MEDICAL LABORATORY

EVALUATION

PARTICIPANT SUMMARY

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Chemistry
2018 MLE-M1

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.

Analyte	Criteria	Analyte	Criteria
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)

Instrument	Specimen IST-1						Specimen IST-2					
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	101	126.4	0.6	0.5	126	122 - 131	100	140.7	0.5	0.4	141	136 - 145
All i-STAT Instruments	101	126.4	0.6	0.5	126	122 - 131	100	140.7	0.5	0.4	141	136 - 145
i-STAT - waived	92	126.4	0.6	0.5	126	122 - 131	91	140.7	0.5	0.4	141	136 - 145 -

Instrument	Specimen IST-3						Specimen IST-4					
All Method	87	149.5	0.5	0.4	149	145 - 154	85	167.8	0.6	0.4	168	163 - 172
All i-STAT Instruments	87	149.5	0.5	0.4	149	145 - 154	85	167.8	0.6	0.4	168	163 - 172
i-STAT - waived	78	149.5	0.5	0.4	150	145 - 154	76	167.9	0.6	0.4	168	163 - 172

Instrument	Specimen IST-5					
All Method	87	126.4	0.6	0.4	126	122 - 131
All i-STAT Instruments	87	126.4	0.6	0.4	126	122 - 131
i-STAT - waived	78	126.4	0.6	0.4	126	122 - 131

Potassium (mmol/L)

Instrument	Specimen IST-1						Specimen IST-2					
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	101	2.28	0.04	1.9	2.3	1.7 - 2.8	95	3.80	0.01	0.0	3.8	3.3 - 4.3
All i-STAT Instruments	101	2.28	0.04	1.9	2.3	1.7 - 2.8	95	3.80	0.01	0.0	3.8	3.3 - 4.3
i-STAT - moderate	10	2.22	0.04	1.9	2.2	1.7 - 2.8	10	3.79	0.03	0.8	3.8	3.2 - 4.3
i-STAT - waived	91	2.28	0.04	1.7	2.3	1.7 - 2.8	86	3.80	0.01	0.0	3.8	3.3 - 4.3

Instrument	Specimen IST-3						Specimen IST-4					
All Method	87	6.19	0.03	0.5	6.2	5.6 - 6.7	87	6.60	0.04	0.6	6.6	6.1 - 7.2
All i-STAT Instruments	87	6.19	0.03	0.5	6.2	5.6 - 6.7	87	6.60	0.04	0.6	6.6	6.1 - 7.2
i-STAT - moderate	10	6.18	0.04	0.7	6.2	5.6 - 6.7	10	6.58	0.04	0.6	6.6	6.0 - 7.1
i-STAT - waived	70	6.20	0.01	0.0	6.2	5.7 - 6.7	77	6.61	0.04	0.6	6.6	6.1 - 7.2

Instrument	Specimen IST-5					
All Method	87	2.26	0.05	2.1	2.3	1.7 - 2.8
All i-STAT Instruments	87	2.26	0.05	2.1	2.3	1.7 - 2.8
i-STAT - moderate	10	2.23	0.05	2.2	2.2	1.7 - 2.8
i-STAT - waived	77	2.27	0.05	2.1	2.3	1.7 - 2.8

Chloride (mmol/L)

| | Specimen IST-1 | | | | | | Specimen IST-2 | | | | | |
Instrument	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	100	79.6	0.6	0.8	80	75 - 84	99	86.7	0.6	0.7	87	82 - 92
All i-STAT Instruments	100	79.6	0.6	0.8	80	75 - 84	99	86.7	0.6	0.7	87	82 - 92
i-STAT - moderate	10	79.6	0.7	0.9	80	75 - 84	10	86.7	0.5	0.6	87	82 - 92
i-STAT - waived	90	79.5	0.6	0.8	80	75 - 84	89	86.7	0.6	0.7	87	82 - 92

| | Specimen IST-3 | | | | | | Specimen IST-4 | | | | | |
Instrument	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	85	105.2	0.7	0.6	105	99 - 111	87	117.2	0.8	0.7	117	111 - 124
All i-STAT Instruments	85	105.2	0.7	0.6	105	99 - 111	87	117.2	0.8	0.7	117	111 - 124
i-STAT - moderate	10	104.9	0.9	0.8	105	99 - 111	10	117.2	0.9	0.8	117	111 - 124
i-STAT - waived	76	105.2	0.7	0.6	105	99 - 111	77	117.2	0.8	0.7	117	111 - 124

| | Specimen IST-5 | | | | | |
Instrument	Labs	Mean	SD	CV	Median	Range
All Method	85	79.4	0.6	0.7	79	75 - 84
All i-STAT Instruments	85	79.4	0.6	0.7	79	75 - 84
i-STAT - moderate	10	79.5	0.7	0.9	79	75 - 84
i-STAT - waived	75	79.4	0.5	0.7	79	75 - 84

tCO$_2$ (mmol/L)

| | Specimen IST-1 | | | | | | Specimen IST-2 | | | | | |
Instrument	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	94	23.8	0.8	3.3	24	19 - 29	93	26.2	0.8	3.1	26	20 - 32
All i-STAT Instruments	94	23.8	0.8	3.3	24	19 - 29	93	26.2	0.8	3.1	26	20 - 32
i-STAT - waived	86	23.8	0.8	3.3	24	19 - 29	85	26.1	0.8	3.1	26	20 - 32

	Specimen IST-3						Specimen IST-4					
All Method	84	18.7	0.8	4.1	19	14 - 23	83	23.8	0.7	2.9	24	19 - 29
All i-STAT Instruments	84	18.7	0.8	4.1	19	14 - 23	83	23.8	0.7	2.9	24	19 - 29
i-STAT - waived	76	18.7	0.8	4.3	19	14 - 23	75	23.8	0.7	2.9	24	19 - 29

	Specimen IST-5					
All Method	84	23.7	0.7	3.1	24	18 - 29
All i-STAT Instruments	84	23.7	0.7	3.1	24	18 - 29
i-STAT - waived	76	23.7	0.7	3.1	24	18 - 29

Urea Nitrogen (BUN) (mg/dL)

Specimen IST-1 | Specimen IST-2

Instrument	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	100	9.2	0.4	4.6	9	7 - 12	99	60.4	1.1	1.9	60	54 - 66
All i-STAT Instruments	100	9.2	0.4	4.6	9	7 - 12	99	60.4	1.1	1.9	60	54 - 66
i-STAT - waived	91	9.2	0.4	4.5	9	7 - 12	90	60.3	1.1	1.9	60	54 - 66

Specimen IST-3 | Specimen IST-4

Instrument	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	85	22.2	0.5	2.5	22	20 - 25	86	45.5	0.9	1.9	45	41 - 50
All i-STAT Instruments	85	22.2	0.5	2.5	22	20 - 25	86	45.5	0.9	1.9	45	41 - 50
i-STAT - waived	77	22.2	0.6	2.5	22	20 - 25	77	45.5	0.9	2.0	45	41 - 50

Specimen IST-5

Instrument	Labs	Mean	SD	CV	Median	Range
All Method	86	9.3	0.5	5.1	9	7 - 12
All i-STAT Instruments	86	9.3	0.5	5.1	9	7 - 12
i-STAT - waived	77	9.3	0.5	5.1	9	7 - 12

Glucose (mg/dL)

Specimen IST-1 | Specimen IST-2

Instrument	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	98	50.6	1.1	2.3	51	44 - 57	97	140.4	1.4	1.0	140	126 - 155
All i-STAT Instruments	98	50.6	1.1	2.3	51	44 - 57	97	140.4	1.4	1.0	140	126 - 155
i-STAT - waived	89	50.6	1.2	2.3	50	44 - 57	88	140.4	1.3	1.0	140	126 - 155

Specimen IST-3 | Specimen IST-4

Instrument	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	85	83.2	1.2	1.4	83	74 - 92	85	233.0	3.4	1.5	233	209 - 257
All i-STAT Instruments	85	83.2	1.2	1.4	83	74 - 92	85	233.0	3.4	1.5	233	209 - 257
i-STAT - waived	76	83.1	1.2	1.4	83	74 - 92	76	232.9	3.2	1.4	232	209 - 257

Specimen IST-5

Instrument	Labs	Mean	SD	CV	Median	Range
All Method	85	50.7	1.2	2.4	50	44 - 57
All i-STAT Instruments	85	50.7	1.2	2.4	50	44 - 57
i-STAT - waived	76	50.7	1.2	2.4	50	44 - 57

Hematocrit (percent)

		Specimen IST-1						Specimen IST-2				
Instrument	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_
All Method	16	15.3	0.5	3.1	15	14 - 17	16	24.9	0.6	2.5	25	23 - 27
All i-STAT Instruments	16	15.3	0.5	3.1	15	14 - 17	16	24.9	0.6	2.5	25	23 - 27
i-STAT - waived	15	15.3	0.5	3.2	15	14 - 17	15	24.9	0.6	2.6	25	23 - 27

		Specimen IST-3						Specimen IST-4				
All Method	11	27.0	0.1	0.0	27	25 - 29	11	29.0	0.1	0.0	29	27 - 31
All i-STAT Instruments	11	27.0	0.1	0.0	27	25 - 29	11	29.0	0.1	0.0	29	27 - 31
i-STAT - waived	10	27.0	0.1	0.0	27	25 - 29	10	29.0	0.1	0.0	29	27 - 31

		Specimen IST-5				
All Method	11	15.0	0.1	0.0	15	14 - 16
All i-STAT Instruments	11	15.0	0.1	0.0	15	14 - 16
i-STAT - waived	10	15.0	0.1	0.0	15	14 - 16

Hemoglobin (g/dL)

		Specimen IST-1						Specimen IST-2				
Instrument	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_
All Method	16	5.19	0.14	2.8	5.1	4.8 - 5.6	16	8.46	0.19	2.2	8.5	7.8 - 9.1
All i-STAT Instruments	16	5.19	0.14	2.8	5.1	4.8 - 5.6	16	8.46	0.19	2.2	8.5	7.8 - 9.1
i-STAT - waived	15	5.20	0.15	2.8	5.1	4.8 - 5.6	15	8.46	0.19	2.3	8.5	7.8 - 9.1

		Specimen IST-3						Specimen IST-4				
All Method	11	9.20	0.01	0.0	9.2	8.5 - 9.9	11	9.90	0.01	0.0	9.9	9.2 - 10.6
All i-STAT Instruments	11	9.20	0.01	0.0	9.2	8.5 - 9.9	11	9.90	0.01	0.0	9.9	9.2 - 10.6
i-STAT - waived	10	9.20	0.01	0.0	9.2	8.5 - 9.9	10	9.90	0.01	0.0	9.9	9.2 - 10.6

		Specimen IST-5				
All Method	11	5.10	0.01	0.0	5.1	4.7 - 5.5
All i-STAT Instruments	11	5.10	0.01	0.0	5.1	4.7 - 5.5
i-STAT - waived	10	5.10	0.01	0.0	5.1	4.7 - 5.5

Creatinine (mg/dL)

Specimen IST-1 / Specimen IST-2

Instrument	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	110	0.44	0.05	11.6	0.4	0.1 - 0.8	108	5.88	0.20	3.4	5.9	4.9 - 6.8
All i-STAT Instruments	110	0.44	0.05	11.6	0.4	0.1 - 0.8	108	5.88	0.20	3.4	5.9	4.9 - 6.8
i-STAT - waived	101	0.44	0.05	11.7	0.4	0.1 - 0.8	99	5.87	0.20	3.5	5.9	4.9 - 6.8

Specimen IST-3 / Specimen IST-4

	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	86	1.11	0.05	4.5	1.1	0.8 - 1.5	86	2.58	0.08	3.1	2.6	2.1 - 3.0
All i-STAT Instruments	86	1.11	0.05	4.5	1.1	0.8 - 1.5	86	2.58	0.08	3.1	2.6	2.1 - 3.0
i-STAT - waived	77	1.11	0.05	4.5	1.1	0.8 - 1.5	77	2.59	0.08	3.1	2.6	2.1 - 3.0

Specimen IST-5

	Labs	Mean	SD	CV	Median	Range
All Method	86	0.44	0.05	11.1	0.4	0.1 - 0.8
All i-STAT Instruments	86	0.44	0.05	11.1	0.4	0.1 - 0.8
i-STAT - waived	77	0.44	0.05	11.2	0.4	0.1 - 0.8

Ionized Calcium (mmol/L)

Specimen IST-1 / Specimen IST-2

Instrument	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	89	0.600	0.005	0.8	0.60	0.58 - 0.62	89	2.223	0.022	1.0	2.22	2.15 - 2.30
All i-STAT Instruments	89	0.600	0.005	0.8	0.60	0.58 - 0.62	89	2.223	0.022	1.0	2.22	2.15 - 2.30
i-STAT - waived	81	0.600	0.005	0.9	0.60	0.58 - 0.62	81	2.222	0.022	1.0	2.22	2.15 - 2.29

Specimen IST-3 / Specimen IST-4

	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	81	0.785	0.007	0.8	0.79	0.76 - 0.81	81	0.590	0.007	1.2	0.59	0.56 - 0.62
All i-STAT Instruments	81	0.785	0.007	0.8	0.79	0.76 - 0.81	81	0.590	0.007	1.2	0.59	0.56 - 0.62
i-STAT - waived	74	0.785	0.007	0.8	0.79	0.76 - 0.81	73	0.591	0.007	1.2	0.59	0.56 - 0.62

Specimen IST-5

	Labs	Mean	SD	CV	Median	Range
All Method	82	0.602	0.006	1.0	0.60	0.58 - 0.63
All i-STAT Instruments	82	0.602	0.006	1.0	0.60	0.58 - 0.63
i-STAT - waived	74	0.602	0.006	1.0	0.60	0.58 - 0.63

Albumin (g/dL)

Reagent/Instrument	Specimen CH-1						Specimen CH-2					
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	245	5.89	0.32	5.4	5.9	5.3 - 6.5	246	2.83	0.31	10.9	2.9	2.5 - 3.2
All Bromocresol Green Reagents	173	6.00	0.29	4.8	6.0	5.4 - 6.7	173	3.00	0.19	6.2	3.0	2.6 - 3.3
All Bromocresol Purple Reagents	68	5.62	0.22	3.8	5.7	5.0 - 6.2	67	2.43	0.07	3.0	2.4	2.1 - 2.7
Abaxis Piccolo												
Abaxis Piccolo - waived	20	5.40	0.08	1.5	5.4	4.8 - 6.0	20	2.48	0.04	1.7	2.5	2.2 - 2.8
All Chemistry Instruments	27	5.39	0.08	1.5	5.4	4.8 - 6.0	27	2.47	0.06	2.4	2.5	2.2 - 2.8
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	26	6.01	0.11	1.8	6.0	5.4 - 6.7	27	3.09	0.07	2.4	3.1	2.7 - 3.5
Beckman AU												
Beckman AU systems	40	5.96	0.22	3.8	6.0	5.3 - 6.6	40	3.01	0.10	3.4	3.0	2.7 - 3.4
ELITechGroup Envoy 500												
ELITechGroup Envoy 500	12	5.89	0.22	3.7	6.0	5.3 - 6.5	12	3.13	0.19	6.0	3.2	2.8 - 3.5
Horiba ABX Pentra												
Horiba ABX Pentra 400	21	6.36	0.40	6.2	6.5	5.7 - 7.0	21	3.00	0.12	3.9	3.0	2.7 - 3.3
Roche Integra												
Roche Integra	20	5.77	0.19	3.3	5.8	5.1 - 6.4	20	3.13	0.10	3.3	3.1	2.8 - 3.5
Siemens Healthcare												
Siemens Dimension	36	5.77	0.09	1.6	5.8	5.1 - 6.4	36	2.39	0.05	2.0	2.4	2.1 - 2.7
All Chemistry Instruments	37	5.77	0.09	1.6	5.8	5.1 - 6.4	37	2.39	0.05	2.2	2.4	2.1 - 2.7
VITROS												
VITROS 250,350,400 500,700,750,950	30	6.07	0.18	2.9	6.1	5.4 - 6.7	31	2.72	0.08	3.0	2.7	2.4 - 3.0
All Chemistry Instruments	34	6.06	0.17	2.7	6.0	5.4 - 6.7	34	2.72	0.08	2.9	2.7	2.4 - 3.0

Albumin (g/dL)

Reagent/Instrument	Specimen CH-3						Specimen CH-4					
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	227	4.34	0.55	12.7	4.5	3.9 - 4.8	226	1.80	0.17	9.2	1.8	1.6 - 2.0
All Bromocresol Green Reagents	172	4.63	0.21	4.6	4.6	4.1 - 5.1	172	1.83	0.16	9.0	1.9	1.6 - 2.1
All Bromocresol Purple Reagents	48	3.42	0.07	2.1	3.4	3.0 - 3.8	50	1.68	0.10	5.8	1.7	1.5 - 1.9
Abaxis Piccolo												
Abaxis Piccolo - waived	3	-	-	-	3.4	3.0 - 3.8	3	-	-	-	1.8	1.6 - 2.0
All Chemistry Instruments	10	3.43	0.14	4.1	3.4	3.0 - 3.8	10	1.81	0.07	4.1	1.8	1.6 - 2.0
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	27	4.62	0.10	2.2	4.6	4.1 - 5.1	27	1.97	0.05	2.4	2.0	1.7 - 2.2
Beckman AU												
Beckman AU systems	40	4.65	0.15	3.3	4.6	4.1 - 5.2	40	1.79	0.08	4.2	1.8	1.6 - 2.0
ELITechGroup Envoy 500												
ELITechGroup Envoy 500	12	4.58	0.18	4.0	4.6	4.1 - 5.1	12	2.00	0.10	5.2	2.0	1.8 - 2.2
Horiba ABX Pentra												
Horiba ABX Pentra 400	20	4.37	0.14	3.2	4.4	3.9 - 4.9	21	1.94	0.07	3.8	1.9	1.7 - 2.2
Roche Integra												
Roche Integra	20	4.84	0.15	3.2	4.8	4.3 - 5.4	20	1.88	0.08	4.1	1.9	1.6 - 2.1
Siemens Healthcare												
Siemens Dimension	36	3.43	0.06	1.6	3.4	3.0 - 3.8	35	1.64	0.06	3.4	1.6	1.4 - 1.9
All Chemistry Instruments	36	3.43	0.06	1.6	3.4	3.0 - 3.8	36	1.64	0.06	3.4	1.6	1.4 - 1.9
VITROS												
VITROS 250,350,400 500,700,750,950	31	4.55	0.19	4.2	4.5	4.0 - 5.0	31	1.59	0.06	3.9	1.6	1.4 - 1.8
All Chemistry Instruments	35	4.56	0.22	4.9	4.5	4.1 - 5.1	35	1.58	0.06	4.1	1.6	1.4 - 1.8

Albumin (g/dL)

Specimen CH-5

Reagent/Instrument	Labs	Mean	SD	CV	Median	Range
All Method	228	3.38	0.38	11.2	3.5	3.0 - 3.8
All Bromocresol Green Reagents	173	3.56	0.17	4.8	3.6	3.2 - 4.0
All Bromocresol Purple Reagents	49	2.76	0.08	3.1	2.7	2.4 - 3.1
Abaxis Piccolo						
Abaxis Piccolo - waived	3	-	-	-	2.8	2.5 - 3.2
All Chemistry Instruments	10	2.84	0.12	4.1	2.8	2.5 - 3.2
Alfa Wassermann						
Alfa Wassermann ACE Alera/Axcel	27	3.62	0.09	2.5	3.6	3.2 - 4.0
Beckman AU						
Beckman AU systems	40	3.57	0.12	3.4	3.6	3.2 - 4.0
ELITechGroup Envoy 500						
ELITechGroup Envoy 500	12	3.63	0.17	4.6	3.6	3.2 - 4.0
Horiba ABX Pentra						
Horiba ABX Pentra 400	21	3.49	0.16	4.7	3.5	3.1 - 3.9
Roche Integra						
Roche Integra	20	3.73	0.13	3.5	3.7	3.3 - 4.1
Siemens Healthcare						
Siemens Dimension	36	2.73	0.06	2.1	2.7	2.4 - 3.1
All Chemistry Instruments	37	2.74	0.06	2.3	2.7	2.4 - 3.1
VITROS						
VITROS 250,350,400 500,700,750,950	31	3.37	0.12	3.7	3.4	3.0 - 3.8
All Chemistry Instruments	35	3.38	0.12	3.7	3.4	3.0 - 3.8

Bilirubin, Direct (mg/dL)

| | Specimen CH-1 | | | | | | Specimen CH-2 | | | | |
Reagent/Instrument	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	148	0.21	0.22	102.0	0.1	0.0 - 0.7	150	0.55	0.20	37.3	0.6	0.1 - 1.0
All Alfa Wassermann Reagents	18	0.65	0.05	7.9	0.7	0.5 - 0.8	19	0.71	0.08	11.4	0.7	0.5 - 0.9
All Roche Reagents	21	0.08	0.09	116.7	0.0	0.0 - 0.3	21	0.38	0.04	10.6	0.4	0.3 - 0.5
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	18	0.65	0.05	7.9	0.7	0.5 - 0.8	19	0.71	0.08	11.4	0.7	0.5 - 0.9
Beckman AU												
Beckman AU systems	28	0.10	0.01	0.0	0.1	0.0 - 0.2	29	0.58	0.06	9.7	0.6	0.4 - 0.7
Horiba ABX Pentra												
Horiba ABX Pentra 400	12	0.20	0.01	0.0	0.2	0.1 - 0.3	12	0.67	0.09	13.3	0.7	0.4 - 0.9
Roche Integra												
Roche Integra	13	0.02	0.04	244.1	0.0	0.0 - 0.1	13	0.40	0.01	0.0	0.4	0.3 - 0.5
Siemens Healthcare												
Siemens Dimension	25	0.06	0.05	79.8	0.1	0.0 - 0.2	26	0.39	0.03	8.4	0.4	0.3 - 0.5
All Chemistry Instruments	27	0.06	0.05	75.0	0.1	0.0 - 0.2	28	0.39	0.04	9.6	0.4	0.3 - 0.5
VITROS-BuBc and Bc												
VITROS 250,350,400 500,700,750,950	18	0.30	0.25	84.0	0.4	0.0 - 0.9	18	0.61	0.39	64.5	0.8	0.0 - 1.4
All Chemistry Instruments	21	0.30	0.24	78.0	0.3	0.0 - 0.8	21	0.61	0.36	59.6	0.7	0.0 - 1.4

| | Specimen CH-3 | | | | | | Specimen CH-4 | | | | |
Reagent/Instrument	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	151	1.10	0.37	33.5	1.1	0.3 - 1.9	147	0.17	0.08	46.7	0.2	0.0 - 0.4
All Alfa Wassermann Reagents	19	1.33	0.14	10.3	1.3	1.0 - 1.7	19	0.24	0.05	20.9	0.2	0.1 - 0.4
All Roche Reagents	21	0.79	0.11	13.5	0.8	0.5 - 1.0	21	0.12	0.04	35.3	0.1	0.0 - 0.3
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	19	1.33	0.14	10.3	1.3	1.0 - 1.7	19	0.24	0.05	20.9	0.2	0.1 - 0.4
Beckman AU												
Beckman AU systems	30	1.10	0.12	10.6	1.1	0.8 - 1.4	29	0.20	0.01	0.0	0.2	0.1 - 0.3
Horiba ABX Pentra												
Horiba ABX Pentra 400	12	1.39	0.15	10.8	1.4	1.0 - 1.7	12	0.20	0.01	0.0	0.2	0.1 - 0.3
Roche Integra												
Roche Integra	13	0.85	0.07	7.8	0.9	0.7 - 1.0	13	0.10	0.01	0.0	0.1	0.0 - 0.2
Siemens Healthcare												
Siemens Dimension	26	0.80	0.06	7.4	0.8	0.6 - 1.0	25	0.10	0.01	0.0	0.1	0.0 - 0.2
All Chemistry Instruments	28	0.81	0.07	8.9	0.8	0.6 - 1.0	26	0.10	0.01	0.0	0.1	0.0 - 0.2
VITROS-BuBc and Bc												
VITROS 250,350,400 500,700,750,950	18	1.24	0.67	54.2	1.5	0.0 - 2.6	18	0.21	0.18	85.8	0.2	0.0 - 0.6
All Chemistry Instruments	21	1.28	0.63	49.4	1.5	0.0 - 2.6	21	0.20	0.17	83.8	0.2	0.0 - 0.6

Bilirubin, Direct (mg/dL)

Specimen CH-5

Reagent/Instrument	Labs	Mean	SD	CV	Median	Range
All Method	150	0.74	0.27	36.0	0.8	0.2 - 1.3
All Alfa Wassermann Reagents	19	0.95	0.12	12.4	1.0	0.7 - 1.2
All Roche Reagents	21	0.52	0.07	13.4	0.5	0.3 - 0.7
Alfa Wassermann						
Alfa Wassermann ACE Alera/Axcel	19	0.95	0.12	12.4	1.0	0.7 - 1.2
Beckman AU						
Beckman AU systems	29	0.76	0.08	10.2	0.8	0.6 - 1.0
Horiba ABX Pentra						
Horiba ABX Pentra 400	12	0.93	0.12	13.1	0.9	0.6 - 1.2
Roche Integra						
Roche Integra	13	0.56	0.05	9.0	0.6	0.4 - 0.7
Siemens Healthcare						
Siemens Dimension	26	0.52	0.05	9.5	0.5	0.4 - 0.7
All Chemistry Instruments	28	0.53	0.06	11.1	0.5	0.4 - 0.7
VITROS-BuBc and Bc						
VITROS 250,350,400 500,700,750,950	18	0.83	0.48	58.3	1.0	0.0 - 1.8
All Chemistry Instruments	21	0.84	0.45	53.3	1.0	0.0 - 1.8

Bilirubin, Total (mg/dL)

Reagent/Instrument	Specimen CH-1						Specimen CH-2					
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	245	0.56	0.17	30.6	0.5	0.1 - 1.0	243	1.42	0.19	13.5	1.4	1.0 - 1.9
All Alfa Wassermann Reagents	32	0.93	0.06	6.1	0.9	0.5 - 1.4	32	1.68	0.10	6.1	1.7	1.2 - 2.1
All Horiba Pentra Reagents	21	0.51	0.04	8.6	0.5	0.1 - 1.0	21	1.44	0.12	8.6	1.5	1.0 - 1.9
All Roche T. bili Special Reagents	22	0.40	0.01	0.0	0.4	0.0 - 0.8	24	1.24	0.08	6.2	1.2	0.8 - 1.7
Abaxis Piccolo												
Abaxis Piccolo - waived	20	0.60	0.04	6.6	0.6	0.1 - 1.0	19	1.18	0.10	8.6	1.2	0.7 - 1.6
All Chemistry Instruments	28	0.59	0.04	7.1	0.6	0.1 - 1.0	27	1.18	0.11	8.9	1.2	0.7 - 1.6
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	31	0.93	0.06	6.2	0.9	0.5 - 1.4	31	1.68	0.10	6.0	1.7	1.2 - 2.1
Beckman AU												
Beckman AU systems	38	0.54	0.05	10.1	0.5	0.1 - 1.0	39	1.50	0.12	7.9	1.5	1.1 - 1.9
ELITechGroup Envoy 500												
ELITechGroup Envoy 500	12	0.49	0.09	18.3	0.5	0.0 - 0.9	12	1.32	0.22	16.5	1.4	0.9 - 1.8
Horiba ABX Pentra												
Horiba ABX Pentra 400	20	0.51	0.04	8.8	0.5	0.1 - 1.0	20	1.44	0.13	8.8	1.5	1.0 - 1.9
All Chemistry Instruments	21	0.51	0.04	8.6	0.5	0.1 - 1.0	21	1.44	0.12	8.6	1.5	1.0 - 1.9
Roche Integra-T. bili Gen.3												
Roche Integra	11	0.40	0.01	0.0	0.4	0.0 - 0.8	12	1.22	0.07	5.9	1.2	0.8 - 1.7
All Chemistry Instruments	13	0.40	0.01	0.0	0.4	0.0 - 0.8	14	1.22	0.07	5.7	1.2	0.8 - 1.7
Siemens Healthcare												
Siemens Dimension	34	0.43	0.06	14.5	0.4	0.0 - 0.9	35	1.37	0.10	7.4	1.4	0.9 - 1.8
All Chemistry Instruments	35	0.43	0.06	14.5	0.4	0.0 - 0.9	36	1.38	0.10	7.5	1.4	0.9 - 1.8
VITROS - TBIL												
VITROS 250,350,400 500,700,750,950	30	0.60	0.12	20.5	0.6	0.2 - 1.0	30	1.52	0.14	9.5	1.5	1.1 - 2.0
All Chemistry Instruments	35	0.59	0.12	20.5	0.6	0.1 - 1.0	34	1.49	0.15	10.3	1.5	1.0 - 1.9

Bilirubin, Total (mg/dL)

Reagent/Instrument	Specimen CH-3						Specimen CH-4					
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	225	2.89	0.38	13.1	2.9	2.3 - 3.5	225	0.44	0.10	23.1	0.4	0.0 - 0.9
All Alfa Wassermann Reagents	31	3.29	0.24	7.3	3.4	2.6 - 4.0	30	0.57	0.04	7.8	0.6	0.1 - 1.0
All Horiba Pentra Reagents	21	2.94	0.28	9.5	3.0	2.3 - 3.6	21	0.43	0.06	13.1	0.4	0.0 - 0.9
All Roche T. bili Special Reagents	24	2.48	0.17	6.8	2.5	1.9 - 3.0	24	0.38	0.04	11.8	0.4	0.0 - 0.8
Abaxis Piccolo												
Abaxis Piccolo - waived	3	-	-	-	2.3	1.7 - 2.7	3	-	-	-	0.5	0.1 - 1.0
All Chemistry Instruments	10	2.21	0.14	6.2	2.3	1.7 - 2.7	10	0.53	0.05	9.1	0.5	0.1 - 1.0
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	30	3.28	0.24	7.2	3.4	2.6 - 4.0	29	0.57	0.05	7.9	0.6	0.1 - 1.0
Beckman AU												
Beckman AU systems	38	2.99	0.24	7.9	3.0	2.3 - 3.6	38	0.46	0.05	11.7	0.5	0.0 - 0.9
ELITechGroup Envoy 500												
ELITechGroup Envoy 500	12	2.79	0.40	14.4	2.9	2.2 - 3.4	12	0.38	0.07	18.7	0.4	0.0 - 0.8
Horiba ABX Pentra												
Horiba ABX Pentra 400	20	2.94	0.29	9.7	3.0	2.3 - 3.6	20	0.43	0.06	13.3	0.4	0.0 - 0.9
All Chemistry Instruments	21	2.94	0.28	9.5	3.0	2.3 - 3.6	21	0.43	0.06	13.1	0.4	0.0 - 0.9
Roche Integra-T. bili Gen.3												
Roche Integra	12	2.45	0.14	5.6	2.5	1.9 - 3.0	12	0.37	0.05	13.4	0.4	0.0 - 0.8
All Chemistry Instruments	14	2.46	0.14	5.9	2.5	1.9 - 3.0	14	0.37	0.05	12.6	0.4	0.0 - 0.8
Siemens Healthcare												
Siemens Dimension	35	2.83	0.21	7.5	2.8	2.2 - 3.4	34	0.40	0.06	14.5	0.4	0.0 - 0.8
All Chemistry Instruments	36	2.83	0.21	7.5	2.8	2.2 - 3.4	35	0.40	0.06	14.3	0.4	0.0 - 0.8
VITROS - TBIL												
VITROS 250,350,400 500,700,750,950	30	3.10	0.27	8.6	3.1	2.4 - 3.8	30	0.38	0.13	33.2	0.4	0.0 - 0.8
All Chemistry Instruments	35	3.05	0.30	9.7	3.1	2.4 - 3.7	35	0.36	0.12	34.5	0.3	0.0 - 0.8

Bilirubin, Total (mg/dL)

Specimen CH-5

Reagent/Instrument	Labs	Mean	SD	CV	Median	Range
All Method	226	1.96	0.24	12.3	2.0	1.5 - 2.4
All Alfa Wassermann Reagents	31	2.27	0.13	5.9	2.3	1.8 - 2.8
All Horiba Pentra Reagents	21	1.97	0.15	7.7	2.0	1.5 - 2.4
All Roche T. bili Special Reagents	24	1.68	0.13	7.4	1.7	1.2 - 2.1
Abaxis Piccolo						
Abaxis Piccolo - waived	3	-	-	-	1.7	1.1 - 2.0
All Chemistry Instruments	10	1.59	0.17	10.9	1.6	1.1 - 2.0
Alfa Wassermann						
Alfa Wassermann ACE Alera/Axcel	30	2.27	0.14	6.0	2.3	1.8 - 2.8
Beckman AU						
Beckman AU systems	39	2.02	0.15	7.6	2.0	1.6 - 2.5
ELITechGroup Envoy 500						
ELITechGroup Envoy 500	12	1.82	0.28	15.5	1.9	1.4 - 2.3
Horiba ABX Pentra						
Horiba ABX Pentra 400	20	1.98	0.16	7.9	2.0	1.5 - 2.4
All Chemistry Instruments	21	1.97	0.15	7.7	2.0	1.5 - 2.4
Roche Integra-T. bili Gen.3						
Roche Integra	12	1.67	0.11	6.4	1.7	1.2 - 2.1
All Chemistry Instruments	14	1.67	0.11	6.4	1.7	1.2 - 2.1
Siemens Healthcare						
Siemens Dimension	35	1.88	0.14	7.7	1.9	1.4 - 2.3
All Chemistry Instruments	36	1.89	0.14	7.6	1.9	1.4 - 2.3
VITROS - TBIL						
VITROS 250,350,400 500,700,750,950	30	2.08	0.17	8.0	2.1	1.6 - 2.5
All Chemistry Instruments	35	2.05	0.18	8.7	2.0	1.6 - 2.5

Calcium (mg/dL)

Reagent/Instrument	Specimen CH-1						Specimen CH-2					
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	247	7.44	0.34	4.6	7.5	6.4 - 8.5	246	9.69	0.31	3.2	9.7	8.6 - 10.7
All Arsenazo Methods	116	7.53	0.25	3.3	7.5	6.5 - 8.6	115	9.78	0.31	3.2	9.8	8.7 - 10.8
All CPC Methods	124	7.36	0.39	5.2	7.5	6.3 - 8.4	123	9.63	0.26	2.7	9.6	8.6 - 10.7
Abaxis Piccolo												
Abaxis Piccolo - waived	20	7.42	0.21	2.8	7.5	6.4 - 8.5	20	9.83	0.25	2.5	9.9	8.8 - 10.9
All Chemistry Instruments	27	7.38	0.21	2.9	7.4	6.3 - 8.4	27	9.80	0.22	2.2	9.8	8.8 - 10.8
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	32	7.65	0.21	2.7	7.6	6.6 - 8.7	33	9.93	0.30	3.0	9.9	8.9 - 11.0
Beckman AU												
Beckman AU systems	41	7.71	0.20	2.6	7.7	6.7 - 8.8	41	9.58	0.24	2.5	9.6	8.5 - 10.6
ELITechGroup Envoy 500												
ELITechGroup Envoy 500	12	7.76	0.24	3.1	7.8	6.7 - 8.8	12	9.27	0.31	3.4	9.3	8.2 - 10.3
Horiba ABX Pentra												
Horiba ABX Pentra 400	18	7.45	0.20	2.7	7.5	6.4 - 8.5	18	9.74	0.27	2.8	9.8	8.7 - 10.8
Roche Integra												
Roche Integra	20	7.38	0.25	3.4	7.3	6.3 - 8.4	19	9.74	0.28	2.9	9.7	8.7 - 10.8
Siemens Healthcare												
Siemens Dimension	34	6.89	0.20	2.9	6.9	5.8 - 7.9	35	9.51	0.24	2.5	9.5	8.5 - 10.6
All Chemistry Instruments	36	6.89	0.19	2.8	6.9	5.8 - 7.9	37	9.50	0.24	2.6	9.5	8.4 - 10.5
VITROS												
VITROS 250,350,400 500,700,750,950	30	7.39	0.16	2.2	7.4	6.3 - 8.4	30	9.75	0.25	2.5	9.7	8.7 - 10.8
All Chemistry Instruments	35	7.40	0.16	2.1	7.4	6.4 - 8.4	34	9.75	0.24	2.4	9.7	8.7 - 10.8

Calcium (mg/dL)

Reagent/Instrument	Specimen CH-3						Specimen CH-4					
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	227	13.45	0.38	2.8	13.5	12.4 - 14.5	229	7.04	0.28	4.0	7.0	6.0 - 8.1
All Arsenazo Methods	97	13.33	0.37	2.8	13.4	12.3 - 14.4	97	7.11	0.35	4.9	7.1	6.1 - 8.2
All CPC Methods	124	13.55	0.36	2.6	13.6	12.5 - 14.6	125	6.98	0.19	2.7	7.0	5.9 - 8.0
Abaxis Piccolo												
Abaxis Piccolo - waived	3	-	-	-	12.7	12.3 - 14.4	3	-	-	-	7.2	6.1 - 8.2
All Chemistry Instruments	9	-	-	-	13.1	12.1 - 14.2	9	-	-	-	7.1	6.1 - 8.2
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	33	13.45	0.37	2.8	13.6	12.4 - 14.5	33	7.42	0.20	2.7	7.4	6.4 - 8.5
Beckman AU												
Beckman AU systems	41	13.41	0.37	2.8	13.5	12.4 - 14.5	41	6.95	0.20	2.9	7.0	5.9 - 8.0
ELITechGroup Envoy 500												
ELITechGroup Envoy 500	12	13.00	0.34	2.6	13.1	12.0 - 14.0	12	6.60	0.23	3.5	6.6	5.6 - 7.6
Horiba ABX Pentra												
Horiba ABX Pentra 400	18	13.66	0.38	2.8	13.8	12.6 - 14.7	18	6.96	0.17	2.4	7.0	5.9 - 8.0
Roche Integra												
Roche Integra	20	13.76	0.46	3.3	13.7	12.7 - 14.8	20	7.04	0.23	3.3	7.1	6.0 - 8.1
Siemens Healthcare												
Siemens Dimension	35	13.55	0.29	2.1	13.5	12.5 - 14.6	35	6.96	0.15	2.1	7.0	5.9 - 8.0
All Chemistry Instruments	37	13.52	0.30	2.2	13.5	12.5 - 14.6	37	6.95	0.15	2.1	7.0	5.9 - 8.0
VITROS												
VITROS 250,350,400 500,700,750,950	29	13.32	0.24	1.8	13.4	12.3 - 14.4	29	7.01	0.23	3.2	7.0	6.0 - 8.1
All Chemistry Instruments	34	13.32	0.25	1.8	13.4	12.3 - 14.4	34	7.01	0.22	3.1	7.0	6.0 - 8.1

Calcium (mg/dL)

Specimen CH-5

Reagent/Instrument	Labs	Mean	SD	CV	Median	Range
All Method	227	10.98	0.34	3.1	11.0	9.9 - 12.0
All Arsenazo Methods	96	11.07	0.35	3.2	11.1	10.0 - 12.1
All CPC Methods	123	10.91	0.27	2.5	10.9	9.9 - 12.0
Abaxis Piccolo						
Abaxis Piccolo - waived	3	-	-	-	11.1	10.0 - 12.1
All Chemistry Instruments	9	-	-	-	11.0	9.9 - 12.0
Alfa Wassermann						
Alfa Wassermann ACE Alera/Axcel	33	11.26	0.28	2.4	11.2	10.2 - 12.3
Beckman AU						
Beckman AU systems	41	10.87	0.27	2.5	10.9	9.8 - 11.9
ELITechGroup Envoy 500						
ELITechGroup Envoy 500	12	10.57	0.28	2.7	10.6	9.5 - 11.6
Horiba ABX Pentra						
Horiba ABX Pentra 400	18	11.11	0.29	2.6	11.1	10.1 - 12.2
Roche Integra						
Roche Integra	20	11.08	0.37	3.4	11.1	10.0 - 12.1
Siemens Healthcare						
Siemens Dimension	35	10.79	0.20	1.9	10.8	9.7 - 11.8
All Chemistry Instruments	37	10.77	0.21	2.0	10.8	9.7 - 11.8
VITROS						
VITROS 250,350,400 500,700,750,950	28	11.09	0.27	2.4	11.1	10.0 - 12.1
All Chemistry Instruments	33	11.09	0.26	2.4	11.1	10.0 - 12.1

Creatinine (mg/dL)

			Specimen CH-1						Specimen CH-2			
Reagent/Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	245	0.52	0.10	18.6	0.5	0.2 - 0.9	245	2.36	0.11	4.6	2.4	2.0 - 2.8
All Alfa Wassermann Reagents	32	0.60	0.05	8.9	0.6	0.3 - 1.0	33	2.41	0.10	4.0	2.4	2.0 - 2.8
All Roche Reagents	28	0.49	0.04	8.5	0.5	0.1 - 0.8	28	2.31	0.12	5.1	2.3	1.9 - 2.7
All VITROS Reagents	36	0.58	0.04	6.9	0.6	0.2 - 0.9	35	2.35	0.07	3.0	2.4	2.0 - 2.8
Abaxis Piccolo												
Abaxis Piccolo - waived	20	0.59	0.11	19.4	0.6	0.2 - 0.9	20	2.48	0.14	5.8	2.5	2.1 - 2.9
All Chemistry Instruments	27	0.55	0.13	23.2	0.6	0.2 - 0.9	27	2.46	0.13	5.2	2.4	2.0 - 2.9
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	31	0.60	0.05	8.6	0.6	0.3 - 0.9	32	2.41	0.10	4.0	2.4	2.0 - 2.8
Beckman AU												
Beckman AU systems	38	0.39	0.05	13.1	0.4	0.0 - 0.7	41	2.32	0.08	3.6	2.3	1.9 - 2.7
ELITechGroup Envoy 500												
ELITechGroup Envoy 500	12	0.48	0.04	8.1	0.5	0.1 - 0.8	11	2.31	0.07	3.0	2.3	1.9 - 2.7
Horiba ABX Pentra												
Horiba ABX Pentra 400	21	0.46	0.07	14.5	0.5	0.1 - 0.8	21	2.23	0.15	6.8	2.3	1.8 - 2.6
Roche Integra												
Roche Integra	18	0.50	0.01	0.0	0.5	0.2 - 0.8	20	2.29	0.11	4.7	2.3	1.9 - 2.7
Siemens Healthcare												
Siemens Dimension	35	0.54	0.06	10.3	0.5	0.2 - 0.9	35	2.37	0.06	2.6	2.4	2.0 - 2.8
All Chemistry Instruments	37	0.55	0.06	10.2	0.5	0.2 - 0.9	37	2.38	0.06	2.5	2.4	2.0 - 2.8
VITROS - CREA												
VITROS 250,350,400 500,700,750,950	20	0.58	0.04	7.1	0.6	0.2 - 0.9	20	2.36	0.07	2.9	2.4	2.0 - 2.8
All Chemistry Instruments	25	0.58	0.04	7.6	0.6	0.2 - 0.9	24	2.36	0.07	2.8	2.4	2.0 - 2.8
VITROS - CRSC (DT)												
VITROS 250,350,400 500,700,750,950	10	0.60	0.01	0.0	0.6	0.3 - 0.9	10	2.35	0.08	3.6	2.4	1.9 - 2.8

Creatinine (mg/dL)

	Specimen CH-3					Specimen CH-4				
Reagent/Instrument	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_
All Method	227	4.91	0.28	5.7	4.9	4.1 - 5.7	227	0.51	0.09	17.6	0.5	0.2 - 0.9
All Alfa Wassermann Reagents	32	4.83	0.23	4.7	4.9	4.1 - 5.6	32	0.63	0.07	10.3	0.6	0.3 - 1.0
All Roche Reagents	28	4.71	0.34	7.3	4.6	4.0 - 5.5	28	0.50	0.07	13.8	0.5	0.2 - 0.9
All VITROS Reagents	36	4.87	0.10	2.1	4.9	4.1 - 5.6	36	0.53	0.05	9.5	0.5	0.2 - 0.9
Abaxis Piccolo												
Abaxis Piccolo - waived	3	-	-	-	5.1	4.1 - 5.7	3	-	-	-	0.5	0.2 - 0.9
All Chemistry Instruments	9	-	-	-	5.2	4.3 - 6.0	9	-	-	-	0.6	0.2 - 0.9
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	31	4.81	0.22	4.5	4.8	4.0 - 5.6	31	0.64	0.07	10.4	0.6	0.3 - 1.0
Beckman AU												
Beckman AU systems	39	4.89	0.15	3.1	4.9	4.1 - 5.7	41	0.46	0.05	11.6	0.5	0.1 - 0.8
ELITechGroup Envoy 500												
ELITechGroup Envoy 500	12	4.71	0.16	3.3	4.7	4.0 - 5.5	11	0.60	0.01	0.0	0.6	0.3 - 0.9
Horiba ABX Pentra												
Horiba ABX Pentra 400	21	4.74	0.32	6.8	4.8	4.0 - 5.5	21	0.42	0.07	16.5	0.4	0.1 - 0.8
Roche Integra												
Roche Integra	19	4.56	0.20	4.3	4.5	3.8 - 5.3	20	0.50	0.05	10.3	0.5	0.1 - 0.8
Siemens Healthcare												
Siemens Dimension	34	5.24	0.12	2.3	5.3	4.4 - 6.1	35	0.44	0.05	11.3	0.4	0.1 - 0.8
All Chemistry Instruments	36	5.24	0.12	2.3	5.3	4.4 - 6.1	37	0.44	0.05	12.5	0.4	0.1 - 0.8
VITROS - CREA												
VITROS 250,350,400 500,700,750,950	20	4.88	0.09	1.7	4.9	4.1 - 5.7	20	0.53	0.06	10.5	0.5	0.2 - 0.9
All Chemistry Instruments	25	4.88	0.08	1.7	4.9	4.1 - 5.7	25	0.52	0.05	10.0	0.5	0.2 - 0.9
VITROS - CRSC (DT)												
VITROS 250,350,400 500,700,750,950	10	4.85	0.14	3.0	4.9	4.1 - 5.6	10	0.53	0.05	9.1	0.5	0.2 - 0.9

Creatinine (mg/dL)

Specimen CH-5

Reagent/Instrument	Labs	Mean	SD	CV	Median	Range
All Method	227	3.24	0.15	4.8	3.2	2.7 - 3.8
All Alfa Wassermann Reagents	32	3.28	0.11	3.4	3.3	2.7 - 3.8
All Roche Reagents	28	3.15	0.18	5.7	3.1	2.6 - 3.7
All VITROS Reagents	35	3.25	0.10	2.9	3.3	2.7 - 3.8
Abaxis Piccolo						
Abaxis Piccolo - waived	3	-	-	-	3.4	2.7 - 3.8
All Chemistry Instruments	9	-	-	-	3.4	2.8 - 3.9
Alfa Wassermann						
Alfa Wassermann ACE Alera/Axcel	31	3.28	0.11	3.2	3.3	2.7 - 3.8
Beckman AU						
Beckman AU systems	40	3.21	0.10	3.1	3.2	2.7 - 3.7
ELITechGroup Envoy 500						
ELITechGroup Envoy 500	12	3.13	0.08	2.5	3.1	2.6 - 3.7
Horiba ABX Pentra						
Horiba ABX Pentra 400	21	3.10	0.21	6.8	3.1	2.6 - 3.6
Roche Integra						
Roche Integra	20	3.11	0.15	5.0	3.1	2.6 - 3.6
Siemens Healthcare						
Siemens Dimension	35	3.36	0.11	3.2	3.4	2.8 - 3.9
All Chemistry Instruments	37	3.36	0.10	3.1	3.4	2.8 - 3.9
VITROS - CREA						
VITROS 250,350,400 500,700,750,950	20	3.26	0.09	2.9	3.3	2.7 - 3.8
All Chemistry Instruments	25	3.26	0.09	2.7	3.3	2.7 - 3.8
VITROS - CRSC (DT)						
VITROS 250,350,400 500,700,750,950	10	3.24	0.12	3.6	3.3	2.7 - 3.8

Glucose (mg/dL)

Reagent/Instrument	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
				Specimen CH-1							Specimen CH-2	
All Method	261	57.2	4.0	7.0	56	51 - 64	258	129.1	5.7	4.5	129	116 - 142
All Alfa Wassermann Reagents	36	61.8	1.4	2.2	62	55 - 68	35	133.9	3.4	2.6	133	120 - 148
All Horiba Pentra Reagents	20	53.8	2.2	4.0	54	47 - 60	20	128.2	4.6	3.6	128	115 - 142
All Roche Reagents	28	53.9	1.3	2.4	54	47 - 60	28	130.1	3.2	2.5	130	117 - 144
Abaxis Piccolo												
Abaxis Piccolo - waived	20	54.3	0.9	1.7	54	48 - 61	20	126.1	1.3	1.0	126	113 - 139
All Chemistry Instruments	27	54.4	0.9	1.6	54	48 - 61	27	126.0	1.2	1.0	126	113 - 139
Alere Cholestech LDX												
All Chemistry Instruments	10	54.0	2.5	4.6	54	48 - 60	10	123.4	5.4	4.4	121	111 - 136
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	35	61.7	1.4	2.2	62	55 - 68	34	133.8	3.4	2.5	133	120 - 148
Beckman AU												
Beckman AU systems	40	54.0	1.4	2.6	54	47 - 60	41	130.9	3.7	2.8	131	117 - 145
ELITechGroup Envoy 500												
ELITechGroup Envoy 500	12	62.5	2.8	4.4	63	56 - 69	12	138.2	5.2	3.8	140	124 - 152
Horiba ABX Pentra												
Horiba ABX Pentra 400	20	53.8	2.2	4.0	54	47 - 60	20	128.2	4.6	3.6	128	115 - 142
Roche Integra												
Roche Integra	20	53.7	1.3	2.3	54	47 - 60	20	130.3	3.2	2.4	129	117 - 144
Siemens Healthcare												
Siemens Dimension	33	61.8	1.4	2.3	62	55 - 69	34	131.2	2.3	1.8	131	118 - 145
All Chemistry Instruments	35	61.7	1.5	2.5	62	55 - 68	36	131.2	2.3	1.7	131	118 - 145
VITROS												
VITROS 250,350,400 500,700,750,950	31	58.3	2.2	3.8	58	52 - 65	31	121.0	3.5	2.9	121	108 - 134
All Chemistry Instruments	37	58.1	2.2	3.8	58	52 - 65	36	121.0	3.3	2.8	121	108 - 134

Glucose (mg/dL)

Reagent/Instrument	Specimen CH-3						Specimen CH-4					
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	230	248.3	7.6	3.0	248	223 - 274	234	50.6	3.5	6.8	51	44 - 57
All Alfa Wassermann Reagents	35	251.8	6.0	2.4	251	226 - 277	35	54.0	1.3	2.5	54	48 - 60
All Horiba Pentra Reagents	20	246.6	8.9	3.6	247	221 - 272	20	50.4	2.2	4.3	50	44 - 57
All Roche Reagents	28	247.7	6.2	2.5	248	222 - 273	28	50.6	1.3	2.7	51	44 - 57
Abaxis Piccolo												
Abaxis Piccolo - waived	3	-	-	-	237	223 - 274	3	-	-	-	51	44 - 57
All Chemistry Instruments	9	-	-	-	238	214 - 263	9	-	-	-	51	45 - 58
Alere Cholestech LDX												
All Chemistry Instruments	2	-	-	-	242	217 - 266	2	-	-	-	50	44 - 56
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	34	251.6	6.0	2.4	251	226 - 277	34	53.9	1.3	2.4	54	47 - 60
Beckman AU												
Beckman AU systems	41	249.5	6.4	2.6	250	224 - 275	41	50.9	1.4	2.7	51	44 - 57
ELITechGroup Envoy 500												
ELITechGroup Envoy 500	12	263.4	11.9	4.5	266	237 - 290	12	54.4	2.9	5.3	55	48 - 61
Horiba ABX Pentra												
Horiba ABX Pentra 400	20	246.6	8.9	3.6	247	221 - 272	20	50.4	2.2	4.3	50	44 - 57
Roche Integra												
Roche Integra	19	246.2	4.4	1.8	246	221 - 271	20	50.7	1.2	2.3	51	44 - 57
Siemens Healthcare												
Siemens Dimension	35	249.8	3.8	1.5	250	224 - 275	35	51.8	1.8	3.5	52	45 - 58
All Chemistry Instruments	37	249.8	3.8	1.5	250	224 - 275	37	51.7	1.9	3.6	51	45 - 58
VITROS												
VITROS 250,350,400 500,700,750,950	31	243.6	5.4	2.2	244	219 - 269	31	44.8	2.3	5.1	45	38 - 51
All Chemistry Instruments	36	243.6	5.2	2.1	244	219 - 268	36	44.7	2.2	4.9	45	38 - 51

Glucose (mg/dL)

Specimen CH-5

Reagent/Instrument	Labs	Mean	SD	CV	Median	Range
All Method	229	169.1	6.6	3.9	169	152 - 186
All Alfa Wassermann Reagents	35	173.5	4.3	2.5	173	156 - 191
All Horiba Pentra Reagents	20	168.4	5.4	3.2	167	151 - 186
All Roche Reagents	28	169.6	4.8	2.8	169	152 - 187
Abaxis Piccolo						
Abaxis Piccolo - waived	3	-	-	-	167	152 - 186
All Chemistry Instruments	9	-	-	-	163	147 - 181
Alere Cholestech LDX						
All Chemistry Instruments	2	-	-	-	159	142 - 175
Alfa Wassermann						
Alfa Wassermann ACE Alera/Axcel	34	173.6	4.3	2.5	174	156 - 192
Beckman AU						
Beckman AU systems	41	170.6	4.5	2.7	171	153 - 188
ELITechGroup Envoy 500						
ELITechGroup Envoy 500	12	179.9	8.4	4.7	182	161 - 198
Horiba ABX Pentra						
Horiba ABX Pentra 400	20	168.4	5.4	3.2	167	151 - 186
Roche Integra						
Roche Integra	20	169.6	4.9	2.9	169	152 - 187
Siemens Healthcare						
Siemens Dimension	33	171.0	2.2	1.3	171	153 - 189
All Chemistry Instruments	35	170.9	2.2	1.3	171	153 - 188
VITROS						
VITROS 250,350,400 500,700,750,950	30	160.3	4.1	2.6	161	144 - 177
All Chemistry Instruments	35	160.3	4.1	2.6	161	144 - 177

Iron (μg/dL)

Specimen CH-1 / Specimen CH-2

Reagent/Instrument	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	90	157.6	13.7	8.7	154	126 - 190	89	107.8	7.6	7.0	106	86 - 130
All Roche Reagents	11	159.0	5.0	3.1	159	127 - 191	12	114.0	6.5	5.7	113	91 - 137
Beckman AU												
Beckman AU systems	23	159.0	6.5	4.1	158	127 - 191	23	113.0	4.6	4.1	113	90 - 136
Siemens Healthcare												
Siemens Dimension	19	149.3	1.5	1.0	149	119 - 180	18	103.3	1.3	1.2	103	82 - 124
All Chemistry Instruments	20	149.5	1.8	1.2	150	119 - 180	19	103.5	1.6	1.6	103	82 - 125
VITROS												
All Chemistry Instruments	11	188.8	5.6	3.0	190	151 - 227	11	118.3	13.0	11.0	115	94 - 142

Specimen CH-3 / Specimen CH-4

Reagent/Instrument	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	92	224.0	21.7	9.7	222	179 - 269	91	31.1	4.9	15.7	32	24 - 38
All Roche Reagents	12	228.0	4.6	2.0	229	182 - 274	12	37.2	5.3	14.3	37	29 - 45
Beckman AU												
Beckman AU systems	23	237.1	7.3	3.1	238	189 - 285	23	32.9	4.6	13.9	33	26 - 40
Siemens Healthcare												
Siemens Dimension	19	210.6	2.0	0.9	211	168 - 253	19	31.9	1.1	3.4	32	25 - 39
All Chemistry Instruments	20	210.8	2.2	1.0	211	168 - 253	20	32.1	1.3	4.0	32	25 - 39
VITROS												
All Chemistry Instruments	11	264.4	13.1	5.0	268	211 - 318	11	22.8	2.8	12.2	22	18 - 28

Specimen CH-5

Reagent/Instrument	Labs	Mean	SD	CV	Median	Range
All Method	91	147.0	12.4	8.4	144	117 - 177
All Roche Reagents	12	152.5	4.5	3.0	154	122 - 183
Beckman AU						
Beckman AU systems	23	154.3	6.1	4.0	155	123 - 186
Siemens Healthcare						
Siemens Dimension	19	139.1	1.5	1.1	139	111 - 167
All Chemistry Instruments	20	139.2	1.5	1.1	139	111 - 167
VITROS						
All Chemistry Instruments	11	167.6	7.0	4.2	167	134 - 202

Lactate (Lactic Acid) (mmol/L)

Method	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
				Specimen CH-1							**Specimen CH-2**	
All Method	5	0.58	0.16	28.3	0.6	0.0 - 1.1	5	2.74	0.21	7.6	2.8	2.1 - 3.4
				Specimen CH-3							**Specimen CH-4**	
All Method	5	6.96	0.26	3.7	7.0	6.1 - 7.8	5	0.32	0.22	67.7	0.2	0.0 - 1.0
				Specimen CH-5								
All Method	5	4.20	0.21	5.1	4.2	3.5 - 4.9						

Magnesium (mg/dL)

Reagent/Instrument	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
				Specimen CH-1							**Specimen CH-2**	
All Method	121	1.30	0.11	8.2	1.3	0.9 - 1.7	122	2.34	0.12	5.3	2.3	1.7 - 3.0
All Horiba Pentra Reagents	16	1.35	0.17	12.4	1.4	1.0 - 1.7	16	2.24	0.11	5.1	2.2	1.6 - 2.8
All Roche Reagents	23	1.32	0.04	2.9	1.3	0.9 - 1.7	23	2.35	0.06	2.5	2.3	1.7 - 3.0
Beckman AU												
Beckman AU systems	22	1.34	0.06	4.4	1.3	1.0 - 1.7	23	2.37	0.08	3.5	2.4	1.7 - 3.0
Horiba ABX Pentra												
Horiba ABX Pentra 400	16	1.35	0.17	12.4	1.4	1.0 - 1.7	16	2.24	0.11	5.1	2.2	1.6 - 2.8
Roche Integra												
Roche Integra	16	1.33	0.04	3.4	1.3	0.9 - 1.7	16	2.33	0.05	2.1	2.3	1.7 - 3.0
Siemens Healthcare												
Siemens Dimension	19	1.29	0.06	4.8	1.3	0.9 - 1.7	19	2.34	0.12	5.0	2.3	1.7 - 3.0
All Chemistry Instruments	20	1.30	0.06	5.0	1.3	0.9 - 1.7	19	2.36	0.08	3.5	2.4	1.7 - 3.0
VITROS												
VITROS 250,350,400 500,700,750,950	17	1.19	0.08	6.9	1.2	0.8 - 1.5	17	2.47	0.12	4.7	2.5	1.8 - 3.1
All Chemistry Instruments	21	1.17	0.10	8.3	1.2	0.8 - 1.5	20	2.45	0.12	4.9	2.5	1.8 - 3.1

Magnesium (mg/dL)

Reagent/Instrument	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
			Specimen CH-3							**Specimen CH-4**		
All Method	122	4.32	0.21	4.9	4.3	3.2 - 5.4	122	1.00	0.08	8.0	1.0	0.7 - 1.3
All Horiba Pentra Reagents	16	4.09	0.24	6.0	4.1	3.0 - 5.2	16	0.96	0.12	12.5	1.0	0.7 - 1.3
All Roche Reagents	23	4.25	0.14	3.2	4.2	3.1 - 5.4	23	1.04	0.05	4.8	1.0	0.7 - 1.3
Beckman AU												
Beckman AU systems	23	4.38	0.15	3.5	4.4	3.2 - 5.5	22	1.03	0.05	4.4	1.0	0.7 - 1.3
Horiba ABX Pentra												
Horiba ABX Pentra 400	16	4.09	0.24	6.0	4.1	3.0 - 5.2	16	0.96	0.12	12.5	1.0	0.7 - 1.3
Roche Integra												
Roche Integra	16	4.19	0.10	2.4	4.2	3.1 - 5.3	16	1.03	0.05	4.6	1.0	0.7 - 1.3
Siemens Healthcare												
Siemens Dimension	19	4.37	0.11	2.5	4.3	3.2 - 5.5	19	0.96	0.08	7.9	1.0	0.7 - 1.3
All Chemistry Instruments	20	4.39	0.13	2.9	4.4	3.2 - 5.5	20	0.97	0.07	7.7	1.0	0.7 - 1.3
VITROS												
VITROS 250,350,400 500,700,750,950	17	4.55	0.13	2.9	4.6	3.4 - 5.7	17	1.04	0.06	5.9	1.0	0.7 - 1.3
All Chemistry Instruments	21	4.53	0.13	2.9	4.5	3.3 - 5.7	21	1.02	0.07	6.7	1.0	0.7 - 1.3

Reagent/Instrument	Labs	Mean	SD	CV	Median	Range
			Specimen CH-5			
All Method	123	3.01	0.15	4.9	3.0	2.2 - 3.8
All Horiba Pentra Reagents	16	2.93	0.13	4.4	2.9	2.1 - 3.7
All Roche Reagents	23	3.00	0.08	2.6	3.0	2.2 - 3.8
Beckman AU						
Beckman AU systems	23	3.04	0.09	2.9	3.0	2.2 - 3.8
Horiba ABX Pentra						
Horiba ABX Pentra 400	16	2.93	0.13	4.4	2.9	2.1 - 3.7
Roche Integra						
Roche Integra	16	2.98	0.08	2.6	3.0	2.2 - 3.8
Siemens Healthcare						
Siemens Dimension	19	3.02	0.11	3.8	3.0	2.2 - 3.8
All Chemistry Instruments	20	3.04	0.13	4.2	3.0	2.2 - 3.8
VITROS						
VITROS 250,350,400 500,700,750,950	17	3.18	0.11	3.6	3.2	2.3 - 4.0
All Chemistry Instruments	21	3.16	0.11	3.6	3.2	2.3 - 4.0

Phosphorus (mg/dL)

	Specimen CH-1						Specimen CH-2				
Reagent/Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	93	2.26	0.22	9.8	2.2	1.9 - 2.6	90	3.59	0.19	5.2	3.6	3.2 - 4.0
All Alfa Wassermann Reagents	10	2.23	0.13	5.8	2.3	1.9 - 2.6	10	3.56	0.13	3.7	3.6	3.1 - 4.0
All Roche Reagents	16	2.13	0.09	4.1	2.1	1.8 - 2.5	16	3.61	0.14	3.9	3.6	3.2 - 4.0
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	10	2.23	0.13	5.8	2.3	1.9 - 2.6	10	3.56	0.13	3.7	3.6	3.1 - 4.0
Beckman AU												
Beckman AU systems	21	2.10	0.09	4.4	2.1	1.7 - 2.4	22	3.50	0.20	5.7	3.5	3.1 - 3.9
Horiba ABX Pentra												
Horiba ABX Pentra 400	10	2.57	0.16	6.2	2.6	2.2 - 2.9	10	3.81	0.22	5.8	3.7	3.4 - 4.3
Roche Integra												
Roche Integra	12	2.13	0.08	3.6	2.2	1.8 - 2.5	12	3.63	0.13	3.6	3.6	3.2 - 4.1
Siemens Healthcare												
Siemens Dimension	13	2.35	0.17	7.1	2.4	2.0 - 2.7	13	3.68	0.21	5.8	3.7	3.2 - 4.1
VITROS												
VITROS 250,350,400 500,700,750,950	10	2.44	0.07	3.0	2.4	2.1 - 2.8	10	3.53	0.07	2.0	3.5	3.1 - 4.0
All Chemistry Instruments	13	2.49	0.11	4.5	2.5	2.1 - 2.8	12	3.57	0.09	2.5	3.5	3.1 - 4.0

	Specimen CH-3						Specimen CH-4				
All Method	90	6.32	0.32	5.0	6.3	5.6 - 7.0	92	1.71	0.15	9.0	1.7	1.4 - 2.1
All Alfa Wassermann Reagents	10	6.15	0.19	3.1	6.2	5.4 - 6.9	10	1.85	0.23	12.6	1.8	1.5 - 2.2
All Roche Reagents	16	6.36	0.24	3.8	6.3	5.6 - 7.1	16	1.67	0.09	5.2	1.7	1.3 - 2.0
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	10	6.15	0.19	3.1	6.2	5.4 - 6.9	10	1.85	0.23	12.6	1.8	1.5 - 2.2
Beckman AU												
Beckman AU systems	21	6.35	0.25	3.9	6.4	5.6 - 7.1	21	1.61	0.07	4.1	1.6	1.3 - 2.0
Horiba ABX Pentra												
Horiba ABX Pentra 400	10	6.68	0.34	5.1	6.7	5.9 - 7.4	10	1.79	0.17	9.5	1.8	1.4 - 2.1
Roche Integra												
Roche Integra	12	6.35	0.24	3.8	6.4	5.6 - 7.1	12	1.68	0.09	5.6	1.7	1.3 - 2.0
Siemens Healthcare												
Siemens Dimension	13	6.35	0.39	6.1	6.4	5.6 - 7.1	13	1.76	0.16	9.1	1.8	1.4 - 2.1
VITROS												
VITROS 250,350,400 500,700,750,950	10	6.20	0.18	2.9	6.1	5.5 - 6.9	10	1.87	0.07	3.8	1.9	1.5 - 2.2
All Chemistry Instruments	13	6.24	0.16	2.6	6.2	5.5 - 7.0	13	1.87	0.09	5.1	1.9	1.5 - 2.2

Phosphorus (mg/dL)

Specimen CH-5

Reagent/Instrument	Labs	Mean	SD	CV	Median	Range
All Method	89	4.49	0.23	5.1	4.5	4.0 - 5.0
All Alfa Wassermann Reagents	10	4.43	0.17	3.8	4.4	3.9 - 4.9
All Roche Reagents	16	4.53	0.18	3.9	4.5	4.0 - 5.1
Alfa Wassermann						
Alfa Wassermann ACE Alera/Axcel	10	4.43	0.17	3.8	4.4	3.9 - 4.9
Beckman AU						
Beckman AU systems	21	4.46	0.16	3.6	4.4	3.9 - 5.0
Horiba ABX Pentra						
Horiba ABX Pentra 400	10	4.83	0.33	6.9	4.8	4.3 - 5.4
Roche Integra						
Roche Integra	12	4.52	0.19	4.1	4.6	4.0 - 5.0
Siemens Healthcare						
Siemens Dimension	13	4.56	0.27	6.0	4.6	4.0 - 5.1
VITROS						
VITROS 250,350,400 500,700,750,950	10	4.39	0.14	3.1	4.4	3.9 - 4.9
All Chemistry Instruments	13	4.43	0.14	3.2	4.4	3.9 - 5.0

Protein, Total (g/dL)

	Specimen CH-1						Specimen CH-2				
Reagent/Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	242	9.77	0.32	3.2	9.8	8.7 - 10.8	239	4.93	0.16	3.3	4.9	4.4 - 5.5
All Alfa Wassermann Reagents	32	9.88	0.27	2.7	9.9	8.8 - 10.9	31	5.02	0.16	3.2	5.0	4.5 - 5.6
All Horiba Pentra Reagents	21	9.66	0.26	2.7	9.6	8.6 - 10.7	21	4.89	0.13	2.7	4.9	4.4 - 5.4
All Roche Reagents	28	9.57	0.23	2.4	9.6	8.6 - 10.6	28	4.92	0.14	2.9	4.9	4.4 - 5.5
Abaxis Piccolo												
Abaxis Piccolo - waived	20	9.73	0.20	2.0	9.8	8.7 - 10.7	20	4.97	0.07	1.4	5.0	4.4 - 5.5
All Chemistry Instruments	27	9.74	0.22	2.3	9.8	8.7 - 10.8	27	4.97	0.07	1.3	5.0	4.4 - 5.5
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	31	9.88	0.27	2.7	9.9	8.8 - 10.9	30	5.03	0.16	3.2	5.0	4.5 - 5.6
Beckman AU												
Beckman AU systems	40	9.51	0.25	2.6	9.6	8.5 - 10.5	40	4.82	0.13	2.7	4.8	4.3 - 5.3
ELITechGroup Envoy 500												
ELITechGroup Envoy 500	12	9.56	0.27	2.9	9.5	8.6 - 10.6	12	4.85	0.18	3.7	4.8	4.3 - 5.4
Horiba ABX Pentra												
Horiba ABX Pentra 400	21	9.66	0.26	2.7	9.6	8.6 - 10.7	21	4.89	0.13	2.7	4.9	4.4 - 5.4
Roche Integra												
Roche Integra	20	9.50	0.20	2.1	9.5	8.5 - 10.5	20	4.88	0.13	2.6	4.9	4.3 - 5.4
Siemens Healthcare												
Siemens Dimension	34	10.13	0.14	1.4	10.1	9.1 - 11.2	35	5.10	0.10	1.9	5.1	4.5 - 5.7
All Chemistry Instruments	35	10.14	0.14	1.4	10.1	9.1 - 11.2	36	5.10	0.10	1.9	5.1	4.5 - 5.7
VITROS												
VITROS 250,350,400 500,700,750,950	31	9.92	0.27	2.8	9.9	8.9 - 11.0	31	4.84	0.15	3.1	4.9	4.3 - 5.4
All Chemistry Instruments	36	9.91	0.28	2.8	9.9	8.9 - 10.9	35	4.82	0.16	3.3	4.8	4.3 - 5.4

Protein, Total (g/dL)

Reagent/Instrument	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
				Specimen CH-3							Specimen CH-4	
All Method	221	8.32	0.35	4.2	8.3	7.4 - 9.2	214	2.59	0.10	3.9	2.6	2.3 - 2.9
All Alfa Wassermann Reagents	31	8.60	0.23	2.7	8.6	7.7 - 9.5	31	2.60	0.09	3.4	2.6	2.3 - 2.9
All Horiba Pentra Reagents	21	8.30	0.21	2.6	8.3	7.4 - 9.2	21	2.55	0.09	3.6	2.5	2.2 - 2.9
All Roche Reagents	28	8.32	0.21	2.6	8.3	7.4 - 9.2	28	2.59	0.10	3.8	2.6	2.3 - 2.9
Abaxis Piccolo												
Abaxis Piccolo - waived	3	-	-	-	8.5	7.4 - 9.2	3	-	-	-	2.6	2.3 - 2.9
All Chemistry Instruments	9	-	-	-	8.5	7.5 - 9.3	9	-	-	-	2.7	2.4 - 3.0
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	30	8.59	0.23	2.7	8.6	7.7 - 9.5	30	2.60	0.09	3.3	2.6	2.3 - 2.9
Beckman AU												
Beckman AU systems	40	8.18	0.22	2.6	8.3	7.3 - 9.1	33	2.52	0.08	3.1	2.5	2.2 - 2.8
ELITechGroup Envoy 500												
ELITechGroup Envoy 500	12	8.33	0.27	3.2	8.3	7.4 - 9.2	12	2.56	0.08	3.1	2.6	2.3 - 2.9
Horiba ABX Pentra												
Horiba ABX Pentra 400	21	8.30	0.21	2.6	8.3	7.4 - 9.2	21	2.55	0.09	3.6	2.5	2.2 - 2.9
Roche Integra												
Roche Integra	20	8.23	0.16	1.9	8.2	7.4 - 9.1	20	2.56	0.09	3.4	2.6	2.3 - 2.9
Siemens Healthcare												
Siemens Dimension	34	8.70	0.13	1.5	8.7	7.8 - 9.6	35	2.66	0.09	3.5	2.7	2.3 - 3.0
All Chemistry Instruments	35	8.70	0.13	1.5	8.7	7.8 - 9.6	36	2.66	0.09	3.5	2.7	2.3 - 3.0
VITROS												
VITROS 250,350,400 500,700,750,950	31	7.84	0.24	3.1	7.9	7.0 - 8.7	31	2.62	0.08	3.1	2.6	2.3 - 2.9
All Chemistry Instruments	36	7.81	0.26	3.4	7.9	7.0 - 8.6	36	2.60	0.10	4.0	2.6	2.3 - 2.9

Protein, Total (g/dL)

Specimen CH-5

Reagent/Instrument	Labs	Mean	SD	CV	Median	Range
All Method	222	6.09	0.21	3.4	6.1	5.4 - 6.7
All Alfa Wassermann Reagents	31	6.22	0.17	2.7	6.2	5.5 - 6.9
All Horiba Pentra Reagents	21	6.05	0.16	2.7	6.0	5.4 - 6.7
All Roche Reagents	28	6.10	0.14	2.2	6.1	5.4 - 6.8
Abaxis Piccolo						
Abaxis Piccolo - waived	3	-	-	-	6.1	5.4 - 6.7
All Chemistry Instruments	9	-	-	-	6.1	5.4 - 6.8
Alfa Wassermann						
Alfa Wassermann ACE Alera/Axcel	30	6.21	0.17	2.7	6.2	5.5 - 6.9
Beckman AU						
Beckman AU systems	40	5.94	0.15	2.5	6.0	5.3 - 6.6
ELITechGroup Envoy 500						
ELITechGroup Envoy 500	12	6.08	0.20	3.3	6.1	5.4 - 6.7
Horiba ABX Pentra						
Horiba ABX Pentra 400	21	6.05	0.16	2.7	6.0	5.4 - 6.7
Roche Integra						
Roche Integra	20	6.06	0.11	1.9	6.1	5.4 - 6.7
Siemens Healthcare						
Siemens Dimension	35	6.32	0.11	1.8	6.3	5.6 - 7.0
All Chemistry Instruments	36	6.33	0.11	1.7	6.3	5.6 - 7.0
VITROS						
VITROS 250,350,400 500,700,750,950	31	5.91	0.19	3.3	5.9	5.3 - 6.5
All Chemistry Instruments	36	5.89	0.20	3.3	5.9	5.3 - 6.5

Urea Nitrogen (mg/dL)

Reagent/Instrument	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
			Specimen CH-1							Specimen CH-2		
All Method	246	5.9	0.9	15.4	6	3 - 8	244	20.3	1.8	8.7	21	18 - 23
All Alfa Wassermann Reagents	34	6.0	0.9	15.0	6	4 - 9	33	21.1	1.3	6.0	21	19 - 24
All Horiba Pentra Reagents	21	6.1	0.9	13.9	6	4 - 9	21	20.0	1.4	6.8	20	17 - 22
All Roche Reagents	28	6.1	0.5	8.9	6	4 - 9	28	20.7	0.9	4.4	21	18 - 23
Abaxis Piccolo												
Abaxis Piccolo - waived	19	4.9	0.5	9.4	5	2 - 7	19	18.9	0.6	3.0	19	16 - 21
All Chemistry Instruments	26	4.9	0.4	8.0	5	2 - 7	26	18.9	0.6	3.0	19	16 - 21
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	29	6.1	0.9	15.2	6	4 - 9	29	21.1	1.3	6.1	21	19 - 24
Beckman AU												
Beckman AU systems	40	6.3	0.6	9.7	6	4 - 9	40	21.5	0.9	4.3	22	19 - 24
ELITechGroup Envoy 500												
ELITechGroup Envoy 500	11	6.4	0.9	14.5	6	4 - 9	11	21.8	0.9	4.0	22	19 - 24
Horiba ABX Pentra												
Horiba ABX Pentra 400	21	6.1	0.9	13.9	6	4 - 9	21	20.0	1.4	6.8	20	17 - 22
Roche Integra												
Roche Integra	20	6.0	0.6	9.4	6	4 - 8	20	20.4	0.8	4.0	20	18 - 23
Siemens Healthcare												
Siemens Dimension	35	6.5	0.7	11.3	7	4 - 9	35	21.6	0.9	4.1	22	19 - 24
All Chemistry Instruments	37	6.5	0.7	11.2	7	4 - 9	37	21.6	0.9	4.0	22	19 - 24
VITROS												
VITROS 250,350,400 500,700,750,950	31	4.9	0.4	8.8	5	2 - 7	31	17.3	0.5	3.1	17	15 - 20
All Chemistry Instruments	36	4.9	0.4	8.7	5	2 - 7	35	17.2	0.5	3.2	17	15 - 20

Urea Nitrogen (mg/dL)

		Specimen CH-3					Specimen CH-4				
Reagent/Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	228	42.5	3.2	7.6	43	38 - 47	229	5.7	0.9	16.5	6	3 - 8
All Alfa Wassermann Reagents	33	43.2	2.4	5.5	43	39 - 48	33	6.1	0.8	12.6	6	4 - 9
All Horiba Pentra Reagents	20	41.3	1.8	4.4	41	37 - 46	21	5.6	0.8	14.6	5	3 - 8
All Roche Reagents	28	43.5	2.0	4.6	44	39 - 48	28	5.9	0.4	7.7	6	3 - 8
Abaxis Piccolo												
Abaxis Piccolo - waived	3	-	-	-	40	38 - 47	3	-	-	-	4	3 - 8
All Chemistry Instruments	9	-	-	-	41	37 - 45	9	-	-	-	5	2 - 7
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	29	43.2	2.3	5.4	43	39 - 48	29	6.1	0.8	13.2	6	4 - 9
Beckman AU												
Beckman AU systems	40	44.3	1.5	3.3	44	40 - 49	38	6.1	0.5	7.4	6	4 - 9
ELITechGroup Envoy 500												
ELITechGroup Envoy 500	11	43.7	1.5	3.4	44	39 - 48	11	6.1	0.9	15.5	6	4 - 9
Horiba ABX Pentra												
Horiba ABX Pentra 400	20	41.3	1.8	4.4	41	37 - 46	21	5.6	0.8	14.6	5	3 - 8
Roche Integra												
Roche Integra	20	43.2	2.0	4.7	43	39 - 48	20	5.9	0.5	8.4	6	3 - 8
Siemens Healthcare												
Siemens Dimension	35	44.8	1.5	3.4	45	40 - 49	34	6.0	0.8	12.6	6	4 - 9
All Chemistry Instruments	37	44.8	1.5	3.3	45	40 - 49	36	6.0	0.7	12.2	6	4 - 9
VITROS												
VITROS 250,350,400 500,700,750,950	31	36.9	1.0	2.6	37	33 - 41	31	4.5	0.5	11.3	4	2 - 7
All Chemistry Instruments	36	36.8	1.0	2.8	37	33 - 41	36	4.4	0.5	11.3	4	2 - 7

Urea Nitrogen (mg/dL)

Specimen CH-5

Reagent/Instrument	Labs	Mean	SD	CV	Median	Range
All Method	228	27.8	2.4	8.5	28	25 - 31
All Alfa Wassermann Reagents	33	28.6	1.6	5.6	28	26 - 32
All Horiba Pentra Reagents	20	27.0	1.4	5.1	27	24 - 30
All Roche Reagents	28	27.9	1.7	6.2	28	25 - 31
Abaxis Piccolo						
Abaxis Piccolo - waived	3	-	-	-	27	25 - 31
All Chemistry Instruments	9	-	-	-	26	23 - 29
Alfa Wassermann						
Alfa Wassermann ACE Alera/Axcel	29	28.6	1.6	5.6	28	26 - 32
Beckman AU						
Beckman AU systems	40	29.1	1.1	3.6	29	26 - 32
ELITechGroup Envoy 500						
ELITechGroup Envoy 500	11	29.5	1.3	4.4	30	26 - 33
Horiba ABX Pentra						
Horiba ABX Pentra 400	20	27.0	1.4	5.1	27	24 - 30
Roche Integra						
Roche Integra	20	27.7	1.3	4.8	28	25 - 31
Siemens Healthcare						
Siemens Dimension	35	29.7	1.1	3.6	30	27 - 33
All Chemistry Instruments	37	29.7	1.1	3.6	30	27 - 33
VITROS						
VITROS 250,350,400 500,700,750,950	31	23.7	0.6	2.7	24	21 - 26
All Chemistry Instruments	36	23.7	0.7	3.0	24	21 - 26

Uric Acid (mg/dL)

	Specimen CH-1						Specimen CH-2				
Reagent/Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	152	1.87	0.45	24.3	1.8	1.5 - 2.2	149	5.59	0.23	4.2	5.6	4.6 - 6.6
All Alfa Wassermann Reagents	18	3.11	0.30	9.8	3.1	2.5 - 3.7	17	5.94	0.31	5.3	5.9	4.9 - 7.0
All Roche Reagents	22	1.71	0.05	2.7	1.7	1.4 - 2.1	22	5.63	0.17	3.0	5.6	4.6 - 6.6
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	18	3.11	0.30	9.8	3.1	2.5 - 3.7	17	5.94	0.31	5.3	5.9	4.9 - 7.0
Beckman AU												
Beckman AU systems	32	1.63	0.06	3.6	1.6	1.3 - 2.0	32	5.61	0.13	2.3	5.6	4.6 - 6.6
Horiba ABX Pentra												
Horiba ABX Pentra 400	13	1.67	0.08	4.5	1.7	1.3 - 2.0	13	5.45	0.13	2.4	5.4	4.5 - 6.4
Roche Integra												
Roche Integra	14	1.72	0.06	3.4	1.7	1.4 - 2.1	14	5.68	0.18	3.2	5.7	4.7 - 6.7
Siemens Healthcare												
Siemens Dimension	26	1.90	0.12	6.2	1.9	1.5 - 2.3	25	5.43	0.11	2.0	5.4	4.5 - 6.4
All Chemistry Instruments	27	1.89	0.12	6.2	1.9	1.5 - 2.3	26	5.43	0.11	2.0	5.4	4.5 - 6.4
VITROS												
VITROS 250,350,400 500,700,750,950	19	1.84	0.08	4.5	1.9	1.5 - 2.2	19	5.48	0.12	2.2	5.5	4.5 - 6.5
All Chemistry Instruments	24	1.84	0.08	4.2	1.8	1.5 - 2.2	23	5.49	0.12	2.2	5.5	4.5 - 6.5

	Specimen CH-3						Specimen CH-4				
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	150	11.11	0.39	3.5	11.1	9.2 - 13.1	149	1.86	0.37	19.8	1.8	1.5 - 2.2
All Alfa Wassermann Reagents	17	11.25	0.53	4.7	11.2	9.3 - 13.2	17	2.89	0.18	6.3	2.8	2.4 - 3.4
All Roche Reagents	22	11.25	0.32	2.9	11.2	9.3 - 13.2	22	1.71	0.06	3.3	1.7	1.4 - 2.1
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	17	11.25	0.53	4.7	11.2	9.3 - 13.2	17	2.89	0.18	6.3	2.8	2.4 - 3.4
Beckman AU												
Beckman AU systems	32	11.27	0.25	2.2	11.3	9.3 - 13.2	32	1.79	0.05	2.6	1.8	1.4 - 2.1
Horiba ABX Pentra												
Horiba ABX Pentra 400	13	10.95	0.22	2.0	10.9	9.0 - 12.9	13	1.73	0.09	5.5	1.7	1.4 - 2.1
Roche Integra												
Roche Integra	14	11.34	0.36	3.2	11.3	9.4 - 13.3	14	1.73	0.06	3.5	1.7	1.4 - 2.1
Siemens Healthcare												
Siemens Dimension	26	10.85	0.28	2.6	10.8	9.0 - 12.7	26	1.76	0.08	4.6	1.8	1.4 - 2.1
All Chemistry Instruments	27	10.85	0.28	2.6	10.8	9.0 - 12.7	27	1.77	0.09	5.2	1.8	1.4 - 2.1
VITROS												
VITROS 250,350,400 500,700,750,950	18	11.03	0.23	2.1	11.1	9.1 - 13.0	18	1.65	0.06	3.7	1.7	1.3 - 2.0
All Chemistry Instruments	23	11.05	0.22	1.9	11.1	9.1 - 13.0	23	1.65	0.06	3.6	1.7	1.3 - 2.0

Uric Acid (mg/dL)

Specimen CH-5

Reagent/Instrument	Labs	Mean	SD	CV	Median	Range
All Method	147	7.42	0.25	3.4	7.4	6.1 - 8.7
All Alfa Wassermann Reagents	17	7.66	0.39	5.1	7.6	6.3 - 9.0
All Roche Reagents	22	7.50	0.21	2.9	7.5	6.2 - 8.8
Alfa Wassermann						
Alfa Wassermann ACE Alera/Axcel	17	7.66	0.39	5.1	7.6	6.3 - 9.0
Beckman AU						
Beckman AU systems	32	7.50	0.17	2.2	7.5	6.2 - 8.8
Horiba ABX Pentra						
Horiba ABX Pentra 400	13	7.35	0.18	2.5	7.3	6.0 - 8.6
Roche Integra						
Roche Integra	14	7.54	0.24	3.2	7.5	6.2 - 8.9
Siemens Healthcare						
Siemens Dimension	26	7.21	0.16	2.2	7.2	5.9 - 8.5
All Chemistry Instruments	27	7.22	0.16	2.3	7.2	5.9 - 8.5
VITROS						
VITROS 250,350,400 500,700,750,950	19	7.26	0.13	1.8	7.3	6.0 - 8.5
All Chemistry Instruments	24	7.28	0.13	1.7	7.3	6.0 - 8.6

Chloride (mmol/L)

Method/Instrument	Specimen CH-1						Specimen CH-2					
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	244	87.3	3.9	4.5	87	82 - 92	237	98.1	2.2	2.3	98	93 - 104
Abaxis Piccolo												
Abaxis Piccolo - waived	20	94.0	2.0	2.1	94	89 - 99	20	100.0	2.5	2.5	101	94 - 105
All Chemistry Instruments	27	94.0	2.1	2.3	94	89 - 99	26	100.3	1.9	1.8	101	95 - 106
ISE Diluted												
Beckman AU systems	39	87.4	1.0	1.1	87	82 - 92	39	97.0	1.0	1.1	97	92 - 102
ELITechGroup Envoy 500	12	90.7	3.2	3.5	90	86 - 96	12	101.8	2.5	2.4	103	96 - 107
Roche Integra	19	83.5	1.2	1.5	83	79 - 88	20	100.3	4.4	4.4	99	95 - 106
Siemens Dimension QuickLyte - Xpand/EXL	22	83.1	0.9	1.1	83	78 - 88	22	98.2	0.8	0.8	98	93 - 104
All Chemistry Instruments	123	85.2	3.1	3.6	85	80 - 90	119	97.8	2.1	2.1	98	92 - 103
ISE Undiluted												
Alfa Wassermann ACE Alera/Axcel	31	88.5	2.2	2.5	88	84 - 93	32	97.8	1.4	1.4	98	92 - 103
Horiba ABX Pentra 400	17	86.0	1.5	1.7	86	81 - 91	17	99.9	2.8	2.8	100	94 - 105
All Chemistry Instruments	50	87.6	2.3	2.6	87	83 - 92	50	98.3	2.0	2.0	98	93 - 104
VITROS												
VITROS 250,350,400 500,700,750,950	31	88.5	1.4	1.5	89	84 - 93	31	97.0	1.5	1.6	97	92 - 102
All Chemistry Instruments	36	88.4	1.3	1.4	89	84 - 93	35	97.0	1.5	1.5	97	92 - 102

Method/Instrument	Specimen CH-3						Specimen CH-4					
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	217	119.4	4.8	4.0	119	113 - 126	222	84.2	2.4	2.9	84	79 - 89
Abaxis Piccolo												
Abaxis Piccolo - waived	3	-	-	-	114	108 - 121	3	-	-	-	86	83 - 93
All Chemistry Instruments	9	-	-	-	114	108 - 121	9	-	-	-	88	83 - 93
ISE Diluted												
Beckman AU systems	38	114.5	1.1	1.0	114	108 - 121	37	85.2	0.6	0.7	85	80 - 90
ELITechGroup Envoy 500	11	126.0	4.9	3.9	126	119 - 133	11	84.8	2.8	3.3	84	80 - 90
Roche Integra	18	122.1	5.3	4.3	121	116 - 129	20	85.9	3.5	4.1	85	81 - 91
Siemens Dimension QuickLyte - Xpand/EXL	22	122.0	1.4	1.2	122	115 - 129	22	81.8	0.8	1.0	82	77 - 86
All Chemistry Instruments	120	119.0	4.7	3.9	119	113 - 125	122	83.8	2.7	3.2	84	79 - 88
ISE Undiluted												
Alfa Wassermann ACE Alera/Axcel	30	122.2	1.4	1.1	122	116 - 129	32	83.2	2.0	2.3	83	78 - 88
Horiba ABX Pentra 400	13	125.9	4.5	3.6	126	119 - 133	17	84.4	1.7	2.0	85	80 - 89
All Chemistry Instruments	46	122.6	2.9	2.4	122	116 - 129	52	83.7	2.0	2.4	84	79 - 88
VITROS												
VITROS 250,350,400 500,700,750,950	31	116.3	2.1	1.8	117	110 - 123	31	85.5	1.6	1.8	86	81 - 90
All Chemistry Instruments	36	116.3	2.0	1.7	117	110 - 123	36	85.4	1.5	1.7	86	81 - 90

Chloride (mmol/L)

Specimen CH-5

Method/Instrument	Labs	Mean	SD	CV	Median	Range
All Method	220	104.9	2.7	2.6	105	99 - 111
Abaxis Piccolo						
Abaxis Piccolo - waived	3	-	-	-	103	98 - 110
All Chemistry Instruments	9	-	-	-	103	98 - 110
ISE Diluted						
Beckman AU systems	39	102.8	1.1	1.0	103	97 - 108
ELITechGroup Envoy 500	12	109.1	2.9	2.7	109	103 - 115
Roche Integra	20	108.5	5.8	5.3	106	103 - 114
Siemens Dimension QuickLyte - Xpand/EXL	22	105.7	1.1	1.0	106	100 - 111
All Chemistry Instruments	120	104.7	2.6	2.5	104	99 - 110
ISE Undiluted						
Alfa Wassermann ACE Alera/Axcel	32	105.8	1.5	1.4	106	100 - 112
Horiba ABX Pentra 400	17	108.8	4.3	4.0	108	103 - 115
All Chemistry Instruments	52	106.7	3.1	2.9	106	101 - 113
VITROS						
VITROS 250,350,400 500,700,750,950	31	103.6	2.1	2.0	104	98 - 109
All Chemistry Instruments	36	103.6	2.0	2.0	104	98 - 109

CO$_2$ (mmol/L)

	Specimen CH-1						Specimen CH-2					
Method/Instrument	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	235	13.1	2.0	15.5	13	10 - 16	237	23.2	2.4	10.3	23	18 - 28
Abaxis Piccolo												
Abaxis Piccolo - waived	20	13.4	0.9	7.0	13	10 - 17	20	23.9	1.1	4.6	24	19 - 29
All Chemistry Instruments	26	13.2	0.9	6.9	13	10 - 16	25	23.6	0.8	3.5	24	18 - 29
Enzymatic Reagent												
Alfa Wassermann ACE Alera/Axcel	19	13.6	2.1	15.1	14	10 - 17	19	24.6	2.6	10.4	25	19 - 30
Beckman AU systems	31	14.2	1.2	8.2	14	11 - 17	31	24.5	1.3	5.5	25	19 - 30
Horiba ABX Pentra 400	15	12.9	2.4	18.8	14	10 - 16	15	22.3	2.6	11.6	23	17 - 27
Roche Integra	17	12.4	1.2	9.5	13	9 - 15	17	22.2	1.3	5.8	22	17 - 27
Siemens Dimension	24	15.0	2.2	14.7	15	12 - 19	25	24.2	2.1	8.8	25	19 - 29
All Chemistry Instruments	123	13.7	2.0	14.2	14	10 - 17	125	23.7	2.2	9.3	24	18 - 29
ISE Diluted												
ELITechGroup Envoy 500	11	11.1	1.1	10.2	11	8 - 14	11	23.5	2.8	12.0	23	18 - 29
All Chemistry Instruments	27	12.3	1.9	15.4	12	9 - 15	27	23.3	2.6	11.0	23	18 - 28
ISE Undiluted												
Alfa Wassermann ACE Alera/Axcel	12	12.8	1.9	14.8	12	10 - 16	12	23.3	2.2	9.6	24	18 - 28
All Chemistry Instruments	18	12.7	2.4	19.2	12	10 - 16	18	22.9	3.1	13.6	24	18 - 28
VITROS												
VITROS 250,350,400 500,700,750,950	29	11.3	1.1	9.8	11	9 - 14	29	20.3	1.3	6.3	20	16 - 25
All Chemistry Instruments	33	11.0	1.3	11.9	11	8 - 14	33	20.3	1.3	6.6	20	16 - 25

	Specimen CH-3						Specimen CH-4					
Method/Instrument	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	219	38.0	3.9	10.3	38	30 - 46	217	12.5	1.6	13.1	13	10 - 16
Abaxis Piccolo												
Abaxis Piccolo - waived	3	-	-	-	32	26 - 40	3	-	-	-	12	10 - 16
All Chemistry Instruments	9	-	-	-	33	26 - 40	9	-	-	-	13	10 - 16
Enzymatic Reagent												
Alfa Wassermann ACE Alera/Axcel	19	40.2	4.1	10.3	40	32 - 49	19	13.3	1.6	11.7	13	10 - 16
Beckman AU systems	31	42.0	2.7	6.4	42	33 - 51	29	13.2	0.9	7.0	13	10 - 16
Horiba ABX Pentra 400	15	35.5	4.4	12.4	36	28 - 43	15	12.7	1.6	12.8	13	10 - 16
Roche Integra	17	36.6	2.1	5.6	37	29 - 44	17	12.3	1.6	13.4	12	9 - 15
Siemens Dimension	24	39.3	2.5	6.4	40	31 - 48	25	13.6	1.4	10.0	14	10 - 17
All Chemistry Instruments	123	39.3	3.5	8.9	39	31 - 48	123	13.0	1.5	11.3	13	10 - 16
ISE Diluted												
ELITechGroup Envoy 500	11	38.8	6.1	15.7	38	31 - 47	11	12.1	1.3	10.8	12	9 - 15
All Chemistry Instruments	26	38.2	3.4	8.9	39	30 - 46	27	12.3	1.4	11.2	13	9 - 15
ISE Undiluted												
Alfa Wassermann ACE Alera/Axcel	12	39.3	3.0	7.7	39	31 - 48	12	13.3	1.7	12.5	14	10 - 16
All Chemistry Instruments	18	38.2	4.6	12.0	39	30 - 46	17	13.2	1.7	12.7	14	10 - 16
VITROS												
VITROS 250,350,400 500,700,750,950	29	34.7	1.9	5.6	35	27 - 42	30	10.2	1.3	13.2	10	8 - 13
All Chemistry Instruments	34	34.9	2.2	6.2	35	27 - 42	35	10.3	1.3	12.6	10	8 - 13

CO$_2$ (mmol/L)

Specimen CH-5

Method/Instrument	Labs	Mean	SD	CV	Median	Range
All Method	220	27.2	3.2	11.7	28	21 - 33
Abaxis Piccolo						
Abaxis Piccolo - waived	3	-	-	-	25	21 - 33
All Chemistry Instruments	9	-	-	-	27	21 - 33
Enzymatic Reagent						
Alfa Wassermann ACE Alera/Axcel	19	29.3	2.9	10.0	30	23 - 36
Beckman AU systems	30	29.3	2.2	7.4	29	23 - 36
Horiba ABX Pentra 400	15	26.8	3.0	11.1	27	21 - 33
Roche Integra	17	26.4	2.0	7.5	26	21 - 32
Siemens Dimension	24	29.0	1.7	6.0	30	23 - 35
All Chemistry Instruments	123	28.1	2.6	9.2	29	22 - 34
ISE Diluted						
ELITechGroup Envoy 500	11	27.5	3.8	13.7	27	21 - 33
All Chemistry Instruments	27	27.5	3.1	11.1	28	21 - 33
ISE Undiluted						
Alfa Wassermann ACE Alera/Axcel	12	27.7	3.2	11.5	28	22 - 34
All Chemistry Instruments	18	27.3	3.5	12.9	28	21 - 33
VITROS						
VITROS 250,350,400 500,700,750,950	30	23.2	2.1	9.2	23	18 - 28
All Chemistry Instruments	35	23.1	2.1	9.3	23	18 - 28

Potassium (mmol/L)

		Specimen CH-1						Specimen CH-2			
Method/Instrument	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_
All Method	241	2.54	0.14	5.3	2.5	2.0 - 3.1	243	4.07	0.11	2.6	4.1	3.5 - 4.6
Abaxis Piccolo												
Abaxis Piccolo - waived	20	2.33	0.19	8.0	2.3	1.8 - 2.9	20	4.00	0.23	5.7	4.0	3.5 - 4.5
All Chemistry Instruments	27	2.30	0.19	8.4	2.3	1.8 - 2.8	27	3.99	0.22	5.4	4.0	3.4 - 4.5
ISE Diluted												
Beckman AU systems	38	2.51	0.04	1.6	2.5	2.0 - 3.1	35	4.00	0.01	0.0	4.0	3.5 - 4.5
ELITechGroup Envoy 500	12	2.48	0.10	3.9	2.5	1.9 - 3.0	12	4.07	0.09	2.2	4.0	3.5 - 4.6
Roche Integra	19	2.50	0.01	0.0	2.5	2.0 - 3.0	19	4.07	0.05	1.2	4.1	3.5 - 4.6
Siemens Dimension QuickLyte - Xpand/EXL	23	2.42	0.04	1.7	2.4	1.9 - 3.0	23	4.06	0.06	1.5	4.1	3.5 - 4.6
All Chemistry Instruments	126	2.49	0.07	2.9	2.5	1.9 - 3.0	125	4.04	0.07	1.8	4.0	3.5 - 4.6
ISE Undiluted												
Alfa Wassermann ACE Alera/Axcel	31	2.63	0.09	3.5	2.6	2.1 - 3.2	31	4.05	0.07	1.7	4.1	3.5 - 4.6
Horiba ABX Pentra 400	18	2.74	0.09	3.4	2.7	2.2 - 3.3	19	4.05	0.14	3.4	4.0	3.5 - 4.6
All Chemistry Instruments	53	2.67	0.12	4.7	2.7	2.1 - 3.2	53	4.04	0.09	2.3	4.0	3.5 - 4.6
VITROS												
VITROS 250,350,400 500,700,750,950	32	2.67	0.05	2.0	2.7	2.1 - 3.2	32	4.20	0.07	1.7	4.2	3.6 - 4.7
All Chemistry Instruments	37	2.67	0.06	2.1	2.7	2.1 - 3.2	36	4.20	0.07	1.7	4.2	3.7 - 4.7

		Specimen CH-3						Specimen CH-4			
	Labs	_Mean_	_SD_	_CV_	_Median_	_Range_	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_
All Method	229	6.62	0.22	3.3	6.6	6.1 - 7.2	221	2.42	0.08	3.2	2.4	1.9 - 3.0
Abaxis Piccolo												
Abaxis Piccolo - waived	3	-	-	-	6.7	6.0 - 7.1	3	-	-	-	2.1	1.6 - 2.7
All Chemistry Instruments	9	-	-	-	6.7	6.0 - 7.1	9	-	-	-	2.1	1.6 - 2.7
ISE Diluted												
Beckman AU systems	38	6.43	0.07	1.0	6.4	5.9 - 7.0	39	2.44	0.05	2.0	2.4	1.9 - 3.0
ELITechGroup Envoy 500	12	6.52	0.17	2.7	6.5	6.0 - 7.1	12	2.39	0.12	4.9	2.4	1.8 - 2.9
Roche Integra	20	6.53	0.10	1.5	6.5	6.0 - 7.1	19	2.40	0.01	0.0	2.4	1.9 - 2.9
Siemens Dimension QuickLyte - Xpand/EXL	23	6.56	0.08	1.2	6.6	6.0 - 7.1	23	2.38	0.04	1.8	2.4	1.8 - 2.9
All Chemistry Instruments	126	6.52	0.13	2.0	6.5	6.0 - 7.1	124	2.42	0.06	2.6	2.4	1.9 - 3.0
ISE Undiluted												
Alfa Wassermann ACE Alera/Axcel	32	6.87	0.17	2.5	6.9	6.3 - 7.4	32	2.42	0.13	5.4	2.4	1.9 - 3.0
Horiba ABX Pentra 400	19	6.49	0.18	2.8	6.5	5.9 - 7.0	18	2.49	0.08	3.2	2.5	1.9 - 3.0
All Chemistry Instruments	54	6.71	0.26	3.8	6.8	6.2 - 7.3	51	2.43	0.09	3.9	2.4	1.9 - 3.0
VITROS												
VITROS 250,350,400 500,700,750,950	32	6.88	0.10	1.4	6.9	6.3 - 7.4	32	2.48	0.06	2.3	2.5	1.9 - 3.0
All Chemistry Instruments	37	6.88	0.10	1.5	6.9	6.3 - 7.4	37	2.48	0.06	2.3	2.5	1.9 - 3.0

Potassium (mmol/L)

Specimen CH-5

Method/Instrument	Labs	Mean	SD	CV	Median	Range
All Method	228	4.90	0.12	2.4	4.9	4.4 - 5.5
Abaxis Piccolo						
Abaxis Piccolo - waived	3	-	-	-	4.8	4.3 - 5.4
All Chemistry Instruments	9	-	-	-	4.9	4.3 - 5.4
ISE Diluted						
Beckman AU systems	39	4.80	0.04	0.8	4.8	4.3 - 5.3
ELITechGroup Envoy 500	12	4.89	0.13	2.7	4.9	4.3 - 5.4
Roche Integra	19	4.86	0.05	1.0	4.9	4.3 - 5.4
Siemens Dimension QuickLyte - Xpand/EXL	23	4.89	0.07	1.4	4.9	4.3 - 5.4
All Chemistry Instruments	126	4.86	0.09	1.8	4.8	4.3 - 5.4
ISE Undiluted						
Alfa Wassermann ACE Alera/Axcel	32	4.92	0.10	2.0	4.9	4.4 - 5.5
Horiba ABX Pentra 400	19	4.84	0.13	2.6	4.8	4.3 - 5.4
All Chemistry Instruments	54	4.89	0.11	2.3	4.9	4.3 - 5.4
VITROS						
VITROS 250,350,400 500,700,750,950	32	5.07	0.09	1.8	5.1	4.5 - 5.6
All Chemistry Instruments	37	5.07	0.09	1.8	5.1	4.5 - 5.6

Sodium (mmol/L)

Technical tip: 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 ISE Undiluted on your MLE test result form (TRF). If your test method is "ISE Indirect", it should be reported as ISE Diluted 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.

	Specimen CH-1						Specimen CH-2					
Method/Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	249	130.2	4.5	3.5	130	126 - 135	247	135.0	3.2	2.4	134	131 - 140
Abaxis Piccolo												
Abaxis Piccolo - waived	20	132.7	2.4	1.8	133	128 - 137	20	138.6	2.6	1.9	139	134 - 143
All Chemistry Instruments	27	132.8	2.2	1.7	133	128 - 137	27	138.4	2.3	1.7	138	134 - 143
ISE Diluted												
Beckman AU systems	39	125.4	1.1	0.9	125	121 - 130	39	132.5	1.1	0.8	133	128 - 137
ELITechGroup Envoy 500	12	124.6	3.1	2.5	124	120 - 129	12	132.8	2.5	1.9	133	128 - 137
Roche Integra	19	126.6	1.1	0.8	127	122 - 131	19	132.7	1.3	1.0	133	128 - 137
Siemens Dimension QuickLyte - Xpand/EXL	24	127.9	1.2	0.9	128	123 - 132	24	135.1	1.4	1.0	135	131 - 140
All Chemistry Instruments	122	126.5	1.9	1.5	127	122 - 131	125	133.4	1.9	1.4	133	129 - 138
ISE Undiluted												
Alfa Wassermann ACE Alera/Axcel	33	132.8	1.9	1.5	133	128 - 137	32	133.2	1.3	1.0	133	129 - 138
Horiba ABX Pentra 400	19	133.5	1.4	1.1	134	129 - 138	18	134.0	1.2	0.9	134	130 - 138
All Chemistry Instruments	52	133.2	1.6	1.2	133	129 - 138	52	133.5	1.4	1.0	134	129 - 138
VITROS												
VITROS 250,350,400 500,700,750,950	32	136.6	2.5	1.8	136	132 - 141	32	139.9	2.5	1.8	140	135 - 144
All Chemistry Instruments	37	136.7	2.4	1.7	137	132 - 141	37	140.0	2.4	1.7	140	135 - 144

	Specimen CH-3						Specimen CH-4					
All Method	231	164.1	6.4	3.9	162	160 - 169	229	116.0	2.8	2.4	116	112 - 121
Abaxis Piccolo												
Abaxis Piccolo - waived	3	-	-	-	166	162 - 171	3	-	-	-	121	116 - 125
All Chemistry Instruments	9	-	-	-	167	162 - 171	9	-	-	-	121	116 - 125
ISE Diluted												
Beckman AU systems	39	158.4	1.6	1.0	159	154 - 163	39	115.2	1.2	1.0	115	111 - 120
ELITechGroup Envoy 500	12	159.6	3.7	2.3	160	155 - 164	12	114.1	3.4	3.0	114	110 - 119
Roche Integra	20	159.5	2.3	1.4	159	155 - 164	19	114.7	1.1	0.9	115	110 - 119
Siemens Dimension QuickLyte - Xpand/EXL	24	160.5	1.7	1.0	161	156 - 165	24	117.9	1.3	1.1	118	113 - 122
All Chemistry Instruments	125	159.7	2.6	1.6	159	155 - 164	124	116.0	2.0	1.7	116	112 - 121
ISE Undiluted												
Alfa Wassermann ACE Alera/Axcel	33	167.8	2.3	1.4	168	163 - 172	33	112.4	1.5	1.3	113	108 - 117
Horiba ABX Pentra 400	19	166.3	2.7	1.7	166	162 - 171	19	114.6	1.7	1.5	115	110 - 119
All Chemistry Instruments	52	167.2	2.6	1.5	168	163 - 172	54	113.3	2.0	1.7	113	109 - 118
VITROS												
VITROS 250,350,400 500,700,750,950	32	174.7	3.1	1.8	175	170 - 179	32	118.6	2.2	1.8	119	114 - 123
All Chemistry Instruments	37	175.0	3.1	1.8	175	170 - 179	37	118.6	2.1	1.8	119	114 - 123

Sodium (mmol/L)

Specimen CH-5

Method/Instrument	Labs	Mean	SD	CV	Median	Range
All Method	230	144.1	4.0	2.8	143	140 - 149
Abaxis Piccolo						
Abaxis Piccolo - waived	3	-	-	-	144	142 - 151
All Chemistry Instruments	9	-	-	-	146	142 - 151
ISE Diluted						
Beckman AU systems	39	141.1	1.3	0.9	141	137 - 146
ELITechGroup Envoy 500	12	142.3	3.3	2.3	142	138 - 147
Roche Integra	19	141.2	1.1	0.8	141	137 - 146
Siemens Dimension QuickLyte - Xpand/EXL	24	143.0	1.1	0.7	143	139 - 147
All Chemistry Instruments	124	141.9	1.7	1.2	142	137 - 146
ISE Undiluted						
Alfa Wassermann ACE Alera/Axcel	32	143.6	1.5	1.0	144	139 - 148
Horiba ABX Pentra 400	19	144.4	1.5	1.0	144	140 - 149
All Chemistry Instruments	53	143.7	1.7	1.2	144	139 - 148
VITROS						
VITROS 250,350,400 500,700,750,950	32	151.1	3.0	2.0	151	147 - 156
All Chemistry Instruments	37	151.4	3.0	2.0	151	147 - 156

TIBC – Calculated (µg/dL)

Method/Instrument	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
				Specimen CH-1							**Specimen CH-2**	
All Method	14	521.2	32.7	6.3	522	416 - 626	14	228.0	63.6	27.9	269	100 - 356
				Specimen CH-3							**Specimen CH-4**	
All Method	14	425.4	138.5	32.6	520	148 - 703	13	98.1	14.5	14.8	101	69 - 128
				Specimen CH-5								
All Method	14	294.6	84.6	28.7	351	125 - 464						

TIBC – Direct (µg/dL)

Method/Instrument	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
				Specimen CH-1							**Specimen CH-2**	
All Method	26	478.5	25.3	5.3	482	382 - 575	25	221.8	33.7	15.2	214	154 - 290
Siemens Healthcare												
Siemens Dimension	15	476.7	10.8	2.3	477	381 - 573	15	198.7	11.5	5.8	200	158 - 239
All Chemistry Instruments	16	479.1	14.2	3.0	478	383 - 575	16	199.1	11.2	5.6	202	159 - 239
				Specimen CH-3							**Specimen CH-4**	
All Method	25	387.6	21.8	5.6	395	310 - 466	26	98.4	35.8	36.4	84	26 - 170
Siemens Healthcare												
Siemens Dimension	15	383.6	13.6	3.6	383	306 - 461	15	72.5	10.7	14.7	75	51 - 94
All Chemistry Instruments	16	384.9	14.2	3.7	383	307 - 462	16	72.4	10.3	14.3	74	51 - 94
				Specimen CH-5								
All Method	26	282.7	30.1	10.6	281	222 - 343						
Siemens Healthcare												
Siemens Dimension	15	263.9	12.2	4.6	265	211 - 317						
All Chemistry Instruments	16	264.4	11.9	4.5	265	211 - 318						

UIBC – Direct (µg/dL)

| | | Specimen CH-1 | | | | | | Specimen CH-2 | | | | |
Method/Instrument	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	27	351.6	21.2	6.0	359	281 - 422	27	159.8	10.3	6.4	159	127 - 192
All Roche Reagents	11	331.5	13.4	4.0	332	265 - 398	12	150.7	15.5	10.3	153	119 - 182
Beckman AU												
Beckman AU systems	15	367.6	9.1	2.5	368	294 - 442	15	164.5	9.2	5.6	160	131 - 198

| | | Specimen CH-3 | | | | | | Specimen CH-4 | | | | |
Method/Instrument	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	28	286.7	14.5	5.1	289	229 - 345	26	69.7	7.8	11.1	71	54 - 86
All Roche Reagents	12	279.1	13.7	4.9	281	223 - 335	12	61.3	16.1	26.3	67	29 - 94
Beckman AU												
Beckman AU systems	15	294.1	11.0	3.7	292	235 - 353	15	75.9	9.5	12.5	72	56 - 95

| | | Specimen CH-5 | | | | |
Method/Instrument	Labs	Mean	SD	CV	Median	Range
All Method	26	199.7	9.3	4.7	201	159 - 240
All Roche Reagents	12	190.4	13.3	7.0	193	152 - 229
Beckman AU						
Beckman AU systems	15	207.5	10.2	4.9	204	165 - 249

ALT (SGPT) (IU/L)

Instrument/Reagent	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
			Specimen CH-1							Specimen CH-2		
All Method	239	28.3	5.2	18.4	29	22 - 34	239	110.3	11.5	10.4	111	88 - 133
All Alfa Wassermann Reagents	31	19.0	3.0	15.6	19	15 - 23	32	92.8	4.1	4.5	92	74 - 112
All Horiba Pentra Reagents	20	31.4	1.7	5.5	32	25 - 38	20	124.7	4.5	3.6	126	99 - 150
All Roche Reagents	28	24.1	1.2	5.1	24	19 - 29	28	110.1	2.3	2.1	110	88 - 133
Abaxis Piccolo												
Abaxis Piccolo - waived	19	31.3	2.8	9.0	31	25 - 38	19	102.7	3.0	2.9	103	82 - 124
All Chemistry Instruments	27	30.9	2.7	8.7	30	24 - 38	27	102.4	2.8	2.7	102	81 - 123
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	27	19.6	3.8	19.7	19	15 - 24	27	93.1	4.3	4.6	94	74 - 112
Beckman AU												
Beckman AU systems	40	26.8	1.1	4.1	27	21 - 33	39	101.2	2.5	2.4	101	80 - 122
ELITechGroup Envoy 500												
ELITechGroup Envoy 500	13	29.4	1.4	4.9	29	23 - 36	13	116.3	4.8	4.1	117	93 - 140
Horiba ABX Pentra												
Horiba ABX Pentra 400	20	31.4	1.7	5.5	32	25 - 38	20	124.7	4.5	3.6	126	99 - 150
Roche Integra												
Roche Integra	20	23.7	1.0	4.2	23	18 - 29	20	110.3	2.6	2.4	111	88 - 133
Siemens Healthcare ALTi												
Siemens Dimension	30	33.5	2.1	6.2	33	26 - 41	31	119.0	3.2	2.7	119	95 - 143
All Chemistry Instruments	31	33.5	2.0	6.1	33	26 - 41	32	118.8	3.3	2.8	119	95 - 143
VITROS												
VITROS 250,350,400 500,700,750,950	32	32.2	3.9	12.2	32	25 - 39	32	123.0	5.5	4.5	122	98 - 148
All Chemistry Instruments	37	31.8	4.3	13.6	32	25 - 39	36	122.7	5.2	4.3	122	98 - 148

ALT (SGPT) (IU/L)

Instrument/Reagent	Specimen CH-3						Specimen CH-4					
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	223	245.7	21.0	8.6	247	196 - 295	221	19.3	7.5	38.8	17	15 - 24
All Alfa Wassermann Reagents	32	215.6	6.3	2.9	216	172 - 259	32	14.9	2.8	18.8	14	11 - 18
All Horiba Pentra Reagents	20	282.2	10.1	3.6	286	225 - 339	19	17.6	1.1	6.3	18	14 - 22
All Roche Reagents	28	249.1	4.9	2.0	250	199 - 299	28	15.4	1.0	6.2	15	12 - 19
Abaxis Piccolo												
Abaxis Piccolo - waived	3	-	-	-	223	179 - 269	3	-	-	-	21	16 - 26
All Chemistry Instruments	10	223.9	3.8	1.7	224	179 - 269	10	21.1	3.1	14.7	21	16 - 26
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	27	215.8	6.4	3.0	216	172 - 259	27	15.1	3.0	19.8	14	12 - 19
Beckman AU												
Beckman AU systems	39	231.3	6.4	2.8	231	185 - 278	40	14.1	0.5	3.7	14	11 - 17
ELITechGroup Envoy 500												
ELITechGroup Envoy 500	13	256.5	11.7	4.6	254	205 - 308	13	16.1	0.6	4.0	16	12 - 20
Horiba ABX Pentra												
Horiba ABX Pentra 400	20	282.2	10.1	3.6	286	225 - 339	19	17.6	1.1	6.3	18	14 - 22
Roche Integra												
Roche Integra	20	249.3	5.6	2.3	250	199 - 300	20	15.3	1.1	7.1	15	12 - 19
Siemens Healthcare ALTi												
Siemens Dimension	31	265.8	6.3	2.4	266	212 - 319	31	18.5	1.7	8.9	19	14 - 23
All Chemistry Instruments	32	265.3	6.7	2.5	266	212 - 319	32	18.4	1.7	9.1	19	14 - 23
VITROS												
VITROS 250,350,400 500,700,750,950	32	246.6	7.1	2.9	246	197 - 296	32	36.1	4.5	12.5	37	28 - 44
All Chemistry Instruments	37	246.2	6.9	2.8	245	196 - 296	37	35.6	4.5	12.8	36	28 - 43

ALT (SGPT) (IU/L)

Specimen CH-5

Instrument/Reagent	Labs	Mean	SD	CV	Median	Range
All Method	223	157.2	14.7	9.3	160	125 - 189
All Alfa Wassermann Reagents	31	135.2	3.6	2.7	135	108 - 163
All Horiba Pentra Reagents	20	179.5	5.1	2.9	180	143 - 216
All Roche Reagents	28	156.8	3.2	2.0	157	125 - 189
Abaxis Piccolo						
Abaxis Piccolo - waived	3	-	-	-	146	114 - 172
All Chemistry Instruments	10	143.0	3.6	2.5	144	114 - 172
Alfa Wassermann						
Alfa Wassermann ACE Alera/Axcel	26	135.6	3.6	2.7	135	108 - 163
Beckman AU						
Beckman AU systems	39	144.4	3.8	2.6	145	115 - 174
ELITechGroup Envoy 500						
ELITechGroup Envoy 500	13	165.8	6.3	3.8	166	132 - 199
Horiba ABX Pentra						
Horiba ABX Pentra 400	20	179.5	5.1	2.9	180	143 - 216
Roche Integra						
Roche Integra	20	157.1	3.6	2.3	158	125 - 189
Siemens Healthcare ALTi						
Siemens Dimension	31	168.8	4.2	2.5	169	135 - 203
All Chemistry Instruments	32	168.5	4.4	2.6	169	134 - 203
VITROS						
VITROS 250,350,400 500,700,750,950	32	166.0	5.4	3.3	164	132 - 200
All Chemistry Instruments	37	166.0	5.3	3.2	164	132 - 200

Alkaline Phosphatase (IU/L)

Instrument/Reagent	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
			Specimen CH-1							Specimen CH-2		
All Method	245	89.7	9.2	10.2	91	62 - 117	245	156.7	22.8	14.5	160	109 - 204
All Alfa Wassermann Reagents	32	85.9	5.9	6.8	88	60 - 112	32	163.6	10.6	6.5	168	114 - 213
All Horiba Pentra Reagents	21	101.9	5.9	5.8	102	71 - 133	21	181.6	11.7	6.5	179	127 - 237
All Roche Reagents	28	94.2	4.0	4.2	94	65 - 123	28	167.9	7.1	4.2	167	117 - 219
Abaxis Piccolo												
Abaxis Piccolo - waived	19	75.5	3.9	5.2	74	52 - 99	19	134.0	6.7	5.0	135	93 - 175
All Chemistry Instruments	27	75.2	4.2	5.6	74	52 - 98	27	132.1	6.7	5.1	133	92 - 172
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	27	86.0	5.4	6.3	87	60 - 112	27	163.9	10.1	6.1	168	114 - 214
Beckman AU												
Beckman AU systems	39	84.0	5.3	6.3	83	58 - 110	39	154.7	10.0	6.5	155	108 - 202
ELITechGroup Envoy 500												
ELITechGroup Envoy 500	13	85.6	4.5	5.3	86	59 - 112	13	154.4	12.0	7.8	153	108 - 201
Horiba ABX Pentra												
Horiba ABX Pentra 400	21	101.9	5.9	5.8	102	71 - 133	21	181.6	11.7	6.5	179	127 - 237
Roche Integra												
Roche Integra	19	94.2	4.2	4.5	94	65 - 123	19	168.5	6.9	4.1	167	117 - 220
All Chemistry Instruments	20	94.3	4.1	4.4	95	65 - 123	20	168.5	6.7	4.0	168	117 - 220
Siemens Healthcare												
Siemens Dimension	10	97.6	3.5	3.6	98	68 - 127	10	183.8	3.7	2.0	184	128 - 239
Siemens Healthcare ALPi												
Siemens Dimension	27	97.5	3.2	3.3	98	68 - 127	27	182.1	4.9	2.7	182	127 - 237
All Chemistry Instruments	28	97.5	3.2	3.3	98	68 - 127	28	182.0	4.8	2.7	182	127 - 237
VITROS												
VITROS 250,350,400 500,700,750,950	32	92.6	6.3	6.8	95	64 - 121	32	121.0	6.2	5.1	122	84 - 158
All Chemistry Instruments	37	92.9	6.1	6.5	95	65 - 121	37	121.0	6.2	5.1	122	84 - 158

Alkaline Phosphatase (IU/L)

Instrument/Reagent	Specimen CH-3						Specimen CH-4					
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	228	300.8	74.3	24.7	326	210 - 391	225	39.1	3.3	8.4	39	27 - 51
All Alfa Wassermann Reagents	32	323.8	23.5	7.3	331	226 - 421	32	38.9	2.6	6.6	39	27 - 51
All Horiba Pentra Reagents	21	356.1	29.7	8.3	356	249 - 463	21	44.9	3.1	6.9	44	31 - 59
All Roche Reagents	28	338.2	12.8	3.8	339	236 - 440	27	39.6	1.5	3.7	39	27 - 52
Abaxis Piccolo												
Abaxis Piccolo - waived	3	-	-	-	239	160 - 299	3	-	-	-	35	25 - 48
All Chemistry Instruments	10	229.9	11.0	4.8	234	160 - 299	10	36.4	2.8	7.6	36	25 - 48
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	27	325.1	21.5	6.6	332	227 - 423	27	38.9	2.3	6.0	39	27 - 51
Beckman AU												
Beckman AU systems	39	312.1	19.3	6.2	312	218 - 406	39	35.9	2.3	6.3	36	25 - 47
ELITechGroup Envoy 500												
ELITechGroup Envoy 500	13	309.3	24.1	7.8	301	216 - 403	13	39.7	2.6	6.5	40	27 - 52
Horiba ABX Pentra												
Horiba ABX Pentra 400	21	356.1	29.7	8.3	356	249 - 463	21	44.9	3.1	6.9	44	31 - 59
Roche Integra												
Roche Integra	19	339.6	13.2	3.9	339	237 - 442	18	39.7	1.5	3.8	39	27 - 52
All Chemistry Instruments	20	339.6	12.9	3.8	340	237 - 442	19	39.7	1.5	3.7	39	27 - 52
Siemens Healthcare												
Siemens Dimension	10	349.7	64.9	18.5	370	244 - 455	10	40.9	2.6	6.3	41	28 - 54
Siemens Healthcare ALPi												
Siemens Dimension	27	369.5	9.1	2.5	372	258 - 481	27	41.0	2.8	6.8	41	28 - 54
All Chemistry Instruments	28	369.1	9.1	2.5	372	258 - 480	28	41.0	2.7	6.7	41	28 - 54
VITROS												
VITROS 250,350,400 500,700,750,950	32	152.7	11.0	7.2	151	106 - 199	32	38.4	2.3	5.9	38	26 - 50
All Chemistry Instruments	37	153.9	11.2	7.3	152	107 - 201	37	38.3	2.3	5.9	38	26 - 50

Alkaline Phosphatase (IU/L)

Specimen CH-5

Instrument/Reagent	Labs	Mean	SD	CV	Median	Range
All Method	228	211.1	36.9	17.5	220	147 - 275
All Alfa Wassermann Reagents	32	220.1	13.7	6.2	224	154 - 287
All Horiba Pentra Reagents	21	245.2	17.2	7.0	243	171 - 319
All Roche Reagents	28	227.5	9.0	3.9	225	159 - 296
Abaxis Piccolo						
Abaxis Piccolo - waived	3	-	-	-	164	117 - 219
All Chemistry Instruments	10	167.9	7.3	4.3	168	117 - 219
Alfa Wassermann						
Alfa Wassermann ACE Alera/Axcel	26	221.7	10.2	4.6	225	155 - 289
Beckman AU						
Beckman AU systems	38	208.6	11.9	5.7	208	146 - 272
ELITechGroup Envoy 500						
ELITechGroup Envoy 500	13	210.0	15.5	7.4	205	147 - 273
Horiba ABX Pentra						
Horiba ABX Pentra 400	21	245.2	17.2	7.0	243	171 - 319
Roche Integra						
Roche Integra	19	229.0	9.1	4.0	227	160 - 298
All Chemistry Instruments	20	228.8	8.9	3.9	226	160 - 298
Siemens Healthcare						
Siemens Dimension	10	248.6	4.7	1.9	249	174 - 324
Siemens Healthcare ALPi						
Siemens Dimension	27	248.9	7.1	2.8	250	174 - 324
All Chemistry Instruments	28	248.6	7.1	2.8	250	174 - 324
VITROS						
VITROS 250,350,400 500,700,750,950	32	142.8	8.2	5.7	144	99 - 186
All Chemistry Instruments	37	143.8	8.4	5.8	144	100 - 187

AST (SGOT) (IU/L)

Instrument/Reagent	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
			Specimen CH-1							**Specimen CH-2**		
All Method	206	35.2	4.2	12.0	34	28 - 43	208	170.4	13.0	7.6	175	136 - 205
All Alfa Wassermann Reagents	32	28.6	3.2	11.2	29	22 - 35	32	158.8	4.8	3.0	159	127 - 191
All Horiba Pentra Reagents	19	39.2	1.3	3.2	39	31 - 47	21	183.4	10.4	5.7	185	146 - 221
All Roche Reagents	27	33.6	1.8	5.4	33	26 - 41	27	176.3	6.9	3.9	175	141 - 212
Abaxis Piccolo												
Abaxis Piccolo - waived	19	40.3	1.8	4.4	41	32 - 49	19	170.6	6.6	3.9	171	136 - 205
All Chemistry Instruments	27	40.0	1.8	4.5	39	32 - 48	27	170.3	6.2	3.7	171	136 - 205
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	27	28.8	3.4	11.8	29	23 - 35	27	158.7	5.1	3.2	158	126 - 191
Beckman AU												
Beckman AU systems	40	32.7	1.4	4.1	33	26 - 40	40	154.0	5.3	3.4	154	123 - 185
ELITechGroup Envoy 500												
ELITechGroup Envoy 500	13	37.2	2.9	7.9	37	29 - 45	13	181.5	8.3	4.6	179	145 - 218
Horiba ABX Pentra												
Horiba ABX Pentra 400	19	39.2	1.3	3.2	39	31 - 47	21	183.4	10.4	5.7	185	146 - 221
Roche Integra												
Roche Integra	18	33.2	1.8	5.4	33	26 - 40	18	176.3	7.4	4.2	176	141 - 212
Siemens Healthcare												
Siemens Dimension	35	32.2	1.6	4.9	32	25 - 39	37	184.8	5.1	2.8	184	147 - 222
All Chemistry Instruments	36	32.1	1.6	5.0	32	25 - 39	38	184.7	5.1	2.8	184	147 - 222
VITROS												
VITROS 250,350,400 500,700,750,950	32	38.4	1.3	3.4	39	30 - 47	32	182.0	5.3	2.9	181	145 - 219
All Chemistry Instruments	37	38.4	1.3	3.4	38	30 - 47	36	182.0	5.5	3.0	181	145 - 219

AST (SGOT) (IU/L)

| | Specimen CH-3 | | | | | | Specimen CH-4 | | | | |
Instrument/Reagent	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	192	274.8	33.0	12.0	277	219 - 330	191	100.4	6.9	6.9	102	80 - 121
All Alfa Wassermann Reagents	32	247.9	8.4	3.4	248	198 - 298	32	97.3	4.3	4.4	97	77 - 117
All Horiba Pentra Reagents	21	286.5	15.0	5.2	288	229 - 344	21	109.0	6.2	5.7	109	87 - 131
All Roche Reagents	27	273.4	11.5	4.2	274	218 - 329	27	105.1	4.6	4.4	105	84 - 127
Abaxis Piccolo												
Abaxis Piccolo - waived	3	-	-	-	263	210 - 316	3	-	-	-	102	81 - 123
All Chemistry Instruments	10	262.6	10.1	3.8	264	210 - 316	10	101.8	2.6	2.5	102	81 - 123
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	27	247.7	8.8	3.6	247	198 - 298	27	97.2	4.5	4.6	97	77 - 117
Beckman AU												
Beckman AU systems	40	241.6	9.0	3.7	240	193 - 290	40	91.5	3.4	3.8	92	73 - 110
ELITechGroup Envoy 500												
ELITechGroup Envoy 500	13	280.6	15.2	5.4	281	224 - 337	13	108.1	4.8	4.5	108	86 - 130
Horiba ABX Pentra												
Horiba ABX Pentra 400	21	286.5	15.0	5.2	288	229 - 344	21	109.0	6.2	5.7	109	87 - 131
Roche Integra												
Roche Integra	18	273.3	12.1	4.4	275	218 - 328	18	105.3	4.7	4.4	106	84 - 127
Siemens Healthcare												
Siemens Dimension	36	301.4	7.6	2.5	301	241 - 362	36	105.8	3.1	2.9	106	84 - 127
All Chemistry Instruments	37	301.2	7.6	2.5	300	240 - 362	37	105.8	3.1	2.9	106	84 - 127
VITROS												
VITROS 250,350,400 500,700,750,950	32	330.7	11.8	3.6	330	264 - 397	32	100.8	2.8	2.8	101	80 - 121
All Chemistry Instruments	37	329.7	12.2	3.7	329	263 - 396	37	100.8	2.9	2.9	101	80 - 121

AST (SGOT) (IU/L)

Specimen CH-5

Instrument/Reagent	Labs	Mean	SD	CV	Median	Range
All Method	192	205.6	18.8	9.2	212	164 - 247
All Alfa Wassermann Reagents	32	190.1	6.5	3.4	190	152 - 229
All Horiba Pentra Reagents	21	219.8	10.5	4.8	219	175 - 264
All Roche Reagents	27	208.9	8.4	4.0	208	167 - 251
Abaxis Piccolo						
Abaxis Piccolo - waived	3	-	-	-	204	160 - 241
All Chemistry Instruments	10	200.7	6.5	3.3	203	160 - 241
Alfa Wassermann						
Alfa Wassermann ACE Alera/Axcel	27	190.1	6.9	3.6	190	152 - 229
Beckman AU						
Beckman AU systems	40	183.2	6.4	3.5	182	146 - 220
ELITechGroup Envoy 500						
ELITechGroup Envoy 500	13	215.8	9.0	4.2	216	172 - 260
Horiba ABX Pentra						
Horiba ABX Pentra 400	21	219.8	10.5	4.8	219	175 - 264
Roche Integra						
Roche Integra	18	209.1	8.5	4.1	209	167 - 251
Siemens Healthcare						
Siemens Dimension	37	224.9	4.8	2.1	225	179 - 270
All Chemistry Instruments	38	224.7	4.9	2.2	225	179 - 270
VITROS						
VITROS 250,350,400 500,700,750,950	32	230.5	6.5	2.8	231	184 - 277
All Chemistry Instruments	37	230.3	7.2	3.1	231	184 - 277

Creatine Kinase (IU/L)

Specimen CH-1 / Specimen CH-2

Instrument/Reagent	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	96	159.3	12.5	7.8	161	111 - 208	97	132.2	12.4	9.4	135	92 - 172
All Alfa Wassermann Reagents	12	157.0	6.3	4.0	158	109 - 205	12	138.8	5.6	4.1	139	97 - 181
All Roche Reagents	11	164.5	4.9	3.0	165	115 - 214	11	143.0	4.7	3.3	143	100 - 186
Beckman AU												
Beckman AU systems	22	144.0	5.6	3.9	142	100 - 188	22	123.2	5.9	4.8	124	86 - 161
Siemens Healthcare CKI												
Siemens Dimension	19	162.8	4.0	2.4	163	113 - 212	19	139.6	3.7	2.6	140	97 - 182
VITROS												
VITROS 250,350,400 500,700,750,950	10	178.6	10.2	5.7	175	125 - 233	10	120.3	12.2	10.1	116	84 - 157
All Chemistry Instruments	13	177.1	9.8	5.6	176	123 - 231	13	117.8	12.5	10.6	114	82 - 154

Specimen CH-3 / Specimen CH-4

Instrument/Reagent	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	98	264.7	37.4	14.1	276	185 - 345	97	19.9	3.7	18.7	20	13 - 26
All Alfa Wassermann Reagents	12	276.3	13.2	4.8	276	193 - 360	12	27.3	3.2	11.8	28	19 - 36
All Roche Reagents	11	288.1	13.4	4.6	284	201 - 375	11	21.4	1.1	5.2	21	14 - 28
Beckman AU												
Beckman AU systems	23	258.7	16.9	6.5	261	181 - 337	22	17.2	1.7	10.1	17	12 - 23
Siemens Healthcare CKI												
Siemens Dimension	19	288.8	12.1	4.2	292	202 - 376	19	18.8	1.9	10.1	19	13 - 25
VITROS												
VITROS 250,350,400 500,700,750,950	10	197.8	22.3	11.3	193	138 - 258	10	20.1	0.3	1.6	20	14 - 27
All Chemistry Instruments	13	192.5	23.1	12.0	191	134 - 251	12	20.0	0.1	0.0	20	14 - 26

Specimen CH-5

Instrument/Reagent	Labs	Mean	SD	CV	Median	Range
All Method	97	179.8	17.9	10.0	183	125 - 234
All Alfa Wassermann Reagents	12	186.0	9.2	4.9	185	130 - 242
All Roche Reagents	11	194.5	6.6	3.4	195	136 - 253
Beckman AU						
Beckman AU systems	23	169.0	11.9	7.0	172	118 - 220
Siemens Healthcare CKI						
Siemens Dimension	19	191.7	7.0	3.7	193	134 - 250
VITROS						
VITROS 250,350,400 500,700,750,950	10	157.2	16.4	10.4	155	110 - 205
All Chemistry Instruments	13	153.7	16.2	10.5	153	107 - 200

GGT (IU/L)

		Specimen CH-1						Specimen CH-2			
Instrument/Reagent	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	58	36.0	7.8	21.7	33	20 - 52	58	94.8	20.5	21.6	87	53 - 136
All Roche Reagents	13	31.8	0.9	2.8	32	25 - 39	13	85.6	2.4	2.8	86	68 - 103
Beckman AU												
Beckman AU systems	13	30.6	1.3	4.3	30	24 - 37	13	77.8	3.7	4.8	77	62 - 94
Siemens Healthcare												
Siemens Dimension	11	50.3	2.5	4.9	51	40 - 61	11	115.9	1.9	1.6	116	92 - 140
All Chemistry Instruments	12	50.2	2.4	4.7	51	40 - 61	12	115.8	1.8	1.6	116	92 - 139

		Specimen CH-3						Specimen CH-4			
All Method	56	206.6	37.4	18.1	193	131 - 282	56	17.0	5.1	29.9	14	6 - 28
All Roche Reagents	13	190.2	5.1	2.7	192	152 - 229	13	14.0	0.6	4.1	14	11 - 17
Beckman AU												
Beckman AU systems	13	174.2	7.6	4.3	173	139 - 209	13	13.2	0.9	6.8	13	10 - 16
Siemens Healthcare												
Siemens Dimension	11	247.4	2.4	1.0	247	197 - 297	11	25.1	1.8	7.2	25	20 - 31
All Chemistry Instruments	12	247.9	3.0	1.2	248	198 - 298	12	24.9	1.8	7.4	25	19 - 30

		Specimen CH-5				
All Method	56	133.0	27.9	21.0	123	77 - 189
All Roche Reagents	13	121.2	3.6	3.0	123	96 - 146
Beckman AU						
Beckman AU systems	13	109.8	4.7	4.3	108	87 - 132
Siemens Healthcare						
Siemens Dimension	11	160.8	2.0	1.3	161	128 - 193
All Chemistry Instruments	12	160.8	1.9	1.2	161	128 - 193

Amylase (IU/L)

		Specimen CH-1						Specimen CH-2			
Instrument/Reagent	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_
All Method	78	78.8	11.2	14.2	81	55 - 103	79	75.7	15.2	20.1	80	52 - 99
All Roche Reagents	12	88.7	2.8	3.2	89	62 - 116	12	83.4	2.9	3.4	84	58 - 109
Beckman AU												
Beckman AU systems	17	62.1	3.5	5.6	62	43 - 81	17	67.9	3.5	5.2	67	47 - 89
Siemens Healthcare												
Siemens Dimension	10	77.8	1.8	2.3	78	54 - 102	11	92.3	1.3	1.5	92	64 - 120
VITROS												
VITROS 250,350,400 500,700,750,950	13	89.2	4.5	5.0	90	62 - 116	13	52.8	3.1	5.9	53	36 - 69
All Chemistry Instruments	16	88.9	4.4	4.9	90	62 - 116	16	52.3	3.1	5.9	52	36 - 69

		Specimen CH-3						Specimen CH-4			
All Method	76	169.7	32.2	18.9	176	118 - 221	76	17.9	6.6	36.9	16	12 - 24
All Roche Reagents	12	184.9	6.0	3.3	186	129 - 241	12	16.8	0.7	4.3	17	11 - 22
Beckman AU												
Beckman AU systems	17	152.6	8.2	5.4	150	106 - 199	17	11.9	1.0	8.6	12	8 - 16
Siemens Healthcare												
Siemens Dimension	11	206.4	2.5	1.2	207	144 - 269	11	14.2	1.2	8.2	15	9 - 19
VITROS												
VITROS 250,350,400 500,700,750,950	13	122.8	3.9	3.2	122	85 - 160	13	30.0	0.1	0.0	30	21 - 39
All Chemistry Instruments	16	122.6	4.5	3.7	122	85 - 160	16	30.0	0.1	0.0	30	21 - 39

		Specimen CH-5				
All Method	75	107.4	21.2	19.7	114	75 - 140
All Roche Reagents	12	116.6	3.7	3.1	117	81 - 152
Beckman AU						
Beckman AU systems	16	96.4	5.4	5.6	97	67 - 126
Siemens Healthcare						
Siemens Dimension	11	130.1	1.9	1.5	130	91 - 170
VITROS						
VITROS 250,350,400 500,700,750,950	13	76.8	5.2	6.8	76	53 - 100
All Chemistry Instruments	16	75.9	5.6	7.4	76	53 - 99

Lactate Dehydrogenase (IU/L)

Instrument/Reagent	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
			Specimen CH-1							Specimen CH-2		
All Method	79	160.0	16.7	10.4	168	128 - 193	79	373.6	40.1	10.7	393	298 - 449
All Horiba Pentra Reagents	11	174.3	7.8	4.5	173	139 - 210	11	401.9	23.9	5.9	400	321 - 483
All Roche Reagents	19	169.8	4.5	2.7	170	135 - 204	19	401.7	7.6	1.9	402	321 - 483
Beckman AU												
Beckman AU systems	13	140.6	6.3	4.5	141	112 - 169	13	332.9	13.1	3.9	332	266 - 400
Horiba ABX Pentra												
Horiba ABX Pentra 400	11	174.3	7.8	4.5	173	139 - 210	11	401.9	23.9	5.9	400	321 - 483
Roche cobas c 501												
Roche cobas 6000 / c 501	10	172.3	4.9	2.9	172	137 - 207	10	408.2	7.4	1.8	406	326 - 490
Roche Integra												
Roche Integra	12	168.8	4.1	2.4	170	135 - 203	12	398.2	5.7	1.4	399	318 - 478
Siemens Healthcare LDI												
Siemens Dimension	11	161.4	5.9	3.6	162	129 - 194	11	374.8	10.9	2.9	373	299 - 450
VITROS												
VITROS 250,350,400 500,700,750,950	11	451.0	11.1	2.5	451	360 - 542	11	1180.0	17.9	1.5	1183	944 - 1416
VITROS 5600	10	423.5	3.0	0.7	422	338 - 509	10	1022.3	290.0	28.4	1155	817 - 1227
All Chemistry Instruments	22	440.0	16.5	3.8	440	352 - 528	22	1116.9	186.7	16.7	1180	893 - 1341

Lactate Dehydrogenase (IU/L)

	Specimen CH-3						Specimen CH-4					
All Method	79	703.1	66.4	9.4	730	562 - 844	79	143.1	15.2	10.6	152	114 - 172
All Horiba Pentra Reagents	11	743.1	48.2	6.5	729	594 - 892	11	153.0	6.2	4.0	152	122 - 184
All Roche Reagents	19	745.5	20.4	2.7	751	596 - 895	19	155.1	2.6	1.7	156	124 - 187
Beckman AU												
Beckman AU systems	13	634.7	27.0	4.3	629	507 - 762	13	127.4	5.8	4.6	129	101 - 153
Horiba ABX Pentra												
Horiba ABX Pentra 400	11	743.1	48.2	6.5	729	594 - 892	11	153.0	6.2	4.0	152	122 - 184
Roche cobas c 501												
Roche cobas 6000 / c 501	10	767.0	13.3	1.7	766	613 - 921	10	156.0	2.3	1.5	157	124 - 188
Roche Integra												
Roche Integra	12	733.4	12.9	1.8	732	586 - 881	12	154.6	2.8	1.8	154	123 - 186
Siemens Healthcare LDI												
Siemens Dimension	11	714.4	20.5	2.9	711	571 - 858	11	140.6	3.4	2.4	140	112 - 169
VITROS												
VITROS 250,350,400 500,700,750,950	11	2216.5	131.3	5.9	2262	1773 - 2660	11	467.7	14.4	3.1	469	374 - 562
VITROS 5600	10	2102.3	170.8	8.1	2078	1681 - 2523	10	473.0	4.2	0.9	472	378 - 568
All Chemistry Instruments	22	2170.8	151.0	7.0	2209	1736 - 2605	22	469.8	11.4	2.4	472	375 - 564

	Specimen CH-5					
All Method	79	483.4	51.3	10.6	509	386 - 581
All Horiba Pentra Reagents	11	513.6	33.8	6.6	502	410 - 617
All Roche Reagents	19	517.5	11.1	2.1	518	413 - 621
Beckman AU						
Beckman AU systems	13	433.5	18.1	4.2	438	346 - 521
Horiba ABX Pentra						
Horiba ABX Pentra 400	11	513.6	33.8	6.6	502	410 - 617
Roche cobas c 501						
Roche cobas 6000 / c 501	10	526.8	9.4	1.8	525	421 - 633
Roche Integra						
Roche Integra	12	511.9	8.3	1.6	509	409 - 615
Siemens Healthcare LDI						
Siemens Dimension	11	496.2	16.5	3.3	495	396 - 596
VITROS						
VITROS 250,350,400 500,700,750,950	11	1565.5	41.0	2.6	1573	1252 - 1879
VITROS 5600	10	1532.8	78.5	5.1	1533	1226 - 1840
All Chemistry Instruments	22	1552.4	57.2	3.7	1571	1241 - 1863

Lipase (IU/L)

| | Specimen CH-1 | | | | | Specimen CH-2 | | | | |
Instrument/Reagent	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	57	46.2	6.3	13.5	52	32 - 61	57	33.4	4.8	14.5	37	23 - 44
All Roche Reagents	12	52.0	2.5	4.9	52	36 - 68	12	33.8	2.3	6.9	34	23 - 44
Beckman AU												
Beckman AU systems	11	43.0	2.2	5.2	43	30 - 56	11	42.0	26.1	62.0	35	29 - 55
Horiba ABX Pentra												
Horiba ABX Pentra 400	10	48.0	8.5	17.7	45	33 - 63	10	27.4	6.0	22.0	25	19 - 36
Roche Integra												
Roche Integra	10	53.6	2.1	3.9	53	37 - 70	10	35.4	1.5	4.3	35	24 - 47
Siemens Healthcare												
Siemens Dimension	11	213.7	10.4	4.8	209	149 - 278	11	136.4	14.0	10.2	133	95 - 178
VITROS												
VITROS 250,350,400 500,700,750,950	10	194.7	3.8	2.0	197	136 - 254	10	354.4	15.4	4.3	356	248 - 461
All Chemistry Instruments	12	192.6	5.0	2.6	193	134 - 251	12	354.4	12.7	3.6	355	248 - 461

| | Specimen CH-3 | | | | | Specimen CH-4 | | | | |
Instrument/Reagent	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	57	60.3	8.0	13.3	67	42 - 79	57	14.2	3.4	24.2	16	9 - 19
All Roche Reagents	12	58.2	4.6	7.9	59	40 - 76	12	15.4	0.9	5.7	15	10 - 21
Beckman AU												
Beckman AU systems	11	66.8	2.0	3.1	67	46 - 87	11	14.1	1.9	13.6	14	9 - 19
Horiba ABX Pentra												
Horiba ABX Pentra 400	10	49.0	6.3	12.8	47	34 - 64	9	-	-	-	11	9 - 19
Roche Integra												
Roche Integra	10	61.6	2.6	4.2	61	43 - 81	10	16.0	0.7	4.4	16	11 - 21
Siemens Healthcare												
Siemens Dimension	11	238.0	22.8	9.6	228	166 - 310	11	62.0	4.0	6.5	61	43 - 81
VITROS												
VITROS 250,350,400 500,700,750,950	10	604.2	19.3	3.2	607	422 - 786	10	152.1	8.6	5.6	153	106 - 198
All Chemistry Instruments	12	625.6	43.7	7.0	618	437 - 814	12	151.4	7.5	4.9	153	105 - 197

| | Specimen CH-5 | | | | |
Instrument/Reagent	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	57	42.9	5.2	12.1	48	30 - 56
All Roche Reagents	12	42.3	3.4	8.1	42	29 - 56
Beckman AU						
Beckman AU systems	11	45.5	2.3	5.0	45	31 - 60
Horiba ABX Pentra						
Horiba ABX Pentra 400	10	35.6	6.4	17.9	33	24 - 47
Roche Integra						
Roche Integra	10	44.6	2.6	5.8	44	31 - 58
Siemens Healthcare						
Siemens Dimension	11	172.4	16.6	9.6	167	120 - 225
VITROS						
VITROS 250,350,400 500,700,750,950	10	447.4	18.5	4.1	443	313 - 582
All Chemistry Instruments	12	447.5	15.2	3.4	446	313 - 582

Alpha-fetoprotein (AFP) (ng/mL)

			Specimen CH-1							Specimen CH-2		
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	5	4.28	0.25	5.8	4.3	3.5 - 5.1	5	150.63	15.77	10.5	153.4	103.3 - 198.0
			Specimen CH-3							Specimen CH-4		
All Method	5	368.40	33.31	9.0	373.0	268.4 - 468.4	5	0.96	0.08	8.3	1.0	0.7 - 1.2
			Specimen CH-5									
All Method	5	222.30	24.92	11.2	223.6	147.5 - 297.1						

Cortisol (µg/dL)

			Specimen CH-1							Specimen CH-2		
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	14	11.39	1.85	16.2	11.2	8.5 - 14.3	14	16.44	2.63	16.0	17.0	12.3 - 20.6
			Specimen CH-3							Specimen CH-4		
All Method	14	30.74	4.42	14.4	31.3	23.0 - 38.5	14	4.66	0.78	16.8	4.9	3.4 - 5.9
			Specimen CH-5									
All Method	14	21.35	3.41	16.0	22.2	16.0 - 26.7						

T$_3$ Uptake (percent)

		Specimen CH-1						Specimen CH-2				
Method	**Labs**	**Mean**	**SD**	**CV**	**Median**	**Range**	**Labs**	**Mean**	**SD**	**CV**	**Median**	**Range**
All Method	16	27.20	5.54	20.4	26.9	10.5 - 43.9	16	48.95	3.73	7.6	48.3	37.7 - 60.2

		Specimen CH-3						Specimen CH-4				
All Method	16	43.03	3.15	7.3	42.0	33.5 - 52.5	16	54.25	5.84	10.8	54.2	36.7 - 71.8

		Specimen CH-5				
All Method	16	47.08	3.54	7.5	46.2	36.4 - 57.8

Triiodothyronine (ng/mL)

		Specimen CH-1						Specimen CH-2				
Method	**Labs**	**Mean**	**SD**	**CV**	**Median**	**Range**	**Labs**	**Mean**	**SD**	**CV**	**Median**	**Range**
All Method	37	1.10	0.47	42.8	1.0	0.0 - 2.6	37	1.54	0.26	16.9	1.6	0.7 - 2.4
All Abbott Instruments	12	0.75	0.14	18.4	0.8	0.3 - 1.2	12	1.32	0.12	8.9	1.4	0.9 - 1.7
All TOSOH Instruments	13	0.98	0.09	9.1	1.0	0.7 - 1.3	13	3.79	0.25	6.7	3.7	3.0 - 4.6
Abbott Architect	10	0.75	0.14	18.4	0.8	0.3 - 1.2	10	1.32	0.12	8.9	1.4	0.9 - 1.7
Beckman ACCESS / 2 / DxI	12	1.40	0.17	11.8	1.4	0.9 - 1.9	12	1.66	0.14	8.7	1.6	1.2 - 2.1
TOSOH ST AIA PACK	11	0.98	0.08	8.5	1.0	0.7 - 1.3	11	3.70	0.20	5.4	3.6	3.1 - 4.3

		Specimen CH-3						Specimen CH-4				
All Method	37	2.21	0.62	28.1	2.6	0.3 - 4.1	37	1.01	0.23	22.7	1.1	0.3 - 1.8
All Abbott Instruments	12	1.48	0.15	9.9	1.6	1.0 - 2.0	12	1.05	0.19	17.8	1.1	0.4 - 1.7
All TOSOH Instruments	13	5.13	0.54	10.6	5.1	3.4 - 6.8	13	2.16	0.13	6.0	2.2	1.7 - 2.6
Abbott Architect	10	1.48	0.15	9.9	1.6	1.0 - 2.0	10	1.05	0.19	17.8	1.1	0.4 - 1.7
Beckman ACCESS / 2 / DxI	12	2.61	0.18	6.8	2.6	2.0 - 3.2	12	1.08	0.11	10.6	1.1	0.7 - 1.5
TOSOH ST AIA	11	4.90	0.40	8.2	4.7	3.7 - 6.1	11	2.12	0.13	6.2	2.1	1.7 - 2.6

		Specimen CH-5				
All Method	37	1.72	0.35	20.2	1.9	0.6 - 2.8
All Abbott Instruments	12	1.37	0.12	8.9	1.4	1.0 - 1.8
All TOSOH Instruments	13	4.40	0.38	8.7	4.4	3.2 - 5.6
Abbott Architect	10	1.37	0.12	8.9	1.4	1.0 - 1.8
Beckman ACCESS / 2 / DxI	12	1.94	0.18	9.4	1.9	1.3 - 2.5
TOSOH ST AIA	11	4.28	0.23	5.3	4.3	3.5 - 5.0

Free T$_3$ (pg/mL)

			Specimen CH-1						Specimen CH-2			
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	48	2.32	0.64	27.7	2.2	0.3 - 4.3	48	4.91	0.73	14.8	5.0	2.7 - 7.2
All Roche Instruments	11	2.00	0.12	6.1	2.0	1.6 - 2.4	11	5.76	0.18	3.2	5.8	5.2 - 6.4
All TOSOH Instruments	12	2.17	0.25	11.3	2.1	1.4 - 3.0	12	10.11	0.52	5.1	10.3	8.5 - 11.7
Beckman ACCESS / 2 / DxI	18	2.45	0.31	12.6	2.4	1.5 - 3.4	18	4.56	0.24	5.2	4.5	3.8 - 5.3
TOSOH ST AIA PACK	11	2.23	0.28	12.6	2.2	1.3 - 3.1	11	10.18	0.64	6.3	10.3	8.2 - 12.2

			Specimen CH-3						Specimen CH-4			
All Method	48	5.58	0.86	15.4	5.4	3.0 - 8.2	48	3.16	0.53	16.9	3.2	1.5 - 4.8
All Abbott Instruments	11	7.16	0.22	3.1	7.1	6.5 - 7.9	11	2.94	0.34	11.4	2.9	1.9 - 4.0
All TOSOH Instruments	12	13.31	0.79	6.0	13.4	10.9 - 15.7	12	5.46	0.64	11.7	5.4	3.5 - 7.4
Beckman ACCESS / 2 / DxI	18	5.14	0.31	6.1	5.1	4.2 - 6.1	18	2.99	0.36	12.0	3.0	1.9 - 4.1
TOSOH ST AIA	11	13.33	1.05	7.9	13.5	10.1 - 16.5	11	5.40	0.78	14.5	5.3	3.0 - 7.8

			Specimen CH-5			
All Method	48	5.13	0.73	14.3	5.0	2.9 - 7.4
All Abbott Instruments	11	6.28	0.11	1.7	6.3	5.9 - 6.7
All TOSOH Instruments	12	11.01	0.58	5.3	11.0	9.2 - 12.8
Beckman ACCESS / 2 / DxI	18	4.75	0.22	4.7	4.8	4.0 - 5.5
TOSOH ST AIA	11	10.93	0.75	6.8	11.2	8.6 - 13.2

Thyroxine (µg/dL)

			Specimen CH-1						Specimen CH-2			
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	19	9.07	1.23	13.6	8.0	7.2 - 10.9	19	11.25	0.82	7.3	12.0	9.0 - 13.6
Beckman ACCESS / 2 / DxI	13	7.28	0.49	6.7	7.4	5.8 - 8.8	13	12.46	0.64	5.1	12.2	9.9 - 15.0

			Specimen CH-3						Specimen CH-4			
All Method	19	16.39	1.49	9.1	16.0	13.1 - 19.7	19	7.40	0.47	6.3	7.8	5.9 - 8.9
Beckman ACCESS / 2 / DxI	13	15.81	0.75	4.8	16.0	12.6 - 19.0	13	8.75	0.52	6.0	8.9	7.0 - 10.6

			Specimen CH-5			
All Method	19	13.06	0.87	6.6	13.7	10.4 - 15.7
Beckman ACCESS / 2 / DxI	13	13.99	0.81	5.8	14.0	11.1 - 16.8

Free Thyroxine (ng/dL)

		Specimen CH-1						Specimen CH-2				
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	158	1.06	0.23	21.3	1.0	0.3 - 1.8	156	3.84	0.71	18.4	3.9	1.7 - 6.0
All Roche Instruments	10	1.28	0.04	3.3	1.3	1.1 - 1.5	10	3.95	0.22	5.6	4.1	3.2 - 4.7
All TOSOH Instruments	34	1.16	0.12	10.0	1.2	0.8 - 1.6	34	4.57	0.29	6.3	4.5	3.7 - 5.5
Abbott Architect	13	1.35	0.05	3.9	1.3	1.1 - 1.6	13	3.96	0.28	7.0	4.0	3.1 - 4.8
Beckman ACCESS / 2 / DxI	56	0.84	0.06	7.4	0.8	0.6 - 1.1	56	3.10	0.15	4.9	3.1	2.6 - 3.6
Siemens Dimension	23	0.97	0.15	15.8	1.0	0.5 - 1.5	23	4.44	0.43	9.6	4.4	3.1 - 5.8
TOSOH AIA PACK	17	1.14	0.13	11.6	1.1	0.7 - 1.6	17	4.52	0.30	6.6	4.5	3.6 - 5.5
TOSOH ST AIA PACK	17	1.18	0.10	8.0	1.2	0.8 - 1.5	17	4.62	0.27	5.9	4.5	3.8 - 5.5

		Specimen CH-3						Specimen CH-4				
All Method	156	3.77	0.75	20.0	4.0	1.5 - 6.1	160	4.31	0.90	20.8	4.0	1.6 - 7.1
All Roche Instruments	10	4.10	0.15	3.6	4.1	3.6 - 4.6	10	3.93	0.27	6.8	4.0	3.1 - 4.8
All TOSOH Instruments	33	4.48	0.22	4.9	4.5	3.8 - 5.2	33	4.95	0.26	5.3	5.0	4.1 - 5.8
Abbott Architect	13	4.50	0.36	8.0	4.6	3.4 - 5.6	13	3.44	0.22	6.5	3.5	2.7 - 4.2
Beckman ACCESS / 2 / DxI	56	2.91	0.13	4.5	2.9	2.5 - 3.4	55	3.70	0.23	6.3	3.7	2.9 - 4.4
Siemens Dimension	23	4.16	0.36	8.5	4.1	3.0 - 5.3	23	4.91	0.73	14.8	5.2	2.7 - 7.1
TOSOH AIA PACK	17	4.49	0.31	7.0	4.4	3.5 - 5.5	16	4.89	0.23	4.7	4.9	4.1 - 5.6
TOSOH ST AIA PACK	17	4.54	0.22	4.9	4.6	3.8 - 5.2	17	5.00	0.28	5.7	5.0	4.1 - 5.9

		Specimen CH-5				
All Method	155	3.76	0.66	17.5	3.9	1.7 - 5.8
All Roche Instruments	10	4.02	0.16	4.0	4.1	3.5 - 4.6
All TOSOH Instruments	34	4.48	0.19	4.2	4.5	3.9 - 5.1
Abbott Architect	13	4.12	0.25	6.2	4.1	3.3 - 4.9
Beckman ACCESS / 2 / DxI	56	3.01	0.14	4.7	3.0	2.5 - 3.5
Siemens Dimension	23	4.19	0.39	9.3	4.3	3.0 - 5.4
TOSOH AIA PACK	17	4.45	0.18	4.0	4.4	3.9 - 5.0
TOSOH ST AIA PACK	17	4.51	0.20	4.4	4.5	3.9 - 5.2

TSH (µU/mL)

Specimen CH-1 / Specimen CH-2

Method	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	200	2.66	0.25	9.6	2.6	1.8 - 3.5	194	4.11	0.55	13.4	3.9	2.4 - 5.8
All Abbott Instruments	14	2.39	0.15	6.3	2.5	1.9 - 2.9	14	3.77	0.15	4.1	3.8	3.3 - 4.3
All Roche Instruments	12	2.73	0.09	3.2	2.7	2.4 - 3.0	12	4.11	0.14	3.5	4.1	3.6 - 4.6
All TOSOH Instruments	46	2.95	0.22	7.4	2.9	2.3 - 3.7	45	4.87	0.37	7.6	4.9	3.7 - 6.0
Abbott Architect	14	2.39	0.15	6.3	2.5	1.9 - 2.9	14	3.77	0.15	4.1	3.8	3.3 - 4.3
Beckman ACCESS / 2 / DxI	66	2.55	0.18	7.1	2.5	2.0 - 3.1	64	3.77	0.23	6.0	3.8	3.0 - 4.5
Siemens Dimension	28	2.55	0.12	4.8	2.6	2.1 - 3.0	28	3.68	0.21	5.8	3.7	3.0 - 4.4
TOSOH AIA PACK	21	3.06	0.19	6.2	3.1	2.4 - 3.7	20	4.92	0.35	7.2	4.9	3.8 - 6.0
TOSOH ST AIA PACK	25	2.86	0.20	7.0	2.9	2.2 - 3.5	25	4.83	0.39	8.0	4.9	3.6 - 6.0

Specimen CH-3 / Specimen CH-4

Method	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	198	8.48	1.17	13.7	8.3	4.9 - 12.0	198	0.57	0.11	19.7	0.5	0.2 - 1.0
All Abbott Instruments	14	8.18	0.35	4.2	8.3	7.1 - 9.3	14	0.53	0.05	8.9	0.5	0.3 - 0.7
All Roche Instruments	12	7.67	0.26	3.4	7.8	6.8 - 8.5	12	0.72	0.04	5.4	0.7	0.5 - 0.9
All TOSOH Instruments	46	9.87	0.76	7.7	9.9	7.5 - 12.2	46	0.72	0.06	7.8	0.7	0.5 - 0.9
Abbott Architect	14	8.18	0.35	4.2	8.3	7.1 - 9.3	14	0.53	0.05	8.9	0.5	0.3 - 0.7
Beckman ACCESS / 2 / DxI	67	7.94	0.84	10.6	7.8	5.4 - 10.5	67	0.51	0.05	9.9	0.5	0.3 - 0.7
Siemens Dimension	28	7.88	0.70	8.9	7.9	5.7 - 10.0	28	0.49	0.05	10.2	0.5	0.3 - 0.7
TOSOH AIA PACK	21	10.10	0.67	6.6	10.1	8.1 - 12.2	21	0.72	0.06	8.4	0.7	0.5 - 0.9
TOSOH ST AIA PACK	25	9.67	0.79	8.1	9.7	7.3 - 12.1	25	0.71	0.05	7.4	0.7	0.5 - 0.9

Specimen CH-5

Method	Labs	Mean	SD	CV	Median	Range
All Method	195	5.70	0.71	12.5	5.5	3.5 - 7.9
All Abbott Instruments	14	5.24	0.22	4.3	5.3	4.5 - 6.0
All Roche Instruments	12	5.48	0.17	3.1	5.5	4.9 - 6.0
All TOSOH Instruments	46	6.67	0.51	7.7	6.7	5.1 - 8.3
Abbott Architect	14	5.24	0.22	4.3	5.3	4.5 - 6.0
Beckman ACCESS / 2 / DxI	67	5.31	0.40	7.6	5.3	4.1 - 6.6
Siemens Dimension	28	5.18	0.35	6.8	5.2	4.1 - 6.3
TOSOH AIA PACK	21	6.68	0.55	8.2	6.8	5.0 - 8.4
TOSOH ST AIA PACK	25	6.66	0.49	7.4	6.7	5.1 - 8.2

Serum hCG – Qualitative

Method	Specimen HCG-1 Positive	Specimen HCG-1 Negative	Specimen HCG-2 Positive	Specimen HCG-2 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	63	-	-	63
Beckman Coulter ICON 25 hCG	4	-	-	4
bioMerieux Vidas, Mini Vidas	1	-	-	1
BTNX Rapid Response hCG	2	-	-	2
Cardinal Health SP Brand combo	10	-	-	10
CONSULT diagnostics hCG Combo	10	-	-	10
Henry Schein One Step + Combo	6	-	-	6
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	20	-	-	20
Quidel QuickVue Semi-Q hCG	1	-	-	1
Sekisui OSOM hCG Combo Test	2	-	-	2
Stanbio QUPID Plus	3	-	-	3

Serum hCG – Qualitative

	Specimen HCG-3		Specimen HCG-4	
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	-	63	63	-
Beckman Coulter ICON 25 hCG	-	4	4	-
bioMerieux Vidas, Mini Vidas	-	1	1	-
BTNX Rapid Response hCG	-	2	2	-
Cardinal Health SP Brand combo	-	10	10	-
CONSULT diagnostics hCG Combo	-	10	10	-
Henry Schein One Step + Combo	-	6	6	-
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	-	20	20	-
Quidel QuickVue Semi-Q hCG	-	1	1	-
Sekisui OSOM hCG Combo Test	-	2	2	-
Stanbio QUPID Plus	-	3	3	-

Serum hCG – Qualitative

Specimen HCG-5

Method	Positive	Negative
ALL METHODS	142	-
AimStep Combo Pregnancy	1	-
Alere hCG Cassette	1	-
Beckman ACCESS / 2 / Dxl	1	-
Beckman Coulter ICON 20 hCG	63	-
Beckman Coulter ICON 25 hCG	4	-
bioMerieux Vidas, Mini Vidas	1	-
BTNX Rapid Response hCG	2	-
Cardinal Health SP Brand combo	10	-
CONSULT diagnostics hCG Combo	10	-
Henry Schein One Step + Combo	6	-
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	20	-
Quidel QuickVue Semi-Q hCG	1	-
Sekisui OSOM hCG Combo Test	2	-
Stanbio QUPID Plus	3	-

Serum hCG – Quantitative (mIU/mL)

Method		Specimen HCG-1						Specimen HCG-2				
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	23	231.4	47.6	20.6	221	88 - 375	23	1.8	1.7	93.7	1	0 - 7

Method		Specimen HCG-3						Specimen HCG-4				
All Method	23	1.7	1.7	94.9	1	0 - 7	23	186.6	41.0	22.0	181	63 - 310

Method		Specimen HCG-5				
All Method	21	889.0	181.9	20.5	849	343 - 1435

Cholesterol, Total (mg/dL)

			Specimen CH-1						Specimen CH-2			
Reagent/Instrument	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_
All Method	221	242.7	8.6	3.5	243	218 - 268	222	135.5	5.8	4.2	136	121 - 150
All Alfa Wassermann Reagents	30	247.2	6.6	2.7	248	222 - 272	30	140.7	4.0	2.9	140	126 - 155
All Horiba Pentra Reagents	14	244.6	13.3	5.4	245	220 - 270	14	137.4	7.2	5.3	138	123 - 152
All Roche Reagents	17	245.8	4.5	1.8	246	221 - 271	17	136.9	3.9	2.9	138	123 - 151
Alere Cholestech LDX												
Alere Cholestech LDX - waived	30	245.8	12.6	5.1	244	221 - 271	31	138.1	7.3	5.3	139	124 - 152
All Chemistry Instruments	34	245.9	12.0	4.9	246	221 - 271	35	137.9	6.9	5.0	139	124 - 152
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	29	246.9	6.6	2.7	248	222 - 272	29	140.6	4.1	2.9	140	126 - 155
Beckman AU												
Beckman AU systems	34	239.9	5.7	2.4	241	215 - 264	34	132.9	3.1	2.3	133	119 - 147
ELITechGroup Envoy 500												
ELITechGroup Envoy 500	13	245.7	6.0	2.4	245	221 - 271	13	139.2	4.1	2.9	139	125 - 154
Horiba ABX Pentra												
Horiba ABX Pentra 400	14	244.6	13.3	5.4	245	220 - 270	14	137.4	7.2	5.3	138	123 - 152
Roche Integra												
Roche Integra	11	244.5	4.0	1.6	244	220 - 270	11	135.5	3.9	2.9	135	121 - 150
Siemens Healthcare												
Siemens Dimension	32	237.9	6.2	2.6	238	214 - 262	32	134.6	3.5	2.6	135	121 - 149
All Chemistry Instruments	34	238.3	6.2	2.6	238	214 - 263	33	134.3	2.9	2.2	135	120 - 148
VITROS												
VITROS 250,350,400 500,700,750,950	25	243.3	9.6	3.9	241	218 - 268	25	128.1	4.1	3.2	128	115 - 141
All Chemistry Instruments	29	243.4	9.8	4.0	243	219 - 268	29	127.7	4.8	3.7	128	114 - 141

Cholesterol, Total (mg/dL)

	Specimen CH-3						Specimen CH-4				
Reagent/Instrument	**Labs**	**Mean**	**SD**	**CV**	**Median**	**Range**	**Labs**	**Mean**	**SD**	**CV**	**Median**	**Range**
All Method	189	248.7	8.8	3.5	249	223 - 274	186	58.2	6.1	10.5	59	52 - 65
All Alfa Wassermann Reagents	30	253.1	6.3	2.5	253	227 - 279	30	63.6	1.9	3.0	64	57 - 70
All Horiba Pentra Reagents	14	250.4	14.8	5.9	250	225 - 276	14	61.0	3.6	5.9	61	54 - 68
All Roche Reagents	17	250.6	5.8	2.3	251	225 - 276	17	60.6	1.9	3.2	60	54 - 67
Alere Cholestech LDX												
Alere Cholestech LDX - waived	6	-	-	-	268	239 - 294	5	-	-	-	100	90 - 110
All Chemistry Instruments	7	-	-	-	265	238 - 292	6	-	-	-	100	90 - 110
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	29	253.0	6.4	2.5	252	227 - 279	29	63.6	2.0	3.1	64	57 - 70
Beckman AU												
Beckman AU systems	34	245.9	6.4	2.6	247	221 - 271	34	58.0	1.7	2.9	58	52 - 64
ELITechGroup Envoy 500												
ELITechGroup Envoy 500	13	256.5	7.2	2.8	254	230 - 283	13	63.2	5.2	8.2	61	56 - 70
Horiba ABX Pentra												
Horiba ABX Pentra 400	14	250.4	14.8	5.9	250	225 - 276	14	61.0	3.6	5.9	61	54 - 68
Roche Integra												
Roche Integra	11	248.0	5.1	2.1	248	223 - 273	11	59.8	1.5	2.5	60	53 - 66
Siemens Healthcare												
Siemens Dimension	32	249.0	5.0	2.0	249	224 - 274	32	57.8	2.7	4.6	58	51 - 64
All Chemistry Instruments	34	249.1	4.9	2.0	249	224 - 275	34	57.5	2.8	4.8	57	51 - 64
VITROS												
VITROS 250,350,400 500,700,750,950	24	238.9	6.1	2.6	240	215 - 263	25	46.2	2.1	4.5	45	41 - 51
All Chemistry Instruments	27	238.5	6.9	2.9	239	214 - 263	28	46.6	2.3	5.0	45	41 - 52

Cholesterol, Total (mg/dL)

Specimen CH-5

Reagent/Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	188	173.2	5.8	3.4	173	155 - 191
All Alfa Wassermann Reagents	30	177.9	3.7	2.1	178	160 - 196
All Horiba Pentra Reagents	14	174.7	9.8	5.6	175	157 - 193
All Roche Reagents	17	174.5	3.7	2.1	174	157 - 192
Alere Cholestech LDX						
Alere Cholestech LDX - waived	6	-	-	-	177	164 - 201
All Chemistry Instruments	7	-	-	-	177	164 - 202
Alfa Wassermann						
Alfa Wassermann ACE Alera/Axcel	29	177.7	3.6	2.0	178	159 - 196
Beckman AU						
Beckman AU systems	34	170.9	4.4	2.6	172	153 - 188
ELITechGroup Envoy 500						
ELITechGroup Envoy 500	13	177.8	5.5	3.1	177	159 - 196
Horiba ABX Pentra						
Horiba ABX Pentra 400	14	174.7	9.8	5.6	175	157 - 193
Roche Integra						
Roche Integra	11	173.0	3.5	2.0	172	155 - 191
Siemens Healthcare						
Siemens Dimension	32	173.1	3.9	2.3	173	155 - 191
All Chemistry Instruments	34	172.9	3.9	2.3	172	155 - 191
VITROS						
VITROS 250,350,400 500,700,750,950	25	166.6	4.7	2.8	166	149 - 184
All Chemistry Instruments	28	166.2	5.9	3.6	166	149 - 183

LDL Cholesterol - Calculated (mg/dL)

Method	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
			Specimen CH-1							**Specimen CH-2**		
All Method Calculated-Trig/5	161	144.1	12.0	8.3	144	100 - 188	164	41.2	11.3	27.5	41	18 - 64
Alere Cholestech LDX - waived	27	153.7	10.3	6.7	150	107 - 200	28	38.8	7.7	19.8	40	23 - 55
Alfa Wassermann ACE Alera/Axcel	21	142.9	6.0	4.2	144	100 - 186	21	53.6	4.5	8.4	53	37 - 70
Beckman AU systems	22	134.3	5.1	3.8	136	94 - 175	23	43.4	3.9	8.9	44	30 - 57
ELITechGroup Envoy 500	11	142.9	7.5	5.2	140	100 - 186	11	49.9	6.7	13.4	49	34 - 65
Horiba ABX Pentra 400	11	140.1	15.1	10.8	138	98 - 183	11	53.1	7.3	13.8	53	37 - 70
Siemens Dimension	16	149.8	7.1	4.8	149	104 - 195	16	28.8	6.1	21.1	29	16 - 41
VITROS 250,350,400 500,700,750,950	20	130.3	9.3	7.1	129	91 - 170	20	29.7	5.0	17.0	30	19 - 40
All Chemistry Instruments	153	144.0	12.0	8.4	143	100 - 188	156	41.1	11.3	27.5	41	18 - 64
			Specimen CH-3							**Specimen CH-4**		
All Method Calculated-Trig/5	125	82.1	24.4	29.8	83	33 - 131	108	15.9	5.9	37.3	17	4 - 28
Alere Cholestech LDX - waived	1	-	-	-	105	33 - 131	1	-	-	-	63	4 - 28
Alfa Wassermann ACE Alera/Axcel	21	104.3	5.4	5.1	104	73 - 136	21	18.5	1.4	7.6	18	12 - 25
Beckman AU systems	22	84.5	6.3	7.4	84	59 - 110	23	15.3	2.2	14.2	16	10 - 20
ELITechGroup Envoy 500	11	95.5	11.2	11.7	96	66 - 125	11	21.2	3.9	18.4	22	13 - 29
Horiba ABX Pentra 400	11	99.6	18.2	18.3	96	63 - 137	11	19.5	4.7	23.9	19	10 - 29
Siemens Dimension	16	60.2	9.8	16.3	61	40 - 80	15	10.0	3.3	33.0	10	3 - 17
VITROS 250,350,400 500,700,750,950	19	52.2	11.3	21.8	53	29 - 75	3	-	-	-	1	4 - 28
All Chemistry Instruments	119	81.7	24.3	29.7	83	33 - 131	103	16.0	5.7	35.8	17	4 - 28
			Specimen CH-5									
All Method Calculated-Trig/5	134	54.9	16.0	29.2	56	22 - 87						
Alere Cholestech LDX - waived	5	-	-	-	49	22 - 87						
Alfa Wassermann ACE Alera/Axcel	21	70.3	4.5	6.5	70	49 - 92						
Beckman AU systems	22	58.4	4.4	7.6	58	40 - 76						
ELITechGroup Envoy 500	11	65.1	9.8	15.0	64	45 - 85						
Horiba ABX Pentra 400	11	65.8	11.1	16.8	64	43 - 88						
Siemens Dimension	16	38.8	7.4	19.1	37	24 - 54						
VITROS 250,350,400 500,700,750,950	20	37.5	5.0	13.5	36	26 - 49						
All Chemistry Instruments	127	54.7	16.1	29.4	56	22 - 87						

LDL Cholesterol - Direct (mg/dL)

Specimen CH-1 / Specimen CH-2

Method	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	74	120.5	12.6	10.4	121	84 - 157	74	51.3	9.6	18.6	51	32 - 71
Beckman AU Direct HDL / LDL												
Beckman AU systems	15	107.6	6.2	5.8	107	75 - 140	15	42.1	2.0	4.7	42	29 - 55
Horiba ABX Pentra												
Horiba ABX Pentra 400	11	127.2	16.4	12.9	126	89 - 166	11	54.8	7.4	13.5	56	38 - 72
Roche LDL Direct												
Roche Integra	10	137.4	2.1	1.5	137	96 - 179	10	69.6	1.7	2.4	70	48 - 91
All Chemistry Instruments	12	135.8	2.6	1.9	136	95 - 177	12	68.6	1.6	2.3	68	48 - 90
Siemens Automated LDL												
Siemens Dimension	15	125.9	5.2	4.2	128	88 - 164	15	53.7	2.7	5.0	54	37 - 70

Specimen CH-3 / Specimen CH-4

Method	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	74	91.6	18.2	19.8	89	55 - 128	74	24.1	3.9	16.3	24	16 - 33
Beckman AU Direct HDL / LDL												
Beckman AU systems	15	74.9	3.3	4.4	75	52 - 98	15	20.5	0.9	4.5	21	14 - 27
Horiba ABX Pentra												
Horiba ABX Pentra 400	11	95.8	12.6	13.2	100	67 - 125	11	25.2	3.8	15.0	26	17 - 33
Roche LDL Direct												
Roche Integra	10	126.6	3.6	2.8	128	88 - 165	10	31.0	1.0	3.2	31	21 - 41
All Chemistry Instruments	12	126.7	2.7	2.1	127	88 - 165	12	30.6	0.8	2.8	30	21 - 40
Siemens Automated LDL												
Siemens Dimension	15	94.5	5.2	5.5	94	66 - 123	15	25.3	1.7	6.8	25	17 - 33

Specimen CH-5

Method	Labs	Mean	SD	CV	Median	Range
All Method	74	64.7	12.2	18.9	63	40 - 90
Beckman AU Direct HDL / LDL						
Beckman AU systems	15	53.1	2.4	4.6	53	37 - 69
Horiba ABX Pentra						
Horiba ABX Pentra 400	11	68.0	8.3	12.2	70	47 - 89
Roche LDL Direct						
Roche Integra	10	87.6	2.7	3.1	88	61 - 114
All Chemistry Instruments	12	87.5	1.8	2.1	88	61 - 114
Siemens Automated LDL						
Siemens Dimension	15	67.7	4.0	5.9	67	47 - 88

Cholesterol, HDL (mg/dL)

Reagent/Instrument	Specimen CH-1						Specimen CH-2					
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	218	70.4	7.4	10.5	73	49 - 92	220	61.7	9.1	14.7	61	43 - 81
All Dex-Sulfate 50,000 MW Methods	42	69.4	6.1	8.8	70	48 - 91	41	65.8	4.4	6.6	66	46 - 86
All Direct Methods	127	69.7	8.1	11.6	73	48 - 91	128	61.0	10.4	17.0	57	42 - 80
Alere Cholestech LDX												
Alere Cholestech LDX - waived	29	66.9	4.6	6.9	67	46 - 87	29	66.5	5.2	7.8	66	46 - 87
All Chemistry Instruments	33	67.3	4.6	6.8	67	47 - 88	33	66.9	5.0	7.5	67	46 - 88
Alfa Wass. ACE HDL-C / LDL-C												
Alfa Wassermann ACE Alera/Axcel	16	75.0	1.9	2.5	74	52 - 98	16	52.8	2.7	5.1	54	36 - 69
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	10	74.5	2.4	3.2	75	49 - 92	10	54.7	3.1	5.7	54	43 - 81
Beckman AU Direct HDL / LDL												
Beckman AU systems	26	77.0	2.8	3.6	78	53 - 101	26	55.5	2.7	4.8	56	38 - 73
Horiba ABX Pentra												
Horiba ABX Pentra 400	14	74.5	4.4	5.9	74	52 - 97	14	49.9	3.3	6.7	49	34 - 65
Roche HDL Direct												
All Chemistry Instruments	14	60.1	2.5	4.2	60	42 - 79	14	71.1	6.1	8.6	72	49 - 93
Siemens Automated HDL												
Siemens Dimension	27	61.0	1.8	3.0	61	42 - 80	28	74.6	2.9	4.0	75	52 - 97
All Chemistry Instruments	29	60.9	1.9	3.1	61	42 - 80	30	74.6	3.0	4.1	75	52 - 98
VITROS dHDL Slide												
VITROS 250,350,400 500,700,750,950	18	75.7	3.8	5.1	76	53 - 99	18	63.4	2.8	4.4	64	44 - 83
All Chemistry Instruments	19	75.5	3.8	5.1	75	52 - 99	19	63.4	2.7	4.3	63	44 - 83

Cholesterol, HDL (mg/dL)

Reagent/Instrument	Specimen CH-3						Specimen CH-4					
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	186	116.1	18.7	16.1	111	81 - 151	188	24.8	3.6	14.5	25	17 - 33
All Dex-Sulfate 50,000 MW Methods	15	119.5	20.4	17.1	119	83 - 156	16	22.8	3.8	16.9	24	15 - 30
All Direct Methods	122	115.8	19.2	16.5	111	81 - 151	124	24.9	3.9	15.8	24	17 - 33
Alere Cholestech LDX												
Alere Cholestech LDX - waived	5	-	-	-	100	83 - 156	6	-	-	-	19	15 - 30
All Chemistry Instruments	6	-	-	-	100	70 - 130	7	-	-	-	19	13 - 26
Alfa Wass. ACE HDL-C / LDL-C												
Alfa Wassermann ACE Alera/Axcel	16	96.7	5.3	5.4	98	67 - 126	16	24.4	1.5	6.0	25	17 - 32
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	10	97.2	7.4	7.6	96	81 - 151	10	24.7	1.5	6.1	25	17 - 33
Beckman AU Direct HDL / LDL												
Beckman AU systems	26	108.9	4.8	4.4	110	76 - 142	26	22.8	1.6	6.8	23	15 - 30
Horiba ABX Pentra												
Horiba ABX Pentra 400	14	98.1	6.5	6.6	97	68 - 128	14	20.9	3.0	14.2	20	14 - 28
Roche HDL Direct												
All Chemistry Instruments	14	139.0	14.6	10.5	138	97 - 181	14	27.6	2.3	8.5	28	19 - 36
Siemens Automated HDL												
Siemens Dimension	28	138.3	6.4	4.6	138	96 - 180	28	29.9	1.1	3.7	30	20 - 39
All Chemistry Instruments	30	137.9	6.4	4.6	138	96 - 180	30	30.0	1.1	3.8	30	21 - 39
VITROS dHDL Slide												
VITROS 250,350,400 500,700,750,950	18	127.7	12.8	10.1	126	89 - 167	18	25.7	1.2	4.8	26	17 - 34
All Chemistry Instruments	19	128.3	12.7	9.9	127	89 - 167	19	25.6	1.2	4.7	26	17 - 34

Cholesterol, HDL (mg/dL)

Specimen CH-5

Reagent/Instrument	Labs	Mean	SD	CV	Median	Range
All Method	190	80.3	12.1	15.0	78	56 - 105
All Dex-Sulfate 50,000 MW Methods	16	88.6	7.7	8.7	88	62 - 116
All Direct Methods	126	79.7	13.0	16.3	75	55 - 104
Alere Cholestech LDX						
Alere Cholestech LDX - waived	6	-	-	-	91	62 - 116
All Chemistry Instruments	7	-	-	-	95	64 - 120
Alfa Wass. ACE HDL-C / LDL-C						
Alfa Wassermann ACE Alera/Axcel	16	67.9	4.2	6.1	69	47 - 89
Alfa Wassermann						
Alfa Wassermann ACE Alera/Axcel	10	68.1	3.6	5.2	67	56 - 105
Beckman AU Direct HDL / LDL						
Beckman AU systems	26	72.9	3.6	5.0	73	51 - 95
Horiba ABX Pentra						
Horiba ABX Pentra 400	14	68.1	4.5	6.6	69	47 - 89
Roche HDL Direct						
All Chemistry Instruments	14	92.4	6.8	7.4	93	64 - 121
Siemens Automated HDL						
Siemens Dimension	27	95.3	3.5	3.7	95	66 - 124
All Chemistry Instruments	29	95.2	3.5	3.7	95	66 - 124
VITROS dHDL Slide						
VITROS 250,350,400 500,700,750,950	18	85.8	3.2	3.7	85	60 - 112
All Chemistry Instruments	19	85.9	3.1	3.6	85	60 - 112

Triglycerides (mg/dL)

Reagent/Instrument	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
			Specimen CH-1							Specimen CH-2		
All Method	221	145.8	18.1	12.4	144	109 - 183	220	166.6	9.2	5.6	167	124 - 209
All Alfa Wassermann Reagents	30	145.8	6.0	4.1	148	109 - 183	30	167.7	6.8	4.0	168	125 - 210
All Horiba Pentra Reagents	14	149.0	12.8	8.6	146	111 - 187	14	169.0	11.3	6.7	164	126 - 212
All Roche Reagents	17	152.2	9.1	6.0	150	114 - 191	17	171.0	6.4	3.7	171	128 - 214
Alere Cholestech LDX												
Alere Cholestech LDX - waived	28	124.6	9.0	7.3	123	93 - 156	28	168.5	8.6	5.1	170	126 - 211
All Chemistry Instruments	33	124.4	8.8	7.0	123	93 - 156	33	167.3	8.7	5.2	169	125 - 210
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	29	145.7	6.1	4.2	147	109 - 183	29	167.8	6.9	4.1	168	125 - 210
Beckman AU												
Beckman AU systems	33	145.4	3.6	2.5	145	109 - 182	33	165.6	4.9	2.9	165	124 - 208
ELITechGroup Envoy 500												
ELITechGroup Envoy 500	13	141.8	3.9	2.7	142	106 - 178	13	164.1	7.2	4.4	162	123 - 206
Horiba ABX Pentra												
Horiba ABX Pentra 400	14	149.0	12.8	8.6	146	111 - 187	14	169.0	11.3	6.7	164	126 - 212
Roche Integra												
Roche Integra	11	153.7	10.9	7.1	150	115 - 193	11	170.6	7.2	4.2	170	127 - 214
Siemens Healthcare												
Siemens Dimension	32	134.8	2.8	2.0	135	101 - 169	32	155.5	2.7	1.8	156	116 - 195
All Chemistry Instruments	32	134.8	2.8	2.0	135	101 - 169	32	155.5	2.7	1.8	156	116 - 195
VITROS												
VITROS 250,350,400 500,700,750,950	25	183.2	7.4	4.0	185	137 - 229	25	175.1	6.1	3.5	177	131 - 219
All Chemistry Instruments	28	182.0	8.1	4.4	185	136 - 228	28	174.8	6.4	3.6	176	131 - 219

Triglycerides (mg/dL)

Reagent/Instrument		Specimen CH-3						Specimen CH-4				
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	191	262.4	16.3	6.2	260	196 - 328	192	99.8	6.4	6.4	101	74 - 125
All Alfa Wassermann Reagents	30	257.9	11.1	4.3	259	193 - 323	30	104.5	3.2	3.1	105	78 - 131
All Horiba Pentra Reagents	14	259.9	15.4	5.9	252	194 - 325	14	102.4	6.0	5.9	101	76 - 129
All Roche Reagents	17	262.3	9.6	3.7	261	196 - 328	17	104.2	3.1	3.0	104	78 - 131
Alere Cholestech LDX												
Alere Cholestech LDX - waived	6	-	-	-	278	208 - 348	6	-	-	-	103	78 - 131
All Chemistry Instruments	7	-	-	-	274	206 - 345	7	-	-	-	103	77 - 129
Alfa Wassermann												
Alfa Wassermann ACE Alera/Axcel	29	258.0	11.2	4.4	259	193 - 323	29	104.5	3.3	3.1	105	78 - 131
Beckman AU												
Beckman AU systems	33	260.8	7.8	3.0	261	195 - 326	33	100.1	2.6	2.6	100	75 - 126
ELITechGroup Envoy 500												
ELITechGroup Envoy 500	13	256.5	13.8	5.4	253	192 - 321	13	99.5	3.4	3.4	99	74 - 125
Horiba ABX Pentra												
Horiba ABX Pentra 400	14	259.9	15.4	5.9	252	194 - 325	14	102.4	6.0	5.9	101	76 - 129
Roche Integra												
Roche Integra	11	260.9	10.2	3.9	261	195 - 327	11	104.4	3.6	3.5	104	78 - 131
Siemens Healthcare												
Siemens Dimension	32	247.8	4.4	1.8	248	185 - 310	32	89.6	1.9	2.2	90	67 - 113
All Chemistry Instruments	32	247.8	4.4	1.8	248	185 - 310	32	89.6	1.9	2.2	90	67 - 113
VITROS												
VITROS 250,350,400 500,700,750,950	25	289.5	11.1	3.8	288	217 - 362	25	102.1	4.0	4.0	103	76 - 128
All Chemistry Instruments	28	289.2	11.8	4.1	288	216 - 362	28	101.7	4.1	4.1	103	76 - 128

Triglycerides (mg/dL)

Specimen CH-5

Reagent/Instrument	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_
All Method	191	198.9	10.8	5.4	198	149 - 249
All Alfa Wassermann Reagents	30	198.1	8.2	4.1	197	148 - 248
All Horiba Pentra Reagents	14	202.1	11.1	5.5	199	151 - 253
All Roche Reagents	17	201.6	6.9	3.4	201	151 - 252
Alere Cholestech LDX						
Alere Cholestech LDX - waived	6	-	-	-	205	154 - 259
All Chemistry Instruments	7	-	-	-	205	153 - 256
Alfa Wassermann						
Alfa Wassermann ACE Alera/Axcel	29	198.0	8.3	4.2	196	148 - 248
Beckman AU						
Beckman AU systems	33	197.2	5.2	2.6	197	147 - 247
ELITechGroup Envoy 500						
ELITechGroup Envoy 500	13	195.7	9.1	4.7	193	146 - 245
Horiba ABX Pentra						
Horiba ABX Pentra 400	14	202.1	11.1	5.5	199	151 - 253
Roche Integra						
Roche Integra	11	200.7	7.6	3.8	199	150 - 251
Siemens Healthcare						
Siemens Dimension	31	186.1	2.4	1.3	186	139 - 233
All Chemistry Instruments	32	186.5	3.3	1.8	186	139 - 234
VITROS						
VITROS 250,350,400 500,700,750,950	25	212.7	8.1	3.8	213	159 - 266
All Chemistry Instruments	28	212.4	8.0	3.8	213	159 - 266

Acetaminophen (µg/mL)

		Specimen CH-1						Specimen CH-2			
Method	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_
All Method	5	1.00	1.41	141.4	1.0	0.7 - 1.3	5	64.40	0.42	0.7	64.4	48.3 - 80.5

		Specimen CH-3						Specimen CH-4			
All Method	5	138.75	1.63	1.2	138.8	104.0 - 173.5	5	18.15	2.47	13.6	18.2	13.6 - 22.7

		Specimen CH-5				
All Method	5	89.05	0.21	0.2	89.1	66.7 - 111.4

Carbamazepine (µg/mL)

		Specimen CH-1						Specimen CH-2			
Method	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_
All Method	5	1.80	0.14	7.9	1.8	1.3 - 2.3	6	7.50	0.40	5.3	7.5	5.6 - 9.4

		Specimen CH-3						Specimen CH-4			
All Method	6	14.23	0.31	2.1	14.3	10.6 - 17.8	6	3.13	0.15	4.9	3.1	2.3 - 4.0

		Specimen CH-5				
All Method	6	9.47	0.31	3.2	9.4	7.1 - 11.9

Digoxin (ng/mL)

		Specimen CH-1						Specimen CH-2			
Method	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_
All Method	11	0.50	0.14	28.3	0.5	0.3 - 0.7	11	1.48	0.12	7.9	1.5	1.1 - 1.8

		Specimen CH-3						Specimen CH-4			
All Method	11	2.68	0.28	10.3	2.6	2.1 - 3.3	11	0.71	0.15	20.5	0.7	0.5 - 1.0

		Specimen CH-5				
All Method	11	1.94	0.24	12.6	1.9	1.5 - 2.4

Gentamicin (µg/mL)

			Specimen CH-1							Specimen CH-2		
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	5	0.95	0.07	7.4	1.0	0.7 - 1.2	5	4.45	0.21	4.8	4.5	3.3 - 5.6
			Specimen CH-3							Specimen CH-4		
All Method	5	9.60	0.14	1.5	9.6	7.2 - 12.0	5	0.80	0.28	35.4	0.8	0.6 - 1.0
			Specimen CH-5									
All Method	5	6.30	0.14	2.2	6.3	4.7 - 7.9						

Lithium (mmol/L)

			Specimen CH-1							Specimen CH-2		
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	5	0.20	0.01	0.0	0.2	0.0 - 0.5	5	1.00	0.01	0.0	1.0	0.7 - 1.3
			Specimen CH-3							Specimen CH-4		
All Method	5	2.35	0.07	3.0	2.4	1.8 - 2.9	5	0.20	0.01	0.0	0.2	0.0 - 0.5
			Specimen CH-5									
All Method	-	-	-	-	-	-						

Phenobarbital (µg/mL)

Method	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
			Specimen CH-1							**Specimen CH-2**		
All Method	6	17.90	0.42	2.4	17.9	14.3 - 21.5	6	24.40	1.13	4.6	24.4	19.5 - 29.3
			Specimen CH-3							**Specimen CH-4**		
All Method	6	49.95	1.20	2.4	50.0	39.9 - 60.0	6	6.70	0.14	2.1	6.7	5.3 - 8.1
			Specimen CH-5									
All Method	6	33.30	0.85	2.5	33.3	26.6 - 40.0						

Phenytoin (µg/mL)

Method	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
			Specimen CH-1							**Specimen CH-2**		
All Method	11	7.47	0.80	10.7	7.4	5.6 - 9.4	12	16.60	0.65	3.9	16.5	12.4 - 20.8
			Specimen CH-3							**Specimen CH-4**		
All Method	12	30.95	3.35	10.8	31.5	23.2 - 38.7	12	6.82	0.25	3.6	6.8	5.1 - 8.6
			Specimen CH-5									
All Method	12	21.17	0.96	4.5	21.0	15.8 - 26.5						

Salicylate (mg/dL)

		Specimen CH-1						Specimen CH-2			
Method	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_
All Method	3	-	-	-	8.6	Not graded	3	-	-	-	16.1	Not graded

		Specimen CH-3						Specimen CH-4			
All Method	3	-	-	-	31.3	Not graded	3	-	-	-	66.6	Not graded

		Specimen CH-5				
All Method	3	-	-	-	21.5	Not graded

Theophylline (µg/mL)

		Specimen CH-1						Specimen CH-2			
Method	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_
All Method	5	9.80	0.28	2.9	9.8	7.3 - 12.3	6	20.60	0.99	4.8	20.6	15.4 - 25.8

		Specimen CH-3						Specimen CH-4			
All Method	6	37.55	0.07	0.2	37.6	28.1 - 47.0	6	9.60	0.14	1.5	9.6	7.2 - 12.0

		Specimen CH-5				
All Method	6	26.15	0.64	2.4	26.2	19.6 - 32.7

Valproic Acid (μg/mL)

			Specimen CH-1						Specimen CH-2			
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	6	35.38	1.67	4.7	36.1	26.5 - 44.3	6	62.77	1.34	2.1	62.7	47.0 - 78.5

			Specimen CH-3						Specimen CH-4			
All Method	6	107.28	4.98	4.6	107.2	80.4 - 134.2	6	30.92	3.46	11.2	30.8	23.1 - 38.7

			Specimen CH-5			
All Method	6	77.62	2.19	2.8	77.5	58.2 - 97.1

Vancomycin (μg/mL)

			Specimen CH-1						Specimen CH-2			
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	5	1.73	0.25	14.5	1.7	1.2 - 2.2	5	23.33	2.35	10.1	23.3	17.4 - 29.2

			Specimen CH-3						Specimen CH-4			
All Method	5	48.83	5.38	11.0	49.9	36.6 - 61.1	5	3.07	0.06	1.9	3.1	2.3 - 3.9

			Specimen CH-5			
All Method	5	32.63	3.15	9.6	34.4	24.4 - 40.8

Apolipoprotein A1 (mg/dL)

	Specimen LP-1						Specimen LP-2					
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	1	-	-	-	232	Not graded	1	-	-	-	160	Not graded

Apolipoprotein B (mg/dL)

	Specimen LP-1						Specimen LP-2					
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	5	85.7	18.3	21.4	92	59 - 112	5	57.0	17.1	30.0	55	39 - 75

Neonatal Bilirubin, Total (mg/dL)

	Specimen NB-1						Specimen NB-2					
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	30	5.03	0.41	8.2	5.1	4.0 - 6.1	30	8.56	0.53	6.2	8.6	6.8 - 10.3
No Reagent Required												
Bilirubinometer / Unistat	17	4.85	0.38	7.9	4.8	3.8 - 5.9	17	8.39	0.43	5.1	8.5	6.7 - 10.1
All Chemistry Instruments	22	4.93	0.41	8.2	5.0	3.9 - 6.0	22	8.49	0.47	5.5	8.6	6.7 - 10.2

	Specimen NB-3						Specimen NB-4					
All Method	30	15.31	0.57	3.7	15.3	12.2 - 18.4	30	13.01	0.60	4.6	13.1	10.4 - 15.7
No Reagent Required												
Bilirubinometer / Unistat	17	15.35	0.51	3.3	15.3	12.2 - 18.5	17	12.94	0.56	4.4	13.1	10.3 - 15.6
All Chemistry Instruments	22	15.28	0.53	3.4	15.3	12.2 - 18.4	22	12.94	0.51	3.9	13.1	10.3 - 15.6

	Specimen NB-5					
All Method	30	0.06	0.08	151.7	0.0	0.0 - 0.5
No Reagent Required						
Bilirubinometer / Unistat	17	0.00	0.01	0.0	0.0	0.0 - 0.4
All Chemistry Instruments	22	0.04	0.08	217.1	0.0	0.0 - 0.5

Bilirubin, Direct (mg/dL)

		Specimen NB-1						Specimen NB-2				
Method	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_
All Method	11	1.18	0.21	18.1	1.2	0.7 - 1.7	11	3.63	0.55	15.1	3.5	2.5 - 4.8

		Specimen NB-3						Specimen NB-4				
All Method	11	3.43	0.37	10.8	3.3	2.6 - 4.2	11	4.53	0.51	11.3	4.5	3.5 - 5.6

		Specimen NB-5				
All Method	10	0.06	0.07	124.6	0.0	0.0 - 0.2

Blood Gases – pH

		Specimen BG-1						Specimen BG-2				
Method	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_
All Method	11	7.316	0.013	0.2	7.31	7.27 - 7.36	11	7.154	0.015	0.2	7.16	7.11 - 7.20
i-STAT	11	7.316	0.013	0.2	7.31	7.27 - 7.36	11	7.154	0.015	0.2	7.16	7.11 - 7.20

		Specimen BG-3						Specimen BG-4				
All Method	11	7.512	0.008	0.1	7.51	7.47 - 7.56	11	7.194	0.021	0.3	7.19	7.15 - 7.24
i-STAT	11	7.512	0.008	0.1	7.51	7.47 - 7.56	11	7.194	0.021	0.3	7.19	7.15 - 7.24

		Specimen BG-5				
All Method	11	7.310	0.007	0.1	7.31	7.27 - 7.35
i-STAT	11	7.310	0.007	0.1	7.31	7.27 - 7.35

Blood Gases - pCO$_2$ (mmHg)

		Specimen BG-1						Specimen BG-2				
Method	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_
All Method	11	41.98	2.33	5.6	42.2	36.9 - 47.0	11	68.24	3.22	4.7	69.9	62.7 - 73.7
i-STAT	11	41.98	2.33	5.6	42.2	36.9 - 47.0	11	68.24	3.22	4.7	69.9	62.7 - 73.7

		Specimen BG-3						Specimen BG-4				
All Method	11	19.96	0.81	4.1	19.8	14.9 - 25.0	11	58.34	3.66	6.3	60.2	53.3 - 63.4
i-STAT	11	19.96	0.81	4.1	19.8	14.9 - 25.0	11	58.34	3.66	6.3	60.2	53.3 - 63.4

		Specimen BG-5				
All Method	11	43.70	0.57	1.3	43.7	38.7 - 48.7
i-STAT	11	43.70	0.57	1.3	43.7	38.7 - 48.7

Blood Gases - pO$_2$ (mmHg)

		Specimen BG-1						Specimen BG-2				
Method	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_
All Method	11	86.40	11.55	13.4	91.0	51.7 - 121.1	11	95.40	10.31	10.8	90.0	64.4 - 126.4
i-STAT	11	86.40	11.55	13.4	91.0	51.7 - 121.1	11	95.40	10.31	10.8	90.0	64.4 - 126.4

		Specimen BG-3						Specimen BG-4				
All Method	11	167.40	8.59	5.1	168.0	141.6 - 193.2	10	84.00	9.35	11.1	83.5	55.9 - 112.1
i-STAT	11	167.40	8.59	5.1	168.0	141.6 - 193.2	10	84.00	9.35	11.1	83.5	55.9 - 112.1

		Specimen BG-5				
All Method	11	79.80	8.35	10.5	79.0	54.7 - 104.9
i-STAT	11	79.80	8.35	10.5	79.0	54.7 - 104.9

Blood Gases – Ionized Calcium (mmol/L)

One participant reported results for Blood Gases-Ionized Calcium. The vendor mean assay values for specimens BG-1 through BG-5 are: 0.6 mmol/L, 2.2 mmol/L, 0.8 mmol/L, 2.1 mmol/L, and 0.6 mmolL, respectively.

Blood Gases - Chloride (mmol/L)

One participant reported results for Blood Gases-Chloride.   The vendor mean assay values for specimens BG-1 through BG-5 are: 80 mmol/L, 87 mmol/L, 105 mmol/L, 75 mmol/L, and 80 mmol/L, respectively.

Blood Gases - Potassium (mmol/L)

One participant reported results for Blood Gases-Potassium. The vendor mean assay values for specimens BG-1 through BG-5 are: 2.3 mmol/L, 3.8 mmol/L, 6.1 mmol/L, 2.7 mmol/L, and 2.3 mmol/L, respectively.

Blood Gases – Sodium (mmol/L)

One participant reported results for Blood Gases-Sodium. The vendor mean assay values for specimens BG-1 through BG-5 are: 126 mmol/L, 141 mmol/L, 149 mmol/L, 126 mmol/L, and 126 mmol/L, respectively.

Blood Gases – Lactate (mmol/L)

			Specimen BG-1						Specimen BG-2		
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	6	6.35	0.07	1.1	6.4	6.1 - 6.6	6	3.55	0.07	2.0	3.6	3.3 - 3.8
i-STAT	6	6.35	0.07	1.1	6.4	6.1 - 6.6	6	3.55	0.07	2.0	3.6	3.3 - 3.8

			Specimen BG-3						Specimen BG-4		
All Method	6	1.10	0.01	0.0	1.1	1.0 - 1.2	6	4.55	0.07	1.6	4.6	4.3 - 4.8
i-STAT	6	1.10	0.01	0.0	1.1	1.0 - 1.2	6	4.55	0.07	1.6	4.6	4.3 - 4.8

			Specimen BG-5			
All Method	6	6.35	0.07	1.1	6.4	6.1 - 6.6
i-STAT	6	6.35	0.07	1.1	6.4	6.1 - 6.6

Afinion Glycohemoglobin (percent)

			Specimen AFN-1						Specimen AFN-2		
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
Axis-Shield Afinion AS100	85	6.02	0.13	2.1	6.0	5.6 - 6.4	81	8.08	0.13	1.7	8.1	7.5 - 8.6

Glycohemoglobin (percent)

	Specimen GH-1					Specimen GH-2				
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*

Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	175	8.46	0.32	3.7	8.5	7.9 - 9.0	168	12.19	0.99	8.1	12.0	11.4 - 13.0
All Hemoglobin A1c Methods	173	8.46	0.32	3.7	8.5	7.9 - 9.0	166	12.19	0.99	8.1	12.1	11.4 - 13.0
All TOSOH Methods	21	8.41	0.09	1.1	8.4	7.9 - 9.0	23	11.62	0.16	1.4	11.6	10.9 - 12.4
Beckman AU A1c	17	8.12	0.27	3.3	8.1	7.6 - 8.7	17	11.46	0.39	3.4	11.4	10.7 - 12.2
Siemens DCA Vantage	77	8.62	0.21	2.4	8.6	8.1 - 9.2	71	13.06	0.60	4.6	13.0	12.2 - 13.9
Siemens Dimension HB1C	27	8.18	0.22	2.7	8.2	7.6 - 8.7	27	10.94	0.39	3.6	11.0	10.2 - 11.7
TOSOH G8	21	8.41	0.09	1.1	8.4	7.9 - 9.0	21	11.59	0.13	1.1	11.6	10.8 - 12.3

Whole Blood Glucose (mg/dL)

	Specimen WBG-1					Specimen WBG-2				

Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	292	202.1	22.9	11.3	208	161 - 243	293	113.1	17.3	15.3	114	90 - 136
All Abbott Methods	27	189.2	9.0	4.8	189	151 - 227	27	101.1	5.1	5.1	101	80 - 122
All Arkray Methods	16	210.3	33.8	16.1	191	168 - 253	16	116.1	5.9	5.1	115	92 - 140
All Bayer Methods	39	166.2	11.5	6.9	166	132 - 200	39	88.8	7.5	8.5	88	71 - 107
All Hemocue Methods	73	217.9	7.4	3.4	217	174 - 262	70	134.0	6.7	5.0	135	107 - 161
All Lifescan Methods	24	218.7	20.8	9.5	223	174 - 263	24	115.0	10.6	9.2	118	92 - 139
All Roche Methods	39	209.9	6.2	3.0	210	167 - 252	39	117.0	3.1	2.6	117	93 - 141
Abbott FreeStyle Lite/Freedom Lite	11	188.8	6.3	3.3	188	151 - 227	11	105.0	3.0	2.9	105	84 - 126
Abbott Precision XceedPro	10	186.1	5.2	2.8	185	148 - 224	10	97.0	4.7	4.8	97	77 - 117
Arkray Platinum	15	206.6	31.6	15.3	190	165 - 248	15	115.5	5.6	4.9	114	92 - 139
Bayer Contour	39	166.2	11.5	6.9	166	132 - 200	39	88.8	7.5	8.5	88	71 - 107
HemoCue 201	73	217.9	7.4	3.4	217	174 - 262	70	134.0	6.7	5.0	135	107 - 161
Home Diagnostics True Balance / TrueTrack	14	451.8	25.3	5.6	459	361 - 543	14	281.1	22.4	8.0	289	224 - 338
Lifescan One Touch Ultra/2/Mini	20	224.7	17.0	7.6	224	179 - 270	20	117.5	9.7	8.2	120	94 - 141
Medline EvenCare G2 / G3	18	210.2	12.5	6.0	210	168 - 253	19	119.5	7.5	6.3	117	95 - 144
NOVA Biomedical StatStrip	23	180.1	12.4	6.9	177	144 - 217	22	98.2	5.6	5.7	99	78 - 118
PSS Quintet / AC	30	209.2	9.5	4.6	209	167 - 252	29	109.2	5.1	4.7	109	87 - 132
Roche Accu-Chek Aviva	11	210.8	7.8	3.7	211	168 - 253	11	119.2	4.4	3.7	119	95 - 144
Roche Accu-Chek Inform II	11	208.3	6.2	3.0	210	166 - 250	11	115.1	1.9	1.6	115	92 - 139
Roche Accu-Chek Performa	15	210.7	5.7	2.7	210	168 - 253	15	117.6	2.5	2.1	118	94 - 142
True Metrix Pro	10	179.8	10.6	5.9	180	143 - 216	10	96.5	3.6	3.8	97	77 - 116

	Specimen WBG-3					Specimen WBG-4				

Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	25	385.7	33.4	8.7	396	308 - 463	25	210.0	23.8	11.3	218	168 - 252
All Abbott Methods	2	-	-	-	369	294 - 443	2	-	-	-	194	154 - 233
All Lifescan Methods	12	404.4	23.3	5.8	401	323 - 486	12	219.6	6.5	3.0	220	175 - 264
All Roche Methods	3	-	-	-	336	268 - 403	3	-	-	-	175	140 - 211
Abbott Precision XceedPro	1	-	-	-	363	308 - 463	1	-	-	-	179	168 - 252
Lifescan One Touch Ultra/2/Mini	10	404.4	23.3	5.8	401	323 - 486	10	219.6	6.5	3.0	220	175 - 264
Medline EvenCare G2 / G3	1	-	-	-	397	308 - 463	1	-	-	-	224	168 - 252
Roche Accu-Chek Inform II	2	-	-	-	337	308 - 463	2	-	-	-	176	168 - 252
Roche Accu-Chek Performa	1	-	-	-	332	308 - 463	1	-	-	-	175	168 - 252

Whole Blood Glucose (mg/dL) cont'd

<div align="center">Specimen WBG-5</div>

Method	Labs	Mean	SD	CV	Median	Range
All Method	25	67.7	8.7	12.9	66	54 - 82
All Abbott Methods	2	-	-	-	59	47 - 71
All Lifescan Methods	12	66.5	4.7	7.0	66	53 - 80
All Roche Methods	3	-	-	-	65	52 - 79
Abbott Precision XceedPro	1	-	-	-	51	54 - 82
Lifescan One Touch Ultra/2/Mini	10	66.5	4.7	7.0	66	53 - 80
Medline EvenCare G2 / G3	1	-	-	-	89	54 - 82
Roche Accu-Chek Inform II	2	-	-	-	66	54 - 82
Roche Accu-Chek Performa	1	-	-	-	65	54 - 82

C-Peptide (ng/mL)

Method	Specimen CIP-1						Specimen CIP-2					
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	5	0.556	0.050	9.0	0.56	0.45 - 0.66	5	16.088	2.258	14.0	15.30	11.57 - 20.61

Insulin (µU/mL)

Method	Specimen CIP-1						Specimen CIP-2					
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	18	13.15	3.82	29.1	14.1	5.5 - 20.8	18	87.52	27.01	30.9	99.7	33.5 - 141.6

Parathyroid Hormone, Intact (pg/mL)

Method	Specimen CIP-1						Specimen CIP-2					
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	37	5.2	2.9	56.5	5	0 - 12	31	27.6	10.3	37.4	28	6 - 49
All TOSOH Instruments	10	4.8	2.8	57.9	6	0 - 11	8	-	-	-	29	7 - 46
Beckman ACCESS / 2 / DxI	15	4.7	2.4	50.8	5	0 - 10	12	26.8	8.9	33.3	25	8 - 45

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

Method	Specimen CIP-1						Specimen CIP-2					
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	112	15.55	7.48	48.1	12.4	0.5 - 30.6	110	81.49	19.17	23.5	81.7	43.1 - 119.9
All Roche Instruments	10	6.10	0.78	12.8	6.2	4.5 - 7.7	11	51.97	5.56	10.7	50.7	40.8 - 63.1
All Siemens ADVIA Instruments	5	26.16	2.11	8.1	26.9	21.9 - 30.4	5	138.84	6.20	4.5	137.0	126.4 - 151.3
All TOSOH Instruments	21	25.51	2.18	8.5	25.1	21.1 - 29.9	21	99.50	4.33	4.3	99.5	90.8 - 108.2
Abbott Architect	9	9.57	0.58	6.1	9.8	8.4 - 10.8	9	74.23	4.58	6.2	75.0	65.0 - 83.5
Beckman ACCESS / 2 / DxI	43	11.85	2.33	19.7	11.5	7.1 - 16.6	43	84.07	7.31	8.7	84.0	69.4 - 98.7
Qualigen FastPack	6	24.02	5.74	23.9	22.8	12.5 - 35.5	6	52.97	6.77	12.8	53.6	39.4 - 66.6
Roche cobas e 411	8	6.11	0.85	13.9	6.3	4.4 - 7.9	9	51.10	5.45	10.7	50.4	40.2 - 62.0
TOSOH AIA PACK	11	24.80	2.27	9.2	24.8	20.2 - 29.4	11	98.85	4.21	4.3	99.4	90.4 - 107.3
TOSOH ST AIA PACK	10	26.29	1.88	7.1	26.6	22.5 - 30.1	10	100.21	4.56	4.5	101.8	91.0 - 109.4

Bioavailable Testosterone (ng/dL)

	Specimen SHB-1						Specimen SHB-2					
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	2	-	-	-	150	Not graded	2	-	-	-	113	Not graded

Free Testosterone (pg/mL)

	Specimen SHB-1						Specimen SHB-2					
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	2	-	-	-	64	Not graded	2	-	-	-	48	Not graded

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

	Specimen SHB-1						Specimen SHB-2					
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	14	63.129	12.834	20.3	60.75	24.62 - 101.63	13	38.765	8.973	23.1	38.40	11.84 - 65.69
Beckman ACCESS / 2 / DxI	7	68.614	10.118	14.7	63.50	38.26 - 98.97	7	43.257	7.282	16.8	40.10	21.41 - 65.11
Siemens Immulite/1000	5	62.540	9.975	15.9	58.00	32.61 - 92.47	5	36.300	5.260	14.5	36.90	20.52 - 52.08

Testosterone (ng/dL)

	Specimen SHB-1						Specimen SHB-2					
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	14	544.1	131.5	24.2	495	380 - 708	13	308.2	105.8	34.3	271	215 - 401
All Immulite Instruments	5	695.8	77.9	11.2	708	487 - 905	5	421.8	67.3	16.0	410	295 - 549
Beckman ACCESS / 2 / DxI	7	444.6	47.1	10.6	447	311 - 578	7	249.0	23.8	9.5	250	174 - 324
Siemens Immulite/1000	5	695.8	77.9	11.2	708	487 - 905	5	421.8	67.3	16.0	410	295 - 549

BNP (pg/mL)

			Specimen CK-1						Specimen CK-2			
Method	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	36	80.38	13.19	16.4	57.8	53.9 - 106.8	36	2043.27	223.50	10.9	1440.0	1532.4 - 2554.1
Alere Triage	22	55.43	9.16	16.5	53.9	37.1 - 73.8	22	1360.87	239.28	17.6	1380.0	882.3 - 1839.5
i-STAT - moderate	10	74.75	9.43	12.6	72.5	55.8 - 93.7	10	2167.25	146.14	6.7	2184.5	1625.4 - 2709.1

			Specimen CK-3						Specimen CK-4			
All Method	36	1018.64	54.55	5.4	706.0	763.9 - 1273.3	26	511.24	49.92	9.8	430.0	383.4 - 639.1
Alere Triage	22	648.50	89.52	13.8	629.0	469.4 - 827.6	14	353.88	66.41	18.8	349.5	221.0 - 486.7
i-STAT - moderate	10	1033.50	49.95	4.8	1036.0	775.1 - 1291.9	10	501.00	51.22	10.2	486.0	375.7 - 626.3

			Specimen CK-5			
All Method	26	4037.66	281.97	7.0	2910.0	3028.2 - 5047.1
Alere Triage	14	2430.00	476.83	19.6	2385.0	1476.3 - 3383.7
i-STAT - moderate	10	4162.00	54.25	1.3	4145.5	3121.5 - 5202.5

CK-MB (ng/mL)

			Specimen CK-1						Specimen CK-2			
Method	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	32	5.36	0.96	17.9	4.0	2.4 - 8.3	32	47.69	9.00	18.9	26.0	20.6 - 74.7
Alere Triage	15	1.91	0.51	26.9	1.7	0.3 - 3.5	15	17.04	2.74	16.1	16.2	8.8 - 25.3
Dade Stratus CS	10	5.47	0.24	4.4	5.4	4.7 - 6.2	10	45.78	1.84	4.0	45.6	40.2 - 51.3

			Specimen CK-3						Specimen CK-4			
All Method	32	25.77	4.62	17.9	14.0	11.8 - 39.7	32	14.97	2.23	14.9	9.2	8.2 - 21.7
Alere Triage	15	9.66	2.34	24.2	9.9	2.6 - 16.7	15	5.36	1.31	24.4	5.3	1.4 - 9.3
Dade Stratus CS	10	25.20	1.01	4.0	25.2	22.1 - 28.3	10	14.95	0.21	1.4	15.0	14.3 - 15.6

			Specimen CK-5			
All Method	32	92.71	18.77	20.2	49.2	36.3 - 149.1
Alere Triage	15	33.03	4.55	13.8	34.3	19.3 - 46.7
Dade Stratus CS	10	87.35	3.90	4.5	85.9	75.6 - 99.1

D-Dimer (ng/mL)

	Specimen CK-1						Specimen CK-2					
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	36	516.6	65.1	12.6	560	361 - 672	36	1519.9	491.5	32.3	1350	536 - 2503
Alere Triage	21	598.5	71.2	11.9	588	418 - 779	21	1348.1	152.1	11.3	1300	943 - 1753
Dade Stratus CS	11	550.2	16.1	2.9	550	385 - 716	10	1783.3	66.2	3.7	1774	1248 - 2319

	Specimen CK-3						Specimen CK-4					
All Method	28	1118.3	224.9	20.1	993	668 - 1569	28	836.7	146.1	17.5	795	544 - 1129
Alere Triage	15	949.3	70.2	7.4	947	664 - 1235	15	752.6	68.2	9.1	762	526 - 979
Dade Stratus CS	11	1201.5	50.1	4.2	1195	841 - 1562	11	890.3	38.2	4.3	884	623 - 1158

	Specimen CK-5					
All Method	27	2567.1	691.2	26.9	2050	1184 - 3950
Alere Triage	14	1964.3	242.8	12.4	1950	1375 - 2554
Dade Stratus CS	11	2827.2	73.4	2.6	2830	1979 - 3676

D-Dimer (µgFEU/mL)

	Specimen CK-1						Specimen CK-2					
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	-	-	-	-	-	Not graded	-	-	-	-	-	Not graded

	Specimen CK-3						Specimen CK-4					
All Method	-	-	-	-	-	Not graded	-	-	-	-	-	Not graded

	Specimen CK-5					
All Method	-	-	-	-	-	Not graded

Myoglobin (ng/mL)

Method	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
			Specimen CK-1							**Specimen CK-2**		
All Method	17	27.90	1.41	5.1	31.3	19.5 - 36.3	17	214.75	40.00	18.6	212.0	134.7 - 294.8
Alere Triage	12	36.37	7.87	21.6	34.0	20.6 - 52.2	12	215.75	30.64	14.2	212.0	151.0 - 280.5
			Specimen CK-3							**Specimen CK-4**		
All Method	17	120.40	19.05	15.8	138.0	82.2 - 158.6	17	72.20	8.22	11.4	79.8	50.5 - 93.9
Alere Triage	12	141.45	20.09	14.2	138.0	99.0 - 183.9	12	84.03	12.75	15.2	82.9	58.5 - 109.6
			Specimen CK-5									
All Method	17	408.73	81.69	20.0	334.0	245.3 - 572.1						
Alere Triage	12	336.42	53.80	16.0	322.0	228.8 - 444.1						

NT-proBNP (pg/mL)

Method	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
			Specimen CK-1							**Specimen CK-2**		
All Method	7	40.0	21.9	54.9	35	0 - 84	7	1764.2	854.4	48.4	1512	55 - 3474
Siemens Dimension NT-proBNP	5	24.7	9.0	36.3	20	6 - 43	5	1160.7	305.4	26.3	1011	549 - 1772
			Specimen CK-3							**Specimen CK-4**		
All Method	7	530.0	174.1	32.8	431	181 - 879	7	244.0	98.9	40.5	192	46 - 442
Siemens Dimension NT-proBNP	5	530.0	174.1	32.8	431	181 - 879	5	244.0	98.9	40.5	192	46 - 442
			Specimen CK-5									
All Method	7	2656.7	534.6	20.1	2378	1587 - 3726						
Siemens Dimension NT-proBNP	5	2656.7	534.6	20.1	2378	1587 - 3726						

Troponin I (ng/mL)

Method		Specimen CK-1						Specimen CK-2				
	Labs	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	51	0.097	0.109	112.1	0.05	0.00 - 0.32	51	6.030	6.392	106.0	3.27	0.00 - 18.82
All HS Troponin I Methods	14	0.328	0.238	72.7	0.29	0.00 - 0.81	14	18.164	8.855	48.7	14.34	0.45 - 35.88
All Non-HS Troponin I Methods	12	0.019	0.005	27.0	0.02	0.00 - 0.03	12	0.990	0.129	13.1	1.02	0.69 - 1.29
Alere Triage	16	0.050	0.001	0.0	0.05	0.03 - 0.07	16	3.409	0.680	20.0	3.34	2.04 - 4.77
Dade Stratus CS	11	0.018	0.008	41.0	0.02	0.00 - 0.04	11	1.077	0.063	5.8	1.07	0.75 - 1.40
i-STAT - moderate	10	0.312	0.036	11.6	0.30	0.21 - 0.41	10	13.922	1.180	8.5	13.93	9.74 - 18.10

Method		Specimen CK-3						Specimen CK-4				
All Method	51	2.606	3.146	120.7	1.13	0.00 - 8.90	51	1.184	1.540	130.1	0.37	0.00 - 4.27
All HS Troponin I Methods	14	9.202	6.008	65.3	7.15	0.00 - 21.22	14	4.513	3.282	72.7	3.32	0.00 - 11.08
All Non-HS Troponin I Methods	12	0.475	0.051	10.7	0.49	0.33 - 0.62	12	0.235	0.036	15.2	0.24	0.16 - 0.31
Alere Triage	16	1.114	0.354	31.7	1.15	0.40 - 1.83	16	0.402	0.143	35.5	0.37	0.11 - 0.69
Dade Stratus CS	11	0.512	0.026	5.2	0.51	0.35 - 0.67	11	0.258	0.025	9.6	0.26	0.18 - 0.34
i-STAT - moderate	10	6.754	0.795	11.8	6.99	4.72 - 8.79	10	3.384	0.295	8.7	3.30	2.36 - 4.40

Method		Specimen CK-5				
All Method	51	14.267	13.584	95.2	8.59	0.00 - 41.44
All HS Troponin I Methods	14	36.316	13.713	37.8	30.49	8.88 - 63.75
All Non-HS Troponin I Methods	12	2.084	0.325	15.6	2.07	1.43 - 2.74
Alere Triage	16	9.107	1.491	16.4	8.59	6.12 - 12.09
Dade Stratus CS	11	2.167	0.106	4.9	2.16	1.51 - 2.82
i-STAT - moderate	10	29.670	6.171	20.8	30.19	17.32 - 42.02

Troponin T (ng/mL)

Method	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
			Specimen CK-1							**Specimen CK-2**		
All Method	5	0.0890	0.020	22.5	0.089	0.049 - 0.129	5	0.6720	0.1500	22.3	0.672	0.372 - 0.972
			Specimen CK-3							**Specimen CK-4**		
All Method	5	0.3660	0.1200	32.8	0.366	0.126 - 0.606	5	0.2215	0.0700	31.6	0.222	0.081 - 0.362
			Specimen CK-5									
All Method	5	1.2350	0.3500	28.3	1.236	0.535 - 1.935						

PSA (ng/mL)

Method		Specimen PS-1						Specimen PS-2				
	Labs	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	126	0.337	0.059	17.4	0.36	0.00 - 1.24	124	20.046	3.186	15.9	20.40	14.03 - 26.07
All TOSOH Instruments	33	0.349	0.031	8.8	0.35	0.00 - 1.25	34	16.477	0.833	5.1	16.51	11.53 - 21.43
Abbott Architect	11	0.276	0.022	7.8	0.28	0.00 - 1.18	11	19.113	1.446	7.6	18.83	13.37 - 24.85
Beckman ACCESS / 2 / DxI	22	0.376	0.026	6.9	0.38	0.00 - 1.28	21	22.284	1.260	5.7	22.44	15.59 - 28.97
Beckman ACCESS Hybritech PSA	21	0.382	0.022	5.8	0.38	0.00 - 1.29	21	22.477	1.027	4.6	22.40	15.73 - 29.22
Siemens Dimension TPSA	16	0.301	0.050	16.6	0.30	0.00 - 1.21	16	19.750	1.387	7.0	20.04	13.82 - 25.68
TOSOH AIA PACK	13	0.344	0.025	7.3	0.34	0.00 - 1.25	14	16.435	0.930	5.7	16.36	11.50 - 21.37
TOSOH ST AIA PACK	20	0.353	0.034	9.6	0.36	0.00 - 1.26	20	16.507	0.781	4.7	16.62	11.55 - 21.46

Beta-2 microglobulin

Method		Specimen TM-1						Specimen TM-2				
	Labs	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	6	3.573	0.851	23.8	3.67	1.02 - 6.13	6	0.535	0.181	33.8	0.59	0.00 - 1.08

CA 125 (U/mL)

Method		Specimen TM-1						Specimen TM-2				
	Labs	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	25	149.2	27.2	18.2	174	94 - 204	25	10.2	1.7	16.5	12	6 - 14
All TOSOH Instruments	12	246.5	12.2	5.0	251	172 - 321	12	14.1	1.0	7.0	14	9 - 19
TOSOH ST AIA PACK	10	246.5	12.2	5.0	251	172 - 321	10	14.1	1.0	7.0	14	9 - 19

CA 15-3 (U/mL)

Method		Specimen TM-1						Specimen TM-2				
	Labs	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	11	89.8	40.6	45.2	83	8 - 172	11	15.2	7.0	46.2	12	1 - 30

CA 19-9 (U/mL)

Method		Specimen TM-1						Specimen TM-2				
	Labs	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	10	201.8	79.5	39.4	251	42 - 361	10	12.1	4.0	33.2	11	4 - 21

CA 27/29 (U/mL)

Method	Specimen TM-1						Specimen TM-2					
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	10	406.6	107.4	26.4	430	191 - 622	10	30.6	5.3	17.2	32	20 - 42

CEA (ng/mL)

Method	Specimen TM-1						Specimen TM-2					
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	12	37.08	9.20	24.8	34.7	25.9 - 48.2	12	3.16	0.57	18.1	3.7	1.9 - 4.4

Free PSA (ng/mL)

Method	Specimen TM-1						Specimen TM-2					
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	13	5.634	1.052	18.7	5.35	3.94 - 7.33	13	1.618	0.295	18.3	1.50	0.71 - 2.52

PSA (ng/mL)

Method	Specimen TM-1						Specimen TM-2					
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	34	6.096	1.172	19.2	5.89	4.26 - 7.93	34	1.995	0.293	14.7	1.96	1.09 - 2.90

Thyroglobulin (ng/mL)

Method	Specimen TM-1						Specimen TM-2					
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	7	98.98	45.98	46.5	78.8	7.0 - 191.0	7	3.00	1.51	50.3	3.2	0.0 - 6.1

CEA (ng/mL)

Method	Specimen SC-1						Specimen SC-2					
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	24	1.00	0.15	15.5	1.2	0.0 - 2.2	24	29.77	7.61	25.6	27.8	20.8 - 38.7
All TOSOH Instruments	12	1.23	0.08	6.6	1.3	0.0 - 2.5	12	27.22	1.46	5.4	27.1	19.0 - 35.4
TOSOH AIA PACK	10	1.25	0.06	4.6	1.3	0.0 - 2.5	10	27.83	1.24	4.5	27.9	19.0 - 35.4

DHEA-S (µg/dL)

Method	Specimen SC-1						Specimen SC-2					
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	15	89.08	17.07	19.2	83.6	62.3 - 115.9	15	498.72	59.61	12.0	475.5	349.1 - 648.4
Beckman ACCESS / 2 / DxI	11	91.16	12.48	13.7	85.9	63.8 - 118.6	11	523.89	62.67	12.0	507.2	366.7 - 681.1

Estradiol (pg/mL)

Method	Specimen SC-1						Specimen SC-2					
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	32	45.4	22.7	50.0	45	0 - 91	32	508.1	123.9	24.4	489	260 - 756
All TOSOH Instruments	12	66.3	16.2	24.4	64	33 - 99	12	498.8	34.3	6.9	491	430 - 568

Ferritin (ng/mL)

Method	Specimen SC-1						Specimen SC-2					
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	44	28.1	4.0	14.3	21	19 - 37	44	289.8	41.5	14.3	232	202 - 377
All TOSOH Instruments	25	19.3	1.2	6.1	19	13 - 26	25	215.0	13.7	6.4	217	150 - 280
Beckman ACCESS / 2 / DxI	36	20.4	2.2	11.0	20	14 - 27	34	227.0	14.1	6.2	224	158 - 296
Siemens Dimension	11	29.8	1.2	3.9	30	20 - 39	11	290.5	8.5	2.9	293	203 - 378
TOSOH AIA PACK	10	19.0	1.4	7.4	20	13 - 25	10	207.9	12.8	6.1	207	145 - 271
TOSOH ST AIA PACK	15	19.5	1.0	5.1	19	13 - 26	15	219.7	12.6	5.7	219	153 - 286

Folate (ng/mL)

		Specimen SC-1						Specimen SC-2				
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	68	1.06	0.59	55.8	1.1	0.1 - 2.0	68	7.01	2.03	29.0	8.9	4.9 - 9.2
All Roche Instruments	13	1.80	0.53	29.4	2.0	0.9 - 2.7	13	7.00	0.39	5.5	7.1	4.9 - 9.1
All Siemens Dimension Instruments	12	0.81	0.29	35.8	0.8	0.0 - 1.8	12	4.53	0.48	10.6	4.5	3.1 - 5.9
All TOSOH Instruments	12	2.46	0.55	22.3	2.3	1.5 - 3.4	12	5.70	0.81	14.1	5.7	3.9 - 7.5
Beckman ACCESS / 2 / DxI	33	1.04	0.24	22.7	1.0	0.1 - 2.0	33	9.61	0.63	6.5	9.7	6.7 - 12.5
Roche cobas e 411	11	2.00	0.01	0.0	2.0	1.1 - 2.9	11	7.06	0.38	5.4	7.1	4.9 - 9.2
Siemens Dimension	10	0.74	0.29	38.9	0.8	0.0 - 1.7	10	4.38	0.41	9.3	4.3	3.0 - 5.7
TOSOH AIA PACK	10	2.59	0.54	20.9	2.5	1.6 - 3.5	10	5.66	0.82	14.4	5.7	3.9 - 7.4

FSH (mIU/mL)

		Specimen SC-1						Specimen SC-2				
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	31	7.08	1.60	22.7	7.1	5.3 - 8.9	31	67.11	8.46	12.6	65.1	50.3 - 83.9
Beckman ACCESS / 2 / DxI	12	7.77	1.06	13.6	7.6	5.8 - 9.8	12	70.03	10.60	15.1	66.4	52.5 - 87.6

Homocysteine (μmol/L)

		Specimen SC-1						Specimen SC-2				
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	11	5.6	1.2	21.1	6	3 - 8	11	94.0	19.9	21.2	96	65 - 123

LH (mIU/mL)

		Specimen SC-1						Specimen SC-2				
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	29	3.53	0.65	18.3	3.4	2.2 - 4.9	29	84.21	34.53	41.0	74.3	15.1 - 153.3
Beckman ACCESS / 2 / DxI	12	3.26	0.55	16.9	3.1	2.1 - 4.4	12	57.56	7.47	13.0	55.9	42.6 - 72.5

Progesterone (ng/mL)

		Specimen SC-1						Specimen SC-2				
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	22	2.08	0.35	16.7	2.1	1.4 - 2.8	22	39.96	6.12	15.3	39.9	27.9 - 52.0

Prolactin (ng/mL)

		Specimen SC-1						Specimen SC-2				
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	20	0.81	0.15	18.7	0.8	0.0 - 4.5	20	63.39	8.65	13.6	61.6	44.3 - 82.5

Testosterone (ng/dL)

		Specimen SC-1						Specimen SC-2				
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	84	88.0	31.4	35.6	78	61 - 115	84	1393.2	295.7	21.2	1307	975 - 1812
All Roche Instruments	10	80.2	5.0	6.3	82	56 - 105	10	1411.0	63.9	4.5	1426	987 - 1835
All Siemens Immulite Instruments	13	202.3	18.9	9.3	195	141 - 264	6	1540.0	147.0	9.5	1600	1078 - 2002
All TOSOH Instruments	22	93.1	12.9	13.8	92	65 - 121	22	1846.6	100.0	5.4	1815	1292 - 2401
Abbott Architect	11	55.0	5.0	9.1	56	38 - 72	6	1235.7	370.9	30.0	1009	864 - 1607
Beckman ACCESS / 2 / DxI	33	77.2	8.5	11.0	75	54 - 101	34	1244.5	111.7	9.0	1238	871 - 1618
Siemens Immulite/1000	11	205.2	19.6	9.5	200	143 - 267	5	1600.0	0.1	0.0	1600	1120 - 2080
TOSOH AIA PACK	12	88.8	16.6	18.7	92	62 - 116	6	1839.7	108.3	5.9	1812	1287 - 2392
TOSOH ST AIA PACK	10	95.9	9.7	10.2	98	67 - 125	9	1851.2	100.6	5.4	1815	1295 - 2407

Transferrin (mg/dL)

		Specimen SC-1						Specimen SC-2				
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	12	125.3	9.1	7.3	126	112 - 138	12	295.7	12.6	4.3	298	266 - 326

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

		Specimen SC-1						Specimen SC-2				
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	102	293.8	46.4	15.8	277	205 - 382	102	1227.9	189.1	15.4	1187	859 - 1597
All Roche Instruments	13	295.2	46.7	15.8	288	206 - 384	13	1603.2	160.0	10.0	1579	1122 - 2085
All TOSOH Instruments	15	369.2	37.5	10.1	366	258 - 480	15	1220.0	116.6	9.6	1212	854 - 1586
Abbott Architect	11	329.0	16.2	4.9	327	230 - 428	11	1469.6	123.3	8.4	1504	1028 - 1911
Beckman ACCESS / 2 / DxI	43	259.0	15.4	5.9	259	181 - 337	43	1115.0	62.9	5.6	1119	780 - 1450
Roche cobas e 411	10	282.3	43.0	15.2	286	197 - 367	10	1635.1	168.5	10.3	1585	1144 - 2126
Siemens Dimension	11	329.2	15.0	4.5	330	230 - 428	11	1331.6	44.1	3.3	1345	932 - 1732
TOSOH AIA PACK	11	371.2	40.9	11.0	366	259 - 483	11	1226.1	123.4	10.1	1212	858 - 1594

Serum Alcohol (mg/dL)

Method	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
			Specimen ETH-1							Specimen ETH-2		
ALL METHODS	5	65.0	6.6	10.1	66	48 - 82	5	22.0	1.7	7.9	21	16 - 28
			Specimen ETH-3							Specimen ETH-4		
ALL METHODS	5	105.7	9.5	8.9	109	79 - 133	5	67.0	5.6	8.3	68	50 - 84
			Specimen ETH-5									
ALL METHODS	5	305.7	30.8	10.1	316	229 - 383						

Acetone

Method	Labs	Negative	Small	Moderate	Large	Labs	Negative	Small	Moderate	Large
		Specimen ETH-1					Specimen ETH-2			
ALL METHODS	12	-	-	3	9	12	12	-	-	-
Biorex Labs K-CHECK	7	-	-	1	6	7	7	-	-	-
Siemens Acetest	5	-	-	2	3	5	5	-	-	-
		Specimen ETH-3					Specimen ETH-4			
ALL METHODS	12	12	-	-	-	12	-	4	8	-
Biorex Labs K-CHECK	7	7	-	-	-	7	-	1	6	-
Siemens Acetest	5	5	-	-	-	5	-	3	2	-
		Specimen ETH-5								
ALL METHODS	12	12	-	-	-					
Biorex Labs K-CHECK	7	7	-	-	-					
Siemens Acetest	5	5	-	-	-					

Thyroglobulin Antibody (IU/mL)

| | Specimen THY-1 | | | | | | Specimen THY-2 | | | | |
Method	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	15	277.375	55.383	20.0	293.78	166.60 - 388.15	17	4.924	8.032	163.1	0.60	0.00 - 20.99
Beckman ACCESS / 2 / DxI	10	293.892	46.592	15.9	308.50	200.70 - 387.08	10	0.687	1.269	184.7	0.20	0.00 - 3.23

Thryoid Peroxidase Antibody (TPO) (IU/mL)

| | Specimen THY-1 | | | | | | Specimen THY-2 | | | | |
Method	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	18	13.454	8.619	64.1	9.50	0.00 - 30.70	18	5.593	8.988	160.7	0.74	0.00 - 23.57
Beckman ACCESS / 2 / DxI	10	8.530	0.837	9.8	8.35	6.85 - 10.21	10	0.411	0.060	14.6	0.40	0.29 - 0.54

Ammonia (µmol/L)

| | Specimen AMM-1 | | | | | | Specimen AMM-2 | | | | |
Method	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	8	68.0	8.4	12.3	66	51 - 85	8	188.2	11.3	6.0	192	165 - 211
Siemens Dimension	5	69.0	5.2	7.5	66	58 - 80	5	189.7	4.9	2.6	192	179 - 200

Adulterated Urine – Specific Gravity

| | Specimen AUR-1 | | | | | | Specimen AUR-2 | | | | |
Method	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	5	1.0050	0.0028	0.3	1.005	0.995 - 1.015	5	1.0050	0.0028	0.3	1.005	0.995 - 1.015
Beckman AU	5	1.0050	0.0028	0.3	1.005	0.995 - 1.015	5	1.0050	0.0028	0.3	1.005	0.995 - 1.015

Adulterated Urine – Specific Gravity Interpretation

| | Specimen AUR-1 | | | Specimen AUR-2 | | |
Method	Labs	Normal	Abnormal	Labs	Normal	Abnormal
All Methods	1	1	-	1	1	-
Beckman AU	1	1	-	1	1	-

Adulterated Urine – pH

		Specimen AUR-1						Specimen AUR-2				
Method	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_
All Method	5	6.95	0.07	1.0	7.0	6.9 - 7.0	5	6.95	0.07	1.0	7.0	6.9 - 7.0
Beckman AU	5	6.95	0.07	1.0	7.0	6.9 - 7.0	5	6.95	0.07	1.0	7.0	6.9 - 7.0

Adulterated Urine – pH Interpretation

	Specimen AUR-1			Specimen AUR-2		
Method	_Labs_	_Normal_	_Abnormal_	_Labs_	_Normal_	_Abnormal_
All Methods	1	1	-	1	1	-
Beckman AU	1	1	-	1	1	-

Adulterated Urine – Creatinine (mg/dL)

		Specimen AUR-1						Specimen AUR-2				
Method	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_
All Method	5	2.70	0.01	0.0	2.7	2.2 - 3.2	5	6.40	0.14	2.2	6.4	5.3 - 7.5
Beckman AU	5	2.70	0.01	0.0	2.7	2.2 - 3.2	5	6.40	0.14	2.2	6.4	5.3 - 7.5

Adulterated Urine – Creatinine Interpretation

	Specimen AUR-1			Specimen AUR-2		
Method	_Labs_	_Normal_	_Abnormal_	_Labs_	_Normal_	_Abnormal_
All Methods	2	-	2	2	-	2
Beckman AU	2	-	2	2	-	2

Adulterated Urine – Nitrite Interpretation

	Specimen AUR-1			Specimen AUR-2		
Method	*Labs*	*Normal*	*Abnormal*	*Labs*	*Normal*	*Abnormal*
All Methods	2	2	-	2	-	2
Beckman AU	2	2	-	2	-	2

Adulterated Urine – Oxidants Interpretation

	Specimen AUR-1			Specimen AUR-2		
Method	*Labs*	*Negative/ Normal*	*Positive/ Abnormal*	*Labs*	*Negative/ Normal*	*Positive/ Abnormal*
All Methods	1	1	-	1	-	1
Beckman AU	1	1	-	1	-	1

Ethyl Glucuronide (EtG) (ng/mL)

	Specimen ETG-1			Specimen ETG-2		
Method	*Labs*	*Positive*	*Negative*	*Labs*	*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)

	Specimen UDS-1			Specimen UDS-2		
Method	*Labs*	*Positive*	*Negative*	*Labs*	*Positive*	*Negative*
All Methods	5	-	5	5	-	5

Amphetamines (ng/mL)

Method	Specimen UDS-1			Specimen UDS-2		
	Labs	**Positive**	**Negative**	**Labs**	**Positive**	**Negative**
All Methods	85	83	2	83	2	83
Cut-off 300						
Discover Multi-Panel Drug Screen Test Cup	1	-	1	-	1	-
All Cut-off 300	1	-	1	-	1	-
Cut-off 500						
Beckman AU	3	3	-	3	-	3
ImmTox	2	2	-	2	-	2
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 Viva-E	1	1	-	1	-	1
Synermed IR 500	1	1	-	1	-	1
All Cut-off 500	17	17	-	17	-	17
Cut-off 1000						
Alere iCassette	3	3	-	3	-	3
Alere iCup	9	8	1	8	1	8
Alere iScreen	1	1	-	1	-	1
AMBC Rapid Drug/Tox	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	2	2	-	2	-	2
Lin-Zhi International	2	2	-	2	-	2
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	1	1	-	1	-	1
USDiagnostics UScreen Cup	4	4	-	4	-	4
All Cut-off 1000	59	58	1	58	1	58

Amphetamines/Methamphetamines (ng/mL)

Method	Specimen UDS-1			Specimen UDS-2		
	Labs	Positive	Negative	Labs	Positive	Negative
All Methods	15	15	-	15	-	15
Cut-off 100						
Beckman AU	1	1	-	1	-	1
All Cut-off 100	1	1	-	1	-	1
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
AMBC Rapid Drug/Tox	1	1	-	1	-	1
Discover Multi-Panel Drug Screen Test Cup	1	1	-	1	-	1
Microgenics DRI	1	1	-	1	-	1
Siemens EMIT II Plus	1	1	-	1	-	1
All Cut-off 1000	5	5	-	5	-	5

Barbiturates (ng/mL)

Method	Specimen UDS-1			Specimen UDS-2		
	Labs	*Positive*	*Negative*	*Labs*	*Positive*	*Negative*
All Methods	83	-	83	83	-	83
Cut-off 100						
Beckman AU	1	-	1	1	-	1
All Cut-off 100	1	-	1	1	-	1
Cut-off 200						
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	28	-	28	28	-	28
Cut-off 300						
Alere iCassette	3	-	3	3	-	3
Alere iCup	9	-	9	9	-	9
Alere iScreen	1	-	1	1	-	1
Amedica Biotech AmediCheck	1	-	1	1	-	1
Bio-Rad TOX/See	1	-	1	1	-	1
BMC QuickTox Drug Screen	21	-	21	21	-	21
Discover Multi-Panel Drug Screen Test Cup	1	-	1	1	-	1
Microgenics DRI	1	-	1	1	-	1
USDiagnostics One Step Multi-Drug	1	-	1	1	-	1
USDiagnostics UScreen Cup	4	-	4	4	-	4
All Cut-off 300	47	-	47	47	-	47

Benzodiazepines (ng/mL)

Method	Specimen UDS-1			Specimen UDS-2		
	Labs	**Positive**	**Negative**	**Labs**	**Positive**	**Negative**
All Methods	87	1	86	87	83	4
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	6	1
Carolina Chemistries BioLis 24i	1	-	1	1	1	-
ImmTox	2	-	2	2	2	-
Indiko Plus	1	-	1	1	1	-
Lin-Zhi International	2	-	2	2	2	-
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	22	1
Cut-off 300						
Alere iCassette	3	-	3	3	2	1
Alere iCup	9	1	8	9	8	1
Alere iScreen	2	-	2	2	2	-
Beckman AU	1	-	1	1	1	-
Bio-Rad TOX/See	1	-	1	1	1	-
BMC QuickTox Drug Screen	22	-	22	22	21	1
Discover Multi-Panel Drug Screen Test Cup	1	-	1	1	1	-
Microgenics DRI	1	-	1	1	1	-
USDiagnostics One Step Multi-Drug	1	-	1	1	1	-
USDiagnostics UScreen Cup	4	-	4	4	4	-
All Cut-off 300	49	1	48	49	46	3

Buprenorphine (ng/mL)

Method	Specimen UDS-1			Specimen UDS-2		
	Labs	*Positive*	*Negative*	*Labs*	*Positive*	*Negative*
All Methods	35	-	35	35	-	35
Cut-off 5						
Beckman AU	4	-	4	4	-	4
ImmTox	2	-	2	2	-	2
Lin-Zhi International	2	-	2	2	-	2
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	14	-	14	14	-	14
Cut-off 10						
Alere iCup	1	-	1	1	-	1
Alere iScreen	2	-	2	2	-	2
Beckman AU	1	-	1	1	-	1
Chemtron Biotech	1	-	1	1	-	1
Discover Multi-Panel Drug Screen Test Cup	1	-	1	1	-	1
MEDTOX Diagnostics	3	-	3	3	-	3
Microgenics CEDIA	1	-	1	1	-	1
USDiagnostics UScreen Cup	1	-	1	1	-	1
All Cut-off 10	14	-	14	14	-	14
Cut-off 20						
Beckman AU	2	-	2	2	-	2
Indiko Plus	1	-	1	1	-	1
All Cut-off 20	3	-	3	3	-	3

Cannabinoids (THC) (ng/mL)

Method	Specimen UDS-1			Specimen UDS-2		
	Labs	*Positive*	*Negative*	*Labs*	*Positive*	*Negative*
All Methods	99	-	99	99	-	99
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	3	-	3	3	-	3
Alere iCup	10	-	10	10	-	10
Alere iScreen	1	-	1	1	-	1
Alfa Scientific Instant-View	4	-	4	4	-	4
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	2	-	2	2	-	2
Discover Multi-Panel Drug Screen Test Cup	1	-	1	1	-	1
Germaine Laboratories AimScreen	4	-	4	4	-	4
ImmTox	2	-	2	2	-	2
Indiko Plus	1	-	1	1	-	1
Lin-Zhi International	2	-	2	2	-	2
MEDTOX Diagnostics	5	-	5	5	-	5
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	1	-	1	1	-	1
USDiagnostics UScreen Cup	4	-	4	4	-	4
All Cut-off 50	87	-	87	87	-	87
Cut-off 100						
Beckman AU	1	-	1	1	-	1
All Cut-off 100	1	-	1	1	-	1

Carisoprodol (ng/mL)

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

Cocaine Metabolites (ng/mL)

Method	Specimen UDS-1			Specimen UDS-2		
	Labs	*Positive*	*Negative*	*Labs*	*Positive*	*Negative*
All Methods	100	-	100	100	1	99
Cut-off 50						
Discover Multi-Panel Drug Screen Test Cup	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	2	-	2	2	-	2
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	3	-	3	3	-	3
Alere iCup	10	-	10	10	-	10
Alere iScreen	1	-	1	1	-	1
Alfa Scientific Instant-View	4	-	4	4	-	4
Beckman AU	2	-	2	2	-	2
Bio-Rad TOX/See	1	-	1	1	-	1
BMC QuickTox Drug Screen	22	-	22	22	1	21
Carolina Chemistries BioLis 24i	2	-	2	2	-	2
Germaine Laboratories AimScreen	4	-	4	4	-	4
Lin-Zhi International	2	-	2	2	-	2
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	1	-	1	1	-	1
USDiagnostics UScreen Cup	4	-	4	4	-	4
All Cut-off 300	70	-	70	70	1	69

Cotinine (ng/mL)

Method	Specimen UDS-1			Specimen UDS-2		
	Labs	Positive	Negative	Labs	Positive	Negative
All Methods	3	-	3	3	3	-

EDDP (ng/mL)

Method	Specimen UDS-1			Specimen UDS-2		
	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-1			Specimen UDS-2		
	Labs	*Positive*	*Negative*	*Labs*	*Positive*	*Negative*
All Methods	13	-	13	13	-	13
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	3	-	3	3	-	3
Carolina Chemistries BioLis 24i	1	-	1	1	-	1
Lin-Zhi International	1	-	1	1	-	1
Microgenics DRI	1	-	1	1	-	1
All Cut-off 100	6	-	6	6	-	6
Cut-off 3						
Roche Cobas 8000 / c502	1	-	1	1	-	1
All Cut-off 3	1	-	1	1	-	1

Fentanyl (ng/mL)

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

Method	Labs	Specimen UDS-1 Positive	Negative	Labs	Specimen UDS-2 Positive	Negative
ALL METHODS	3	-	3	3	3	-

LSD (ng/mL)

Method	Labs	Specimen UDS-1 Positive	Negative	Labs	Specimen UDS-2 Positive	Negative
ALL METHODS	2	-	2	2	-	2

MDMA (ng/mL)

Method	Specimen UDS-1			Specimen UDS-2		
	Labs	*Positive*	*Negative*	*Labs*	*Positive*	*Negative*
All Methods	49	48	1	49	1	48
Cut-off 100						
Discover Multi-Panel Drug Screen Test Cup	1	1	-	1	-	1
All Cut-off 100	1	1	-	1	-	1
Cut-off 500						
Alere iCassette	1	1	-	1	-	1
Alere iCup	8	7	1	8	1	7
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	22	22	-	22	-	22
Microgenics DRI	2	2	-	2	-	2
Siemens EMIT II Plus	1	1	-	1	-	1
USDiagnostics One Step Multi-Drug	1	1	-	1	-	1
USDiagnostics UScreen Cup	4	4	-	4	-	4
All Cut-off 500	45	44	1	45	1	44

Meperidine (ng/mL)

Method	Specimen UDS-1			Specimen UDS-2		
	Labs	*Positive*	*Negative*	*Labs*	*Positive*	*Negative*
ALL METHODS	2	-	2	2	-	2

Methadone (ng/mL)

Method	Specimen UDS-1			Specimen UDS-2		
	Labs	*Positive*	*Negative*	*Labs*	*Positive*	*Negative*
All Methods	83	1	82	83	-	83
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
Siemens EMIT II Plus	2	-	2	2	-	2
All Cut-off 150	3	-	3	3	-	3
Cut-off 200						
MEDTOX Diagnostics	4	-	4	4	-	4
All Cut-off 200	4	-	4	4	-	4
Cut-off 300						
Alere iCassette	3	-	3	3	-	3
Alere iCup	8	-	8	8	-	8
Alere iScreen	1	-	1	1	-	1
Beckman AU	6	-	6	6	-	6
Bio-Rad TOX/See	1	-	1	1	-	1
BMC QuickTox Drug Screen	23	-	23	23	-	23
Carolina Chemistries BioLis 24i	2	-	2	2	-	2
Indiko Plus	1	-	1	1	-	1
Lin-Zhi International	1	-	1	1	-	1
Microgenics DRI	7	-	7	7	-	7
Roche Integra	2	-	2	2	-	2
Siemens EMIT II Plus	2	-	2	2	-	2
Synermed IR 500	1	-	1	1	-	1
USDiagnostics One Step Multi-Drug	1	-	1	1	-	1
USDiagnostics UScreen Cup	4	-	4	4	-	4
All Cut-off 300	66	1	65	66	-	66
Cut-off 1000						
Alere iCup	1	-	1	1	-	1
All Cut-off 1000	1	-	1	1	-	1

Methamphetamines (ng/mL)

Method	Specimen UDS-1			Specimen UDS-2		
	Labs	**Positive**	**Negative**	**Labs**	**Positive**	**Negative**
All Methods	59	57	2	58	1	57
Cut-off 500						
Alere iScreen	1	1	-	1	-	1
Beckman AU	1	1	-	1	-	1
BMC QuickTox Drug Screen	21	21	-	21	-	21
ImmTox	2	2	-	2	-	2
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	2	2	-	2	-	2
Alere iCup	10	9	1	10	1	9
AMBC Rapid Drug/Tox	1	1	-	1	-	1
Bio-Rad TOX/See	1	1	-	1	-	1
BMC QuickTox Drug Screen	1	1	-	1	-	1
USDiagnostics One Step Multi-Drug	1	1	-	1	-	1
USDiagnostics UScreen Cup	4	4	-	4	-	4
All Cut-off 1000	20	19	1	20	1	19

Methanol (mg/dL)

	Specimen UDS-1			Specimen UDS-2		
	Labs	_Positive_	_Negative_	_Labs_	_Positive_	_Negative_
All Methods	1	-	1	1	-	1

Methaqualone (ng/mL)

	Specimen UDS-1			Specimen UDS-2		
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-1			Specimen UDS-2		
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-1			Specimen UDS-2		
	Labs	*Positive*	*Negative*	*Labs*	*Positive*	*Negative*
All Methods	103	1	102	103	49	54
Cut-off 100						
Beckman AU	1	-	1	1	1	-
MEDTOX Diagnostics	4	-	4	4	4	-
All Cut-off 100	5	-	5	5	5	-
Cut-off 300						
Alere iCup	1	-	1	1	-	1
Alere iScreen	2	-	2	2	-	2
Alfa Scientific Instant-View	2	-	2	2	2	-
Beckman AU	9	-	9	9	5	4
BMC QuickTox Drug Screen	21	-	21	21	15	6
Carolina Chemistries BioLis 24i	2	-	2	2	-	2
ImmTox	2	-	2	2	2	-
Indiko Plus	1	-	1	1	1	-
Lin-Zhi International	1	-	1	1	-	1
Microgenics DRI	5	-	5	5	2	3
Roche Cobas 8000 / c502	1	-	1	1	-	1
Roche Integra	3	-	3	3	1	2
Siemens Dimension	1	-	1	1	1	-
Siemens EMIT II Plus	4	-	4	4	4	-
Synermed IR 500	1	-	1	1	-	1
USDiagnostics UScreen Cup	1	-	1	1	-	1
All Cut-off 300	58	-	58	58	33	25
Cut-off 1000						
Microgenics DRI	1	-	1	1	-	1
All Cut-off 1000	1	-	1	1	-	1
Cut-off 2000						
Alere iCassette	3	-	3	3	1	2
Alere iCup	9	1	8	9	1	8
Alfa Scientific Instant-View	2	-	2	2	2	-
Bio-Rad TOX/See	1	-	1	1	1	-
BMC QuickTox Drug Screen	2	-	2	2	2	-
Germaine Laboratories AimScreen	4	-	4	4	-	4
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	3	-	3	3	1	2
All Cut-off 2000	29	1	28	29	8	21

Specimen UDS-2 is an ungraded challenge. It contained a high concentration of Hydrocodone (700 ng/mL) which caused a false positive for Morphine Trihydrate. Specimen UDS-2 should be negative for Opiates.

Oxycodone (ng/mL)

Method	Specimen UDS-1			Specimen UDS-2		
	Labs	Positive	Negative	Labs	Positive	Negative
All Methods	77	-	77	78	2	76
Cut-off 100						
Alere iCassette	3	-	3	3	-	3
Alere iCup	9	-	9	9	-	9
Alere iScreen	2	-	2	2	-	2
Beckman AU	7	-	7	7	-	7
Bio-Rad TOX/See	1	-	1	1	-	1
BMC QuickTox Drug Screen	23	-	23	23	-	23
Carolina Chemistries BioLis 24i	1	-	1	1	-	1
ImmTox	2	-	2	2	-	2
Lin-Zhi International	1	-	1	1	-	1
MEDTOX Diagnostics	4	-	4	4	-	4
Microgenics DRI	6	-	6	6	-	6
Roche Integra	3	-	3	3	-	3
Siemens EMIT II Plus	1	-	1	1	-	1
USDiagnostics UScreen Cup	4	-	4	4	-	4
All Cut-off 100	69	-	69	69	-	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-1			Specimen UDS-2		
	Labs	_Positive_	_Negative_	_Labs_	_Positive_	_Negative_
All Methods	71	-	71	71	67	4
Cut-off 25						
Alere iCassette	3	-	3	3	1	2
Alere iCup	4	-	4	4	4	-
Beckman AU	7	-	7	7	7	-
Bio-Rad TOX/See	1	-	1	1	1	-
BMC QuickTox Drug Screen	23	-	23	23	22	1
Carolina Chemistries BioLis 24i	1	-	1	1	1	-
Discover Multi-Panel Drug Screen Test Cup	1	-	1	1	-	1
Germaine Laboratories AimScreen	2	-	2	2	2	-
ImmTox	1	-	1	1	1	-
MEDTOX Diagnostics	5	-	5	5	5	-
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	1	-	1	1	1	-
USDiagnostics UScreen Cup	4	-	4	4	4	-
All Cut-off 25	64	-	64	64	60	4
Cut-off 100						
Beckman AU	1	-	1	1	1	-
All Cut-off 100	1	-	1	1	1	-

Propoxyphene (ng/mL)

Method	Specimen UDS-1			Specimen UDS-2		
	Labs	Positive	Negative	Labs	Positive	Negative
All Methods	15	-	15	15	-	15
Cut-off 300						
Alere iCassette	2	-	2	2	-	2
Alere iCup	1	-	1	1	-	1
Beckman AU	1	-	1	1	-	1
Carolina Chemistries BioLis 24i	1	-	1	1	-	1
MEDTOX Diagnostics	4	-	4	4	-	4
Microgenics DRI	1	-	1	1	-	1
Siemens EMIT II Plus	3	-	3	3	-	3
All Cut-off 300	13	-	13	13	-	13

Tramadol (ng/mL)

	Specimen UDS-1			Specimen UDS-2		
	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
All Cut-off 200	2	-	2	2	-	2

Tricyclic Antidepressants (ng/mL)

Method	Specimen UDS-1			Specimen UDS-2		
	Labs	Positive	Negative	Labs	Positive	Negative
All Methods	19	-	19	19	-	19
Cut-off 300						
MEDTOX Diagnostics	4	-	4	4	-	4
All Cut-off 300	4	-	4	4	-	4
Cut-off 1000						
Alere iCassette	1	-	1	1	-	1
Alere iCup	3	-	3	3	-	3
Amedica Biotech AmediCheck	1	-	1	1	-	1
Bio-Rad TOX/See	1	-	1	1	-	1
BMC QuickTox Drug Screen	1	-	1	1	-	1
Discover Multi-Panel Drug Screen						
Test Cup	1	-	1	1	-	1
USDiagnostics UScreen Cup	3	-	3	3	-	3
All Cut-off 1000	12	-	12	12	-	12

Zolpidem (mg/dL)

Method	Specimen UDS-1			Specimen UDS-2		
	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-1						Specimen UCH-2			
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	1	-	-	-	203	Not graded	1	-	-	-	128	Not graded

Urine Calcium (mg/dL)

Method			Specimen UCH-1						Specimen UCH-2			
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	5	6.55	0.07	1.1	6.6	4.5 - 8.6	5	8.75	0.21	2.4	8.8	6.0 - 11.5

Urine Chloride (mmol/L)

Method			Specimen UCH-1						Specimen UCH-2			
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	1	-	-	-	163	Not graded	1	-	-	-	79	Not graded

Urine Creatinine (mg/dL)

Method			Specimen UCH-1						Specimen UCH-2			
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	10	123.91	8.46	6.8	126.8	102.8 - 145.0	10	69.78	4.76	6.8	70.3	57.9 - 81.7

Urine Glucose (mg/dL)

Method			Specimen UCH-1						Specimen UCH-2			
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	1	-	-	-	146	Not graded	1	-	-	-	25	Not graded

Urine Magnesium (mg/dL)

Method			Specimen UCH-1						Specimen UCH-2			
	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
All Method	1	-	-	-	5.9	Not graded	1	-	-	-	3.0	Not graded

Urine Osmolality (mOsm/kg)

Method		Specimen UCH-1					Specimen UCH-2				
Method	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_
All Method	1	-	-	-	572	Not graded	1	-	-	-	394	Not graded

Urine Phosphorus (mg/dL)

Method		Specimen UCH-1					Specimen UCH-2				
Method	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_
All Method	1	-	-	-	38.9	Not graded	1	-	-	-	19.9	Not graded

Urine Potassium (mmol/L)

Method		Specimen UCH-1					Specimen UCH-2				
Method	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_	_Labs_	_Mean_	_SD_	_CV_	_Median_	_Range_
All Method	5	67.80	2.26	3.3	67.8	48.1 - 87.5	5	23.85	0.64	2.7	23.9	16.9 - 30.8

Urine Sodium (mmol/L)

		Specimen UCH-1						Specimen UCH-2				
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	6	136.3	6.1	4.5	135	100 - 172	6	86.3	4.5	5.2	86	63 - 109

Urine Total Protein (mg/dL)

		Specimen UCH-1						Specimen UCH-2				
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	10	57.08	9.23	16.2	53.9	31.9 - 82.2	10	12.73	6.46	50.8	10.0	7.1 - 18.4

Urine Urea Nitrogen (mg/dL)

		Specimen UCH-1						Specimen UCH-2				
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	1	-	-	-	535	Not graded	1	-	-	-	410	Not graded

Urine Uric Acid (mg/dL)

		Specimen UCH-1						Specimen UCH-2				
Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	1	-	-	-	7.5	Not graded	1	-	-	-	5.0	Not graded