 - 14.3

Digoxin (ng/mL)

Method		Specimen CH-6						Specimen CH-7				
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	11	2.42	0.21	8.8	2.4	1.9 - 3.0	11	1.13	0.05	4.6	1.1	0.9 - 1.4

Method		Specimen CH-8						Specimen CH-9				
All Method	11	1.75	0.10	6.0	1.8	1.4 - 2.1	11	0.97	0.05	5.3	1.0	0.7 - 1.2

Method		Specimen CH-10				
All Method	11	2.25	0.19	8.3	2.3	1.8 - 2.7

Gentamicin (µg/mL)

			Specimen CH-6							Specimen CH-7		
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	5	7.40	0.14	1.9	7.4	5.5 - 9.3	5	2.45	0.21	8.7	2.5	1.8 - 3.1
			Specimen CH-8							Specimen CH-9		
All Method	5	5.10	0.01	0.0	5.1	3.8 - 6.4	5	1.50	0.01	0.0	1.5	1.1 - 1.9
			Specimen CH-10									
All Method	5	6.70	0.01	0.0	6.7	5.0 - 8.4						

Lithium (mmol/L)

			Specimen CH-6							Specimen CH-7		
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	5	2.15	0.07	3.3	2.2	1.7 - 2.6	5	0.60	0.01	0.0	0.6	0.3 - 0.9
			Specimen CH-8							Specimen CH-9		
All Method	5	1.40	0.01	0.0	1.4	1.1 - 1.7	5	0.35	0.07	20.2	0.4	0.0 - 0.7
			Specimen CH-10									
All Method	5	1.95	0.07	3.6	2.0	1.5 - 2.4						

Phenobarbital (µg/mL)

		Specimen CH-6						Specimen CH-7				
Method	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_
All Method	6	38.10	0.85	2.2	38.1	30.4 - 45.8	6	13.40	0.85	6.3	13.4	10.7 - 16.1
		Specimen CH-8						Specimen CH-9				
All Method	6	25.10	0.99	3.9	25.1	20.0 - 30.2	6	9.55	0.35	3.7	9.6	7.6 - 11.5
		Specimen CH-10										
All Method	6	33.70	1.56	4.6	33.7	26.9 - 40.5						

Phenytoin (µg/mL)

		Specimen CH-6						Specimen CH-7				
Method	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_
All Method	11	28.42	5.07	17.8	26.2	21.3 - 35.6	11	12.28	2.54	20.6	11.2	9.2 - 15.4
		Specimen CH-8						Specimen CH-9				
All Method	11	19.58	3.80	19.4	18.2	14.6 - 24.5	11	9.90	1.60	16.2	9.6	7.4 - 12.4
		Specimen CH-10										
All Method	11	26.52	4.06	15.3	25.5	19.8 - 33.2						

Salicylate (mg/dL)

	Specimen CH-6						Specimen CH-7					
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	2	-	-	-	27.0	Not graded	2	-	-	-	11.3	Not graded

	Specimen CH-8						Specimen CH-9					
All Method	2	-	-	-	18.8	Not graded	2	-	-	-	8.6	Not graded

	Specimen CH-10					
All Method	2	-	-	-	24.5	Not graded

Theophylline (µg/mL)

	Specimen CH-6						Specimen CH-7					
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	5	32.90	0.14	0.4	32.9	24.6 - 41.2	5	15.85	1.48	9.4	15.9	11.8 - 19.9

	Specimen CH-8						Specimen CH-9					
All Method	5	24.65	2.62	10.6	24.7	18.4 - 30.9	5	13.05	1.20	9.2	13.1	9.7 - 16.4

	Specimen CH-10					
All Method	5	30.05	3.61	12.0	30.1	22.5 - 37.6

Valproic Acid (µg/mL)

| | | | Specimen CH-6 | | | | | | Specimen CH-7 | | | |
Method	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	5	87.82	6.20	7.1	84.6	65.8 - 109.8	5	46.36	2.89	6.2	45.9	34.7 - 58.0
			Specimen CH-8						Specimen CH-9			
All Method	5	66.80	3.82	5.7	69.0	50.1 - 83.5	5	40.24	2.34	5.8	39.5	30.1 - 50.3
			Specimen CH-10									
All Method	5	81.30	3.38	4.2	81.0	60.9 - 101.7						

Vancomycin (µg/mL)

| | | | Specimen CH-6 | | | | | | Specimen CH-7 | | | |
Method	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	6	39.77	7.59	19.1	44.0	29.8 - 49.8	6	11.80	1.59	13.5	12.4	8.8 - 14.8
			Specimen CH-8						Specimen CH-9			
All Method	6	25.50	5.63	22.1	28.5	19.1 - 31.9	6	6.67	0.61	9.2	6.8	5.0 - 8.4
			Specimen CH-10									
All Method	6	35.30	7.19	20.4	39.2	26.4 - 44.2						

Apolipoprotein A1 (mg/dL)

	Specimen LP-3						Specimen LP-4					
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	2	-	-	-	86	Not graded	2	-	-	-	107	Not graded

Apolipoprotein B (mg/dL)

	Specimen LP-3						Specimen LP-4					
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	5	57.0	5.7	9.9	57	39 - 75	5	92.5	12.0	13.0	93	64 - 121

Neonatal Bilirubin, Total (mg/dL)

	Specimen NB-6						Specimen NB-7					
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	30	8.09	0.49	6.1	8.2	6.4 - 9.8	29	0.05	0.09	169.4	0.0	0.0 - 0.5
No Reagent Required												
Bilirubinometer / Unistat	18	8.04	0.42	5.3	8.1	6.4 - 9.7	17	0.00	0.01	0.0	0.0	0.0 - 0.4
All Chemistry Instruments	23	8.15	0.44	5.4	8.2	6.5 - 9.8	23	0.05	0.09	198.1	0.0	0.0 - 0.5

	Specimen NB-8						Specimen NB-9					
All Method	30	12.55	0.56	4.5	12.6	10.0 - 15.1	30	4.77	0.33	6.9	4.8	3.8 - 5.8
No Reagent Required												
Bilirubinometer / Unistat	18	12.51	0.50	4.0	12.6	10.0 - 15.1	18	4.64	0.32	6.9	4.6	3.7 - 5.6
All Chemistry Instruments	23	12.63	0.52	4.2	12.6	10.1 - 15.2	23	4.75	0.37	7.8	4.7	3.8 - 5.8

	Specimen NB-10					
All Method	29	14.61	0.40	2.8	14.6	11.6 - 17.6
No Reagent Required						
Bilirubinometer / Unistat	18	14.63	0.43	3.0	14.8	11.7 - 17.6
All Chemistry Instruments	23	14.66	0.41	2.8	14.7	11.7 - 17.6

Bilirubin, Direct (mg/dL)

			Specimen NB-6							Specimen NB-7		
Method	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_
All Method	11	3.25	0.47	14.4	3.1	2.3 - 4.2	11	0.02	0.03	159.3	0.0	0.0 - 0.1
			Specimen NB-8							Specimen NB-9		
All Method	11	4.25	0.48	11.3	4.2	3.2 - 5.3	11	1.04	0.22	21.3	1.0	0.5 - 1.5
			Specimen NB-10									
All Method	11	3.37	0.30	8.9	3.3	2.7 - 4.0						

Blood Gases – pH

			Specimen BG-6							Specimen BG-7		
Method	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_
All Method	11	7.323	0.008	0.1	7.33	7.28 - 7.37	11	7.312	0.008	0.1	7.31	7.27 - 7.36
i-STAT	11	7.323	0.008	0.1	7.33	7.28 - 7.37	11	7.312	0.008	0.1	7.31	7.27 - 7.36
			Specimen BG-8							Specimen BG-9		
All Method	11	7.342	0.008	0.1	7.34	7.30 - 7.39	11	7.152	0.008	0.1	7.15	7.11 - 7.20
i-STAT	11	7.342	0.008	0.1	7.34	7.30 - 7.39	11	7.152	0.008	0.1	7.15	7.11 - 7.20
			Specimen BG-10									
All Method	11	7.508	0.004	0.1	7.51	7.46 - 7.55						
i-STAT	11	7.508	0.004	0.1	7.51	7.46 - 7.55						

Blood Gases - pCO$_2$ (mmHg)

		Specimen BG-6						Specimen BG-7				
Method	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_
All Method	11	44.45	2.12	4.8	44.5	39.4 - 49.5	11	41.67	1.70	4.1	42.4	36.6 - 46.7
i-STAT	11	44.45	2.12	4.8	44.5	39.4 - 49.5	11	41.67	1.70	4.1	42.4	36.6 - 46.7

		Specimen BG-8						Specimen BG-9				
All Method	11	47.94	2.19	4.6	47.3	42.9 - 53.0	11	68.40	2.00	2.9	68.2	62.9 - 73.9
i-STAT	11	47.94	2.19	4.6	47.3	42.9 - 53.0	11	68.40	2.00	2.9	68.2	62.9 - 73.9

		Specimen BG-10				
All Method	11	20.13	0.85	4.2	20.0	15.1 - 25.2
i-STAT	11	20.13	0.85	4.2	20.0	15.1 - 25.2

Blood Gases - pO$_2$ (mmHg)

		Specimen BG-6						Specimen BG-7				
Method	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_
All Method	11	163.00	4.38	2.7	164.0	149.8 - 176.2	11	74.00	3.81	5.1	75.0	62.5 - 85.5
i-STAT	11	163.00	4.38	2.7	164.0	149.8 - 176.2	11	74.00	3.81	5.1	75.0	62.5 - 85.5

		Specimen BG-8						Specimen BG-9				
All Method	11	190.40	8.79	4.6	195.0	164.0 - 216.8	11	85.00	4.69	5.5	86.0	70.9 - 99.1
i-STAT	11	190.40	8.79	4.6	195.0	164.0 - 216.8	11	85.00	4.69	5.5	86.0	70.9 - 99.1

		Specimen BG-10				
All Method	11	158.33	7.26	4.6	158.5	136.5 - 180.2
i-STAT	11	158.33	7.26	4.6	158.5	136.5 - 180.2

Blood Gases – Ionized Calcium (mmol/L)

One participant reported results for Blood Gases-Ionized Calcium. The vendor mean assay values for specimens BG-6 through BG-10 are: 0.96 mmol/L, 0.6 mmol/L, 1.3 mmol/L, 2.2 mmol/L, and 0.78 mmolL, respectively.

Blood Gases - Chloride (mmol/L)

One participant reported results for Blood Gases-Chloride.   The vendor mean assay values for specimens BG-6 through BG-10 are: 97 mmol/L, 80 mmol/L, 90 mmol/L, 87 mmol/L, and 105 mmol/L, respectively.

Blood Gases - Potassium (mmol/L)

One participant reported results for Blood Gases-Potassium. The vendor mean assay values for specimens BG-6 through BG-10 are: 4.6 mmol/L, 2.3 mmol/L, 4.4 mmol/L, 3.8 mmol/L, and 6.1 mmol/L, respectively.

Blood Gases – Sodium (mmol/L)

One participant reported results for Blood Gases-Sodium. The vendor mean assay values for specimens BG-6 through BG-10 are: 155 mmol/L, 126 mmol/L, 138 mmol/L, 141 mmol/L, and 149 mmol/L, respectively.

Blood Gases – Lactate (mmol/L)

| | Specimen BG-6 | | | | | Specimen BG-7 | | | | |
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	5	2.13	0.06	2.7	2.1	1.9 - 2.4	5	6.37	0.06	0.9	6.4	6.1 - 6.6
i-STAT	5	2.13	0.06	2.7	2.1	1.9 - 2.4	5	6.37	0.06	0.9	6.4	6.1 - 6.6

| | Specimen BG-8 | | | | | Specimen BG-9 | | | | |
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	5	0.63	0.06	9.1	0.6	0.4 - 0.9	5	3.57	0.06	1.6	3.6	3.3 - 3.8
i-STAT	5	0.63	0.06	9.1	0.6	0.4 - 0.9	5	3.57	0.06	1.6	3.6	3.3 - 3.8

| | Specimen BG-10 | | | | |
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	5	1.13	0.06	5.1	1.1	0.9 - 1.4
i-STAT	5	1.13	0.06	5.1	1.1	0.9 - 1.4

Afinion Glycohemoglobin (percent)

| | Specimen AFN-3 | | | | | Specimen AFN-4 | | | | |
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
Axis-Shield Afinion AS100	77	8.28	0.14	1.7	8.3	7.7 - 8.8	76	6.26	0.10	1.7	6.3	5.8 - 6.7

Glycohemoglobin (percent)

	Specimen GH-3						Specimen GH-4				
Method	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_
All Method	161	7.79	0.28	3.6	7.8	7.3 - 8.3	163	5.72	0.20	3.6	5.7	5.3 - 6.1
All Hemoglobin A1c Methods	161	7.79	0.28	3.6	7.8	7.3 - 8.3	163	5.72	0.20	3.6	5.7	5.3 - 6.1
All TOSOH Methods	19	7.78	0.19	2.4	7.8	7.3 - 8.3	19	5.61	0.10	1.7	5.6	5.2 - 6.0
Beckman AU A1c	13	7.86	0.42	5.3	7.8	7.3 - 8.4	13	5.63	0.28	5.0	5.6	5.2 - 6.0
Siemens DCA Vantage	72	7.76	0.22	2.9	7.8	7.2 - 8.3	72	5.84	0.15	2.6	5.8	5.4 - 6.2
Siemens Dimension HB1C	28	7.73	0.27	3.5	7.8	7.2 - 8.2	28	5.59	0.13	2.2	5.6	5.2 - 6.0
TOSOH G8	19	7.78	0.19	2.4	7.8	7.3 - 8.3	19	5.61	0.10	1.7	5.6	5.2 - 6.0

Whole Blood Glucose (mg/dL)

	Specimen WBG-6						Specimen WBG-7				
Method	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_
All Method	269	332.2	36.3	10.9	341	265 - 399	273	180.2	23.0	12.8	184	144 - 217
All Abbott Methods	19	328.6	18.9	5.7	332	262 - 395	19	174.1	10.1	5.8	173	139 - 209
All Arkray Methods	11	328.8	7.9	2.4	328	263 - 395	15	193.1	23.7	12.3	183	154 - 232
All Bayer Methods	40	272.4	21.2	7.8	269	217 - 327	39	144.1	11.5	8.0	141	115 - 173
All Hemocue Methods	69	345.0	10.9	3.2	346	276 - 415	68	198.0	6.8	3.4	198	158 - 238
All Lifescan Methods	18	366.1	36.9	10.1	377	292 - 440	17	197.1	19.3	9.8	200	157 - 237
All Roche Methods	31	349.5	7.5	2.1	349	279 - 420	31	187.0	4.7	2.5	187	149 - 225
Abbott FreeStyle Lite/Freedom Lite	10	323.8	14.2	4.4	325	259 - 389	10	172.3	4.8	2.8	172	137 - 207
Abbott Precision XceedPro	10	338.4	18.9	5.6	337	270 - 407	10	182.7	7.9	4.3	181	146 - 220
Arkray Platinum	11	328.8	7.9	2.4	328	263 - 395	15	193.1	23.7	12.3	183	154 - 232
Bayer Contour	40	272.4	21.2	7.8	269	217 - 327	39	144.1	11.5	8.0	141	115 - 173
HemoCue 201	67	344.7	10.9	3.2	345	275 - 414	66	198.1	6.9	3.5	198	158 - 238
Home Diagnostics True Balance / TrueTrack	10	594.6	14.8	2.5	600	475 - 714	13	425.1	7.5	1.8	425	340 - 511
Lifescan One Touch Ultra/2/Mini	15	378.5	25.5	6.7	381	302 - 455	14	204.7	9.9	4.9	203	163 - 246
Medline EvenCare G2 / G3	15	339.2	46.3	13.6	340	271 - 408	15	188.9	18.9	10.0	195	151 - 227
NOVA Biomedical StatStrip	21	304.5	16.2	5.3	303	243 - 366	22	159.3	8.6	5.4	160	127 - 192
PSS Quintet / AC	27	359.3	11.4	3.2	358	287 - 432	27	181.7	5.9	3.3	182	145 - 219
Roche Accu-Chek Aviva	10	345.8	2.6	0.8	346	276 - 415	10	184.0	2.7	1.5	184	147 - 221
Roche Accu-Chek Inform II	11	348.8	6.8	1.9	351	279 - 419	11	186.5	2.9	1.6	187	149 - 224
Roche Accu-Chek Performa	15	348.6	14.8	4.2	349	278 - 419	14	188.6	5.9	3.1	187	150 - 227
True Metrix Pro	10	328.3	15.4	4.7	326	262 - 394	10	168.7	26.7	15.8	161	134 - 203

	Specimen WBG-8						Specimen WBG-9				
All Method	14	211.3	19.0	9.0	211	169 - 254	14	55.1	7.5	13.5	55	43 - 68
All Abbott Methods	1	-	-	-	206	164 - 248	1	-	-	-	49	37 - 61
All Bayer Methods	2	-	-	-	174	138 - 209	2	-	-	-	55	42 - 67
All Lifescan Methods	6	221.5	8.1	3.6	223	177 - 266	6	49.7	3.9	7.9	49	37 - 62
All Roche Methods	3	-	-	-	209	166 - 251	3	-	-	-	63	50 - 76
Abbott Precision XceedPro	1	-	-	-	206	169 - 254	1	-	-	-	49	43 - 68
Bayer Contour	2	-	-	-	174	169 - 254	2	-	-	-	55	43 - 68
Lifescan One Touch Ultra/2/Mini	6	221.5	8.1	3.6	223	177 - 266	6	49.7	3.9	7.9	49	37 - 62
Medline EvenCare G2 / G3	1	-	-	-	210	169 - 254	1	-	-	-	70	43 - 68
Roche Accu-Chek Inform II	2	-	-	-	208	169 - 254	2	-	-	-	63	43 - 68
Roche Accu-Chek Performa	1	-	-	-	210	169 - 254	1	-	-	-	64	43 - 68

Whole Blood Glucose (mg/dL) cont'd

Specimen WBG-10

Method	Labs	Mean	SD	CV	Median	Range
All Method	14	113.0	11.0	9.8	114	90 - 136
All Abbott Methods	1	-	-	-	99	79 - 119
All Bayer Methods	2	-	-	-	95	75 - 114
All Lifescan Methods	6	115.8	5.0	4.3	115	92 - 139
All Roche Methods	3	-	-	-	114	91 - 138
Abbott Precision XceedPro	1	-	-	-	99	90 - 136
Bayer Contour	2	-	-	-	95	90 - 136
Lifescan One Touch Ultra/2/Mini	6	115.8	5.0	4.3	115	92 - 139
Medline EvenCare G2 / G3	1	-	-	-	132	90 - 136
Roche Accu-Chek Inform II	2	-	-	-	114	90 - 136
Roche Accu-Chek Performa	1	-	-	-	116	90 - 136

C-Peptide (ng/mL)

Method		Specimen CIP-3						Specimen CIP-4				
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	5	8.066	0.468	5.8	8.20	7.13 - 9.01	5	11.528	0.463	4.0	11.30	10.60 - 12.46

Insulin (μU/mL)

Method		Specimen CIP-3						Specimen CIP-4				
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	15	49.52	17.66	35.7	59.4	14.1 - 84.9	15	60.27	22.26	36.9	72.8	15.7 - 104.8
Beckman ACCESS / 2 / DxI	10	62.70	3.24	5.2	62.5	56.2 - 69.2	10	77.15	3.29	4.3	77.2	70.5 - 83.8

Parathyroid Hormone, Intact (pg/mL)

Method		Specimen CIP-3						Specimen CIP-4				
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	29	23.1	8.1	35.0	23	6 - 40	29	20.7	7.0	33.8	20	6 - 35
All TOSOH Instruments	8	20.6	8.3	40.4	19	3 - 38	8	18.6	7.5	40.5	19	3 - 34
Beckman ACCESS / 2 / DxI	10	24.7	6.4	26.0	24	11 - 38	10	22.4	6.4	28.6	22	9 - 36
TOSOH ST AIA PACK	10	19.8	9.1	45.9	15	1 - 38	10	17.8	8.0	44.8	15	1 - 34

Vitamin D (25-Hydroxy) (ng/mL)

Method		Specimen CIP-3						Specimen CIP-4				
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	109	46.39	11.63	25.1	46.1	23.1 - 69.7	109	61.36	15.33	25.0	61.1	30.7 - 92.1
All Roche Instruments	11	28.93	4.78	16.5	28.4	19.3 - 38.5	11	38.56	6.41	16.6	37.5	25.7 - 51.4
All TOSOH Instruments	20	60.42	3.01	5.0	60.2	54.4 - 66.5	20	79.59	4.25	5.3	78.4	71.0 - 88.1
Abbott Architect	11	45.30	1.06	2.3	45.2	43.1 - 47.5	44	58.29	1.87	3.2	57.7	54.5 - 62.1
Beckman ACCESS / 2 / DxI	44	47.17	5.74	12.2	48.1	35.6 - 58.7	42	64.04	6.71	10.5	64.0	50.6 - 77.5
Qualigen FastPack	10	36.27	8.23	22.7	35.8	19.8 - 52.8	10	40.67	6.55	16.1	41.7	27.5 - 53.8
Roche cobas e 411	10	27.11	2.59	9.6	27.5	21.9 - 32.3	10	36.27	4.00	11.0	37.5	28.2 - 44.3
TOSOH AIA PACK	10	58.76	2.17	3.7	58.2	54.4 - 63.2	10	77.34	3.45	4.5	77.0	70.4 - 84.3
TOSOH ST AIA PACK	12	61.52	3.05	5.0	62.3	55.4 - 67.7	12	81.08	4.19	5.2	81.5	72.7 - 89.5

Bioavailable Testosterone (ng/dL)

		Specimen SHB-3						Specimen SHB-4				
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	2	-	-	-	187	Not graded	2	-	-	-	150	Not graded

Free Testosterone (pg/mL)

		Specimen SHB-3						Specimen SHB-4				
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	2	-	-	-	80	Not graded	2	-	-	-	64	Not graded

Sex Hormone Binding Globulin (SHBG) (nmol/L)

		Specimen SHB-3						Specimen SHB-4				
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	14	96.529	15.103	15.6	90.55	51.21 - 141.84	14	66.016	11.937	18.1	66.80	30.20 - 101.83
Beckman ACCESS / 2 / DxI	7	99.100	15.288	15.4	98.00	53.23 - 144.97	7	71.186	13.644	19.2	67.00	30.25 - 112.12
Siemens Immulite/1000	5	94.740	13.718	14.5	90.00	53.58 - 135.90	5	60.520	6.642	11.0	57.90	40.59 - 80.45

Testosterone (ng/dL)

		Specimen SHB-3						Specimen SHB-4				
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	13	816.2	251.0	30.8	684	571 - 1061	13	536.2	142.8	26.6	476	375 - 697
All Immulite Instruments	4	1150.8	102.6	8.9	1153	805 - 1496	4	721.0	79.2	11.0	720	504 - 938
Beckman ACCESS / 2 / DxI	7	630.1	38.0	6.0	621	441 - 820	7	428.1	31.9	7.5	421	299 - 557
Siemens Immulite/1000	4	1150.8	102.6	8.9	1153	805 - 1496	4	721.0	79.2	11.0	720	504 - 938

BNP (pg/mL)

		Specimen CK-6						Specimen CK-7				
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	41	3487.63	282.01	8.1	2180.0	2615.7 - 4359.6	41	496.72	38.71	7.8	349.0	372.5 - 620.9
Alere Triage	23	2265.65	385.10	17.0	2140.0	1495.4 - 3035.9	23	334.65	38.78	11.6	325.0	250.9 - 418.4
i-STAT - moderate	10	3634.00	214.42	5.9	3583.0	2725.5 - 4542.5	10	484.25	34.27	7.1	492.0	363.1 - 605.4

		Specimen CK-8						Specimen CK-9				
All Method	41	988.74	35.80	3.6	725.5	741.5 - 1236.0	41	2063.00	196.55	9.5	1465.0	1547.2 - 2578.8
Alere Triage	23	603.57	108.42	18.0	594.0	386.7 - 820.5	23	1181.14	223.59	18.9	1130.0	733.9 - 1628.4
i-STAT - moderate	10	998.25	33.26	3.3	992.5	748.6 - 1247.9	10	2131.50	142.23	6.7	2085.5	1598.6 - 2664.4

		Specimen CK-10				
All Method	41	51.84	13.86	26.7	44.0	24.1 - 79.6
Alere Triage	23	42.24	7.79	18.4	41.3	26.6 - 57.9
i-STAT - moderate	10	45.75	2.99	6.5	45.0	34.3 - 57.2

CK-MB (ng/mL)

		Specimen CK-6						Specimen CK-7				
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	27	102.37	19.26	18.8	65.2	44.5 - 160.2	27	17.21	2.75	16.0	11.9	8.9 - 25.5
Alere Triage	16	36.95	4.16	11.3	37.7	24.4 - 49.5	16	7.04	1.30	18.5	7.4	3.1 - 11.0
Dade Stratus CS	11	100.63	5.51	5.5	101.4	84.1 - 117.2	11	18.35	1.23	6.7	17.8	14.6 - 22.1
Siemens Dimension	10	118.74	11.25	9.5	114.3	84.9 - 152.6	10	16.48	1.49	9.0	16.6	12.0 - 21.0

		Specimen CK-8						Specimen CK-9				
All Method	27	29.32	4.87	16.6	19.4	14.7 - 44.0	27	53.63	9.79	18.3	32.4	24.2 - 83.1
Alere Triage	16	11.37	1.78	15.6	11.2	6.0 - 16.8	16	21.13	4.09	19.4	21.8	8.8 - 33.5
Dade Stratus CS	11	30.28	1.69	5.6	29.4	25.2 - 35.4	11	54.57	3.30	6.0	53.6	44.6 - 64.5
Siemens Dimension	10	29.96	2.42	8.1	29.8	22.7 - 37.3	10	59.08	5.15	8.7	57.3	43.6 - 74.6

		Specimen CK-10				
All Method	27	6.31	1.08	17.1	4.6	3.0 - 9.6
Alere Triage	16	2.31	0.46	20.0	2.4	0.9 - 3.7
Dade Stratus CS	11	6.97	0.45	6.5	6.7	5.6 - 8.4
Siemens Dimension	10	5.46	0.39	7.2	5.3	4.2 - 6.7

D-Dimer (ng/mL)

			Specimen CK-6						Specimen CK-7			
Method	**Labs**	**Mean**	**SD**	**CV**	**Median**	**Range**	**Labs**	**Mean**	**SD**	**CV**	**Median**	**Range**
All Method	38	2735.6	954.9	34.9	2235	825 - 4646	38	852.3	211.4	24.8	765	429 - 1276
Alere Triage	22	2203.6	184.0	8.4	2165	1542 - 2865	22	754.0	84.0	11.1	746	527 - 981
Dade Stratus CS	11	3236.5	229.5	7.1	3262	2265 - 4208	11	963.2	54.9	5.7	958	674 - 1253

			Specimen CK-8						Specimen CK-9			
All Method	38	1266.7	281.5	22.2	983	703 - 1830	38	1893.9	462.8	24.4	1420	968 - 2820
Alere Triage	22	975.5	105.3	10.8	967	682 - 1269	22	1337.6	212.5	15.9	1355	912 - 1763
Dade Stratus CS	11	1367.7	97.3	7.1	1357	957 - 1778	11	2064.2	115.7	5.6	2051	1444 - 2684

			Specimen CK-10			
All Method	38	569.4	58.7	10.3	538	398 - 741
Alere Triage	22	538.1	79.2	14.7	530	376 - 700
Dade Stratus CS	11	587.7	36.7	6.2	575	411 - 764

D-Dimer (µgFEU/mL)

			Specimen CK-6						Specimen CK-7			
Method	**Labs**	**Mean**	**SD**	**CV**	**Median**	**Range**	**Labs**	**Mean**	**SD**	**CV**	**Median**	**Range**
All Method	-	-	-	-	-	Not graded	-	-	-	-	-	Not graded

			Specimen CK-8						Specimen CK-9			
All Method	-	-	-	-	-	Not graded	-	-	-	-	-	Not graded

			Specimen CK-10			
All Method	-	-	-	-	-	Not graded

Myoglobin (ng/mL)

		Specimen CK-6						Specimen CK-7				
Method	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	22	421.83	107.11	25.4	369.8	207.6 - 636.1	22	75.70	14.19	18.7	91.0	47.3 - 104.1
Alere Triage	12	372.17	55.16	14.8	368.0	260.5 - 483.9	12	91.25	10.40	11.4	91.1	63.8 - 118.7
		Specimen CK-8						Specimen CK-9				
All Method	22	125.75	25.93	20.6	143.5	73.8 - 177.7	22	220.50	49.31	22.4	229.9	121.8 - 319.2
Alere Triage	12	147.25	20.10	13.7	148.0	103.0 - 191.5	12	223.50	23.93	10.7	230.5	156.4 - 290.6
		Specimen CK-10										
All Method	22	29.23	3.51	12.0	34.7	20.4 - 38.0						
Alere Triage	12	36.07	2.70	7.5	36.0	25.2 - 46.9						

NT-proBNP (pg/mL)

		Specimen CK-6						Specimen CK-7				
Method	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	14	3506.4	1847.2	52.7	2726	0 - 7201	14	366.2	237.2	64.8	283	0 - 841
Roche cobas e 411	5	5473.5	563.6	10.3	5474	4105 - 6842	5	618.0	53.7	8.7	618	463 - 773
Siemens Dimension NT-proBNP	6	2195.0	465.4	21.2	2001	1264 - 3126	6	198.3	73.4	37.0	159	51 - 346
		Specimen CK-8						Specimen CK-9				
All Method	9	432.7	139.2	32.2	363	154 - 712	9	971.7	262.4	27.0	848	446 - 1497
Siemens Dimension NT-proBNP	6	432.7	139.2	32.2	363	154 - 712	6	971.7	262.4	27.0	848	446 - 1497
		Specimen CK-10										
All Method	9	20.0	5.3	26.5	18	9 - 31						
Siemens Dimension NT-proBNP	6	20.0	5.3	26.5	18	9 - 31						

Troponin I (ng/mL)

	Specimen CK-6						**Specimen CK-7**				
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	42	20.154	18.108	89.8	13.30	0.00 - 56.38	42	1.752	2.048	116.9	0.71	0.00 - 5.85
All HS Troponin I Methods	11	46.662	11.487	24.6	44.88	23.68 - 69.64	11	6.286	3.877	61.7	5.39	0.00 - 14.04
All Non-HS Troponin I Methods	14	5.171	1.129	21.8	5.34	2.91 - 7.43	14	0.568	0.097	17.1	0.61	0.37 - 0.77
Alere Triage	17	13.782	1.578	11.4	13.50	9.64 - 17.92	17	0.732	0.181	24.7	0.73	0.37 - 1.10
Dade Stratus CS	11	5.460	0.116	2.1	5.47	3.82 - 7.10	11	0.655	0.028	4.3	0.67	0.45 - 0.86
Siemens Dimension	10	4.186	0.291	7.0	4.23	2.93 - 5.45	10	0.464	0.044	9.6	0.47	0.32 - 0.61

	Specimen CK-8						**Specimen CK-9**				
All Method	42	4.009	4.120	102.8	2.16	0.00 - 12.25	42	10.240	9.619	93.9	6.43	0.00 - 29.48
All HS Troponin I Methods	11	10.225	3.248	31.8	9.70	3.72 - 16.73	11	26.391	8.540	32.4	26.43	9.30 - 43.48
All Non-HS Troponin I Methods	14	1.185	0.180	15.2	1.29	0.82 - 1.55	14	2.441	0.389	15.9	2.63	1.66 - 3.22
Alere Triage	17	2.311	0.511	22.1	2.24	1.28 - 3.34	17	6.586	1.477	22.4	6.55	3.63 - 9.54
Dade Stratus CS	11	1.342	0.025	1.9	1.35	0.93 - 1.75	11	2.690	0.053	2.0	2.71	1.88 - 3.50
Siemens Dimension	10	0.996	0.093	9.3	0.98	0.69 - 1.30	10	2.036	0.191	9.4	1.98	1.42 - 2.65

	Specimen CK-10					
All Method	42	0.132	0.160	120.9	0.05	0.00 - 0.46
All HS Troponin I Methods	11	0.475	0.342	72.0	0.48	0.00 - 1.17
All Non-HS Troponin I Methods	14	0.056	0.049	87.9	0.05	0.00 - 0.16
Alere Triage	17	0.050	0.001	0.0	0.05	0.03 - 0.07
Dade Stratus CS	11	0.070	0.009	12.8	0.07	0.04 - 0.10
Siemens Dimension	10	0.016	0.009	55.9	0.02	0.00 - 0.04

Troponin T (ng/mL)

Method	Specimen CK-6						Specimen CK-7					
	Labs	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	5	1.0335	0.1600	15.9	1.0335	0.713 - 1.354	5	0.2245	0.0600	26.7	0.2245	0.104 - 0.345

	Specimen CK-8						Specimen CK-9					
All Method	5	0.3280	0.0500	15.2	0.3280	0.228 - 0.428	5	0.5685	0.0900	15.8	0.5685	0.388 - 0.749

	Specimen CK-10					
All Method	5	0.0885	0.0100	11.3	0.078	0.061 - 0.116

PSA (ng/mL)

Method		Specimen PS-3						Specimen PS-4				
	Labs	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	120	9.964	1.675	16.8	9.84	6.97 - 12.96	121	5.237	0.839	16.0	5.19	3.66 - 6.81
All TOSOH Instruments	31	8.407	0.485	5.8	8.37	5.88 - 10.93	31	4.420	0.255	5.8	4.45	3.09 - 5.75
Abbott Architect	10	9.609	0.367	3.8	9.63	6.72 - 12.50	10	4.858	0.289	6.0	4.79	3.40 - 6.32
Beckman ACCESS / 2 / DxI	19	11.569	0.703	6.1	11.45	8.09 - 15.04	19	6.075	0.398	6.6	6.11	4.25 - 7.90
Beckman ACCESS Hybritech PSA	20	11.353	0.474	4.2	11.26	7.94 - 14.76	20	5.954	0.274	4.6	5.91	4.16 - 7.75
Siemens Dimension TPSA	16	9.713	0.828	8.5	9.57	6.79 - 12.63	16	5.024	0.452	9.0	4.91	3.51 - 6.54
TOSOH AIA PACK	12	8.632	0.398	4.6	8.54	6.04 - 11.23	12	4.484	0.165	3.7	4.48	3.13 - 5.83
TOSOH ST AIA PACK	19	8.265	0.490	5.9	8.19	5.78 - 10.75	19	4.379	0.296	6.8	4.39	3.06 - 5.70

Beta-2 microglobulin

Method		Specimen TM-3						Specimen TM-4				
	Labs	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	11	2.133	0.235	11.0	2.08	1.42 - 2.84	11	1.372	0.172	12.6	1.32	0.85 - 1.89

CA 125 (U/mL)

Method		Specimen TM-3						Specimen TM-4				
	Labs	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	17	79.2	11.7	14.7	91	55 - 103	17	45.1	6.6	14.7	51	31 - 59
All TOSOH Instruments	12	127.4	3.9	3.1	126	89 - 166	12	70.8	3.0	4.3	72	49 - 92
TOSOH ST AIA PACK	10	127.4	3.9	3.1	126	89 - 166	10	70.8	3.0	4.3	72	49 - 92

CA 15-3 (U/mL)

Method		Specimen TM-3						Specimen TM-4				
	Labs	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	11	55.1	24.3	44.2	48	6 - 104	11	35.8	17.5	48.9	28	0 - 71

CA 19-9 (U/mL)

Method		Specimen TM-3						Specimen TM-4				
	Labs	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	10	113.8	45.6	40.1	142	22 - 206	10	61.7	21.9	35.5	74	17 - 106

(U/mL)

| | Specimen TM-3 | | | | | | Specimen TM-4 | | | | |
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	14	216.2	17.9	8.3	216	151 - 282	14	125.1	9.6	7.7	127	87 - 163
All TOSOH Instruments	12	216.2	17.9	8.3	216	151 - 282	12	125.1	9.6	7.7	127	87 - 163
TOSOH ST AIA PACK	10	215.5	19.0	8.8	210	150 - 281	10	124.8	10.2	8.2	125	87 - 163

CEA (ng/mL)

| | Specimen TM-3 | | | | | | Specimen TM-4 | | | | |
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	12	19.75	4.08	20.7	19.3	13.8 - 25.7	12	11.21	1.98	17.7	11.2	7.8 - 14.6

Free PSA (ng/mL)

| | Specimen TM-3 | | | | | | Specimen TM-4 | | | | |
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	12	3.562	0.755	21.2	3.16	2.49 - 4.64	12	2.526	0.511	20.2	2.28	1.62 - 3.43

PSA (ng/mL)

| | Specimen TM-3 | | | | | | Specimen TM-4 | | | | |
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	33	4.072	0.785	19.3	4.11	2.85 - 5.30	33	2.962	0.512	17.3	2.90	2.06 - 3.87

Thyroglobulin (ng/mL)

| | Specimen TM-3 | | | | | | Specimen TM-4 | | | | |
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	5	47.34	17.46	36.9	35.7	12.4 - 82.3	6	19.92	4.70	23.6	18.4	10.5 - 29.4

CEA (ng/mL)

			Specimen SC-3						Specimen SC-4			
Method	**Labs**	**Mean**	**SD**	**CV**	**Median**	**Range**	**Labs**	**Mean**	**SD**	**CV**	**Median**	**Range**
All Method	17	14.22	2.61	18.3	14.1	9.9 - 18.5	17	7.84	1.14	14.6	7.7	5.4 - 10.2
All TOSOH Instruments	12	13.88	0.57	4.1	14.1	9.7 - 18.1	12	7.45	0.22	2.9	7.4	5.2 - 9.7
TOSOH AIA PACK	10	13.98	0.63	4.5	14.1	9.7 - 18.1	10	7.43	0.22	3.0	7.4	5.2 - 9.7

DHEA-S (µg/dL)

			Specimen SC-3						Specimen SC-4			
Method	**Labs**	**Mean**	**SD**	**CV**	**Median**	**Range**	**Labs**	**Mean**	**SD**	**CV**	**Median**	**Range**
All Method	18	301.40	33.69	11.2	292.0	210.9 - 391.9	18	196.62	25.51	13.0	196.0	137.6 - 255.7
Beckman ACCESS / 2 / DxI	11	302.78	27.26	9.0	298.1	211.9 - 393.7	11	194.90	18.60	9.5	194.0	136.4 - 253.4

Estradiol (pg/mL)

			Specimen SC-3						Specimen SC-4			
Method	**Labs**	**Mean**	**SD**	**CV**	**Median**	**Range**	**Labs**	**Mean**	**SD**	**CV**	**Median**	**Range**
All Method	30	314.1	58.9	18.8	306	196 - 432	30	202.3	41.5	20.5	219	119 - 286
All TOSOH Instruments	11	320.1	31.9	10.0	314	256 - 384	11	230.7	23.6	10.2	233	183 - 278

Ferritin (ng/mL)

			Specimen SC-3						Specimen SC-4			
Method	**Labs**	**Mean**	**SD**	**CV**	**Median**	**Range**	**Labs**	**Mean**	**SD**	**CV**	**Median**	**Range**
All Method	41	159.8	23.7	14.8	127	111 - 208	40	94.6	14.7	15.5	75	66 - 124
All TOSOH Instruments	23	116.0	4.0	3.5	117	81 - 151	24	68.2	4.2	6.1	68	47 - 89
Beckman ACCESS / 2 / DxI	32	124.3	6.7	5.4	126	86 - 162	32	73.1	3.7	5.0	73	51 - 96
Siemens Dimension	10	159.3	4.2	2.6	159	111 - 208	10	96.3	3.9	4.1	97	67 - 126
TOSOH ST AIA PACK	15	117.3	6.2	5.3	117	82 - 153	15	68.5	5.1	7.4	68	47 - 90

Folate (ng/mL)

	Specimen SC-3						Specimen SC-4					
Method	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	44	2.88	0.81	28.2	4.0	1.9 - 3.8	44	1.74	0.42	24.2	2.2	0.8 - 2.7
All Roche Instruments	11	2.35	0.47	20.1	2.2	1.4 - 3.3	11	1.88	0.39	20.7	2.0	0.9 - 2.8
All Siemens Dimension Instruments	10	2.42	0.20	8.4	2.4	1.5 - 3.4	10	1.53	0.23	15.2	1.6	0.6 - 2.5
All TOSOH Instruments	12	3.64	0.34	9.4	3.6	2.5 - 4.8	12	2.82	0.39	13.8	2.9	1.9 - 3.8
Beckman ACCESS / 2 / DxI	27	4.36	0.25	5.8	4.4	3.0 - 5.7	27	2.37	0.19	7.9	2.4	1.4 - 3.3
TOSOH AIA PACK	10	3.62	0.34	9.4	3.5	2.5 - 4.8	10	2.80	0.45	16.0	2.9	1.9 - 3.7

FSH (mIU/mL)

	Specimen SC-3						Specimen SC-4					
Method	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	28	36.20	4.49	12.4	35.8	27.1 - 45.3	28	21.30	3.42	16.0	22.0	15.9 - 26.7
Beckman ACCESS / 2 / DxI	11	39.02	3.73	9.6	39.1	29.2 - 48.8	11	23.44	2.65	11.3	22.5	17.5 - 29.3

Homocysteine (μmol/L)

	Specimen SC-3						Specimen SC-4					
Method	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	11	45.4	4.1	9.0	46	31 - 60	11	25.1	2.1	8.4	25	17 - 33

LH (mIU/mL)

	Specimen SC-3						Specimen SC-4					
Method	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	21	33.87	8.05	23.8	39.6	17.7 - 50.0	21	18.84	4.84	25.7	21.8	9.1 - 28.6
Beckman ACCESS / 2 / DxI	11	26.75	2.12	7.9	27.1	22.5 - 31.0	11	14.62	1.18	8.0	14.6	12.2 - 17.0

Progesterone (ng/mL)

	Specimen SC-3						Specimen SC-4					
Method	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	20	24.05	3.88	16.2	24.3	16.8 - 31.3	20	14.22	2.63	18.5	13.6	9.9 - 18.5

Prolactin (ng/mL)

Method		Specimen SC-3						Specimen SC-4				
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	18	29.86	2.39	8.0	29.4	20.8 - 38.9	18	14.56	1.49	10.2	14.4	10.1 - 19.0

Testosterone (ng/dL)

Method		Specimen SC-3						Specimen SC-4				
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	92	872.7	139.8	16.0	833	610 - 1135	92	533.6	102.8	19.3	486	373 - 694
All Roche Instruments	10	919.8	27.0	2.9	918	643 - 1196	10	559.0	20.1	3.6	569	391 - 727
All Siemens Immulite Instruments	11	950.1	113.5	11.9	1005	665 - 1236	11	651.4	53.0	8.1	654	456 - 847
All TOSOH Instruments	21	1046.1	49.3	4.7	1045	732 - 1360	21	640.3	45.0	7.0	639	448 - 833
Abbott Architect	10	846.0	42.1	5.0	837	592 - 1100	10	444.6	20.7	4.7	440	311 - 578
Beckman ACCESS / 2 / DxI	30	774.2	77.3	10.0	767	541 - 1007	30	458.6	45.2	9.8	451	320 - 597
Siemens Immulite/1000	10	973.5	104.3	10.7	1007	681 - 1266	10	656.3	56.2	8.6	655	459 - 854
TOSOH AIA PACK	10	1007.2	34.1	3.4	994	705 - 1310	10	626.8	46.5	7.4	622	438 - 815
TOSOH ST AIA PACK	11	1063.8	45.6	4.3	1056	744 - 1383	11	646.4	45.1	7.0	639	452 - 841

Transferrin (mg/dL)

Method		Specimen SC-3						Specimen SC-4				
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	10	212.3	4.9	2.3	213	191 - 234	10	169.0	4.6	2.7	170	152 - 186

Vitamin B$_{12}$ (pg/mL)

Method		Specimen SC-3						Specimen SC-4				
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	85	810.5	96.5	11.9	797	567 - 1054	85	567.1	71.3	12.6	555	396 - 738
All Roche Instruments	13	901.5	79.2	8.8	919	631 - 1172	13	610.9	50.1	8.2	614	427 - 795
All TOSOH Instruments	20	899.3	33.1	3.7	895	629 - 1170	20	661.9	38.4	5.8	657	463 - 861
Abbott Architect	10	896.7	59.9	6.7	913	627 - 1166	10	594.7	32.7	5.5	596	416 - 774
Beckman ACCESS / 2 / DxI	39	730.0	42.9	5.9	727	510 - 949	39	506.6	29.8	5.9	507	354 - 659
Roche cobas e 411	11	891.3	89.2	10.0	919	623 - 1159	11	597.4	50.0	8.4	607	418 - 777
TOSOH AIA PACK	10	912.7	29.8	3.3	913	638 - 1187	10	669.0	42.8	6.4	666	468 - 870
TOSOH ST AIA PACK	10	872.4	21.7	2.5	882	610 - 1135	10	647.8	26.1	4.0	656	453 - 843

Serum Alcohol (mg/dL)

Method	Specimen ETH-6						Specimen ETH-7					
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
ALL METHODS	5	137.3	8.6	6.3	139	102 - 172	5	190.0	16.1	8.5	195	142 - 238

	Specimen ETH-8						Specimen ETH-9					
ALL METHODS	5	14.3	1.5	10.7	14	10 - 18	5	8.0	2.0	25.0	8	6 - 10

	Specimen ETH-10					
ALL METHODS	5	169.3	19.7	11.6	177	126 - 212

Acetone

Method	Specimen ETH-6					Specimen ETH-7				
	Labs	Negative	Small	Moderate	Large	Labs	Negative	Small	Moderate	Large
ALL METHODS	13	13	-	-	-	13	-	-	3	10
Biorex Labs K-CHECK	7	7	-	-	-	7	-	-	2	5
Germaine Laboratories AimTab	1	1	-	-	-	1	-	-	-	1
Siemens Acetest	5	5	-	-	-	5	-	-	1	4

	Specimen ETH-8					Specimen ETH-9				
ALL METHODS	13	13	-	-	-	13	13	-	-	-
Biorex Labs K-CHECK	7	7	-	-	-	7	7	-	-	-
Germaine Laboratories AimTab	1	1	-	-	-	1	1	-	-	-
Siemens Acetest	5	5	-	-	-	5	5	-	-	-

	Specimen ETH-10				
ALL METHODS	13	-	-	2	11
Biorex Labs K-CHECK	7	-	-	2	5
Germaine Laboratories AimTab	1	-	-	-	1
Siemens Acetest	5	-	-	-	5

Thyroglobulin Antibody (IU/mL)

		Specimen THY-3						Specimen THY-4				
Method	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_
All Method	16	279.531	48.754	17.4	284.58	182.02 - 377.04	18	3.010	5.848	194.3	0.30	0.00 - 14.71
Beckman ACCESS / 2 / DxI	10	303.521	22.149	7.3	303.05	259.22 - 347.82	10	0.663	1.194	180.1	0.25	0.00 - 3.06

Thryoid Peroxidase Antibody (TPO) (IU/mL)

		Specimen THY-3						Specimen THY-4				
Method	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_
All Method	16	10.954	4.243	38.7	9.55	2.46 - 19.44	16	2.048	3.400	166.1	0.45	0.00 - 8.85
Beckman ACCESS / 2 / DxI	10	8.760	0.810	9.2	8.75	7.14 - 10.38	9	0.433	0.071	16.3	0.40	0.29 - 0.58

Ammonia (µmol/L)

		Specimen AMM-3						Specimen AMM-4				
Method	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_
All Method	16	285.5	9.0	3.2	284	267 - 304	16	26.3	6.4	24.4	29	13 - 40
Siemens Dimension	10	288.0	9.2	3.2	290	269 - 307	10	26.3	6.4	24.4	29	13 - 40

Adulterated Urine – Specific Gravity

		Specimen AUR-3						Specimen AUR-4				
Method	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_
All Method	5	1.0070	0.0014	0.1	1.007	0.997 - 1.017	5	1.0480	0.0141	1.3	1.048	1.038 - 1.058
Beckman AU	5	1.0070	0.0014	0.1	1.007	0.997 - 1.017	5	1.0480	0.0141	1.3	1.048	1.038 - 1.058

Adulterated Urine – Specific Gravity Interpretation

Method	Specimen AUR-3			Specimen AUR-4		
	Labs	*Normal*	*Abnormal*	*Labs*	*Normal*	*Abnormal*
All Methods	5	5	-	5	-	5
Beckman AU	5	5	-	5	-	5

Adulterated Urine – pH

		Specimen AUR-3						Specimen AUR-4				
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	5	3.15	0.21	6.7	3.2	2.6 - 3.7	5	6.85	0.21	3.1	6.9	6.3 - 7.4
Beckman AU	5	3.15	0.21	6.7	3.2	2.6 - 3.7	5	6.85	0.21	3.1	6.9	6.3 - 7.4

Adulterated Urine – pH Interpretation

		Specimen AUR-3			Specimen AUR-4	
Method	*Labs*	*Normal*	*Abnormal*	*Labs*	*Normal*	*Abnormal*
ALL METHODS	5	1	4	5	5	-
Beckman AU	4	-	4	4	4	-
Carolina Chemistries BiOlis	1	1	-	1	1	-

Adulterated Urine – Creatinine (mg/dL)

		Specimen AUR-3						Specimen AUR-4				
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	5	62.07	0.81	1.3	62.2	51.5 - 72.7	5	0.05	0.10	200.0	0.0	0.0 - 3.1
Beckman AU	5	62.07	0.81	1.3	62.2	51.5 - 72.7	5	0.05	0.10	200.0	0.0	0.0 - 3.1

Adulterated Urine – Creatinine Interpretation

		Specimen AUR-3			Specimen AUR-4	
Method	*Labs*	*Normal*	*Abnormal*	*Labs*	*Normal*	*Abnormal*
ALL METHODS	3	3	-	3	-	3
Beckman AU	2	2	-	2	-	2
Carolina Chemistries BiOlis	1	1	-	1	-	1

Adulterated Urine – Nitrite Interpretation

Method	Labs	Specimen AUR-3 Normal	Abnormal	Labs	Specimen AUR-4 Normal	Abnormal
All Methods	1	1	-	1	1	-
Beckman AU	1	1	-	1	1	-

Adulterated Urine – Oxidants Interpretation

Method	Labs	Specimen AUR-3 Negative/ Normal	Positive/ Abnormal	Labs	Specimen AUR-4 Negative/ Normal	Positive/ Abnormal
All Methods	1	1	-	1	1	-
Beckman AU	1	1	-	1	1	-

Ethyl Glucuronide (EtG) (ng/mL)

Method	Labs	Specimen ETG-3 Positive	Negative	Labs	Specimen ETG-4 Positive	Negative
All Methods	2	2	-	2	-	2
Cut-off 500						
Beckman AU	1	1	-	1	-	1
Siemens Viva-E	1	1	-	1	-	1
All Cut-off 500	2	2	-	2	-	2

Urine Drug Screen

Acetaminophen (µg/mL)

Method	Labs	Specimen UDS-3 Positive	Negative	Labs	Specimen UDS-4 Positive	Negative
All Methods	5	4	1	5	-	5
Cut-off 5						
Alere Triage	5	4	1	5	-	5
All Cut-off 5	5	4	1	5	-	5

Amphetamines (ng/mL)

Method	Specimen UDS-3			Specimen UDS-4		
	Labs	*Positive*	*Negative*	*Labs*	*Positive*	*Negative*
All Methods	87	1	86	87	-	87
Cut-off 250						
Roche Integra	1	-	1	1	-	1
All Cut-off 250	1	-	1	1	-	1
Cut-off 500						
Beckman AU	3	-	3	3	-	3
ImmTox	1	-	1	1	-	1
Indiko Plus	1	-	1	1	-	1
MEDTOX Diagnostics	5	-	5	5	-	5
Siemens Dimension	1	-	1	1	-	1
Siemens Viva-E	1	-	1	1	-	1
Synermed IR 500	1	-	1	1	-	1
All Cut-off 500	15	-	15	15	-	15
Cut-off 1000						
Alere iCassette	2	-	2	2	-	2
Alere iCup	9	-	9	9	-	9
Alere iScreen	1	-	1	1	-	1
Alere Triage	1	-	1	1	-	1
Alfa Scientific Instant-View	1	-	1	1	-	1
AMBC Rapid Drug/Tox	1	-	1	1	-	1
Amedica Biotech AmediCheck	1	-	1	1	-	1
Beckman AU	2	-	2	2	-	2
Bio-Rad TOX/See	1	-	1	1	-	1
BMC QuickTox Drug Screen	21	-	21	21	-	21
Carolina Chemistries BioLis 24i	2	-	2	2	-	2
Germaine Laboratories AimScreen	1	-	1	1	-	1
Indiko Plus	1	-	1	1	-	1
Integrated E-Z Split Key Cup / II	1	-	1	1	-	1
Lin-Zhi International	3	-	3	3	-	3
Microgenics DRI	5	-	5	5	-	5
Noble Medical Inc.	1	-	1	1	-	1
Roche Cobas 8000 / c502	1	-	1	1	-	1
Siemens EMIT II Plus	1	-	1	1	-	1
USDiagnostics One Step Multi-Drug	2	-	2	2	-	2
USDiagnostics UScreen Cup	1	-	1	1	-	1
All Cut-off 1000	63	-	63	63	-	63

Amphetamines/Methamphetamines (ng/mL)

		Specimen UDS-3			Specimen UDS-4	
Method	*Labs*	*Positive*	*Negative*	*Labs*	*Positive*	*Negative*
All Methods	15	1	14	15	1	14
Cut-off 300						
Roche Integra	1	-	1	1	-	1
All Cut-off 300	1	-	1	1	-	1
Cut-off 500						
Beckman AU	4	-	4	4	-	4
Siemens EMIT II Plus	2	-	2	2	-	2
All Cut-off 500	8	-	8	8	-	8
Cut-off 1000						
Alere iCassette	1	-	1	1	-	1
Microgenics DRI	1	-	1	1	-	1
Siemens EMIT II Plus	1	-	1	1	-	1
All Cut-off 1000	3	-	3	3	-	3

Barbiturates (ng/mL)

Method	Specimen UDS-3			Specimen UDS-4		
	Labs	*Positive*	*Negative*	*Labs*	*Positive*	*Negative*
All Methods	83	1	82	84	83	1
Cut-off 100						
Beckman AU	1	-	1	1	1	-
All Cut-off 100	1	-	1	1	1	-
Cut-off 200						
Alfa Scientific Instant-View	1	-	1	1	1	-
Beckman AU	8	-	8	8	8	-
Carolina Chemistries BioLis 24i	1	-	1	1	1	-
ImmTox	1	-	1	1	1	-
Indiko Plus	1	-	1	1	1	-
Lin-Zhi International	1	-	1	1	1	-
MEDTOX Diagnostics	5	-	5	5	5	-
Microgenics DRI	2	-	2	2	2	-
Roche Cobas 8000 / c502	1	-	1	1	1	-
Roche Integra	3	-	3	3	3	-
Siemens Dimension	1	-	1	1	1	-
Siemens EMIT II Plus	3	-	3	3	3	-
Synermed IR 500	1	-	1	1	1	-
All Cut-off 200	29	-	29	29	29	-
Cut-off 300						
Alere iCassette	2	-	2	2	2	-
Alere iCup	9	-	9	9	9	-
Alere iScreen	1	-	1	1	1	-
Alere Triage	1	-	1	1	1	-
Amedica Biotech AmediCheck	2	-	2	2	2	-
Bio-Rad TOX/See	1	-	1	1	1	-
BMC QuickTox Drug Screen	21	-	21	21	21	-
Microgenics DRI	1	-	1	1	1	-
USDiagnostics One Step Multi-Drug	2	-	2	2	2	-
USDiagnostics UScreen Cup	1	-	1	1	1	-
All Cut-off 300	46	1	45	47	47	-

Benzodiazepines (ng/mL)

Method	Specimen UDS-3			Specimen UDS-4		
	Labs	*Positive*	*Negative*	*Labs*	*Positive*	*Negative*
All Methods	87	-	87	87	1	86
Cut-off 100						
Beckman AU	1	-	1	1	-	1
Roche Integra	2	-	2	2	-	2
All Cut-off 100	3	-	3	3	-	3
Cut-off 150						
MEDTOX Diagnostics	5	-	5	5	-	5
All Cut-off 150	5	-	5	5	-	5
Cut-off 200						
Beckman AU	7	-	7	7	-	7
ImmTox	1	-	1	1	-	1
Indiko Plus	2	-	2	2	-	2
Lin-Zhi International	3	-	3	3	-	3
Microgenics DRI	3	-	3	3	-	3
Roche Cobas 8000 / c502	1	-	1	1	-	1
Siemens Dimension	1	-	1	1	-	1
Siemens EMIT II Plus	4	-	4	4	-	4
Synermed IR 500	1	-	1	1	-	1
All Cut-off 200	23	-	23	23	-	23
Cut-off 300						
Alere iCassette	2	-	2	2	-	2
Alere iCup	9	-	9	9	-	9
Alere iScreen	2	-	2	2	-	2
Alere Triage	1	-	1	1	-	1
Alfa Scientific Instant-View	1	-	1	1	-	1
Amedica Biotech AmediCheck	1	-	1	1	-	1
Beckman AU	1	-	1	1	-	1
Bio-Rad TOX/See	1	-	1	1	-	1
BMC QuickTox Drug Screen	22	-	22	22	-	22
Microgenics DRI	1	-	1	1	-	1
USDiagnostics One Step Multi-Drug	2	-	2	2	-	2
USDiagnostics UScreen Cup	1	-	1	1	-	1
All Cut-off 300	49	-	49	49	-	49

Buprenorphine (ng/mL)

Method	Specimen UDS-3			Specimen UDS-4		
	Labs	*Positive*	*Negative*	*Labs*	*Positive*	*Negative*
All Methods	34	-	34	34	-	34
Cut-off 5						
Beckman AU	4	-	4	4	-	4
ImmTox	1	-	1	1	-	1
Indiko Plus	1	-	1	1	-	1
Lin-Zhi International	3	-	3	3	-	3
Microgenics CEDIA	3	-	3	3	-	3
Siemens EMIT II Plus	2	-	2	2	-	2
Synermed IR 500	1	-	1	1	-	1
All Cut-off 5	15	-	15	15	-	15
Cut-off 10						
Alere iCup	1	-	1	1	-	1
Alere iScreen	1	-	1	1	-	1
Beckman AU	2	-	2	2	-	2
Chemtron Biotech	1	-	1	1	-	1
MEDTOX Diagnostics	3	-	3	3	-	3
Microgenics CEDIA	1	-	1	1	-	1
USDiagnostics One Step Multi-Drug	1	-	1	1	-	1
All Cut-off 10	13	-	13	13	-	13
Cut-off 20						
Indiko Plus	1	-	1	1	-	1
All Cut-off 20	1	-	1	1	-	1
Cut-off 15						
Beckman AU	1	-	1	1	-	1
All Cut-off 15	1	-	1	1	-	1

Cannabinoids (THC) (ng/mL)

Method	Specimen UDS-3			Specimen UDS-4		
	Labs	*Positive*	*Negative*	*Labs*	*Positive*	*Negative*
All Methods	100	1	99	101	101	-
Cut-off 20						
Roche Integra	1	-	1	1	1	-
Siemens EMIT II Plus	1	-	1	1	1	-
All Cut-off 20	2	-	2	2	2	-
Cut-off 25						
Beckman AU	1	-	1	1	1	-
All Cut-off 25	1	-	1	1	1	-
Cut-off 50						
Alere iCassette	2	-	2	2	2	-
Alere iCup	10	-	10	10	10	-
Alere iScreen	1	-	1	1	1	-
Alere Triage	1	-	1	1	1	-
Alfa Scientific Instant-View	6	-	6	6	6	-
Amedica Biotech AmediCheck	1	-	1	1	1	-
Beckman AU	7	-	7	7	7	-
Bio-Rad TOX/See	1	-	1	1	1	-
BMC QuickTox Drug Screen	22	-	22	22	22	-
Carolina Chemistries BioLis 24i	2	-	2	2	2	-
Germaine Laboratories AimScreen	3	-	3	3	3	-
ImmTox	1	-	1	1	1	-
Indiko Plus	2	-	2	2	2	-
Integrated E-Z Split Key Cup / II	1	-	1	1	1	-
Lin-Zhi International	3	-	3	3	3	-
MEDTOX Diagnostics	4	-	4	4	4	-
Microgenics DRI	5	-	5	5	5	-
Noble Medical Inc.	1	-	1	1	1	-
Roche Cobas 8000 / c502	1	-	1	1	1	-
Roche Integra	1	-	1	1	1	-
Siemens Dimension	1	-	1	1	1	-
Siemens EMIT II Plus	3	-	3	3	3	-
USDiagnostics One Step Multi-Drug	2	-	2	2	2	-
USDiagnostics UScreen Cup	1	-	1	1	1	-
All Cut-off 50	88	1	87	89	89	-
Cut-off 100						
Beckman AU	1	-	1	1	1	-
All Cut-off 100	1	-	1	1	1	-

Carisoprodol (ng/mL)

Method	Specimen UDS-3				Specimen UDS-4		
	Labs	Positive	Negative		Labs	Positive	Negative
All Methods	2	-	2		2	-	2
Cut-off 100							
Beckman AU	1	-	1		1	-	1
ImmTox	1	-	1		1	-	1
All Cut-off 100	2	-	2		2	-	2

Cocaine Metabolites (ng/mL)

Method	Specimen UDS-3			Specimen UDS-4		
	Labs	*Positive*	*Negative*	*Labs*	*Positive*	*Negative*
All Methods	102	-	102	102	-	102
Cut-off 50						
Amedica Biotech AmediCheck	1	-	1	1	-	1
All Cut-off 50	1	-	1	1	-	1
Cut-off 100						
Beckman AU	1	-	1	1	-	1
All Cut-off 100	1	-	1	1	-	1
Cut-off 150						
Beckman AU	6	-	6	6	-	6
ImmTox	1	-	1	1	-	1
Indiko Plus	1	-	1	1	-	1
MEDTOX Diagnostics	5	-	5	5	-	5
Roche Integra	1	-	1	1	-	1
Siemens Dimension	1	-	1	1	-	1
Siemens EMIT II Plus	2	-	2	2	-	2
Synermed IR 500	1	-	1	1	-	1
All Cut-off 150	20	-	20	20	-	20
Cut-off 300						
Alere iCassette	2	-	2	2	-	2
Alere iCup	10	-	10	10	-	10
Alere iScreen	1	-	1	1	-	1
Alere Triage	1	-	1	1	-	1
Alfa Scientific Instant-View	6	-	6	6	-	6
Beckman AU	2	-	2	2	-	2
Bio-Rad TOX/See	1	-	1	1	-	1
BMC QuickTox Drug Screen	22	-	22	22	-	22
Carolina Chemistries BioLis 24i	2	-	2	2	-	2
Germaine Laboratories AimScreen	3	-	3	3	-	3
Integrated E-Z Split Key Cup / II	1	-	1	1	-	1
Lin-Zhi International	3	-	3	3	-	3
Microgenics DRI	5	-	5	5	-	5
Noble Medical Inc.	1	-	1	1	-	1
Roche Cobas 8000 / c502	1	-	1	1	-	1
Roche Integra	2	-	2	2	-	2
Siemens EMIT II Plus	2	-	2	2	-	2
USDiagnostics One Step Multi-Drug	2	-	2	2	-	2
USDiagnostics UScreen Cup	1	-	1	1	-	1
All Cut-off 300	72	-	72	72	-	72

Cotinine (ng/mL)

	Specimen UDS-3			Specimen UDS-4		
Method	*Labs*	*Positive*	*Negative*	*Labs*	*Positive*	*Negative*
All Methods	1	-	1	1	-	1

EDDP (ng/mL)

	Specimen UDS-3			Specimen UDS-4		
Method	*Labs*	*Positive*	*Negative*	*Labs*	*Positive*	*Negative*
All Methods	3	-	3	3	3	-
Cut-off 100						
Beckman AU	1	-	1	1	1	-
Immunalysis	1	-	1	1	1	-
All Cut-off 100	2	-	2	2	2	-
Cut-off 300						
Microgenics DRI	1	-	1	1	1	-
All Cut-off 300	1	-	1	1	1	-

Ethanol (Alcohol) (mg/dL)

Method	Specimen UDS-3			Specimen UDS-4		
	Labs	*Positive*	*Negative*	*Labs*	*Positive*	*Negative*
All Methods	14	14	-	14	-	14
Cut-off 10						
Siemens EMIT II Plus	1	1	-	1	-	1
All Cut-off 10	1	1	-	1	-	1
Cut-off 20						
Beckman AU	2	2	-	2	-	2
Microgenics DRI	1	1	-	1	-	1
Siemens EMIT II Plus	1	1	-	1	-	1
All Cut-off 20	4	4	-	4	-	4
Cut-off 50						
Beckman AU	1	1	-	1	-	1
All Cut-off 50	1	1	-	1	-	1
Cut-off 100						
Beckman AU	2	2	-	2	-	2
Carolina Chemistries BioLis 24i	1	1	-	1	-	1
Indiko Plus	1	1	-	1	-	1
Lin-Zhi International	2	2	-	2	-	2
Microgenics DRI	1	1	-	1	-	1
All Cut-off 100	7	7	-	7	-	7
Cut-off 3						
Roche Cobas 8000 / c502	1	1	-	1	-	1
All Cut-off 3	1	1	-	1	-	1

Fentanyl (ng/mL)

		Specimen UDS-3			Specimen UDS-4	
Method	*Labs*	*Positive*	*Negative*	*Labs*	*Positive*	*Negative*
All Methods	4	-	4	4	-	4
Cut-off 1						
Beckman AU	1	-	1	1	-	1
All Cut-off 1	1	-	1	1	-	1
Cut-off 2						
ImmTox	1	-	1	1	-	1
Microgenics DRI	1	-	1	1	-	1
All Cut-off 2	2	-	2	2	-	2

Hydrocodone (ng/mL)

		Specimen UDS-3			Specimen UDS-4	
Method	*Labs*	*Positive*	*Negative*	*Labs*	*Positive*	*Negative*
ALL METHODS	1	-	1	1	-	1

LSD (ng/mL)

		Specimen UDS-3			Specimen UDS-4	
Method	*Labs*	*Positive*	*Negative*	*Labs*	*Positive*	*Negative*
ALL METHODS	1	-	1	1	-	1

MDMA (ng/mL)

Method	Specimen UDS-3			Specimen UDS-4		
	Labs	**_Positive_**	**_Negative_**	**_Labs_**	**_Positive_**	**_Negative_**
All Methods	48	1	47	48	-	48
Cut-off 500						
Alere iCassette	1	-	1	1	-	1
Alere iCup	8	-	8	8	-	8
Amedica Biotech AmediCheck	2	-	2	2	-	2
Beckman AU	2	-	2	2	-	2
Bio-Rad TOX/See	1	-	1	1	-	1
BMC QuickTox Drug Screen	21	-	21	21	-	21
Microgenics DRI	2	-	2	2	-	2
Siemens EMIT II Plus	1	-	1	1	-	1
USDiagnostics One Step Multi-Drug	2	-	2	2	-	2
USDiagnostics UScreen Cup	1	-	1	1	-	1
All Cut-off 500	44	-	44	44	-	44

Meperidine (ng/mL)

Method	Specimen UDS-3			Specimen UDS-4		
	Labs	**_Positive_**	**_Negative_**	**_Labs_**	**_Positive_**	**_Negative_**
ALL METHODS	1	-	1	1	1	-

Methadone (ng/mL)

Method	Specimen UDS-3			Specimen UDS-4		
	Labs	_Positive_	_Negative_	_Labs_	_Positive_	_Negative_
All Methods	82	-	82	82	-	82
Cut-off 100						
Beckman AU	1	-	1	1	-	1
All Cut-off 100	1	-	1	1	-	1
Cut-off 150						
Beckman AU	1	-	1	1	-	1
Roche Integra	1	-	1	1	-	1
Siemens EMIT II Plus	2	-	2	2	-	2
All Cut-off 150	4	-	4	4	-	4
Cut-off 200						
MEDTOX Diagnostics	4	-	4	4	-	4
All Cut-off 200	4	-	4	4	-	4
Cut-off 300						
Alere iCassette	2	-	2	2	-	2
Alere iCup	8	-	8	8	-	8
Alere Triage	1	-	1	1	-	1
Alfa Scientific Instant-View	1	-	1	1	-	1
Amedica Biotech AmediCheck	1	-	1	1	-	1
Beckman AU	6	-	6	6	-	6
Bio-Rad TOX/See	1	-	1	1	-	1
BMC QuickTox Drug Screen	22	-	22	22	-	22
Carolina Chemistries BioLis 24i	2	-	2	2	-	2
Indiko Plus	1	-	1	1	-	1
Lin-Zhi International	2	-	2	2	-	2
Microgenics DRI	6	-	6	6	-	6
Roche Integra	1	-	1	1	-	1
Siemens EMIT II Plus	2	-	2	2	-	2
Synermed IR 500	1	-	1	1	-	1
USDiagnostics One Step Multi-Drug	2	-	2	2	-	2
USDiagnostics UScreen Cup	1	-	1	1	-	1
All Cut-off 300	65	-	65	65	-	65
Cut-off 1000						
Alere iCup	1	-	1	1	-	1
All Cut-off 1000	1	-	1	1	-	1

Methamphetamines (ng/mL)

Method	Specimen UDS-3			Specimen UDS-4		
	Labs	_Positive_	_Negative_	_Labs_	_Positive_	_Negative_
All Methods	59	-	59	59	-	59
Cut-off 500						
Alere iScreen	1	-	1	1	-	1
Beckman AU	1	-	1	1	-	1
BMC QuickTox Drug Screen	21	-	21	21	-	21
ImmTox	1	-	1	1	-	1
Lin-Zhi International	1	-	1	1	-	1
MEDTOX Diagnostics	4	-	4	4	-	4
Siemens EMIT II Plus	1	-	1	1	-	1
All Cut-off 500	33	-	33	33	-	33
Cut-off 1000						
Alere iCassette	1	-	1	1	-	1
Alere iCup	10	-	10	10	-	10
Alere Triage	1	-	1	1	-	1
Alfa Scientific Instant-View	1	-	1	1	-	1
AMBC Rapid Drug/Tox	1	-	1	1	-	1
Amedica Biotech AmediCheck	1	-	1	1	-	1
Bio-Rad TOX/See	1	-	1	1	-	1
USDiagnostics One Step Multi-Drug	2	-	2	2	-	2
USDiagnostics UScreen Cup	1	-	1	1	-	1
All Cut-off 1000	21	-	21	21	-	21

Methanol (mg/dL)

	Specimen UDS-3				Specimen UDS-4		
	Labs	_Positive_	_Negative_		_Labs_	_Positive_	_Negative_
All Methods	1	-	1		1	-	1

Methaqualone (ng/mL)

	Specimen UDS-3				Specimen UDS-4		
Method	_Labs_	_Positive_	_Negative_		_Labs_	_Positive_	_Negative_
All Methods	1	1	-		1	-	1
Cut-off 300							
Microgenics DRI	1	1	-		1	-	1
All Cut-off 300	1	1	-		1	-	1

6-MAM (ng/mL)

	Specimen UDS-3				Specimen UDS-4		
Method	_Labs_	_Positive_	_Negative_		_Labs_	_Positive_	_Negative_
All Methods	6	-	6		6	-	6
Cut-off 10							
Beckman AU	2	-	2		2	-	2
Indiko Plus	1	-	1		1	-	1
Microgenics DRI	1	-	1		1	-	1
Siemens EMIT II Plus	1	-	1		1	-	1
Siemens Viva-E	1	-	1		1	-	1
All Cut-off 10	6	-	6		6	-	6

Opiates (Morphine Trihydrate) (ng/mL)

Method	Specimen UDS-3			Specimen UDS-4		
	Labs	*Positive*	*Negative*	*Labs*	*Positive*	*Negative*
All Methods	106	1	105	107	106	1
Cut-off 100						
Beckman AU	1	-	1	1	1	-
MEDTOX Diagnostics	4	-	4	4	4	-
Siemens Dimension	1	-	1	1	1	-
All Cut-off 100	6	-	6	6	6	-
Cut-off 300						
Alere iCup	1	-	1	1	1	-
Alere iScreen	2	-	2	2	2	-
Alere Triage	1	-	1	1	1	-
Alfa Scientific Instant-View	2	-	2	2	2	-
Beckman AU	9	-	9	9	9	-
BMC QuickTox Drug Screen	21	-	21	21	21	-
Carolina Chemistries BioLis 24i	2	-	2	2	2	-
ImmTox	1	-	1	1	1	-
Indiko Plus	2	-	2	2	2	-
Lin-Zhi International	3	-	3	3	3	-
Microgenics DRI	4	-	4	4	4	-
Roche Cobas 8000 / c502	1	-	1	1	1	-
Roche Integra	3	-	3	3	3	-
Siemens EMIT II Plus	4	-	4	4	4	-
Synermed IR 500	1	-	1	1	1	-
USDiagnostics One Step Multi-Drug	1	-	1	1	1	-
All Cut-off 300	61	1	60	62	62	-
Cut-off 1000						
Microgenics DRI	1	-	1	1	1	-
All Cut-off 1000	1	-	1	1	1	-
Cut-off 2000						
Alere iCassette	2	-	2	2	2	-
Alere iCup	9	-	9	9	9	-
Alfa Scientific Instant-View	4	-	4	4	4	-
Amedica Biotech AmediCheck	1	-	1	1	1	-
Bio-Rad TOX/See	1	-	1	1	1	-
BMC QuickTox Drug Screen	1	-	1	1	1	-
Germaine Laboratories AimScreen	3	-	3	3	3	-
Integrated E-Z Split Key Cup / II	1	-	1	1	1	-
Microgenics DRI	1	-	1	1	1	-
Noble Medical Inc.	1	-	1	1	1	-
USDiagnostics One Step Multi-Drug	1	-	1	1	1	-
USDiagnostics UScreen Cup	1	-	1	1	1	-
All Cut-off 2000	29	-	29	29	28	1

Oxycodone (ng/mL)

Method	Specimen UDS-3			Specimen UDS-4		
	Labs	*Positive*	*Negative*	*Labs*	*Positive*	*Negative*
All Methods	81	79	2	80	2	78
Cut-off 100						
Alere iCassette	3	3	-	3	-	3
Alere iCup	9	9	-	9	-	9
Alere iScreen	2	2	-	2	-	2
Amedica Biotech AmediCheck	1	1	-	1	-	1
Beckman AU	8	8	-	8	-	8
Bio-Rad TOX/See	1	1	-	1	-	1
BMC QuickTox Drug Screen	22	22	-	22	-	22
Carolina Chemistries BioLis 24i	1	1	-	1	-	1
ImmTox	1	1	-	1	-	1
Lin-Zhi International	3	2	1	3	-	3
MEDTOX Diagnostics	3	3	-	3	-	3
Microgenics DRI	5	5	-	5	-	5
Roche Integra	3	3	-	3	-	3
Siemens EMIT II Plus	1	1	-	1	-	1
USDiagnostics One Step Multi-Drug	1	1	-	1	-	1
USDiagnostics UScreen Cup	1	1	-	1	-	1
All Cut-off 100	71	70	1	70	1	69
Cut-off 300						
Carolina Chemistries BioLis 24i	1	1	-	1	-	1
Indiko Plus	1	1	-	1	-	1
Microgenics DRI	1	1	-	1	-	1
All Cut-off 300	3	3	-	3	-	3

Phencyclidine (PCP) (ng/mL)

Method	Specimen UDS-3			Specimen UDS-4		
	Labs	_Positive_	_Negative_	_Labs_	_Positive_	_Negative_
All Methods	73	-	73	73	1	72
Cut-off 25						
Alere iCassette	2	-	2	2	-	2
Alere iCup	5	-	5	5	-	5
Alere Triage	1	-	1	1	-	1
Alfa Scientific Instant-View	1	-	1	1	-	1
Amedica Biotech AmediCheck	1	-	1	1	-	1
Beckman AU	7	-	7	7	-	7
Bio-Rad TOX/See	1	-	1	1	-	1
BMC QuickTox Drug Screen	22	-	22	22	-	22
Germaine Laboratories AimScreen	1	-	1	1	-	1
ImmTox	1	-	1	1	-	1
Integrated E-Z Split Key Cup / II	1	-	1	1	-	1
MEDTOX Diagnostics	4	-	4	4	-	4
Microgenics DRI	3	-	3	3	-	3
Noble Medical Inc.	1	-	1	1	-	1
Roche Cobas 8000 / c502	1	-	1	1	-	1
Siemens EMIT II Plus	3	-	3	3	-	3
Synermed IR 500	1	-	1	1	-	1
USDiagnostics One Step Multi-Drug	2	-	2	2	-	2
USDiagnostics UScreen Cup	1	-	1	1	-	1
All Cut-off 25	64	-	64	64	-	64
Cut-off 100						
Beckman AU	1	-	1	1	-	1
All Cut-off 100	1	-	1	1	-	1

Propoxyphene (ng/mL)

Method	Specimen UDS-3			Specimen UDS-4		
	Labs	**Positive**	**Negative**	**Labs**	**Positive**	**Negative**
All Methods	14	1	13	14	13	1
Cut-off 300						
Alere iCassette	1	-	1	1	1	-
Alere iCup	1	-	1	1	1	-
Beckman AU	1	-	1	1	1	-
Carolina Chemistries BioLis 24i	1	-	1	1	1	-
MEDTOX Diagnostics	3	-	3	3	3	-
Microgenics DRI	1	-	1	1	1	-
Siemens EMIT II Plus	2	-	2	2	2	-
All Cut-off 300	11	1	10	11	10	1

Tramadol (ng/mL)

Method	Specimen UDS-3			Specimen UDS-4		
	Labs	**Positive**	**Negative**	**Labs**	**Positive**	**Negative**
All Methods	3	-	3	3	-	3
Cut-off 200						
Beckman AU	1	-	1	1	-	1
ImmTox	1	-	1	1	-	1
Siemens EMIT II Plus	1	-	1	1	-	1
All Cut-off 200	3	-	3	3	-	3

Tricyclic Antidepressants (ng/mL)

Method	Specimen UDS-3			Specimen UDS-4		
	Labs	Positive	Negative	Labs	Positive	Negative
All Methods	21	-	21	21	-	21
Cut-off 300						
MEDTOX Diagnostics	3	-	3	3	-	3
All Cut-off 300	3	-	3	3	-	3
Cut-off 1000						
Alere iCassette	1	-	1	1	-	1
Alere iCup	4	-	4	4	-	4
Alere iScreen	1	-	1	1	-	1
Alere Triage	1	-	1	1	-	1
Alfa Scientific Instant-View	1	-	1	1	-	1
Amedica Biotech AmediCheck	2	-	2	2	-	2
Bio-Rad TOX/See	1	-	1	1	-	1
USDiagnostics UScreen Cup	1	-	1	1	-	1
All Cut-off 1000	14	-	14	14	-	14

Zolpidem (mg/dL)

Method	Specimen UDS-3			Specimen UDS-4		
	Labs	Positive	Negative	Labs	Positive	Negative
All Methods	1	-	1	1	-	1
Cut-off 20						
Beckman AU	1	-	1	1	-	1
All Cut-off 20	1	-	1	1	-	1

Urine Amylase (U/L)

Method		Specimen UCH-3						Specimen UCH-4				
	Labs	_Mean_	_SD_	_CV_	_Median_	_Range_	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_
All Method	3	-	-	-	111	Not graded	3	-	-	-	267	Not graded

Urine Calcium (mg/dL)

Method		Specimen UCH-3						Specimen UCH-4				
	Labs	_Mean_	_SD_	_CV_	_Median_	_Range_	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_
All Method	5	8.90	0.42	4.8	8.9	6.1 - 11.7	5	4.60	0.57	12.3	4.6	3.1 - 6.1

Urine Chloride (mmol/L)

Method		Specimen UCH-3						Specimen UCH-4				
	Labs	_Mean_	_SD_	_CV_	_Median_	_Range_	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_
All Method	3	-	-	-	69	Not graded	3	-	-	-	238	Not graded

Urine Creatinine (mg/dL)

Method		Specimen UCH-3						Specimen UCH-4				
	Labs	_Mean_	_SD_	_CV_	_Median_	_Range_	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_
All Method	10	72.65	6.09	8.4	73.2	60.2 - 85.1	10	197.30	15.17	7.7	200.1	163.7 - 230.9

Urine Glucose (mg/dL)

Method		Specimen UCH-3						Specimen UCH-4				
	Labs	_Mean_	_SD_	_CV_	_Median_	_Range_	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_
All Method	4	-	-	-	25	Not graded	4	-	-	-	270	Not graded

Urine Magnesium (mg/dL)

Method		Specimen UCH-3						Specimen UCH-4				
	Labs	_Mean_	_SD_	_CV_	_Median_	_Range_	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_
All Method	3	-	-	-	3.1	Not graded	3	-	-	-	9.0	Not graded

Urine Osmolality (mOsm/kg)

			Specimen UCH-3						Specimen UCH-4		
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	3	-	-	-	372	Not graded	3	-	-	-	821	Not graded

Urine Phosphorus (mg/dL)

			Specimen UCH-3						Specimen UCH-4		
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	3	-	-	-	16.9	Not graded	3	-	-	-	55.9	Not graded

Urine Potassium (mmol/L)

			Specimen UCH-3						Specimen UCH-4		
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	5	22.90	0.71	3.1	22.9	16.2 - 29.6	5	107.15	5.30	4.9	107.2	76.0 - 138.3

Urine Sodium (mmol/L)

	Specimen UCH-3						Specimen UCH-4				
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	5	77.3	2.5	3.3	77	57 - 98	5	177.3	7.8	4.4	175	131 - 224

Urine Total Protein (mg/dL)

	Specimen UCH-3						Specimen UCH-4				
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	10	12.10	6.65	54.9	8.8	6.7 - 17.5	10	111.28	14.89	13.4	108.3	62.3 - 160.3

Urine Urea Nitrogen (mg/dL)

	Specimen UCH-3						Specimen UCH-4				
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	4	-	-	-	360	Not graded	4	-	-	-	664	Not graded

Urine Uric Acid (mg/dL)

	Specimen UCH-3						Specimen UCH-4				
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	2	-	-	-	4.8	Not graded	2	-	-	-	8.8	Not graded

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