

MEDICAL LABORATORY EVALUATION

PARTICIPANT SUMMARY

2 • 0 • 1 • 5

Hematology, Coagulation,
Blood Bank, Urinalysis, PPM
MLE-M3



Total Commitment to Education and Service
Provided by ACP, Inc.

Table of Contents

Evaluation Criteria	5
Hematology	
HemoCue (Module 215).....	6
Hemoglobin	6
Glucose.....	6
Sedimentation Rate.....	6
Hematology with 5-part Automated Differential (CL Samples – Module 223)	7
White Blood Cell Count.....	7
Red Blood Cell Count.....	7
Hemoglobin.....	8
Hematocrit.....	8
Platelet Count.....	9
Automated Differential.....	9
Sysmex Hematology with 3-part Automated Differential (SYX Samples – Module 224)	12
White Blood Cell Count.....	12
Red Blood Cell Count.....	13
Hemoglobin.....	14
Hematocrit.....	15
Platelet Count.....	16
Automated Differential.....	17
Basic Hematology with 3-part Automated Differential (HD Samples – Module 225)	20
White Blood Cell Count.....	20
Red Blood Cell Count.....	21
Hemoglobin.....	23
Hematocrit.....	24
Platelet Count.....	26
Automated Differential.....	27
Hematology with 5-part Automated Differential (DIF Samples – Module 226)	32
White Blood Cell Count.....	32
Red Blood Cell Count.....	32
Hemoglobin.....	33
Hematocrit.....	33
Platelet Count.....	34
Automated Differential.....	34
Blood Lead.....	37
Reticulocyte Count.....	37

Table of Contents (cont'd)

Hematology (cont'd)

Hematology with 5-part Automated Differential (BCX Samples – Module 228)	38
White Blood Cell Count	38
Red Blood Cell Count	39
Hemoglobin	40
Hematocrit	41
Platelet Count	42
Automated Differential	43
Hematology with 5-part Automated Differential (MX Samples – Module 229)	48
White Blood Cell Count	48
Red Blood Cell Count	48
Hemoglobin	49
Hematocrit	49
Platelet Count	50
Automated Differential	50
Waived Hematology (Module 213)	66
Hemoglobin	66
Hematocrit	66
Blood Cell Identification	53

Blood Bank

ABO Group	57
Rh Factor (D Type)	57
Rh Factor (Slide Method)	61
Unexpected Antibody Detection	57
Antibody Identification	58
Compatibility Testing	58

Coagulation

Prothrombin Time	59
International Normalized Ratio (INR)	60
Activated Partial Thromboplastin Time	61
Fibrinogen	61
CoaguChek XS Plus Prothrombin Time	62
International Normalized Ratio (INR)	63
CoaguChek XS INR	63
i-Stat Prothrombin Time	64
International Normalized Ratio (INR)	64
Fluid Cell Count/Crystals	64
WBC Count	64
RBC Count	64
Crystal Identification	65

Table of Contents (cont'd)

Urinalysis

Microalbumin, Urine	67
Dipstick	67
Quantitative	67
Creatinine, Urine	67
Dipstick	67
Quantitative	67
Urinalysis Dipstick	69
Specific Gravity	69
pH	70
Protein.....	71
Glucose.....	72
Ketones.....	73
Bilirubin	74
Urobilinogen.....	75
Blood or Hemoglobin.....	76
Leukocyte Esterase.....	77
Nitrite.....	78
Microalbumin (Dipstick Only).....	79
Urine hCG	80
Fecal Occult Blood	81
KOH Skin Preparation	68
Urine Sediment Identification	82

Provider-Performed Microscopy (PPM)

Provider-Performed Microscopy (PPM)	84
--	----

EVALUATION CRITERIA

The evaluation criteria used in the MLE Program is in accordance with the Clinical Laboratory Improvement Amendments of 1988 (CLIA '88) federal requirements for proficiency testing. The criteria are included below.

Qualitative

For qualitative procedures, evaluation is based on participant or referee consensus. If participant consensus is not reached, CMS requirements call for grading by referee consensus. A minimum percentage of participants or referee laboratories must receive a passing score or the challenge is not evaluated due to lack of consensus. These percentages are listed below.

ABO Group	95% Participant or 100% Referee Consensus
Antibody Identification	95% Consensus
Blood Cell Identification	80% Consensus
Compatibility Testing	95% Participant or 100% Referee Consensus
Crystal Identification	80% Consensus
Fecal Occult Blood	80% Consensus
KOH Skin Preparation	80% Consensus
Microalbumin (Semi-Quantitative)	80% Consensus
Provider-Performed Microscopy	80% Consensus
Rh Factor (D Type)	95% Participant or 100% Referee Consensus
Unexpected Antibody Detection	95% Consensus
Urine Dipstick	80% Consensus
Urine hCG	80% Consensus
Urine Sediment Identification	80% Consensus

Quantitative

For quantitative procedures, a mean and standard deviation (SD) are calculated for each peer group consisting of 10 or more laboratories except for QBC Hematology and Coagulation (CG Specimens) which consist of peer groups of 5 or more laboratories. Acceptable performance is established on a target value $\pm$ the intervals below. An explanation on how to calculate the range of acceptability based upon these limits is also provided in your MLE Program Guide on page 37 under the heading "Acceptable Ranges for Quantitative Results."

Activated Partial Thromboplastin Time	$\pm 15\%$
Automated Differential	± 3 SD
Blood Lead	$\pm 4 \mu\text{g/dL}$ or $\pm 10\%^*$
Body Fluid - Red Cell Count	± 2 SD
Body Fluid - White Cell Count	± 2 SD
Creatinine, Urine (Quantitative)	$\pm 17\%$
Fibrinogen	$\pm 20\%$
Hematocrit	$\pm 6\%$
Hematocrit, Waived	$\pm 6\%$ or ± 2 SD*
Hemoglobin	$\pm 7\%$
Hemoglobin, Waived	$\pm 7\%$ or ± 2 SD*
International Normalized Ratio (INR)	$\pm 20\%$
Microalbumin (Quantitative)	$\pm 30\%$
Platelet Count	$\pm 25\%$
Prothrombin Time	$\pm 15\%$
Red Blood Cell Count	$\pm 6\%$
Reticulocyte Count	$\pm 30\%$ or ± 2 SD*
Sedimentation Rate	± 2 SD
Specific Gravity	± 0.010
White Blood Cell Count	$\pm 15\%$
Whole Blood Glucose – HemoCue	$\pm 12 \text{ mg/dL}$ or $\pm 20\%^*$

*Whichever is greater

HEMOCUE HEMATOLOGY–HEMOGLOBIN (g/dL)

Specimen HQ-5							Specimen HQ-6					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
HemoCue	40	17.17	0.61	3.5	17.1	15.9 - 18.4	39	12.68	0.45	3.6	12.7	11.7 - 13.6

HEMOCUE HEMATOLOGY–GLUCOSE (mg/dL)

Specimen HQ-5							Specimen HQ-6					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	39	308.8	18.9	6.1	310	247 - 371	39	83.8	9.1	10.9	84	67 - 101
All HemoCue Methods	36	308.5	19.6	6.4	309	246 - 371	37	83.9	8.9	10.6	84	67 - 101
HemoCue Glucose 201/+	36	308.5	19.6	6.4	309	246 - 371	37	83.9	8.9	10.6	84	67 - 101

SEDIMENTATION RATE (MM/HR)

Specimen ES-5							Specimen ES-6					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	154	62.7	16.8	26.8	60	29 - 97	157	9.6	3.0	31.4	10	3 - 16
All HiChem Methods	10	99.8	17.9	17.9	94	64 - 136	10	9.7	6.2	63.6	6	0 - 23
All Vital Diagnostics Methods	17	74.2	8.0	10.8	73	58 - 91	18	9.1	1.6	17.2	9	5 - 13
HiChem Mini-Ves	10	99.8	17.9	17.9	94	64 - 136	10	9.7	6.2	63.6	6	0 - 23
Polymedco Sedimat	10	60.0	9.4	15.6	58	41 - 79	10	6.7	3.4	50.8	8	0 - 14
Streck ESR-Auto Plus	12	85.2	6.1	7.1	86	73 - 98	12	13.4	2.4	17.8	14	8 - 19
Vital Diagnostics Excyte M/10	16	74.3	8.2	11.1	73	57 - 91	17	9.1	1.6	17.7	9	5 - 13
Westergren - diluted	85	56.7	11.2	19.8	56	34 - 80	83	9.0	2.1	23.4	9	4 - 14

SEDIMAT SEDIMENTATION RATE (MM/HR)

Specimen MAT-5							Specimen MAT-6					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
Polymedco Sedimat 15	10	66.3	5.1	7.7	67	56 - 77	10	1.9	1.1	57.9	2	0 - 5

HEMATOLOGY W/ 5-PART DIFFERENTIAL–WHITE BLOOD CELL COUNT (x K/uL)

Specimen CL-11							Specimen CL-12					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	25	3.15	0.11	3.4	3.2	2.6 - 3.7	25	8.01	0.33	4.1	8.1	6.8 - 9.3
All Abbott Cell-Dyn Instruments	24	3.16	0.11	3.4	3.2	2.6 - 3.7	24	8.02	0.33	4.1	8.2	6.8 - 9.3
Abbott Cell-Dyn Ruby	13	3.20	0.11	3.4	3.2	2.7 - 3.7	13	8.12	0.21	2.6	8.2	6.9 - 9.4
Specimen CL-13							Specimen CL-14					
All Method	24	25.38	1.29	5.1	25.6	21.5 - 29.2	25	3.26	0.19	5.9	3.2	2.7 - 3.8
All Abbott Cell-Dyn Instruments	23	25.29	1.25	4.9	25.5	21.4 - 29.1	24	3.27	0.19	5.9	3.2	2.7 - 3.8
Abbott Cell-Dyn Ruby	12	25.71	0.65	2.5	25.9	21.8 - 29.6	13	3.37	0.20	6.0	3.4	2.8 - 3.9
Specimen CL-15												
All Method	25	8.05	0.26	3.2	8.1	6.8 - 9.3						
All Abbott Cell-Dyn Instruments	24	8.06	0.26	3.2	8.1	6.8 - 9.3						
Abbott Cell-Dyn Ruby	13	8.16	0.28	3.4	8.3	6.9 - 9.4						

HEMATOLOGY W/ 5-PART DIFFERENTIAL–RED BLOOD CELL COUNT (x M/uL)

Specimen CL-11							Specimen CL-12					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	25	2.217	0.058	2.6	2.21	2.08 - 2.35	25	4.557	0.096	2.1	4.58	4.28 - 4.84
All Abbott Cell-Dyn Instruments	24	2.219	0.058	2.6	2.22	2.08 - 2.36	24	4.558	0.098	2.1	4.59	4.28 - 4.84
Abbott Cell-Dyn Ruby	13	2.234	0.061	2.7	2.23	2.09 - 2.37	13	4.575	0.103	2.2	4.61	4.30 - 4.85
Specimen CL-13							Specimen CL-14					
All Method	25	6.364	0.165	2.6	6.38	5.98 - 6.75	25	2.186	0.058	2.7	2.19	2.05 - 2.32
All Abbott Cell-Dyn Instruments	24	6.375	0.160	2.5	6.40	5.99 - 6.76	24	2.189	0.058	2.6	2.19	2.05 - 2.33
Abbott Cell-Dyn Ruby	13	6.439	0.113	1.8	6.47	6.05 - 6.83	13	2.201	0.064	2.9	2.19	2.06 - 2.34
Specimen CL-15												
All Method	25	4.551	0.111	2.4	4.53	4.27 - 4.83						
All Abbott Cell-Dyn Instruments	24	4.557	0.110	2.4	4.54	4.28 - 4.84						
Abbott Cell-Dyn Ruby	13	4.601	0.114	2.5	4.60	4.32 - 4.88						

HEMATOLOGY W/ 5-PART DIFFERENTIAL–HEMOGLOBIN (g/dL)

Specimen CL-11							Specimen CL-12					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	25	5.67	0.12	2.1	5.7	5.2 - 6.1	25	13.57	0.22	1.6	13.5	12.6 - 14.6
All Abbott Cell-Dyn Instruments	24	5.67	0.12	2.2	5.7	5.2 - 6.1	24	13.57	0.22	1.7	13.5	12.6 - 14.6
Abbott Cell-Dyn Ruby	13	5.63	0.13	2.3	5.6	5.2 - 6.1	13	13.56	0.17	1.2	13.5	12.6 - 14.6
Specimen CL-13							Specimen CL-14					
All Method	25	19.94	0.39	2.0	19.9	18.5 - 21.4	25	5.61	0.11	1.9	5.6	5.2 - 6.1
All Abbott Cell-Dyn Instruments	24	19.95	0.40	2.0	19.9	18.5 - 21.4	24	5.60	0.11	1.9	5.6	5.2 - 6.0
Abbott Cell-Dyn Ruby	13	20.05	0.30	1.5	19.9	18.6 - 21.5	13	5.55	0.10	1.7	5.6	5.1 - 6.0
Specimen CL-15												
All Method	25	13.58	0.27	2.0	13.5	12.6 - 14.6						
All Abbott Cell-Dyn Instruments	24	13.59	0.27	2.0	13.6	12.6 - 14.6						
Abbott Cell-Dyn Ruby	13	13.62	0.27	2.0	13.5	12.6 - 14.6						

HEMATOLOGY W/ 5-PART DIFFERENTIAL–HEMATOCRIT (percent)

Specimen CL-11							Specimen CL-12					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	25	15.74	0.88	5.6	15.6	14.7 - 16.7	25	38.44	2.36	6.1	37.7	36.1 - 40.8
All Abbott Cell-Dyn Instruments	20	15.37	0.48	3.2	15.5	14.4 - 16.3	20	37.43	1.21	3.2	37.5	35.1 - 39.7
Abbott Cell-Dyn Ruby	13	15.37	0.51	3.3	15.5	14.4 - 16.3	13	37.44	1.25	3.3	37.3	35.1 - 39.7
Specimen CL-13							Specimen CL-14					
All Method	25	54.24	2.78	5.1	53.3	50.9 - 57.5	25	15.48	0.88	5.7	15.3	14.5 - 16.5
All Abbott Cell-Dyn Instruments	20	53.04	1.34	2.5	53.1	49.8 - 56.3	20	15.10	0.42	2.8	15.1	14.1 - 16.1
Abbott Cell-Dyn Ruby	13	53.06	1.39	2.6	53.0	49.8 - 56.3	13	15.12	0.48	3.2	15.1	14.2 - 16.1
Specimen CL-15												
All Method	25	38.39	2.24	5.8	37.8	36.0 - 40.7						
All Abbott Cell-Dyn Instruments	20	37.46	1.30	3.5	37.4	35.2 - 39.8						
Abbott Cell-Dyn Ruby	13	37.66	1.34	3.6	37.4	35.4 - 40.0						

HEMATOLOGY W/ 5-PART DIFFERENTIAL–PLATELET COUNT (x K/uL)

Specimen CL-11							Specimen CL-12					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	25	73.2	5.2	7.1	73	54 - 92	25	246.8	14.8	6.0	243	185 - 309
All Abbott Cell-Dyn Instruments	24	72.7	4.5	6.2	73	54 - 91	24	247.4	14.8	6.0	243	185 - 310
Abbott Cell-Dyn Ruby	13	71.5	3.8	5.3	71	53 - 90	13	245.8	12.6	5.1	243	184 - 308
Specimen CL-13							Specimen CL-14					
All Method	25	583.0	33.3	5.7	584	437 - 729	25	73.8	6.8	9.3	73	55 - 93
All Abbott Cell-Dyn Instruments	23	583.2	20.1	3.4	584	437 - 730	24	73.4	6.7	9.2	73	55 - 92
Abbott Cell-Dyn Ruby	13	582.5	22.8	3.9	582	436 - 729	13	70.8	4.8	6.8	71	53 - 89
Specimen CL-15												
All Method	25	247.5	14.5	5.9	247	185 - 310						
All Abbott Cell-Dyn Instruments	24	248.5	13.8	5.5	248	186 - 311						
Abbott Cell-Dyn Ruby	13	245.8	11.9	4.8	247	184 - 308						

HEMATOLOGY W/ 5-PART DIFFERENTIAL–NEUTROPHILS (percent)

Specimen CL-11							Specimen CL-12					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	25	49.85	1.35	2.7	49.8	45.7 - 54.0	25	62.64	0.70	1.1	62.6	60.5 - 64.8
All Abbott Cell-Dyn Instruments	24	49.88	1.37	2.7	49.9	45.7 - 54.0	24	62.59	0.66	1.1	62.6	60.6 - 64.6
Abbott Cell-Dyn Ruby	13	50.18	1.26	2.5	50.3	46.3 - 54.0	13	62.56	0.57	0.9	62.5	60.8 - 64.3
Specimen CL-13							Specimen CL-14					
All Method	23	74.57	0.61	0.8	74.6	72.7 - 76.5	25	51.05	1.76	3.5	51.0	45.7 - 56.4
All Abbott Cell-Dyn Instruments	22	74.54	0.60	0.8	74.6	72.7 - 76.4	24	51.03	1.80	3.5	51.0	45.6 - 56.5
Abbott Cell-Dyn Ruby	13	74.42	0.44	0.6	74.4	73.0 - 75.8	13	51.31	2.00	3.9	51.1	45.3 - 57.4
Specimen CL-15												
All Method	25	62.58	0.75	1.2	62.5	60.3 - 64.9						
All Abbott Cell-Dyn Instruments	24	62.54	0.74	1.2	62.5	60.3 - 64.8						
Abbott Cell-Dyn Ruby	13	62.44	0.64	1.0	62.4	60.5 - 64.4						

HEMATOLOGY W/ 5-PART DIFFERENTIAL–LYMPHOCYTES (percent)

Specimen CL-11							Specimen CL-12					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	25	38.88	2.02	5.2	39.4	32.8 - 45.0	25	26.05	0.87	3.3	26.1	23.4 - 28.7
All Abbott Cell-Dyn Instruments	24	38.91	2.06	5.3	39.5	32.7 - 45.1	24	26.09	0.86	3.3	26.2	23.5 - 28.7
Abbott Cell-Dyn Ruby	13	38.38	2.30	6.0	39.7	31.4 - 45.3	13	25.88	1.03	4.0	25.6	22.8 - 29.0
Specimen CL-13							Specimen CL-14					
All Method	24	14.61	1.26	8.6	14.2	10.8 - 18.4	25	37.90	1.80	4.7	38.4	32.5 - 43.3
All Abbott Cell-Dyn Instruments	23	14.63	1.28	8.8	14.2	10.7 - 18.5	24	38.00	1.77	4.6	38.4	32.7 - 43.3
Abbott Cell-Dyn Ruby	13	14.27	0.62	4.3	14.2	12.4 - 16.2	13	37.42	1.85	5.0	37.6	31.8 - 43.0
Specimen CL-15												
All Method	25	26.16	0.76	2.9	26.2	23.8 - 28.5						
All Abbott Cell-Dyn Instruments	24	26.22	0.72	2.7	26.2	24.0 - 28.4						
Abbott Cell-Dyn Ruby	13	26.46	0.67	2.5	26.3	24.4 - 28.5						

HEMATOLOGY W/ 5-PART DIFFERENTIAL–MONOCYTES (percent)

Specimen CL-11							Specimen CL-12					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	23	5.97	0.71	11.9	5.8	3.8 - 8.2	25	6.05	0.62	10.3	5.9	4.1 - 8.0
All Abbott Cell-Dyn Instruments	22	5.98	0.73	12.2	5.9	3.7 - 8.2	24	6.08	0.62	10.2	6.0	4.2 - 8.0
Abbott Cell-Dyn Ruby	13	6.66	1.85	27.7	6.0	1.1 - 12.3	13	6.18	0.75	12.1	6.0	3.9 - 8.5
Specimen CL-13							Specimen CL-14					
All Method	24	3.83	0.50	13.0	3.9	2.3 - 5.4	25	5.89	0.50	8.6	6.0	4.3 - 7.5
All Abbott Cell-Dyn Instruments	23	3.82	0.51	13.3	3.9	2.2 - 5.4	24	5.86	0.50	8.5	5.9	4.3 - 7.4
Abbott Cell-Dyn Ruby	13	3.99	0.35	8.6	4.1	2.9 - 5.1	13	5.95	0.41	6.9	6.0	4.7 - 7.2
Specimen CL-15												
All Method	25	6.05	0.43	7.2	6.0	4.7 - 7.4						
All Abbott Cell-Dyn Instruments	24	6.08	0.42	6.9	6.1	4.8 - 7.4						
Abbott Cell-Dyn Ruby	13	6.05	0.40	6.5	6.0	4.8 - 7.3						

HEMATOLOGY W/ 5-PART DIFFERENTIAL–EOSINOPHILS (percent)

Specimen CL-11							Specimen CL-12					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	25	4.02	0.31	7.7	4.1	3.0 - 5.0	25	4.69	0.32	6.9	4.7	3.7 - 5.7
All Abbott Cell-Dyn Instruments	24	4.00	0.31	7.6	4.1	3.0 - 5.0	24	4.70	0.32	6.9	4.7	3.7 - 5.7
Abbott Cell-Dyn Ruby	13	4.02	0.35	8.7	4.1	2.9 - 5.1	13	4.85	0.31	6.4	4.9	3.9 - 5.8
Specimen CL-13							Specimen CL-14					
All Method	25	6.56	0.31	4.7	6.6	5.6 - 7.5	25	4.10	0.36	8.7	4.1	3.0 - 5.2
All Abbott Cell-Dyn Instruments	24	6.58	0.30	4.5	6.6	5.6 - 7.5	24	4.09	0.36	8.9	4.1	3.0 - 5.2
Abbott Cell-Dyn Ruby	13	6.58	0.24	3.7	6.6	5.8 - 7.4	13	4.15	0.33	7.9	4.1	3.1 - 5.2
Specimen CL-15												
All Method	25	4.69	0.26	5.6	4.6	3.8 - 5.5						
All Abbott Cell-Dyn Instruments	24	4.68	0.27	5.7	4.6	3.8 - 5.5						
Abbott Cell-Dyn Ruby	13	4.62	0.24	5.2	4.6	3.9 - 5.4						

HEMATOLOGY W/ 5-PART DIFFERENTIAL–BASOPHILS (percent)

Specimen CL-11							Specimen CL-12					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	24	0.85	0.41	47.8	0.9	0.0 - 2.1	25	0.56	0.31	54.6	0.5	0.0 - 1.5
All Abbott Cell-Dyn Instruments	24	0.85	0.41	47.8	0.9	0.0 - 2.1	23	0.50	0.22	44.3	0.4	0.0 - 1.2
Abbott Cell-Dyn Ruby	13	0.75	0.36	47.1	0.8	0.0 - 1.9	13	0.53	0.18	34.7	0.5	0.0 - 1.1
Specimen CL-13							Specimen CL-14					
All Method	25	0.58	0.20	34.5	0.6	0.0 - 1.2	25	0.96	0.47	49.2	0.9	0.0 - 2.4
All Abbott Cell-Dyn Instruments	24	0.58	0.20	34.9	0.6	0.0 - 1.2	24	0.91	0.41	44.6	0.9	0.0 - 2.2
Abbott Cell-Dyn Ruby	13	0.67	0.14	21.5	0.6	0.2 - 1.2	13	0.98	0.35	36.2	0.9	0.0 - 2.1
Specimen CL-15												
All Method	24	0.48	0.20	41.7	0.4	0.0 - 1.1						
All Abbott Cell-Dyn Instruments	24	0.48	0.20	41.7	0.4	0.0 - 1.1						
Abbott Cell-Dyn Ruby	13	0.41	0.11	27.4	0.4	0.0 - 0.8						

SYSMEX HEMATOLOGY W/ AUTOMATED DIFFERENTIAL–WHITE BLOOD CELL COUNT (x 10⁹/L)

<u>Instrument</u>	Specimen SYX-11						Specimen SYX-12					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	3.06	0.11	3.7	3.1	2.6 - 3.6	3.06	59	8.40	0.27	3.2	8.4	7.1 - 9.7
All Sysmex Instruments	3.06	0.11	3.7	3.1	2.6 - 3.6	3.06	59	8.40	0.27	3.2	8.4	7.1 - 9.7
Sysmex KX-21N & K-800, 1000, 4500	3.05	0.11	3.5	3.0	2.5 - 3.6	3.05	24	8.30	0.16	1.9	8.3	7.0 - 9.6
Sysmex pocH-100i	3.02	0.12	3.9	3.0	2.5 - 3.5	3.02	19	8.33	0.32	3.9	8.5	7.0 - 9.6
Sysmex XP-300	3.16	0.12	3.8	3.1	2.6 - 3.7	3.16	16	8.62	0.19	2.2	8.7	7.3 - 10.0
	Specimen SYX-13						Specimen SYX-14					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	21.81	0.61	2.8	21.8	18.5 - 25.1	21.81	57	3.07	0.13	4.2	3.1	2.6 - 3.6
All Sysmex Instruments	21.81	0.61	2.8	21.8	18.5 - 25.1	21.81	57	3.07	0.13	4.2	3.1	2.6 - 3.6
Sysmex KX-21N & K-800, 1000, 4500	21.45	0.46	2.1	21.5	18.2 - 24.7	21.45	23	3.07	0.10	3.1	3.1	2.6 - 3.6
Sysmex pocH-100i	21.97	0.70	3.2	22.1	18.6 - 25.3	21.97	19	2.99	0.11	3.8	3.0	2.5 - 3.5
Sysmex XP-300	22.18	0.41	1.8	22.3	18.8 - 25.6	22.18	15	3.17	0.13	4.1	3.1	2.6 - 3.7
	Specimen SYX-15											
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>						
All Method	58	8.41	0.27	3.2	8.4	7.1 - 9.7						
All Sysmex Instruments	58	8.41	0.27	3.2	8.4	7.1 - 9.7						
Sysmex KX-21N & K-800, 1000, 4500	24	8.28	0.19	2.3	8.3	7.0 - 9.6						
Sysmex pocH-100i	19	8.34	0.34	4.0	8.4	7.0 - 9.6						
Sysmex XP-300	16	8.65	0.23	2.6	8.7	7.3 - 10.0						

SYSMEX HEMATOLOGY W/ AUTOMATED DIFFERENTIAL-RED BLOOD CELL COUNT (x 10¹²/L)

<u>Instrument</u>	Specimen SYX-11						Specimen SYX-12					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	57	2.490	0.033	1.3	2.49	2.34 - 2.64	57	4.250	0.060	1.4	4.25	3.99 - 4.51
All Sysmex Instruments	57	2.490	0.033	1.3	2.49	2.34 - 2.64	57	4.250	0.060	1.4	4.25	3.99 - 4.51
Sysmex KX-21N & K-800, 1000, 4500	24	2.490	0.027	1.1	2.49	2.34 - 2.64	24	4.239	0.046	1.1	4.24	3.98 - 4.50
Sysmex pocH-100i	19	2.516	0.072	2.8	2.50	2.36 - 2.67	19	4.323	0.103	2.4	4.30	4.06 - 4.59
Sysmex XP-300	16	2.483	0.034	1.4	2.49	2.33 - 2.64	16	4.217	0.048	1.1	4.23	3.96 - 4.47
	Specimen SYX-13						Specimen SYX-14					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	58	6.176	0.091	1.5	6.17	5.80 - 6.55	58	2.492	0.033	1.3	2.50	2.34 - 2.65
All Sysmex Instruments	58	6.176	0.091	1.5	6.17	5.80 - 6.55	58	2.492	0.033	1.3	2.50	2.34 - 2.65
Sysmex KX-21N & K-800, 1000, 4500	24	6.175	0.059	1.0	6.18	5.80 - 6.55	24	2.495	0.024	0.9	2.50	2.34 - 2.65
Sysmex pocH-100i	19	6.247	0.146	2.3	6.20	5.87 - 6.63	19	2.507	0.053	2.1	2.51	2.35 - 2.66
Sysmex XP-300	16	6.121	0.069	1.1	6.13	5.75 - 6.49	16	2.480	0.034	1.4	2.48	2.33 - 2.63
	Specimen SYX-15											
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>						
All Method	57	4.242	0.058	1.4	4.23	3.98 - 4.50						
All Sysmex Instruments	57	4.242	0.058	1.4	4.23	3.98 - 4.50						
Sysmex KX-21N & K-800, 1000, 4500	24	4.243	0.045	1.1	4.23	3.98 - 4.50						
Sysmex pocH-100i	19	4.304	0.110	2.5	4.27	4.04 - 4.57						
Sysmex XP-300	16	4.206	0.038	0.9	4.20	3.95 - 4.46						

SYSMEX HEMATOLOGY W/ AUTOMATED DIFFERENTIAL–HEMOGLOBIN (g/dL)

<u>Instrument</u>	Specimen SYX-11						Specimen SYX-12					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	59	6.20	0.12	2.0	6.2	5.7 - 6.7	59	12.23	0.19	1.6	12.3	11.3 - 13.1
All Sysmex Instruments	59	6.20	0.12	2.0	6.2	5.7 - 6.7	59	12.23	0.19	1.6	12.3	11.3 - 13.1
Sysmex KX-21N & K-800, 1000, 4500	24	6.23	0.09	1.5	6.3	5.7 - 6.7	24	12.27	0.14	1.1	12.3	11.4 - 13.2
Sysmex pocH-100i	19	6.19	0.14	2.3	6.2	5.7 - 6.7	19	12.11	0.24	2.0	12.2	11.2 - 13.0
Sysmex XP-300	16	6.18	0.14	2.3	6.2	5.7 - 6.7	16	12.30	0.14	1.1	12.3	11.4 - 13.2
	Specimen SYX-13						Specimen SYX-14					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	59	19.47	0.31	1.6	19.5	18.1 - 20.9	58	6.23	0.12	1.9	6.2	5.7 - 6.7
All Sysmex Instruments	59	19.47	0.31	1.6	19.5	18.1 - 20.9	58	6.23	0.12	1.9	6.2	5.7 - 6.7
Sysmex KX-21N & K-800, 1000, 4500	24	19.53	0.21	1.1	19.6	18.1 - 21.0	24	6.29	0.09	1.5	6.3	5.8 - 6.8
Sysmex pocH-100i	19	19.32	0.43	2.2	19.4	17.9 - 20.7	19	6.16	0.16	2.7	6.2	5.7 - 6.6
Sysmex XP-300	16	19.54	0.24	1.2	19.5	18.1 - 21.0	16	6.21	0.09	1.4	6.2	5.7 - 6.7
	Specimen SYX-15											
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>						
All Method	59	12.24	0.22	1.8	12.2	11.3 - 13.1						
All Sysmex Instruments	59	12.24	0.22	1.8	12.2	11.3 - 13.1						
Sysmex KX-21N & K-800, 1000, 4500	24	12.30	0.16	1.3	12.3	11.4 - 13.2						
Sysmex pocH-100i	19	12.09	0.25	2.1	12.2	11.2 - 13.0						
Sysmex XP-300	16	12.30	0.17	1.4	12.3	11.4 - 13.2						

SYSMEX HEMATOLOGY W/ AUTOMATED DIFFERENTIAL–HEMATOCRIT (percent)

<u>Instrument</u>	Specimen SYX-11						Specimen SYX-12					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	58	17.11	0.58	3.4	17.0	16.0 - 18.2	58	32.80	1.28	3.9	32.4	30.8 - 34.8
All Sysmex Instruments	58	17.11	0.58	3.4	17.0	16.0 - 18.2	58	32.80	1.28	3.9	32.4	30.8 - 34.8
Sysmex KX-21N & K-800, 1000, 4500	24	16.78	0.20	1.2	16.8	15.7 - 17.8	24	32.10	0.40	1.3	32.1	30.1 - 34.1
Sysmex pocH-100i	18	17.82	0.48	2.7	17.9	16.7 - 18.9	18	34.47	0.91	2.6	34.3	32.4 - 36.6
Sysmex XP-300	16	16.81	0.29	1.7	16.8	15.7 - 17.9	16	31.99	0.47	1.5	32.0	30.0 - 34.0
	Specimen SYX-13						Specimen SYX-14					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	58	51.87	1.51	2.9	51.5	48.7 - 55.0	58	17.10	0.56	3.3	17.0	16.0 - 18.2
All Sysmex Instruments	58	51.87	1.51	2.9	51.5	48.7 - 55.0	58	17.10	0.56	3.3	17.0	16.0 - 18.2
Sysmex KX-21N & K-800, 1000, 4500	24	51.19	0.63	1.2	51.2	48.1 - 54.3	24	16.81	0.21	1.3	16.9	15.8 - 17.9
Sysmex pocH-100i	18	53.71	1.18	2.2	53.5	50.4 - 57.0	18	17.80	0.37	2.1	17.7	16.7 - 18.9
Sysmex XP-300	16	50.81	0.70	1.4	50.9	47.7 - 53.9	16	16.75	0.34	2.1	16.8	15.7 - 17.8
	Specimen SYX-15											
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>						
All Method	58	32.74	1.19	3.6	32.3	30.7 - 34.8						
All Sysmex Instruments	58	32.74	1.19	3.6	32.3	30.7 - 34.8						
Sysmex KX-21N & K-800, 1000, 4500	24	32.10	0.42	1.3	32.1	30.1 - 34.1						
Sysmex pocH-100i	18	34.28	0.84	2.4	34.1	32.2 - 36.4						
Sysmex XP-300	16	31.97	0.45	1.4	31.9	30.0 - 33.9						

SYSMEX HEMATOLOGY W/ AUTOMATED DIFFERENTIAL–PLATELET COUNT (x10⁹/L)

Specimen SYX-11							Specimen SYX-12					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	59	62.5	3.6	5.8	63	46 - 79	58	179.2	7.4	4.1	180	134 - 225
All Sysmex Instruments	59	62.5	3.6	5.8	63	46 - 79	58	179.2	7.4	4.1	180	134 - 225
Sysmex KX-21N & K-800, 1000, 4500	24	62.5	3.0	4.8	62	46 - 79	24	180.0	6.6	3.6	180	135 - 225
Sysmex pocH-100i	19	62.2	4.4	7.1	62	46 - 78	19	175.3	9.4	5.3	177	131 - 220
Sysmex XP-300	16	62.9	3.7	5.9	63	47 - 79	16	181.2	7.3	4.0	182	135 - 227
Specimen SYX-13							Specimen SYX-14					
All Method	57	367.6	14.6	4.0	369	275 - 460	59	62.5	4.3	7.0	62	46 - 79
All Sysmex Instruments	57	367.6	14.6	4.0	369	275 - 460	59	62.5	4.3	7.0	62	46 - 79
Sysmex KX-21N & K-800, 1000, 4500	24	369.7	12.3	3.3	371	277 - 463	24	61.9	3.8	6.1	62	46 - 78
Sysmex pocH-100i	17	357.8	14.4	4.0	360	268 - 448	19	62.4	5.3	8.5	61	46 - 78
Sysmex XP-300	16	375.0	13.0	3.5	376	281 - 469	16	63.6	4.0	6.3	64	47 - 80
Specimen SYX-15												
All Method	58	176.7	7.9	4.5	178	132 - 221						
All Sysmex Instruments	58	176.7	7.9	4.5	178	132 - 221						
Sysmex KX-21N & K-800, 1000, 4500	24	178.2	6.9	3.9	178	133 - 223						
Sysmex pocH-100i	19	170.6	9.8	5.8	171	127 - 214						
Sysmex XP-300	16	179.6	7.6	4.2	179	134 - 225						

SYSMEX HEMATOLOGY W/ AUTOMATED DIFFERENTIAL–LYMPH W/SCR (percent)

Specimen SYX-11							Specimen SYX-12					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	51	11.92	1.13	9.5	12.1	8.5 - 15.4	53	28.62	0.78	2.7	28.6	26.2 - 31.0
All Sysmex Instruments	51	11.92	1.13	9.5	12.1	8.5 - 15.4	53	28.62	0.78	2.7	28.6	26.2 - 31.0
Sysmex KX-21N & K-800, 1000, 4500	22	12.61	1.17	9.3	12.4	9.0 - 16.2	22	28.70	0.81	2.8	28.6	26.2 - 31.2
Sysmex pocH-100i	18	11.16	0.99	8.9	11.1	8.1 - 14.2	18	28.73	0.81	2.8	28.6	26.2 - 31.2
Sysmex XP-300	13	12.56	1.86	14.8	12.6	6.9 - 18.2	13	28.35	0.68	2.4	28.2	26.3 - 30.4
Specimen SYX-13							Specimen SYX-14					
All Method	53	62.07	1.02	1.6	62.3	58.9 - 65.2	51	11.96	1.34	11.2	12.1	7.9 - 16.0
All Sysmex Instruments	53	62.07	1.02	1.6	62.3	58.9 - 65.2	51	11.96	1.34	11.2	12.1	7.9 - 16.0
Sysmex KX-21N & K-800, 1000, 4500	22	61.52	0.83	1.4	61.5	59.0 - 64.1	21	12.41	0.96	7.7	12.3	9.5 - 15.3
Sysmex pocH-100i	18	62.83	0.89	1.4	63.0	60.1 - 65.6	18	11.08	1.36	12.3	10.9	6.9 - 15.2
Sysmex XP-300	13	61.94	0.88	1.4	62.2	59.3 - 64.6	12	12.49	1.27	10.2	12.3	8.6 - 16.4
Specimen SYX-15												
All Method	53	28.69	1.20	4.2	28.9	25.0 - 32.3						
All Sysmex Instruments	53	28.69	1.20	4.2	28.9	25.0 - 32.3						
Sysmex KX-21N & K-800, 1000, 4500	22	28.87	1.12	3.9	28.9	25.5 - 32.3						
Sysmex pocH-100i	18	28.57	1.33	4.7	28.9	24.5 - 32.6						
Sysmex XP-300	13	28.54	1.19	4.2	28.9	24.9 - 32.1						

SYSMEX HEMATOLOGY W/ AUTOMATED DIFFERENTIAL–MONO/MIXED W/MCR (percent)

Specimen SYX-11							Specimen SYX-12					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	51	19.23	2.12	11.0	19.4	12.8 - 25.6	52	17.47	0.99	5.7	17.5	14.5 - 20.5
All Sysmex Instruments	51	19.23	2.12	11.0	19.4	12.8 - 25.6	52	17.47	0.99	5.7	17.5	14.5 - 20.5
Sysmex KX-21N & K-800, 1000, 4500	22	19.87	1.39	7.0	19.8	15.7 - 24.1	22	17.56	0.71	4.1	17.6	15.4 - 19.8
Sysmex pocH-100i	18	17.89	2.17	12.2	18.4	11.3 - 24.5	18	16.86	0.97	5.7	16.9	13.9 - 19.8
Sysmex XP-300	11	20.14	2.30	11.4	19.1	13.2 - 27.1	12	18.20	0.95	5.2	18.0	15.3 - 21.1
Specimen SYX-13							Specimen SYX-14					
All Method	52	11.99	0.92	7.6	11.9	9.2 - 14.8	52	19.22	1.84	9.6	19.1	13.7 - 24.8
All Sysmex Instruments	52	11.99	0.92	7.6	11.9	9.2 - 14.8	52	19.22	1.84	9.6	19.1	13.7 - 24.8
Sysmex KX-21N & K-800, 1000, 4500	22	12.31	0.75	6.1	12.5	10.0 - 14.6	22	19.94	1.57	7.9	20.2	15.2 - 24.7
Sysmex pocH-100i	18	11.45	0.83	7.3	11.2	8.9 - 14.0	18	18.46	1.83	9.9	18.5	12.9 - 24.0
Sysmex XP-300	12	12.19	1.01	8.3	12.2	9.1 - 15.3	12	19.04	1.93	10.1	18.6	13.2 - 24.9
Specimen SYX-15												
All Method	52	17.30	1.13	6.5	17.3	13.9 - 20.7						
All Sysmex Instruments	52	17.30	1.13	6.5	17.3	13.9 - 20.7						
Sysmex KX-21N & K-800, 1000, 4500	22	17.65	0.97	5.5	17.7	14.7 - 20.6						
Sysmex pocH-100i	18	16.72	1.15	6.9	17.0	13.2 - 20.2						
Sysmex XP-300	12	17.53	1.09	6.2	17.5	14.2 - 20.8						

SYSMEX HEMATOLOGY W/ AUTOMATED DIFFERENTIAL–NEUT W/LCR (percent)

<u>Instrument</u>	Specimen SYX-11						Specimen SYX-12					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	52	68.77	2.27	3.3	68.5	61.9 - 75.6	52	53.91	1.12	2.1	54.0	50.5 - 57.3
All Sysmex Instruments	52	68.77	2.27	3.3	68.5	61.9 - 75.6	52	53.91	1.12	2.1	54.0	50.5 - 57.3
Sysmex KX-21N & K-800, 1000, 4500	22	67.55	1.49	2.2	67.5	63.0 - 72.1	22	53.72	0.96	1.8	53.8	50.8 - 56.7
Sysmex pocH-100i	18	70.96	1.73	2.4	70.7	65.7 - 76.2	18	54.41	1.20	2.2	54.3	50.8 - 58.1
Sysmex XP-300	12	67.75	1.78	2.6	68.1	62.4 - 73.1	12	53.50	1.08	2.0	53.9	50.2 - 56.8
	Specimen SYX-13						Specimen SYX-14					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	52	25.95	0.81	3.1	26.1	23.5 - 28.4	52	68.61	2.09	3.0	68.3	62.3 - 74.9
All Sysmex Instruments	52	25.95	0.81	3.1	26.1	23.5 - 28.4	52	68.61	2.09	3.0	68.3	62.3 - 74.9
Sysmex KX-21N & K-800, 1000, 4500	22	26.16	0.55	2.1	26.2	24.5 - 27.9	22	67.42	1.75	2.6	67.4	62.1 - 72.7
Sysmex pocH-100i	18	25.72	0.95	3.7	26.0	22.8 - 28.6	18	70.46	1.65	2.3	70.6	65.5 - 75.4
Sysmex XP-300	12	25.89	0.95	3.7	25.8	23.0 - 28.8	12	68.02	1.17	1.7	68.0	64.5 - 71.6
	Specimen SYX-15											
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>						
All Method	52	54.04	1.16	2.2	53.9	50.5 - 57.6						
All Sysmex Instruments	52	54.04	1.16	2.2	53.9	50.5 - 57.6						
Sysmex KX-21N & K-800, 1000, 4500	22	53.50	0.94	1.8	53.7	50.6 - 56.4						
Sysmex pocH-100i	18	54.71	1.31	2.4	54.7	50.7 - 58.7						
Sysmex XP-300	12	54.03	0.79	1.5	53.9	51.6 - 56.4						

BASIC HEMATOLOGY W/ 3-PART DIFFERENTIAL–WHITE BLOOD CELL COUNT (x 10⁹/L)

Specimen HD-11							Specimen HD-12					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	648	2.15	0.13	6.1	2.1	1.8 - 2.5	653	7.93	0.33	4.1	7.9	6.7 - 9.2
All Abbott Cell-Dyn Instruments	214	2.14	0.12	5.8	2.1	1.8 - 2.5	218	7.82	0.37	4.7	7.8	6.6 - 9.0
All ABX Instruments	109	2.09	0.08	3.8	2.1	1.7 - 2.5	109	7.75	0.24	3.1	7.8	6.5 - 9.0
All Boule (CDS) Instruments	101	2.05	0.07	3.6	2.1	1.7 - 2.4	103	7.90	0.25	3.2	7.9	6.7 - 9.1
All COULTER Instruments	210	2.25	0.13	5.7	2.2	1.9 - 2.6	208	8.15	0.22	2.8	8.2	6.9 - 9.4
All Danam/Drew Scientific Instruments	11	2.20	0.19	8.9	2.2	1.8 - 2.6	11	7.74	0.40	5.2	7.8	6.5 - 8.9
Abbott Cell-Dyn 1700	17	2.21	0.13	6.0	2.3	1.8 - 2.6	17	8.13	0.47	5.7	8.2	6.9 - 9.4
Abbott Cell-Dyn 1800	94	2.09	0.11	5.0	2.1	1.7 - 2.5	92	7.86	0.30	3.8	7.9	6.6 - 9.1
Abbott Cell-Dyn Emerald	105	2.17	0.14	6.4	2.2	1.8 - 2.5	106	7.73	0.34	4.4	7.7	6.5 - 8.9
ABX Diagnostics Micros/45/60	109	2.09	0.08	3.8	2.1	1.7 - 2.5	109	7.75	0.24	3.1	7.8	6.5 - 9.0
Boule (CDS) Medonic M series	94	2.05	0.07	3.6	2.1	1.7 - 2.4	95	7.89	0.24	3.1	7.9	6.7 - 9.1
COULTER AcT diff/diff 2	205	2.25	0.13	5.8	2.2	1.9 - 2.6	204	8.15	0.22	2.7	8.2	6.9 - 9.4
Drew Scientific D3	11	2.20	0.19	8.9	2.2	1.8 - 2.6	11	7.74	0.40	5.2	7.8	6.5 - 8.9

Specimen HD-13							Specimen HD-14					
All Method	654	22.59	1.01	4.5	22.7	19.1 - 26.0	651	2.20	0.16	7.3	2.2	1.8 - 2.6
All Abbott Cell-Dyn Instruments	217	21.88	1.09	5.0	21.9	18.5 - 25.2	212	2.17	0.12	5.6	2.2	1.8 - 2.5
All ABX Instruments	108	22.09	0.55	2.5	22.1	18.7 - 25.4	110	2.08	0.08	3.8	2.1	1.7 - 2.4
All Boule (CDS) Instruments	101	23.02	0.57	2.5	23.2	19.5 - 26.5	99	2.07	0.09	4.4	2.1	1.7 - 2.4
All COULTER Instruments	209	23.32	0.49	2.1	23.3	19.8 - 26.9	209	2.36	0.11	4.8	2.4	2.0 - 2.8
All Danam/Drew Scientific Instruments	11	21.71	1.59	7.3	21.7	18.4 - 25.0	11	2.15	0.11	5.3	2.1	1.8 - 2.5
Abbott Cell-Dyn 1700	17	22.16	1.46	6.6	22.2	18.8 - 25.5	16	2.24	0.17	7.6	2.3	1.9 - 2.6
Abbott Cell-Dyn 1800	92	22.57	0.65	2.9	22.5	19.1 - 26.0	92	2.14	0.11	5.2	2.1	1.8 - 2.5
Abbott Cell-Dyn Emerald	104	21.20	0.84	3.9	21.2	18.0 - 24.4	104	2.19	0.12	5.3	2.2	1.8 - 2.6
ABX Diagnostics Micros/45/60	108	22.09	0.55	2.5	22.1	18.7 - 25.4	110	2.08	0.08	3.8	2.1	1.7 - 2.4
Boule (CDS) Medonic M series	93	23.00	0.58	2.5	23.1	19.5 - 26.5	91	2.06	0.07	3.6	2.1	1.7 - 2.4
COULTER AcT diff/diff 2	204	23.32	0.49	2.1	23.3	19.8 - 26.9	204	2.36	0.11	4.8	2.4	2.0 - 2.8
Drew Scientific D3	11	21.71	1.59	7.3	21.7	18.4 - 25.0	11	2.15	0.11	5.3	2.1	1.8 - 2.5

BASIC HEMATOLOGY W/ 3-PART DIFFERENTIAL–WHITE BLOOD CELL COUNT (x 10⁹/L) cont'd
Specimen HD-15

<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	650	7.93	0.35	4.5	7.9	6.7 - 9.2
All Abbott Cell-Dyn Instruments	213	7.81	0.37	4.7	7.8	6.6 - 9.0
All ABX Instruments	107	7.69	0.24	3.1	7.7	6.5 - 8.9
All Boule (CDS) Instruments	102	7.88	0.24	3.0	7.9	6.7 - 9.1
All COULTER Instruments	210	8.19	0.21	2.6	8.2	6.9 - 9.5
All Danam/Drew Scientific Instruments	11	7.86	0.82	10.4	7.8	6.6 - 9.1
Abbott Cell-Dyn 1700	16	8.10	0.54	6.7	8.0	6.8 - 9.4
Abbott Cell-Dyn 1800	92	7.82	0.35	4.5	7.8	6.6 - 9.0
Abbott Cell-Dyn Emerald	106	7.77	0.36	4.6	7.8	6.6 - 9.0
ABX Diagnostics Micros/45/60	107	7.69	0.24	3.1	7.7	6.5 - 8.9
Boule (CDS) Medonic M series	93	7.88	0.21	2.7	7.9	6.6 - 9.1
COULTER AcT diff/diff 2	205	8.19	0.21	2.6	8.2	6.9 - 9.5
Drew Scientific D3	11	7.86	0.82	10.4	7.8	6.6 - 9.1

BASIC HEMATOLOGY W/ 3-PART DIFFERENTIAL–RED BLOOD CELL COUNT (x 10¹²/L)
Specimen HD-11

<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	656	2.471	0.090	3.6	2.47	2.32 - 2.62
All Abbott Cell-Dyn Instruments	216	2.492	0.113	4.5	2.50	2.34 - 2.65
All ABX Instruments	109	2.430	0.057	2.3	2.43	2.28 - 2.58
All Boule (CDS) Instruments	102	2.417	0.045	1.9	2.42	2.27 - 2.57
All COULTER Instruments	211	2.500	0.068	2.7	2.50	2.34 - 2.65
All Danam/Drew Scientific Instruments	12	2.440	0.066	2.7	2.44	2.29 - 2.59
Abbott Cell-Dyn 1700	16	2.543	0.083	3.2	2.55	2.39 - 2.70
Abbott Cell-Dyn 1800	94	2.583	0.059	2.3	2.58	2.42 - 2.74
Abbott Cell-Dyn Emerald	106	2.402	0.077	3.2	2.40	2.25 - 2.55
ABX Diagnostics Micros/45/60	109	2.430	0.057	2.3	2.43	2.28 - 2.58
Boule (CDS) Medonic M series	94	2.416	0.044	1.8	2.42	2.27 - 2.57
COULTER AcT diff/diff 2	206	2.500	0.068	2.7	2.50	2.35 - 2.66
Drew Scientific D3	12	2.440	0.066	2.7	2.44	2.29 - 2.59

Specimen HD-12

<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
651	4.541	0.128	2.8	4.55	4.26 - 4.82
218	4.491	0.158	3.5	4.50	4.22 - 4.77
109	4.519	0.098	2.2	4.52	4.24 - 4.79
101	4.525	0.074	1.6	4.53	4.25 - 4.80
210	4.614	0.104	2.3	4.62	4.33 - 4.90
12	4.478	0.068	1.5	4.49	4.20 - 4.75
17	4.664	0.118	2.5	4.66	4.38 - 4.95
92	4.582	0.109	2.4	4.59	4.30 - 4.86
106	4.389	0.112	2.5	4.39	4.12 - 4.66
109	4.519	0.098	2.2	4.52	4.24 - 4.79
93	4.524	0.072	1.6	4.52	4.25 - 4.80
205	4.616	0.102	2.2	4.62	4.33 - 4.90
12	4.478	0.068	1.5	4.49	4.20 - 4.75

BASIC HEMATOLOGY W/ 3-PART DIFFERENTIAL-RED BLOOD CELL COUNT (x 10¹²/L) cont'd

Specimen HD-13							Specimen HD-14					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	651	6.265	0.195	3.1	6.29	5.88 - 6.65	652	2.473	0.090	3.6	2.46	2.32 - 2.63
All Abbott Cell-Dyn Instruments	214	6.096	0.179	2.9	6.09	5.73 - 6.47	216	2.491	0.109	4.4	2.49	2.34 - 2.65
All ABX Instruments	108	6.302	0.139	2.2	6.32	5.92 - 6.69	110	2.423	0.060	2.5	2.42	2.27 - 2.57
All Boule (CDS) Instruments	102	6.352	0.118	1.9	6.36	5.97 - 6.74	101	2.411	0.041	1.7	2.41	2.26 - 2.56
All COULTER Instruments	212	6.370	0.157	2.5	6.37	5.98 - 6.76	210	2.510	0.069	2.7	2.51	2.35 - 2.67
All Danam/Drew Scientific Instruments	12	6.165	0.109	1.8	6.21	5.79 - 6.54	12	2.463	0.050	2.0	2.46	2.31 - 2.62
Abbott Cell-Dyn 1700	17	6.385	0.193	3.0	6.40	6.00 - 6.77	16	2.572	0.067	2.6	2.57	2.41 - 2.73
Abbott Cell-Dyn 1800	92	6.124	0.152	2.5	6.12	5.75 - 6.50	91	2.576	0.072	2.8	2.58	2.42 - 2.74
Abbott Cell-Dyn Emerald	105	6.046	0.158	2.6	6.04	5.68 - 6.41	106	2.412	0.066	2.7	2.42	2.26 - 2.56
ABX Diagnostics Micros/45/60	108	6.302	0.139	2.2	6.32	5.92 - 6.69	110	2.423	0.060	2.5	2.42	2.27 - 2.57
Boule (CDS) Medonic M series	94	6.360	0.117	1.8	6.38	5.97 - 6.75	93	2.408	0.040	1.6	2.41	2.26 - 2.56
COULTER AcT diff/diff 2	207	6.371	0.157	2.5	6.36	5.98 - 6.76	205	2.511	0.069	2.8	2.51	2.36 - 2.67
Drew Scientific D3	12	6.165	0.109	1.8	6.21	5.79 - 6.54	12	2.463	0.050	2.0	2.46	2.31 - 2.62
Specimen HD-15												
All Method	648	4.538	0.130	2.9	4.54	4.26 - 4.82						
All Abbott Cell-Dyn Instruments	215	4.494	0.154	3.4	4.48	4.22 - 4.77						
All ABX Instruments	107	4.512	0.109	2.4	4.53	4.24 - 4.79						
All Boule (CDS) Instruments	102	4.531	0.071	1.6	4.53	4.25 - 4.81						
All COULTER Instruments	208	4.604	0.110	2.4	4.61	4.32 - 4.89						
All Danam/Drew Scientific Instruments	12	4.499	0.064	1.4	4.51	4.22 - 4.77						
Abbott Cell-Dyn 1700	16	4.690	0.108	2.3	4.69	4.40 - 4.98						
Abbott Cell-Dyn 1800	92	4.570	0.121	2.7	4.58	4.29 - 4.85						
Abbott Cell-Dyn Emerald	104	4.396	0.103	2.3	4.40	4.13 - 4.67						
ABX Diagnostics Micros/45/60	107	4.512	0.109	2.4	4.53	4.24 - 4.79						
Boule (CDS) Medonic M series	94	4.532	0.072	1.6	4.53	4.25 - 4.81						
COULTER AcT diff/diff 2	204	4.602	0.114	2.5	4.61	4.32 - 4.88						
Drew Scientific D3	12	4.499	0.064	1.4	4.51	4.22 - 4.77						

BASIC HEMATOLOGY W/ 3-PART DIFFERENTIAL–HEMOGLOBIN (g/dL)

Specimen HD-11							Specimen HD-12					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	653	6.12	0.17	2.8	6.1	5.6 - 6.6	653	13.42	0.29	2.2	13.4	12.4 - 14.4
All Abbott Cell-Dyn Instruments	214	6.19	0.21	3.3	6.2	5.7 - 6.7	212	13.58	0.29	2.2	13.6	12.6 - 14.6
All ABX Instruments	109	6.16	0.13	2.1	6.2	5.7 - 6.6	107	13.45	0.23	1.7	13.4	12.5 - 14.4
All Boule (CDS) Instruments	103	6.13	0.10	1.6	6.1	5.6 - 6.6	103	13.32	0.24	1.8	13.3	12.3 - 14.3
All COULTER Instruments	209	6.02	0.16	2.6	6.0	5.5 - 6.5	204	13.30	0.22	1.6	13.3	12.3 - 14.3
All Danam/Drew Scientific Instruments	12	6.25	0.11	1.7	6.3	5.8 - 6.7	12	13.53	0.28	2.1	13.6	12.5 - 14.5
Abbott Cell-Dyn 1700	17	6.46	0.18	2.7	6.5	6.0 - 7.0	17	13.77	0.37	2.7	13.9	12.8 - 14.8
Abbott Cell-Dyn 1800	94	6.26	0.16	2.6	6.3	5.8 - 6.8	92	13.67	0.27	2.0	13.7	12.7 - 14.7
Abbott Cell-Dyn Emerald	104	6.07	0.19	3.1	6.1	5.6 - 6.5	104	13.46	0.27	2.0	13.5	12.5 - 14.5
ABX Diagnostics Micros/45/60	109	6.16	0.13	2.1	6.2	5.7 - 6.6	107	13.45	0.23	1.7	13.4	12.5 - 14.4
Boule (CDS) Medonic M series	94	6.13	0.08	1.4	6.1	5.6 - 6.6	94	13.33	0.21	1.6	13.3	12.3 - 14.3
COULTER AcT diff/diff 2	204	6.02	0.16	2.6	6.0	5.5 - 6.5	200	13.30	0.22	1.6	13.3	12.3 - 14.3
Drew Scientific D3	12	6.25	0.11	1.7	6.3	5.8 - 6.7	12	13.53	0.28	2.1	13.6	12.5 - 14.5

Specimen HD-13							Specimen HD-14					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	652	20.12	0.42	2.1	20.1	18.7 - 21.6	650	6.14	0.17	2.7	6.1	5.7 - 6.6
All Abbott Cell-Dyn Instruments	213	20.40	0.39	1.9	20.4	18.9 - 21.9	214	6.22	0.20	3.3	6.2	5.7 - 6.7
All ABX Instruments	108	20.02	0.32	1.6	20.0	18.6 - 21.5	109	6.14	0.14	2.3	6.2	5.7 - 6.6
All Boule (CDS) Instruments	101	20.05	0.35	1.7	20.1	18.6 - 21.5	101	6.13	0.10	1.7	6.1	5.6 - 6.6
All COULTER Instruments	207	19.95	0.35	1.8	19.9	18.5 - 21.4	208	6.07	0.15	2.4	6.1	5.6 - 6.5
All Danam/Drew Scientific Instruments	12	20.18	0.41	2.0	20.3	18.7 - 21.6	12	6.25	0.11	1.7	6.3	5.8 - 6.7
Abbott Cell-Dyn 1700	17	20.46	0.51	2.5	20.5	19.0 - 21.9	17	6.49	0.17	2.5	6.5	6.0 - 7.0
Abbott Cell-Dyn 1800	91	20.55	0.37	1.8	20.6	19.1 - 22.0	91	6.31	0.15	2.4	6.3	5.8 - 6.8
Abbott Cell-Dyn Emerald	105	20.26	0.34	1.7	20.2	18.8 - 21.7	104	6.11	0.15	2.4	6.1	5.6 - 6.6
ABX Diagnostics Micros/45/60	108	20.02	0.32	1.6	20.0	18.6 - 21.5	109	6.14	0.14	2.3	6.2	5.7 - 6.6
Boule (CDS) Medonic M series	93	20.08	0.32	1.6	20.1	18.6 - 21.5	93	6.13	0.09	1.5	6.1	5.7 - 6.6
COULTER AcT diff/diff 2	202	19.94	0.35	1.8	19.9	18.5 - 21.4	203	6.07	0.15	2.4	6.1	5.6 - 6.5
Drew Scientific D3	12	20.18	0.41	2.0	20.3	18.7 - 21.6	12	6.25	0.11	1.7	6.3	5.8 - 6.7

BASIC HEMATOLOGY W/ 3-PART DIFFERENTIAL–HEMOGLOBIN (g/dL) cont'd

Specimen HD-15						
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	650	13.42	0.30	2.2	13.4	12.4 - 14.4
All Abbott Cell-Dyn Instruments	213	13.57	0.30	2.2	13.6	12.6 - 14.6
All ABX Instruments	106	13.47	0.22	1.7	13.5	12.5 - 14.5
All Boule (CDS) Instruments	102	13.31	0.24	1.8	13.3	12.3 - 14.3
All COULTER Instruments	206	13.30	0.25	1.9	13.3	12.3 - 14.3
All Danam/Drew Scientific Instruments	12	13.57	0.27	2.0	13.6	12.6 - 14.6
Abbott Cell-Dyn 1700	16	13.74	0.34	2.5	13.8	12.7 - 14.8
Abbott Cell-Dyn 1800	92	13.64	0.31	2.2	13.6	12.6 - 14.6
Abbott Cell-Dyn Emerald	105	13.49	0.26	1.9	13.5	12.5 - 14.5
ABX Diagnostics Micros/45/60	106	13.47	0.22	1.7	13.5	12.5 - 14.5
Boule (CDS) Medonic M series	92	13.34	0.20	1.5	13.4	12.4 - 14.3
COULTER AcT diff/diff 2	201	13.30	0.26	1.9	13.3	12.3 - 14.3
Drew Scientific D3	12	13.57	0.27	2.0	13.6	12.6 - 14.6

BASIC HEMATOLOGY W/ 3-PART DIFFERENTIAL–HEMATOCRIT (percent)

Specimen HD-11							Specimen HD-12					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	654	17.52	1.08	6.2	17.8	16.4 - 18.6	655	38.11	1.72	4.5	38.4	35.8 - 40.4
All Abbott Cell-Dyn Instruments	216	18.30	0.71	3.9	18.4	17.2 - 19.5	217	39.20	1.28	3.3	39.3	36.8 - 41.6
All ABX Instruments	108	16.50	0.40	2.4	16.5	15.5 - 17.5	107	36.83	0.82	2.2	36.8	34.6 - 39.1
All Boule (CDS) Instruments	102	15.96	0.44	2.7	16.0	15.0 - 17.0	103	35.67	0.92	2.6	35.6	33.5 - 37.9
All COULTER Instruments	210	17.98	0.55	3.0	18.0	16.9 - 19.1	210	38.84	0.99	2.5	38.9	36.5 - 41.2
All Danam/Drew Scientific Instruments	12	17.95	0.42	2.4	18.0	16.8 - 19.1	12	38.55	0.47	1.2	38.6	36.2 - 40.9
Abbott Cell-Dyn 1700	17	17.66	0.59	3.3	17.7	16.5 - 18.8	17	38.82	1.01	2.6	39.0	36.4 - 41.2
Abbott Cell-Dyn 1800	94	18.71	0.51	2.7	18.7	17.5 - 19.9	91	39.77	1.07	2.7	39.9	37.3 - 42.2
Abbott Cell-Dyn Emerald	105	18.05	0.68	3.8	18.0	16.9 - 19.2	107	38.84	1.25	3.2	38.9	36.5 - 41.2
ABX Diagnostics Micros/45/60	108	16.50	0.40	2.4	16.5	15.5 - 17.5	107	36.83	0.82	2.2	36.8	34.6 - 39.1
Boule (CDS) Medonic M series	91	15.93	0.35	2.2	16.0	14.9 - 16.9	95	35.68	0.87	2.4	35.6	33.5 - 37.9
COULTER AcT diff/diff 2	205	17.99	0.56	3.1	18.0	16.9 - 19.1	206	38.86	1.02	2.6	38.9	36.5 - 41.2
Drew Scientific D3	12	17.95	0.42	2.4	18.0	16.8 - 19.1	12	38.55	0.47	1.2	38.6	36.2 - 40.9

BASIC HEMATOLOGY W/ 3-PART DIFFERENTIAL–HEMATOCRIT (percent) cont'd

Specimen HD-13							Specimen HD-14					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	651	57.08	1.79	3.1	57.0	53.6 - 60.6	653	17.51	1.10	6.3	17.8	16.4 - 18.6
All Abbott Cell-Dyn Instruments	218	57.55	1.79	3.1	57.6	54.1 - 61.1	215	18.28	0.65	3.5	18.3	17.1 - 19.4
All ABX Instruments	107	56.08	1.31	2.3	56.2	52.7 - 59.5	108	16.43	0.41	2.5	16.5	15.4 - 17.5
All Boule (CDS) Instruments	100	55.60	1.44	2.6	55.6	52.2 - 59.0	101	15.90	0.41	2.6	15.9	14.9 - 16.9
All COULTER Instruments	213	57.83	1.58	2.7	57.9	54.3 - 61.3	209	18.02	0.53	2.9	18.0	16.9 - 19.1
All Danam/Drew Scientific Instruments	12	57.07	0.92	1.6	57.1	53.6 - 60.5	12	18.09	0.37	2.0	18.0	17.0 - 19.2
Abbott Cell-Dyn 1700	17	57.35	1.73	3.0	57.5	53.9 - 60.8	16	17.94	0.41	2.3	17.9	16.8 - 19.1
Abbott Cell-Dyn 1800	94	57.62	1.77	3.1	57.9	54.1 - 61.1	93	18.55	0.64	3.5	18.6	17.4 - 19.7
Abbott Cell-Dyn Emerald	107	57.53	1.83	3.2	57.5	54.0 - 61.0	106	18.09	0.59	3.3	18.1	17.0 - 19.2
ABX Diagnostics Micros/45/60	107	56.08	1.31	2.3	56.2	52.7 - 59.5	108	16.43	0.41	2.5	16.5	15.4 - 17.5
Boule (CDS) Medonic M series	93	55.72	1.37	2.5	55.6	52.3 - 59.1	93	15.89	0.39	2.4	15.9	14.9 - 16.9
COULTER AcT diff/diff 2	207	57.82	1.60	2.8	57.9	54.3 - 61.3	203	18.02	0.53	3.0	18.0	16.9 - 19.2
Drew Scientific D3	12	57.07	0.92	1.6	57.1	53.6 - 60.5	12	18.09	0.37	2.0	18.0	17.0 - 19.2

Specimen HD-15						
All Method	653	38.02	1.73	4.5	38.1	35.7 - 40.3
All Abbott Cell-Dyn Instruments	213	39.16	1.25	3.2	39.2	36.8 - 41.6
All ABX Instruments	110	36.66	0.99	2.7	36.9	34.4 - 38.9
All Boule (CDS) Instruments	101	35.60	0.80	2.2	35.6	33.4 - 37.8
All COULTER Instruments	211	38.72	1.03	2.7	38.7	36.4 - 41.1
All Danam/Drew Scientific Instruments	12	38.66	0.43	1.1	38.7	36.3 - 41.0
Abbott Cell-Dyn 1700	16	38.98	0.93	2.4	39.0	36.6 - 41.4
Abbott Cell-Dyn 1800	91	39.51	1.20	3.0	39.6	37.1 - 41.9
Abbott Cell-Dyn Emerald	105	38.85	1.21	3.1	38.8	36.5 - 41.2
ABX Diagnostics Micros/45/60	110	36.66	0.99	2.7	36.9	34.4 - 38.9
Boule (CDS) Medonic M series	93	35.62	0.77	2.2	35.6	33.4 - 37.8
COULTER AcT diff/diff 2	205	38.71	1.04	2.7	38.7	36.3 - 41.1
Drew Scientific D3	12	38.66	0.43	1.1	38.7	36.3 - 41.0

BASIC HEMATOLOGY W/ 3-PART DIFFERENTIAL–PLATELET COUNT (x 10⁹/L)

Specimen HD-11							Specimen HD-12					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	644	61.9	7.7	12.4	61	46 - 78	657	252.4	17.2	6.8	253	189 - 316
All Abbott Cell-Dyn Instruments	213	63.4	8.4	13.2	62	47 - 80	215	261.3	15.9	6.1	262	195 - 327
All ABX Instruments	109	69.0	7.8	11.3	69	51 - 87	110	261.3	11.9	4.5	262	195 - 327
All Boule (CDS) Instruments	102	55.6	4.7	8.5	56	41 - 70	102	233.3	11.3	4.9	233	174 - 292
All COULTER Instruments	208	59.7	5.2	8.6	59	44 - 75	212	248.8	12.9	5.2	248	186 - 311
All Danam/Drew Scientific Instruments	12	69.8	6.8	9.8	69	52 - 88	12	258.6	15.6	6.0	261	193 - 324
Abbott Cell-Dyn 1700	17	57.3	4.0	6.9	58	42 - 72	17	256.4	14.9	5.8	260	192 - 321
Abbott Cell-Dyn 1800	94	60.7	5.0	8.3	61	45 - 76	93	261.6	16.1	6.2	262	196 - 328
Abbott Cell-Dyn Emerald	102	66.9	9.8	14.7	67	50 - 84	105	261.8	15.8	6.0	262	196 - 328
ABX Diagnostics Micros/45/60	109	69.0	7.8	11.3	69	51 - 87	110	261.3	11.9	4.5	262	195 - 327
Boule (CDS) Medonic M series	95	55.4	4.7	8.5	55	41 - 70	94	232.8	10.8	4.7	232	174 - 291
COULTER AcT diff/diff 2	203	59.7	5.1	8.5	59	44 - 75	208	248.9	12.7	5.1	248	186 - 312
Drew Scientific D3	12	69.8	6.8	9.8	69	52 - 88	12	258.6	15.6	6.0	261	193 - 324

Specimen HD-13							Specimen HD-14					
All Method	650	517.8	35.8	6.9	516	388 - 648	641	63.5	8.1	12.7	62	47 - 80
All Abbott Cell-Dyn Instruments	218	539.6	45.7	8.5	540	404 - 675	207	66.1	8.6	13.0	65	49 - 83
All ABX Instruments	110	507.5	22.7	4.5	507	380 - 635	109	70.3	7.4	10.5	70	52 - 88
All Boule (CDS) Instruments	101	479.8	19.9	4.2	479	359 - 600	99	56.0	4.5	8.0	56	42 - 71
All COULTER Instruments	212	523.1	21.0	4.0	524	392 - 654	210	60.7	4.8	8.0	61	45 - 76
All Danam/Drew Scientific Instruments	12	513.9	30.9	6.0	521	385 - 643	12	68.9	6.6	9.5	70	51 - 87
Abbott Cell-Dyn 1700	17	566.3	36.7	6.5	570	424 - 708	17	59.8	5.6	9.4	60	44 - 75
Abbott Cell-Dyn 1800	94	568.8	35.7	6.3	567	426 - 712	93	63.8	5.3	8.4	64	47 - 80
Abbott Cell-Dyn Emerald	107	509.6	34.3	6.7	510	382 - 637	100	70.3	11.1	15.8	70	52 - 88
ABX Diagnostics Micros/45/60	110	507.5	22.7	4.5	507	380 - 635	109	70.3	7.4	10.5	70	52 - 88
Boule (CDS) Medonic M series	93	478.9	20.0	4.2	479	359 - 599	93	55.8	4.3	7.8	56	41 - 70
COULTER AcT diff/diff 2	208	523.1	21.1	4.0	524	392 - 654	205	60.7	4.8	7.8	61	45 - 76
Drew Scientific D3	12	513.9	30.9	6.0	521	385 - 643	12	68.9	6.6	9.5	70	51 - 87

BASIC HEMATOLOGY W/ 3-PART DIFFERENTIAL–PLATELET COUNT (x 10⁹/L) cont'd

Specimen HD-15						
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	650	251.6	16.9	6.7	251	188 - 315
All Abbott Cell-Dyn Instruments	216	260.9	17.9	6.9	260	195 - 327
All ABX Instruments	109	259.9	13.2	5.1	260	194 - 325
All Boule (CDS) Instruments	102	234.3	12.0	5.1	235	175 - 293
All COULTER Instruments	211	246.7	11.5	4.6	247	185 - 309
All Danam/Drew Scientific Instruments	12	253.5	16.1	6.4	261	190 - 317
Abbott Cell-Dyn 1700	17	258.8	14.7	5.7	262	194 - 324
Abbott Cell-Dyn 1800	93	258.9	17.6	6.8	259	194 - 324
Abbott Cell-Dyn Emerald	106	263.0	18.5	7.0	263	197 - 329
ABX Diagnostics Micros/45/60	109	259.9	13.2	5.1	260	194 - 325
Boule (CDS) Medonic M series	94	233.6	12.0	5.1	234	175 - 292
COULTER AcT diff/diff 2	206	246.9	11.3	4.6	247	185 - 309
Drew Scientific D3	12	253.5	16.1	6.4	261	190 - 317

BASIC HEMATOLOGY W/ 3-PART DIFFERENTIAL–LYMPHOCYTES (percent)

Specimen HD-11							Specimen HD-12					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	633	53.11	8.22	15.5	54.7	28.4 - 77.8	632	28.98	4.10	14.1	30.1	16.6 - 41.3
All Abbott Cell-Dyn Instruments	208	48.88	3.83	7.8	49.4	37.4 - 60.4	207	26.78	2.55	9.5	27.3	19.1 - 34.5
All ABX Instruments	109	40.99	4.46	10.9	40.4	27.6 - 54.4	109	23.39	2.38	10.2	23.2	16.2 - 30.6
All Boule (CDS) Instruments	99	62.03	2.44	3.9	62.1	54.7 - 69.4	99	32.97	1.30	4.0	32.9	29.0 - 36.9
All COULTER Instruments	200	59.59	1.73	2.9	59.7	54.4 - 64.8	197	32.25	0.89	2.7	32.3	29.5 - 35.0
All Danam/Drew Scientific Instruments	12	54.01	3.89	7.2	54.7	42.3 - 65.7	11	30.19	2.92	9.7	29.5	21.4 - 39.0
Abbott Cell-Dyn 1700	17	52.46	2.13	4.1	52.1	46.0 - 58.9	17	28.54	1.26	4.4	28.5	24.7 - 32.4
Abbott Cell-Dyn 1800	88	45.46	2.30	5.1	45.3	38.5 - 52.4	85	24.30	1.15	4.7	24.1	20.8 - 27.8
Abbott Cell-Dyn Emerald	99	51.37	2.14	4.2	51.2	44.9 - 57.8	100	28.43	1.30	4.6	28.2	24.5 - 32.4
ABX Diagnostics Micros/45/60	109	40.99	4.46	10.9	40.4	27.6 - 54.4	109	23.39	2.38	10.2	23.2	16.2 - 30.6
Boule (CDS) Medonic M series	91	61.78	2.34	3.8	61.9	54.7 - 68.9	91	32.86	1.28	3.9	32.9	29.0 - 36.8
COULTER AcT diff/diff 2	200	59.59	1.73	2.9	59.7	54.4 - 64.8	197	32.25	0.89	2.7	32.3	29.5 - 35.0
Drew Scientific D3	12	54.01	3.89	7.2	54.7	42.3 - 65.7	11	30.19	2.92	9.7	29.5	21.4 - 39.0

BASIC HEMATOLOGY W/ 3-PART DIFFERENTIAL–LYMPHOCYTES (percent) cont'd

Specimen HD-13							Specimen HD-14					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	626	12.77	1.75	13.7	13.1	7.5 - 18.1	630	52.56	8.28	15.8	54.4	27.7 - 77.4
All Abbott Cell-Dyn Instruments	203	11.88	1.54	12.9	11.9	7.2 - 16.5	206	48.22	4.04	8.4	49.0	36.1 - 60.4
All ABX Instruments	108	11.03	1.06	9.6	11.1	7.8 - 14.3	108	40.85	4.30	10.5	40.7	27.9 - 53.8
All Boule (CDS) Instruments	96	15.31	0.67	4.4	15.3	13.3 - 17.4	95	61.64	2.28	3.7	61.7	54.8 - 68.5
All COULTER Instruments	196	13.44	0.52	3.9	13.4	11.8 - 15.1	198	59.12	1.77	3.0	59.2	53.8 - 64.5
All Danam/Drew Scientific Instruments	11	12.98	0.58	4.5	13.1	11.2 - 14.8	12	54.03	2.78	5.1	54.9	45.6 - 62.4
Abbott Cell-Dyn 1700	17	11.82	0.81	6.9	11.8	9.3 - 14.3	17	51.45	2.05	4.0	50.6	45.2 - 57.7
Abbott Cell-Dyn 1800	87	10.40	0.56	5.4	10.4	8.7 - 12.1	87	44.42	2.51	5.7	44.4	36.8 - 52.0
Abbott Cell-Dyn Emerald	97	13.21	0.89	6.8	13.1	10.5 - 15.9	101	50.86	2.25	4.4	51.0	44.1 - 57.7
ABX Diagnostics Micros/45/60	108	11.03	1.06	9.6	11.1	7.8 - 14.3	108	40.85	4.30	10.5	40.7	27.9 - 53.8
Boule (CDS) Medonic M series	90	15.30	0.68	4.4	15.2	13.2 - 17.4	88	61.62	2.27	3.7	61.7	54.8 - 68.5
COULTER AcT diff/diff 2	196	13.44	0.52	3.9	13.4	11.8 - 15.1	198	59.12	1.77	3.0	59.2	53.8 - 64.5
Drew Scientific D3	11	12.98	0.58	4.5	13.1	11.2 - 14.8	12	54.03	2.78	5.1	54.9	45.6 - 62.4

Specimen HD-15						
All Method	628	29.08	4.15	14.3	30.3	16.6 - 41.6
All Abbott Cell-Dyn Instruments	205	26.88	2.57	9.6	27.1	19.1 - 34.7
All ABX Instruments	108	23.37	2.39	10.2	23.0	16.2 - 30.6
All Boule (CDS) Instruments	98	33.28	1.17	3.5	33.3	29.7 - 36.8
All COULTER Instruments	196	32.34	0.92	2.8	32.4	29.5 - 35.1
All Danam/Drew Scientific Instruments	11	28.92	1.53	5.3	29.1	24.3 - 33.6
Abbott Cell-Dyn 1700	17	29.02	2.35	8.1	28.9	21.9 - 36.1
Abbott Cell-Dyn 1800	87	24.50	1.43	5.8	24.4	20.2 - 28.8
Abbott Cell-Dyn Emerald	101	28.61	1.60	5.6	28.4	23.8 - 33.5
ABX Diagnostics Micros/45/60	108	23.37	2.39	10.2	23.0	16.2 - 30.6
Boule (CDS) Medonic M series	90	33.22	1.06	3.2	33.2	30.0 - 36.5
COULTER AcT diff/diff 2	196	32.34	0.92	2.8	32.4	29.5 - 35.1
Drew Scientific D3	11	28.92	1.53	5.3	29.1	24.3 - 33.6

BASIC HEMATOLOGY W/ 3-PART DIFFERENTIAL–MONO/MID/MIXED/MCR (percent)

Specimen HD-11							Specimen HD-12					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	620	13.95	5.74	41.2	11.7	0.0 - 31.2	616	9.10	2.40	26.3	8.1	1.9 - 16.3
All Abbott Cell-Dyn Instruments	205	16.54	4.18	25.3	15.5	3.9 - 29.1	205	10.17	2.85	28.0	10.0	1.6 - 18.8
All ABX Instruments	103	22.48	2.73	12.2	23.0	14.2 - 30.7	103	11.44	1.07	9.4	11.5	8.2 - 14.7
All Boule (CDS) Instruments	98	8.78	2.01	22.9	8.9	2.7 - 14.9	98	7.63	1.30	17.0	7.7	3.7 - 11.6
All COULTER Instruments	200	9.61	1.17	12.2	9.7	6.0 - 13.2	197	7.57	0.67	8.9	7.6	5.5 - 9.6
All Danam/Drew Scientific Instruments	11	11.43	1.14	9.9	11.3	8.0 - 14.9	11	7.44	0.60	8.1	7.4	5.6 - 9.3
Abbott Cell-Dyn 1700	16	14.95	1.10	7.4	15.2	11.6 - 18.3	17	10.30	0.33	3.2	10.4	9.3 - 11.3
Abbott Cell-Dyn 1800	85	20.93	1.51	7.2	21.0	16.4 - 25.5	85	13.25	0.68	5.1	13.3	11.2 - 15.3
Abbott Cell-Dyn Emerald	99	13.05	1.42	10.9	12.9	8.7 - 17.4	99	7.45	0.68	9.1	7.4	5.4 - 9.5
ABX Diagnostics Micros/45/60	103	22.48	2.73	12.2	23.0	14.2 - 30.7	103	11.44	1.07	9.4	11.5	8.2 - 14.7
Boule (CDS) Medonic M series	90	8.81	2.07	23.5	8.9	2.6 - 15.1	90	7.49	1.20	16.1	7.6	3.8 - 11.1
COULTER AcT diff/diff 2	199	9.59	1.20	12.5	9.7	5.9 - 13.2	195	7.57	0.67	8.9	7.6	5.5 - 9.6
Drew Scientific D3	11	11.43	1.14	9.9	11.3	8.0 - 14.9	11	7.44	0.60	8.1	7.4	5.6 - 9.3
Specimen HD-13							Specimen HD-14					
All Method	618	5.34	1.30	24.3	5.4	1.4 - 9.3	620	13.91	5.63	40.5	11.9	0.0 - 30.8
All Abbott Cell-Dyn Instruments	205	5.29	1.91	36.2	5.6	0.0 - 11.1	205	16.40	3.97	24.2	15.3	4.5 - 28.3
All ABX Instruments	102	4.58	0.27	5.9	4.6	3.7 - 5.4	103	22.31	2.71	12.1	22.5	14.1 - 30.5
All Boule (CDS) Instruments	94	5.25	0.77	14.6	5.3	2.9 - 7.6	99	8.59	2.16	25.1	8.4	2.1 - 15.1
All COULTER Instruments	198	5.85	0.43	7.3	5.9	4.5 - 7.2	200	9.80	1.38	14.1	9.9	5.6 - 14.0
All Danam/Drew Scientific Instruments	12	3.73	0.37	10.0	3.7	2.6 - 4.9	11	11.72	1.52	13.0	11.5	7.1 - 16.3
Abbott Cell-Dyn 1700	17	6.19	0.40	6.5	6.2	4.9 - 7.5	17	15.08	1.18	7.8	14.9	11.5 - 18.7
Abbott Cell-Dyn 1800	86	7.28	0.29	4.0	7.3	6.4 - 8.2	84	20.55	1.58	7.7	20.7	15.8 - 25.3
Abbott Cell-Dyn Emerald	98	3.37	0.28	8.5	3.3	2.5 - 4.3	98	13.06	1.39	10.7	12.8	8.8 - 17.3
ABX Diagnostics Micros/45/60	102	4.58	0.27	5.9	4.6	3.7 - 5.4	103	22.31	2.71	12.1	22.5	14.1 - 30.5
Boule (CDS) Medonic M series	90	5.21	0.68	13.0	5.2	3.1 - 7.3	91	8.61	2.15	25.0	8.5	2.1 - 15.1
COULTER AcT diff/diff 2	196	5.85	0.42	7.2	5.9	4.5 - 7.2	198	9.79	1.39	14.1	9.9	5.6 - 14.0
Drew Scientific D3	12	3.73	0.37	10.0	3.7	2.6 - 4.9	11	11.72	1.52	13.0	11.5	7.1 - 16.3

BASIC HEMATOLOGY W/ 3-PART DIFFERENTIAL–MONO/MID/MIXED/MCR (percent) cont'd

Specimen HD-15						
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	617	9.13	2.47	27.0	8.2	1.7 - 16.6
All Abbott Cell-Dyn Instruments	204	10.29	2.85	27.7	9.8	1.7 - 18.9
All ABX Instruments	102	11.58	1.01	8.7	11.6	8.5 - 14.6
All Boule (CDS) Instruments	99	7.27	1.41	19.4	7.4	3.0 - 11.6
All COULTER Instruments	198	7.72	0.73	9.5	7.7	5.5 - 10.0
All Danam/Drew Scientific Instruments	11	7.60	0.73	9.6	7.4	5.4 - 9.8
Abbott Cell-Dyn 1700	17	10.19	0.63	6.2	10.2	8.2 - 12.1
Abbott Cell-Dyn 1800	85	13.38	0.82	6.1	13.3	10.9 - 15.9
Abbott Cell-Dyn Emerald	99	7.63	0.78	10.2	7.5	5.2 - 10.0
ABX Diagnostics Micros/45/60	102	11.58	1.01	8.7	11.6	8.5 - 14.6
Boule (CDS) Medonic M series	91	7.14	1.35	19.0	7.4	3.0 - 11.3
COULTER AcT diff/diff 2	196	7.72	0.73	9.5	7.8	5.5 - 10.0
Drew Scientific D3	11	7.60	0.73	9.6	7.4	5.4 - 9.8

BASIC HEMATOLOGY W/ 3-PART DIFFERENTIAL–GRANULOCYTES/NEUT (percent)

Specimen HD-11							Specimen HD-12					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	625	32.80	3.33	10.1	32.8	22.8 - 42.8	624	61.94	2.57	4.1	61.6	54.2 - 69.7
All Abbott Cell-Dyn Instruments	207	34.50	1.97	5.7	34.7	28.5 - 40.4	206	63.08	1.65	2.6	63.2	58.1 - 68.1
All ABX Instruments	104	36.58	2.25	6.2	37.1	29.8 - 43.4	104	65.15	1.72	2.6	65.6	59.9 - 70.4
All Boule (CDS) Instruments	98	29.15	3.03	10.4	29.0	20.0 - 38.3	96	59.47	1.55	2.6	59.5	54.8 - 64.2
All COULTER Instruments	201	30.80	1.51	4.9	30.7	26.2 - 35.4	199	60.19	1.10	1.8	60.1	56.8 - 63.5
All Danam/Drew Scientific Instruments	12	33.77	1.36	4.0	33.1	29.6 - 37.9	12	62.57	2.86	4.6	62.9	53.9 - 71.2
Abbott Cell-Dyn 1700	17	33.26	2.48	7.4	32.9	25.8 - 40.7	17	61.18	1.28	2.1	61.5	57.3 - 65.1
Abbott Cell-Dyn 1800	89	33.53	1.54	4.6	33.5	28.9 - 38.2	87	62.42	1.15	1.8	62.5	58.9 - 65.9
Abbott Cell-Dyn Emerald	101	35.55	1.63	4.6	35.9	30.6 - 40.5	98	64.16	1.18	1.8	64.5	60.6 - 67.8
ABX Diagnostics Micros/45/60	104	36.58	2.25	6.2	37.1	29.8 - 43.4	104	65.15	1.72	2.6	65.6	59.9 - 70.4
Boule (CDS) Medonic M series	90	29.36	3.00	10.2	29.2	20.3 - 38.4	90	59.60	1.47	2.5	59.6	55.1 - 64.1
COULTER AcT diff/diff 2	199	30.80	1.52	4.9	30.7	26.2 - 35.4	197	60.20	1.10	1.8	60.1	56.9 - 63.5
Drew Scientific D3	12	33.77	1.36	4.0	33.1	29.6 - 37.9	12	62.57	2.86	4.6	62.9	53.9 - 71.2

BASIC HEMATOLOGY W/ 3-PART DIFFERENTIAL–GRANULOCYTES/NEUT (percent) cont'd

Specimen HD-13							Specimen HD-14					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	619	81.87	1.92	2.3	81.7	76.1 - 87.7	620	33.30	3.34	10.0	33.3	23.2 - 43.4
All Abbott Cell-Dyn Instruments	202	82.81	1.02	1.2	82.8	79.7 - 85.9	203	35.36	1.89	5.3	35.6	29.6 - 41.1
All ABX Instruments	103	84.40	1.09	1.3	84.5	81.1 - 87.7	103	36.80	2.24	6.1	37.3	30.0 - 43.6
All Boule (CDS) Instruments	97	79.37	1.24	1.6	79.4	75.6 - 83.1	97	29.78	2.68	9.0	29.3	21.7 - 37.9
All COULTER Instruments	200	80.71	0.63	0.8	80.7	78.8 - 82.6	196	30.97	1.39	4.5	31.0	26.7 - 35.2
All Danam/Drew Scientific Instruments	11	83.28	0.44	0.5	83.4	81.9 - 84.6	12	33.86	1.11	3.3	33.9	30.5 - 37.2
Abbott Cell-Dyn 1700	17	82.00	1.09	1.3	82.2	78.7 - 85.3	17	33.46	1.73	5.2	34.0	28.2 - 38.7
Abbott Cell-Dyn 1800	88	82.29	0.65	0.8	82.3	80.3 - 84.3	87	34.86	2.04	5.9	34.6	28.7 - 41.0
Abbott Cell-Dyn Emerald	97	83.42	0.94	1.1	83.6	80.6 - 86.3	100	36.05	1.50	4.2	36.2	31.5 - 40.6
ABX Diagnostics Micros/45/60	103	84.40	1.09	1.3	84.5	81.1 - 87.7	103	36.80	2.24	6.1	37.3	30.0 - 43.6
Boule (CDS) Medonic M series	91	79.47	1.03	1.3	79.5	76.3 - 82.6	89	29.81	2.64	8.9	29.3	21.8 - 37.8
COULTER AcT diff/diff 2	198	80.72	0.63	0.8	80.7	78.8 - 82.6	194	30.97	1.40	4.5	31.0	26.7 - 35.2
Drew Scientific D3	11	83.28	0.44	0.5	83.4	81.9 - 84.6	12	33.86	1.11	3.3	33.9	30.5 - 37.2

Specimen HD-15						
All Method	620	61.74	2.60	4.2	61.4	53.9 - 69.6
All Abbott Cell-Dyn Instruments	205	62.83	1.74	2.8	63.0	57.6 - 68.1
All ABX Instruments	104	64.98	1.79	2.8	65.2	59.6 - 70.4
All Boule (CDS) Instruments	97	59.44	2.01	3.4	59.4	53.3 - 65.5
All COULTER Instruments	198	59.93	1.05	1.8	59.8	56.7 - 63.1
All Danam/Drew Scientific Instruments	11	63.24	0.89	1.4	63.2	60.5 - 66.0
Abbott Cell-Dyn 1700	17	60.80	2.22	3.6	61.0	54.1 - 67.5
Abbott Cell-Dyn 1800	88	62.11	1.28	2.1	62.3	58.2 - 66.0
Abbott Cell-Dyn Emerald	100	63.79	1.49	2.3	64.2	59.3 - 68.3
ABX Diagnostics Micros/45/60	104	64.98	1.79	2.8	65.2	59.6 - 70.4
Boule (CDS) Medonic M series	89	59.69	1.82	3.0	59.5	54.2 - 65.2
COULTER AcT diff/diff 2	196	59.94	1.05	1.8	59.9	56.7 - 63.2
Drew Scientific D3	11	63.24	0.89	1.4	63.2	60.5 - 66.0

HEMATOLOGY W/ 5-PART DIFFERENTIAL–WHITE BLOOD CELL COUNT (x 10⁹/L)

Specimen DIF-11							Specimen DIF-12					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	17	4.12	0.13	3.2	4.1	3.5 - 4.8	17	10.54	0.22	2.1	10.6	8.9 - 12.2
All COULTER Instruments	16	4.13	0.13	3.3	4.1	3.5 - 4.8	16	10.56	0.21	2.0	10.6	8.9 - 12.2
Specimen DIF-13							Specimen DIF-14					
All Method	17	26.82	0.67	2.5	26.8	22.7 - 30.9	17	4.26	0.18	4.2	4.2	3.6 - 4.9
All COULTER Instruments	16	26.87	0.66	2.5	26.8	22.8 - 30.9	16	4.26	0.18	4.3	4.3	3.6 - 5.0
Specimen DIF-15												
All Method	17	10.54	0.25	2.3	10.5	8.9 - 12.2						
All COULTER Instruments	16	10.56	0.25	2.3	10.6	8.9 - 12.2						

HEMATOLOGY W/ 5-PART DIFFERENTIAL–RED BLOOD CELL COUNT (x 10¹²/L)

Specimen DIF-11							Specimen DIF-12					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	17	2.649	0.051	1.9	2.64	2.48 - 2.81	17	4.216	0.082	1.9	4.20	3.96 - 4.47
All COULTER Instruments	16	2.649	0.053	2.0	2.64	2.48 - 2.81	16	4.217	0.085	2.0	4.20	3.96 - 4.47
Specimen DIF-13							Specimen DIF-14					
All Method	17	6.275	0.104	1.7	6.28	5.89 - 6.66	17	2.647	0.053	2.0	2.65	2.48 - 2.81
All COULTER Instruments	16	6.273	0.108	1.7	6.28	5.89 - 6.65	16	2.648	0.054	2.1	2.66	2.48 - 2.81
Specimen DIF-15												
All Method	16	4.204	0.052	1.2	4.21	3.95 - 4.46						
All COULTER Instruments	15	4.204	0.053	1.3	4.21	3.95 - 4.46						

HEMATOLOGY W/ 5-PART DIFFERENTIAL–HEMOGLOBIN (g/dL)

Specimen DIF-11							Specimen DIF-12					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	17	6.49	0.13	2.0	6.5	6.0 - 7.0	17	12.24	0.15	1.2	12.3	11.3 - 13.1
All COULTER Instruments	16	6.50	0.12	1.9	6.5	6.0 - 7.0	16	12.27	0.10	0.8	12.3	11.4 - 13.2
Specimen DIF-13							Specimen DIF-14					
All Method	17	19.24	0.33	1.7	19.2	17.8 - 20.6	17	6.46	0.11	1.6	6.4	6.0 - 7.0
All COULTER Instruments	16	19.28	0.30	1.5	19.3	17.9 - 20.7	16	6.47	0.11	1.7	6.4	6.0 - 7.0
Specimen DIF-15												
All Method	17	12.25	0.19	1.6	12.3	11.3 - 13.2						
All COULTER Instruments	16	12.28	0.16	1.3	12.3	11.4 - 13.2						

HEMATOLOGY W/ 5-PART DIFFERENTIAL–HEMATOCRIT (percent)

Specimen DIF-11							Specimen DIF-12					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	17	20.54	0.54	2.6	20.6	19.3 - 21.8	16	38.71	0.78	2.0	38.6	36.3 - 41.1
All COULTER Instruments	16	20.53	0.56	2.7	20.6	19.2 - 21.8	16	38.93	1.25	3.2	38.6	36.5 - 41.3
Specimen DIF-13							Specimen DIF-14					
All Method	17	63.74	1.62	2.5	63.9	59.9 - 67.6	17	20.56	0.54	2.6	20.5	19.3 - 21.8
All COULTER Instruments	16	63.69	1.66	2.6	63.9	59.8 - 67.6	16	20.57	0.56	2.7	20.6	19.3 - 21.9
Specimen DIF-15												
All Method	16	38.69	0.64	1.6	38.7	36.3 - 41.1						
All COULTER Instruments	15	38.67	0.66	1.7	38.6	36.3 - 41.0						

HEMATOLOGY W/ 5-PART DIFFERENTIAL–PLATELET COUNT (x 10⁹/L)

Specimen DIF-11							Specimen DIF-12					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	17	80.9	4.6	5.7	81	60 - 102	17	263.5	16.9	6.4	262	197 - 330
All COULTER Instruments	16	81.1	4.8	5.9	82	60 - 102	16	263.7	17.4	6.6	264	197 - 330
Specimen DIF-13							Specimen DIF-14					
All Method	16	469.1	15.5	3.3	468	351 - 587	17	79.9	5.0	6.3	79	59 - 100
All COULTER Instruments	16	474.3	25.7	5.4	469	355 - 593	16	80.0	5.2	6.4	79	60 - 100
Specimen DIF-15												
All Method	17	261.1	12.5	4.8	260	195 - 327						
All COULTER Instruments	16	261.6	12.7	4.9	260	196 - 328						

HEMATOLOGY W/ 5-PART DIFFERENTIAL–NEUTROPHILS (percent)

Specimen DIF-11							Specimen DIF-12					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	17	51.79	1.48	2.9	51.7	47.3 - 56.3	17	60.18	2.34	3.9	60.9	53.1 - 67.3
All COULTER Instruments	16	51.84	1.51	2.9	51.8	47.2 - 56.4	16	60.06	2.37	3.9	60.8	52.9 - 67.2
Specimen DIF-13							Specimen DIF-14					
All Method	17	70.41	5.07	7.2	71.9	55.1 - 85.7	17	52.15	2.03	3.9	52.1	46.0 - 58.3
All COULTER Instruments	16	70.31	5.22	7.4	71.4	54.6 - 86.0	16	52.13	2.09	4.0	52.1	45.8 - 58.5
Specimen DIF-15												
All Method	16	60.28	2.52	4.2	61.0	52.7 - 67.9						
All COULTER Instruments	15	60.09	2.50	4.2	61.0	52.6 - 67.6						

HEMATOLOGY W/ 5-PART DIFFERENTIAL– LYMPHOCYTES (percent)

Specimen DIF-11							Specimen DIF-12					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	17	39.56	1.83	4.6	39.8	34.0 - 45.1	16	30.22	1.13	3.7	30.1	26.8 - 33.6
All COULTER Instruments	16	39.47	1.85	4.7	39.8	33.9 - 45.1	16	30.56	1.81	5.9	30.1	25.1 - 36.1
Specimen DIF-13							Specimen DIF-14					
All Method	17	19.59	1.28	6.5	20.1	15.7 - 23.5	16	39.39	1.89	4.8	38.9	33.7 - 45.1
All COULTER Instruments	16	19.56	1.31	6.7	19.9	15.6 - 23.5	15	39.37	1.96	5.0	38.7	33.4 - 45.3
Specimen DIF-15												
All Method	17	30.48	2.10	6.9	29.5	24.1 - 36.8						
All COULTER Instruments	16	30.55	2.15	7.0	29.6	24.0 - 37.1						

HEMATOLOGY W/ 5-PART DIFFERENTIAL– MONOCYTES (percent)

Specimen DIF-11							Specimen DIF-12					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	17	0.45	0.28	62.8	0.4	0.0 - 1.3	17	3.36	0.90	26.8	3.2	0.6 - 6.1
All COULTER Instruments	16	0.44	0.29	65.3	0.4	0.0 - 1.4	16	3.43	0.89	25.8	3.4	0.7 - 6.1
Specimen DIF-13							Specimen DIF-14					
All Method	17	5.36	4.06	75.7	4.2	0.0 - 17.6	17	0.49	0.26	53.6	0.5	0.0 - 1.3
All COULTER Instruments	16	5.44	4.18	76.9	4.2	0.0 - 18.0	16	0.51	0.26	51.2	0.6	0.0 - 1.3
Specimen DIF-15												
All Method	17	3.34	1.35	40.5	3.2	0.0 - 7.4						
All COULTER Instruments	16	3.43	1.34	39.2	3.4	0.0 - 7.5						

HEMATOLOGY W/ 5-PART DIFFERENTIAL– EOSINOPHILS (percent)

Specimen DIF-11							Specimen DIF-12					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	17	7.29	0.45	6.2	7.2	5.9 - 8.7	17	5.36	0.44	8.3	5.4	4.0 - 6.7
All COULTER Instruments	16	7.30	0.47	6.4	7.3	5.8 - 8.8	16	5.38	0.45	8.3	5.5	4.0 - 6.8
Specimen DIF-13							Specimen DIF-14					
All Method	17	3.92	0.49	12.4	3.9	2.4 - 5.4	17	7.41	0.42	5.7	7.4	6.1 - 8.7
All COULTER Instruments	16	3.96	0.48	12.2	3.9	2.5 - 5.5	16	7.41	0.43	5.8	7.4	6.1 - 8.8
Specimen DIF-15												
All Method	16	5.39	0.40	7.5	5.3	4.1 - 6.7						
All COULTER Instruments	15	5.41	0.41	7.6	5.3	4.1 - 6.7						

HEMATOLOGY W/ 5-PART DIFFERENTIAL– BASOPHILS (percent)

Specimen DIF-11							Specimen DIF-12					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	17	0.87	1.06	121.7	0.4	0.0 - 4.1	17	0.42	0.47	112.1	0.2	0.0 - 1.9
All COULTER Instruments	16	0.91	1.08	119.6	0.5	0.0 - 4.2	16	0.43	0.48	111.3	0.2	0.0 - 1.9
Specimen DIF-13							Specimen DIF-14					
All Method	16	0.54	0.42	78.6	0.5	0.0 - 1.9	16	0.84	1.20	143.5	0.3	0.0 - 4.5
All COULTER Instruments	15	0.55	0.43	78.1	0.5	0.0 - 1.9	16	1.27	1.98	156.2	0.3	0.0 - 7.3
Specimen DIF-15												
All Method	17	0.42	0.53	124.2	0.2	0.0 - 2.1						
All COULTER Instruments	16	0.41	0.54	132.5	0.2	0.0 - 2.1						

BLOOD LEAD (µg/dL)

<u>Instrument</u>	Specimen LED-11						Specimen LED-12					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	11	60.18	9.88	16.4	65.0	54.1 - 66.2	11	6.87	1.26	18.4	6.9	2.8 - 10.9
All Magellan Diagnostics Methods	11	60.18	9.88	16.4	65.0	54.1 - 66.2	11	6.87	1.26	18.4	6.9	2.8 - 10.9
Magellan Diagnostics LeadCare II	11	60.18	9.88	16.4	65.0	54.1 - 66.2	11	6.87	1.26	18.4	6.9	2.8 - 10.9

RETICULOCYTE COUNT (percent)

<u>Instrument</u>	Specimen RT-5						Specimen RT-6					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	30	3.97	1.50	37.8	3.7	0.9 - 7.0	30	8.09	1.65	20.4	8.0	4.7 - 11.4
All Automated Methods	15	3.30	0.78	23.7	3.1	1.7 - 4.9	15	7.21	1.42	19.7	7.4	4.3 - 10.1
All Manual Methods	15	4.65	1.76	37.8	4.5	1.1 - 8.2	15	8.97	1.39	15.5	9.0	6.1 - 11.8
Manual-New Methylene Blue Stain	10	5.20	1.88	36.2	5.2	1.4 - 9.0	10	9.44	1.47	15.6	9.7	6.4 - 12.4

HEMATOLOGY W/ 5-PART DIFFERENTIAL–WHITE BLOOD CELL COUNT (x 10⁹/L)

Specimen BCX-11							Specimen BCX-12					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	99	9.35	0.21	2.3	9.3	7.9 - 10.8	101	2.71	0.08	3.1	2.7	2.3 - 3.2
All ABX Instruments	62	9.35	0.21	2.2	9.3	7.9 - 10.8	61	2.72	0.09	3.3	2.7	2.3 - 3.2
All COULTER Instruments	38	9.37	0.25	2.6	9.4	7.9 - 10.8	39	2.70	0.07	2.5	2.7	2.2 - 3.2
ABX Diagnostics Pentra 60C+ (version 2.21 and up)	49	9.33	0.21	2.2	9.3	7.9 - 10.8	48	2.70	0.09	3.2	2.7	2.2 - 3.2
ABX Diagnostics Pentra 80 / XL 80	12	9.37	0.21	2.2	9.4	7.9 - 10.8	12	2.78	0.06	2.1	2.8	2.3 - 3.3
COULTER AcT 5diff (version 2.01)	38	9.37	0.25	2.6	9.4	7.9 - 10.8	39	2.70	0.07	2.5	2.7	2.2 - 3.2
Specimen BCX-13							Specimen BCX-14					
All Method	95	7.41	0.24	3.2	7.4	6.3 - 8.6	99	25.30	0.57	2.3	25.3	21.5 - 29.1
All ABX Instruments	60	7.34	0.20	2.7	7.4	6.2 - 8.5	61	25.30	0.57	2.3	25.3	21.5 - 29.1
All COULTER Instruments	36	7.57	0.32	4.2	7.5	6.4 - 8.8	39	25.37	0.65	2.6	25.3	21.5 - 29.2
ABX Diagnostics Pentra 60C+ (version 2.21 and up)	48	7.31	0.18	2.5	7.3	6.2 - 8.5	48	25.32	0.53	2.1	25.4	21.5 - 29.2
ABX Diagnostics Pentra 80 / XL 80	12	7.57	0.44	5.8	7.5	6.4 - 8.8	12	25.08	0.55	2.2	25.0	21.3 - 28.9
COULTER AcT 5diff (version 2.01)	36	7.57	0.32	4.2	7.5	6.4 - 8.8	39	25.37	0.65	2.6	25.3	21.5 - 29.2
Specimen BCX-15												
All Method	100	16.62	0.34	2.1	16.6	14.1 - 19.2						
All ABX Instruments	61	16.60	0.33	2.0	16.6	14.1 - 19.1						
All COULTER Instruments	38	16.63	0.32	2.0	16.7	14.1 - 19.2						
ABX Diagnostics Pentra 60C+ (version 2.21 and up)	49	16.58	0.33	2.0	16.6	14.0 - 19.1						
ABX Diagnostics Pentra 80 / XL 80	11	16.66	0.36	2.2	16.7	14.1 - 19.2						
COULTER AcT 5diff (version 2.01)	38	16.63	0.32	2.0	16.7	14.1 - 19.2						

HEMATOLOGY W/ 5-PART DIFFERENTIAL-RED BLOOD CELL COUNT (x 10¹²/L)

<u>Instrument</u>	Specimen BCX-11						Specimen BCX-12					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	101	5.553	0.087	1.6	5.55	5.21 - 5.89	101	2.382	0.042	1.8	2.38	2.23 - 2.53
All ABX Instruments	61	5.569	0.087	1.6	5.57	5.23 - 5.91	61	2.381	0.042	1.8	2.38	2.23 - 2.53
All COULTER Instruments	39	5.530	0.083	1.5	5.52	5.19 - 5.87	39	2.386	0.041	1.7	2.39	2.24 - 2.53
ABX Diagnostics Pentra 60C+ (version 2.21 and up)	48	5.549	0.074	1.3	5.55	5.21 - 5.89	49	2.390	0.039	1.7	2.39	2.24 - 2.54
ABX Diagnostics Pentra 80 / XL 80	12	5.634	0.087	1.5	5.64	5.29 - 5.98	12	2.329	0.041	1.8	2.34	2.18 - 2.47
COULTER AcT 5diff (version 2.01)	39	5.530	0.083	1.5	5.52	5.19 - 5.87	39	2.386	0.041	1.7	2.39	2.24 - 2.53
	Specimen BCX-13						Specimen BCX-14					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	100	6.385	0.114	1.8	6.37	6.00 - 6.77	101	4.713	0.077	1.6	4.72	4.43 - 5.00
All ABX Instruments	60	6.414	0.109	1.7	6.43	6.02 - 6.80	61	4.719	0.079	1.7	4.73	4.43 - 5.01
All COULTER Instruments	39	6.341	0.109	1.7	6.35	5.96 - 6.73	39	4.706	0.071	1.5	4.70	4.42 - 4.99
ABX Diagnostics Pentra 60C+ (version 2.21 and up)	48	6.386	0.096	1.5	6.37	6.00 - 6.77	48	4.713	0.077	1.6	4.72	4.42 - 5.00
ABX Diagnostics Pentra 80 / XL 80	12	6.551	0.140	2.1	6.53	6.15 - 6.95	12	4.736	0.083	1.8	4.74	4.45 - 5.02
COULTER AcT 5diff (version 2.01)	39	6.341	0.109	1.7	6.35	5.96 - 6.73	39	4.706	0.071	1.5	4.70	4.42 - 4.99
	Specimen BCX-15											
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>						
All Method	100	5.585	0.088	1.6	5.58	5.24 - 5.93						
All ABX Instruments	60	5.597	0.087	1.6	5.59	5.26 - 5.94						
All COULTER Instruments	39	5.569	0.087	1.6	5.56	5.23 - 5.91						
ABX Diagnostics Pentra 60C+ (version 2.21 and up)	48	5.583	0.082	1.5	5.58	5.24 - 5.92						
ABX Diagnostics Pentra 80 / XL 80	11	5.642	0.084	1.5	5.64	5.30 - 5.99						
COULTER AcT 5diff (version 2.01)	39	5.569	0.087	1.6	5.56	5.23 - 5.91						

HEMATOLOGY W/ 5-PART DIFFERENTIAL–HEMOGLOBIN (g/dL)

<u>Instrument</u>	Specimen BCX-11						Specimen BCX-12					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	101	16.54	0.21	1.3	16.5	15.3 - 17.7	102	6.25	0.12	1.9	6.2	5.8 - 6.7
All ABX Instruments	61	16.60	0.21	1.2	16.6	15.4 - 17.8	62	6.19	0.09	1.5	6.2	5.7 - 6.7
All COULTER Instruments	39	16.45	0.19	1.2	16.4	15.2 - 17.7	39	6.34	0.09	1.4	6.3	5.8 - 6.8
ABX Diagnostics Pentra 60C+ (version 2.21 and up)	48	16.59	0.20	1.2	16.6	15.4 - 17.8	49	6.20	0.10	1.5	6.2	5.7 - 6.7
ABX Diagnostics Pentra 80 / XL 80	12	16.58	0.22	1.3	16.7	15.4 - 17.8	12	6.15	0.08	1.3	6.2	5.7 - 6.6
COULTER AcT 5diff (version 2.01)	39	16.45	0.19	1.2	16.4	15.2 - 17.7	39	6.34	0.09	1.4	6.3	5.8 - 6.8
	Specimen BCX-13						Specimen BCX-14					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	100	20.72	0.40	1.9	20.8	19.2 - 22.2	101	13.48	0.18	1.3	13.5	12.5 - 14.5
All ABX Instruments	60	20.92	0.29	1.4	21.0	19.4 - 22.4	62	13.48	0.20	1.5	13.5	12.5 - 14.5
All COULTER Instruments	39	20.38	0.30	1.5	20.3	18.9 - 21.9	39	13.46	0.17	1.3	13.5	12.5 - 14.4
ABX Diagnostics Pentra 60C+ (version 2.21 and up)	47	20.93	0.27	1.3	20.9	19.4 - 22.4	49	13.47	0.20	1.5	13.5	12.5 - 14.5
ABX Diagnostics Pentra 80 / XL 80	12	21.02	0.41	1.9	21.0	19.5 - 22.5	12	13.48	0.16	1.2	13.5	12.5 - 14.5
COULTER AcT 5diff (version 2.01)	39	20.38	0.30	1.5	20.3	18.9 - 21.9	39	13.46	0.17	1.3	13.5	12.5 - 14.4
	Specimen BCX-15											
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>						
All Method	101	15.99	0.22	1.4	16.0	14.8 - 17.2						
All ABX Instruments	61	16.05	0.21	1.3	16.1	14.9 - 17.2						
All COULTER Instruments	39	15.90	0.21	1.3	15.9	14.7 - 17.1						
ABX Diagnostics Pentra 60C+ (version 2.21 and up)	49	16.04	0.21	1.3	16.1	14.9 - 17.2						
ABX Diagnostics Pentra 80 / XL 80	11	16.05	0.18	1.1	16.1	14.9 - 17.2						
COULTER AcT 5diff (version 2.01)	39	15.90	0.21	1.3	15.9	14.7 - 17.1						

HEMATOLOGY W/ 5-PART DIFFERENTIAL–HEMATOCRIT (percent)

<u>Instrument</u>	Specimen BCX-11						Specimen BCX-12					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	101	47.17	0.84	1.8	47.1	44.3 - 50.0	102	18.05	0.34	1.9	18.1	16.9 - 19.2
All ABX Instruments	61	47.44	0.78	1.6	47.4	44.5 - 50.3	62	18.14	0.33	1.8	18.1	17.0 - 19.3
All COULTER Instruments	39	46.75	0.76	1.6	46.7	43.9 - 49.6	39	17.92	0.30	1.6	17.9	16.8 - 19.0
ABX Diagnostics Pentra 60C+ (version 2.21 and up)	48	47.41	0.73	1.5	47.3	44.5 - 50.3	49	18.11	0.33	1.8	18.1	17.0 - 19.2
ABX Diagnostics Pentra 80 / XL 80	12	47.46	0.91	1.9	47.7	44.6 - 50.4	12	18.27	0.31	1.7	18.4	17.1 - 19.4
COULTER AcT 5diff (version 2.01)	39	46.75	0.76	1.6	46.7	43.9 - 49.6	39	17.92	0.30	1.6	17.9	16.8 - 19.0
	Specimen BCX-13						Specimen BCX-14					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	101	58.23	1.15	2.0	58.3	54.7 - 61.8	101	38.50	0.70	1.8	38.5	36.1 - 40.9
All ABX Instruments	61	58.54	1.15	2.0	58.5	55.0 - 62.1	61	38.66	0.71	1.8	38.6	36.3 - 41.0
All COULTER Instruments	39	57.75	0.99	1.7	57.7	54.2 - 61.3	39	38.27	0.61	1.6	38.2	35.9 - 40.6
ABX Diagnostics Pentra 60C+ (version 2.21 and up)	48	58.53	1.12	1.9	58.6	55.0 - 62.1	48	38.61	0.72	1.9	38.6	36.2 - 41.0
ABX Diagnostics Pentra 80 / XL 80	12	58.47	1.25	2.1	58.4	54.9 - 62.0	12	38.78	0.64	1.6	38.8	36.4 - 41.2
COULTER AcT 5diff (version 2.01)	39	57.75	0.99	1.7	57.7	54.2 - 61.3	39	38.27	0.61	1.6	38.2	35.9 - 40.6
	Specimen BCX-15											
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>						
All Method	100	45.89	0.81	1.8	45.9	43.1 - 48.7						
All ABX Instruments	60	46.09	0.80	1.7	46.0	43.3 - 48.9						
All COULTER Instruments	39	45.59	0.75	1.7	45.6	42.8 - 48.4						
ABX Diagnostics Pentra 60C+ (version 2.21 and up)	48	46.09	0.80	1.7	46.0	43.3 - 48.9						
ABX Diagnostics Pentra 80 / XL 80	11	46.00	0.75	1.6	46.2	43.2 - 48.8						
COULTER AcT 5diff (version 2.01)	39	45.59	0.75	1.7	45.6	42.8 - 48.4						

HEMATOLOGY W/ 5-PART DIFFERENTIAL–PLATELET COUNT (x 10⁹/L)

Specimen BCX-11							Specimen BCX-12					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	100	245.2	10.0	4.1	246	183 - 307	101	74.2	5.3	7.2	74	55 - 93
All ABX Instruments	61	244.7	10.3	4.2	246	183 - 306	60	72.5	4.4	6.1	73	54 - 91
All COULTER Instruments	39	246.8	10.6	4.3	246	185 - 309	39	76.6	5.2	6.8	76	57 - 96
ABX Diagnostics Pentra 60C+ (version 2.21 and up)	48	242.8	10.0	4.1	243	182 - 304	47	72.1	4.5	6.2	72	54 - 91
ABX Diagnostics Pentra 80 / XL 80	12	250.3	7.9	3.2	250	187 - 313	12	73.6	3.7	5.1	74	55 - 92
COULTER AcT 5diff (version 2.01)	39	246.8	10.6	4.3	246	185 - 309	39	76.6	5.2	6.8	76	57 - 96
Specimen BCX-13							Specimen BCX-14					
All Method	101	297.5	12.6	4.2	296	223 - 372	101	544.3	20.8	3.8	547	408 - 681
All ABX Instruments	61	297.6	12.6	4.2	296	223 - 372	61	546.0	18.1	3.3	548	409 - 683
All COULTER Instruments	39	297.3	12.9	4.3	296	222 - 372	39	542.0	24.5	4.5	537	406 - 678
ABX Diagnostics Pentra 60C+ (version 2.21 and up)	48	294.3	11.4	3.9	293	220 - 368	48	544.3	18.4	3.4	547	408 - 681
ABX Diagnostics Pentra 80 / XL 80	12	309.0	9.3	3.0	306	231 - 387	12	550.3	14.7	2.7	551	412 - 688
COULTER AcT 5diff (version 2.01)	39	297.3	12.9	4.3	296	222 - 372	39	542.0	24.5	4.5	537	406 - 678
Specimen BCX-15												
All Method	102	305.1	13.0	4.3	304	228 - 382						
All ABX Instruments	62	305.0	13.6	4.4	303	228 - 382						
All COULTER Instruments	39	304.9	12.3	4.0	304	228 - 382						
ABX Diagnostics Pentra 60C+ (version 2.21 and up)	49	301.9	12.7	4.2	300	226 - 378						
ABX Diagnostics Pentra 80 / XL 80	12	317.1	10.4	3.3	322	237 - 397						
COULTER AcT 5diff (version 2.01)	39	304.9	12.3	4.0	304	228 - 382						

HEMATOLOGY W/ 5-PART DIFFERENTIAL–NEUTROPHILS (percent)

<u>Instrument</u>	Specimen BCX-11						Specimen BCX-12					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	101	65.01	5.43	8.4	65.3	48.7 - 81.4	102	55.22	4.08	7.4	55.2	42.9 - 67.5
All ABX Instruments	61	66.83	5.17	7.7	67.0	51.3 - 82.4	62	57.65	3.18	5.5	58.0	48.1 - 67.2
All COULTER Instruments	39	62.11	4.64	7.5	62.8	48.2 - 76.1	39	51.41	1.83	3.6	51.3	45.9 - 56.9
ABX Diagnostics Pentra 60C+ (version 2.21 and up)	49	67.08	4.86	7.2	67.0	52.4 - 81.7	49	58.05	2.71	4.7	58.0	49.9 - 66.2
ABX Diagnostics Pentra 80 / XL 80	11	65.72	6.73	10.2	68.2	45.5 - 86.0	12	56.63	4.20	7.4	56.6	44.0 - 69.3
COULTER AcT 5diff (version 2.01)	39	62.11	4.64	7.5	62.8	48.2 - 76.1	39	51.41	1.83	3.6	51.3	45.9 - 56.9
	Specimen BCX-13						Specimen BCX-14					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	101	43.93	5.10	11.6	44.3	28.6 - 59.3	101	46.06	3.55	7.7	46.1	35.4 - 56.8
All ABX Instruments	62	44.00	4.86	11.0	44.5	29.4 - 58.6	61	46.78	3.37	7.2	47.2	36.6 - 56.9
All COULTER Instruments	39	43.38	6.11	14.1	44.0	25.0 - 61.8	37	44.68	2.44	5.5	44.6	37.3 - 52.0
ABX Diagnostics Pentra 60C+ (version 2.21 and up)	49	44.76	4.53	10.1	44.9	31.1 - 58.4	49	47.25	3.12	6.6	47.9	37.8 - 56.7
ABX Diagnostics Pentra 80 / XL 80	12	40.83	5.27	12.9	40.0	25.0 - 56.7	11	44.75	3.94	8.8	44.5	32.9 - 56.6
COULTER AcT 5diff (version 2.01)	39	43.38	6.11	14.1	44.0	25.0 - 61.8	37	44.68	2.44	5.5	44.6	37.3 - 52.0
	Specimen BCX-15											
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>						
All Method	97	49.53	3.19	6.4	49.5	39.9 - 59.2						
All ABX Instruments	60	50.33	3.53	7.0	50.0	39.7 - 61.0						
All COULTER Instruments	37	48.44	2.78	5.7	48.1	40.1 - 56.8						
ABX Diagnostics Pentra 60C+ (version 2.21 and up)	49	50.52	3.14	6.2	50.5	41.0 - 60.0						
ABX Diagnostics Pentra 80 / XL 80	10	49.40	5.28	10.7	49.4	33.5 - 65.3						
COULTER AcT 5diff (version 2.01)	37	48.44	2.78	5.7	48.1	40.1 - 56.8						

HEMATOLOGY W/ 5-PART DIFFERENTIAL–LYMPHOCYTES (percent)

<u>Instrument</u>	Specimen BCX-11						Specimen BCX-12					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	100	20.57	3.55	17.2	20.3	9.9 - 31.3	102	29.80	3.84	12.9	29.9	18.2 - 41.4
All ABX Instruments	60	21.13	3.20	15.1	20.7	11.5 - 30.8	62	31.96	3.12	9.8	32.0	22.5 - 41.4
All COULTER Instruments	39	19.71	3.96	20.1	18.9	7.8 - 31.6	39	26.31	1.80	6.8	26.2	20.9 - 31.7
ABX Diagnostics Pentra 60C+ (version 2.21 and up)	49	20.94	3.20	15.3	20.6	11.3 - 30.6	49	31.67	2.63	8.3	31.3	23.7 - 39.6
ABX Diagnostics Pentra 80 / XL 80	12	24.33	6.60	27.1	21.5	4.5 - 44.2	12	32.48	4.20	12.9	32.1	19.8 - 45.1
COULTER AcT 5diff (version 2.01)	39	19.71	3.96	20.1	18.9	7.8 - 31.6	39	26.31	1.80	6.8	26.2	20.9 - 31.7
	Specimen BCX-13						Specimen BCX-14					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	101	45.97	5.29	11.5	45.9	30.1 - 61.9	99	42.91	2.83	6.6	42.4	34.4 - 51.4
All ABX Instruments	61	46.78	4.56	9.8	46.7	33.0 - 60.5	60	43.94	2.44	5.5	43.8	36.6 - 51.3
All COULTER Instruments	39	44.67	6.15	13.8	43.6	26.2 - 63.2	37	41.12	2.28	5.6	40.5	34.2 - 48.0
ABX Diagnostics Pentra 60C+ (version 2.21 and up)	49	45.94	4.20	9.1	46.2	33.3 - 58.6	49	43.56	2.17	5.0	43.4	37.0 - 50.1
ABX Diagnostics Pentra 80 / XL 80	12	51.47	5.74	11.1	51.2	34.2 - 68.7	12	47.89	5.17	10.8	47.0	32.3 - 63.5
COULTER AcT 5diff (version 2.01)	39	44.67	6.15	13.8	43.6	26.2 - 63.2	37	41.12	2.28	5.6	40.5	34.2 - 48.0
	Specimen BCX-15											
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>						
All Method	99	40.25	3.29	8.2	40.3	30.3 - 50.2						
All ABX Instruments	60	41.31	3.40	8.2	41.0	31.1 - 51.6						
All COULTER Instruments	38	38.71	2.65	6.9	38.3	30.7 - 46.7						
ABX Diagnostics Pentra 60C+ (version 2.21 and up)	48	40.58	2.56	6.3	40.4	32.8 - 48.3						
ABX Diagnostics Pentra 80 / XL 80	12	45.92	6.33	13.8	44.6	26.9 - 65.0						
COULTER AcT 5diff (version 2.01)	38	38.71	2.65	6.9	38.3	30.7 - 46.7						

HEMATOLOGY W/ 5-PART DIFFERENTIAL–MONOCYTES (percent)

Specimen BCX-11							Specimen BCX-12					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	102	3.57	2.22	62.3	3.3	0.0 - 10.3	98	1.00	0.64	64.3	0.9	0.0 - 3.0
All ABX Instruments	62	3.41	2.29	66.9	3.1	0.0 - 10.3	60	1.06	0.74	70.3	1.0	0.0 - 3.3
All COULTER Instruments	39	3.83	2.15	56.0	3.7	0.0 - 10.3	38	0.94	0.54	57.3	0.9	0.0 - 2.6
ABX Diagnostics Pentra 60C+ (version 2.21 and up)	49	3.64	2.37	64.9	3.3	0.0 - 10.8	47	1.15	0.76	65.9	1.0	0.0 - 3.5
ABX Diagnostics Pentra 80 / XL 80	12	2.42	1.78	73.5	2.0	0.0 - 7.8	12	0.68	0.59	86.9	0.7	0.0 - 2.5
COULTER AcT 5diff (version 2.01)	39	3.83	2.15	56.0	3.7	0.0 - 10.3	38	0.94	0.54	57.3	0.9	0.0 - 2.6
Specimen BCX-13							Specimen BCX-14					
All Method	102	2.71	1.52	56.1	2.6	0.0 - 7.3	101	2.93	1.52	51.9	2.8	0.0 - 7.6
All ABX Instruments	62	2.49	1.47	59.1	2.2	0.0 - 6.9	61	2.68	1.53	56.9	2.4	0.0 - 7.3
All COULTER Instruments	39	3.08	1.55	50.4	2.9	0.0 - 7.8	39	3.35	1.45	43.4	3.2	0.0 - 7.8
ABX Diagnostics Pentra 60C+ (version 2.21 and up)	49	2.69	1.46	54.4	2.6	0.0 - 7.1	48	2.84	1.55	54.7	2.6	0.0 - 7.6
ABX Diagnostics Pentra 80 / XL 80	12	1.64	1.30	79.3	1.4	0.0 - 5.6	12	1.93	1.21	62.7	1.6	0.0 - 5.6
COULTER AcT 5diff (version 2.01)	39	3.08	1.55	50.4	2.9	0.0 - 7.8	39	3.35	1.45	43.4	3.2	0.0 - 7.8
Specimen BCX-15												
All Method	101	3.21	1.77	55.3	3.0	0.0 - 8.6						
All ABX Instruments	61	3.01	1.82	60.6	2.8	0.0 - 8.5						
All COULTER Instruments	39	3.54	1.68	47.5	3.4	0.0 - 8.6						
ABX Diagnostics Pentra 60C+ (version 2.21 and up)	48	3.21	1.92	59.7	3.1	0.0 - 9.0						
ABX Diagnostics Pentra 80 / XL 80	12	2.13	1.16	54.6	1.9	0.0 - 5.7						
COULTER AcT 5diff (version 2.01)	39	3.54	1.68	47.5	3.4	0.0 - 8.6						

HEMATOLOGY W/ 5-PART DIFFERENTIAL– EOSINOPHILS (percent)

Specimen BCX-11							Specimen BCX-12					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	100	7.23	1.44	20.0	7.3	2.8 - 11.6	100	7.87	1.57	19.9	7.8	3.1 - 12.6
All ABX Instruments	60	7.63	1.29	16.9	7.8	3.7 - 11.5	60	8.18	1.47	17.9	8.0	3.7 - 12.6
All COULTER Instruments	39	6.56	1.43	21.7	6.7	2.2 - 10.9	39	7.31	1.50	20.5	7.0	2.8 - 11.9
ABX Diagnostics Pentra 60C+ (version 2.21 and up)	47	7.75	1.31	16.9	7.9	3.8 - 11.7	48	8.38	1.77	21.1	8.0	3.0 - 13.7
ABX Diagnostics Pentra 80 / XL 80	11	7.33	1.19	16.3	6.9	3.7 - 11.0	12	8.45	1.56	18.5	8.2	3.7 - 13.2
COULTER AcT 5diff (version 2.01)	39	6.56	1.43	21.7	6.7	2.2 - 10.9	39	7.31	1.50	20.5	7.0	2.8 - 11.9
Specimen BCX-13							Specimen BCX-14					
All Method	101	5.83	1.32	22.7	5.9	1.8 - 9.8	102	5.76	0.74	12.8	5.7	3.5 - 8.0
All ABX Instruments	61	6.15	1.24	20.2	6.1	2.4 - 9.9	62	5.92	0.70	11.8	5.8	3.8 - 8.1
All COULTER Instruments	39	5.32	1.32	24.7	5.3	1.3 - 9.3	39	5.52	0.73	13.3	5.5	3.3 - 7.8
ABX Diagnostics Pentra 60C+ (version 2.21 and up)	47	6.36	1.17	18.4	6.2	2.8 - 9.9	48	5.97	0.64	10.7	5.8	4.0 - 7.9
ABX Diagnostics Pentra 80 / XL 80	12	5.58	1.31	23.4	5.8	1.6 - 9.5	12	5.68	0.88	15.5	5.5	3.0 - 8.4
COULTER AcT 5diff (version 2.01)	39	5.32	1.32	24.7	5.3	1.3 - 9.3	39	5.52	0.73	13.3	5.5	3.3 - 7.8
Specimen BCX-15												
All Method	99	4.63	1.17	25.2	4.4	1.1 - 8.2						
All ABX Instruments	62	5.02	1.53	30.4	4.7	0.4 - 9.7						
All COULTER Instruments	39	4.28	0.88	20.5	4.2	1.6 - 7.0						
ABX Diagnostics Pentra 60C+ (version 2.21 and up)	48	5.30	1.55	29.3	4.8	0.6 - 10.0						
ABX Diagnostics Pentra 80 / XL 80	12	3.90	0.94	24.2	3.9	1.0 - 6.8						
COULTER AcT 5diff (version 2.01)	39	4.28	0.88	20.5	4.2	1.6 - 7.0						

HEMATOLOGY W/ 5-PART DIFFERENTIAL– BASOPHILS (percent)

<u>Instrument</u>	Specimen BCX-11						Specimen BCX-12					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	102	3.30	3.67	111.2	0.4	0.0 - 14.4	102	5.91	6.52	110.3	0.8	0.0 - 25.5
All ABX Instruments	61	0.41	0.04	10.0	0.4	0.2 - 0.6	61	0.72	0.06	8.7	0.7	0.5 - 1.0
All COULTER Instruments	39	7.77	0.98	12.6	7.9	4.8 - 10.8	38	13.89	0.81	5.8	13.9	11.4 - 16.4
ABX Diagnostics Pentra 60C+ (version 2.21 and up)	49	0.41	0.04	9.0	0.4	0.2 - 0.6	49	0.73	0.06	8.3	0.7	0.5 - 1.0
ABX Diagnostics Pentra 80 / XL 80	11	0.42	0.06	14.4	0.4	0.2 - 0.6	11	0.70	0.06	9.0	0.7	0.5 - 0.9
COULTER AcT 5diff (version 2.01)	39	7.77	0.98	12.6	7.9	4.8 - 10.8	38	13.89	0.81	5.8	13.9	11.4 - 16.4
	Specimen BCX-13						Specimen BCX-14					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	102	1.51	1.66	109.4	0.2	0.0 - 6.5	102	2.23	2.44	109.2	0.3	0.0 - 9.6
All ABX Instruments	61	0.20	0.01	0.0	0.2	0.1 - 0.3	61	0.29	0.04	12.5	0.3	0.1 - 0.4
All COULTER Instruments	39	3.55	0.34	9.6	3.6	2.5 - 4.6	39	5.24	0.17	3.3	5.2	4.7 - 5.8
ABX Diagnostics Pentra 60C+ (version 2.21 and up)	49	0.20	0.01	0.0	0.2	0.1 - 0.3	49	0.29	0.03	11.5	0.3	0.1 - 0.4
ABX Diagnostics Pentra 80 / XL 80	11	0.20	0.01	0.0	0.2	0.1 - 0.3	11	0.27	0.05	17.1	0.3	0.1 - 0.5
COULTER AcT 5diff (version 2.01)	39	3.55	0.34	9.6	3.6	2.5 - 4.6	39	5.24	0.17	3.3	5.2	4.7 - 5.8
	Specimen BCX-15											
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>						
All Method	102	1.99	2.22	111.2	0.3	0.0 - 8.7						
All ABX Instruments	61	0.22	0.04	19.3	0.2	0.0 - 0.4						
All COULTER Instruments	39	4.73	0.19	4.1	4.8	4.1 - 5.4						
ABX Diagnostics Pentra 60C+ (version 2.21 and up)	49	0.22	0.04	17.9	0.2	0.1 - 0.4						
ABX Diagnostics Pentra 80 / XL 80	11	0.25	0.05	21.3	0.2	0.0 - 0.5						
COULTER AcT 5diff (version 2.01)	39	4.73	0.19	4.1	4.8	4.1 - 5.4						

HEMATOLOGY W/ 5-PART DIFFERENTIAL–WHITE BLOOD CELL COUNT (x 10⁹/L)

Specimen MX-11							Specimen MX-12					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	45	3.78	0.14	3.6	3.8	3.2 - 4.4	45	7.07	0.55	7.7	7.1	6.0 - 8.2
All Sysmex XE/XT Instruments	14	3.74	0.16	4.3	3.7	3.1 - 4.3	14	7.45	0.28	3.8	7.5	6.3 - 8.6
All Sysmex XN/XS Instruments	30	3.80	0.12	3.3	3.8	3.2 - 4.4	30	6.88	0.55	8.0	6.6	5.8 - 8.0
Sysmex XS-1000i	26	3.83	0.11	2.9	3.8	3.2 - 4.5	26	6.83	0.58	8.5	6.5	5.8 - 7.9
Specimen MX-13							Specimen MX-14					
All Method	45	22.94	1.02	4.4	22.9	19.4 - 26.4	45	3.77	0.13	3.4	3.8	3.2 - 4.4
All Sysmex XE/XT Instruments	14	22.26	0.90	4.1	22.0	18.9 - 25.7	14	3.71	0.15	4.1	3.7	3.1 - 4.3
All Sysmex XN/XS Instruments	30	23.21	0.92	4.0	23.1	19.7 - 26.7	30	3.80	0.11	3.0	3.8	3.2 - 4.4
Sysmex XS-1000i	26	23.28	0.97	4.2	23.1	19.7 - 26.8	26	3.82	0.10	2.7	3.8	3.2 - 4.4
Specimen MX-15												
All Method	45	7.12	0.51	7.2	7.2	6.0 - 8.2						
All Sysmex XE/XT Instruments	14	7.39	0.27	3.7	7.4	6.2 - 8.6						
All Sysmex XN/XS Instruments	30	6.98	0.55	7.9	6.8	5.9 - 8.1						
Sysmex XS-1000i	26	6.94	0.59	8.5	6.7	5.8 - 8.0						

HEMATOLOGY W/ 5-PART DIFFERENTIAL–RED BLOOD CELL COUNT (x 10¹²/L)

Specimen MX-11							Specimen MX-12					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	45	2.390	0.048	2.0	2.39	2.24 - 2.54	45	4.616	0.052	1.1	4.61	4.33 - 4.90
All Sysmex XE/XT Instruments	14	2.432	0.050	2.0	2.42	2.28 - 2.58	14	4.651	0.054	1.2	4.64	4.37 - 4.94
All Sysmex XN/XS Instruments	30	2.370	0.033	1.4	2.37	2.22 - 2.52	30	4.601	0.044	1.0	4.60	4.32 - 4.88
Sysmex XS-1000i	26	2.372	0.033	1.4	2.38	2.22 - 2.52	26	4.604	0.045	1.0	4.61	4.32 - 4.89
Specimen MX-13							Specimen MX-14					
All Method	44	6.391	0.079	1.2	6.40	6.00 - 6.78	45	2.397	0.049	2.0	2.39	2.25 - 2.55
All Sysmex XE/XT Instruments	14	6.374	0.136	2.1	6.31	5.99 - 6.76	14	2.454	0.038	1.6	2.45	2.30 - 2.61
All Sysmex XN/XS Instruments	30	6.408	0.056	0.9	6.41	6.02 - 6.80	30	2.372	0.027	1.1	2.37	2.22 - 2.52
Sysmex XS-1000i	26	6.407	0.056	0.9	6.41	6.02 - 6.80	26	2.373	0.027	1.2	2.37	2.23 - 2.52
Specimen MX-15												
All Method	45	4.612	0.054	1.2	4.60	4.33 - 4.89						
All Sysmex XE/XT Instruments	14	4.641	0.065	1.4	4.62	4.36 - 4.92						
All Sysmex XN/XS Instruments	30	4.599	0.044	1.0	4.60	4.32 - 4.88						
Sysmex XS-1000i	26	4.599	0.044	1.0	4.60	4.32 - 4.88						

HEMATOLOGY W/ 5-PART DIFFERENTIAL–HEMOGLOBIN (g/dL)

Specimen MX-11							Specimen MX-12					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	44	5.91	0.08	1.3	5.9	5.4 - 6.4	45	13.37	0.12	0.9	13.4	12.4 - 14.4
All Sysmex XE/XT Instruments	13	5.98	0.06	1.0	6.0	5.5 - 6.4	14	13.42	0.11	0.8	13.4	12.4 - 14.4
All Sysmex XN/XS Instruments	30	5.88	0.06	1.1	5.9	5.4 - 6.3	30	13.35	0.13	0.9	13.4	12.4 - 14.3
Sysmex XS-1000i	26	5.88	0.07	1.1	5.9	5.4 - 6.3	26	13.37	0.12	0.9	13.4	12.4 - 14.4
Specimen MX-13							Specimen MX-14					
All Method	45	20.08	0.25	1.2	20.1	18.6 - 21.5	45	5.92	0.08	1.3	5.9	5.5 - 6.4
All Sysmex XE/XT Instruments	14	19.95	0.27	1.4	20.0	18.5 - 21.4	14	5.92	0.09	1.5	5.9	5.5 - 6.4
All Sysmex XN/XS Instruments	30	20.14	0.22	1.1	20.1	18.7 - 21.6	30	5.91	0.08	1.3	5.9	5.4 - 6.4
Sysmex XS-1000i	26	20.18	0.20	1.0	20.2	18.7 - 21.6	26	5.91	0.08	1.3	5.9	5.4 - 6.4
Specimen MX-15												
All Method	44	13.38	0.11	0.8	13.4	12.4 - 14.4						
All Sysmex XE/XT Instruments	14	13.42	0.10	0.7	13.4	12.4 - 14.4						
All Sysmex XN/XS Instruments	30	13.35	0.13	1.0	13.4	12.4 - 14.3						
Sysmex XS-1000i	26	13.36	0.12	0.9	13.4	12.4 - 14.3						

HEMATOLOGY W/ 5-PART DIFFERENTIAL – HEMATOCRIT (percent)

Specimen MX-11							Specimen MX-12					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	45	18.30	0.40	2.2	18.3	17.2 - 19.4	45	40.17	0.71	1.8	40.4	37.7 - 42.6
All Sysmex XE/XT Instruments	14	18.44	0.45	2.5	18.5	17.3 - 19.6	14	40.20	0.70	1.7	40.4	37.7 - 42.7
All Sysmex XN/XS Instruments	30	18.22	0.36	2.0	18.3	17.1 - 19.4	30	40.16	0.73	1.8	40.4	37.7 - 42.6
Sysmex XS-1000i	26	18.31	0.28	1.5	18.3	17.2 - 19.5	26	40.30	0.64	1.6	40.5	37.8 - 42.8
Specimen MX-13							Specimen MX-14					
All Method	45	59.84	1.23	2.1	60.1	56.2 - 63.5	45	18.24	0.37	2.0	18.2	17.1 - 19.4
All Sysmex XE/XT Instruments	14	59.64	1.31	2.2	59.7	56.0 - 63.3	14	18.49	0.36	2.0	18.6	17.3 - 19.7
All Sysmex XN/XS Instruments	30	59.95	1.22	2.0	60.4	56.3 - 63.6	30	18.13	0.33	1.8	18.1	17.0 - 19.3
Sysmex XS-1000i	26	60.07	1.22	2.0	60.5	56.4 - 63.7	26	18.20	0.27	1.5	18.2	17.1 - 19.3
Specimen MX-15												
All Method	45	40.02	0.67	1.7	40.1	37.6 - 42.5						
All Sysmex XE/XT Instruments	14	40.01	0.67	1.7	39.8	37.6 - 42.5						
All Sysmex XN/XS Instruments	30	40.03	0.69	1.7	40.3	37.6 - 42.5						
Sysmex XS-1000i	26	40.13	0.64	1.6	40.4	37.7 - 42.6						

HEMATOLOGY W/ 5-PART DIFFERENTIAL–PLATELET COUNT (x 10⁹/L)

Specimen MX-11							Specimen MX-12					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	45	61.4	5.1	8.4	62	46 - 77	45	232.5	12.1	5.2	234	174 - 291
All Sysmex XE/XT Instruments	14	62.9	6.0	9.5	65	47 - 79	14	230.1	16.8	7.3	237	172 - 288
All Sysmex XN/XS Instruments	30	60.8	4.7	7.7	61	45 - 76	29	232.4	8.0	3.4	232	174 - 291
Sysmex XS-1000i	26	61.6	4.4	7.2	62	46 - 78	26	234.0	9.9	4.2	232	175 - 293
Specimen MX-13							Specimen MX-14					
All Method	45	431.2	19.8	4.6	434	323 - 539	45	61.2	5.5	9.0	61	45 - 77
All Sysmex XE/XT Instruments	14	418.3	18.9	4.5	416	313 - 523	14	63.3	7.4	11.7	63	47 - 80
All Sysmex XN/XS Instruments	30	436.7	17.8	4.1	436	327 - 546	30	60.4	4.3	7.1	61	45 - 76
Sysmex XS-1000i	26	434.5	18.0	4.1	434	325 - 544	26	60.8	4.2	6.9	61	45 - 77
Specimen MX-15												
All Method	45	232.8	12.6	5.4	234	174 - 291						
All Sysmex XE/XT Instruments	14	232.5	20.0	8.6	241	174 - 291						
All Sysmex XN/XS Instruments	30	233.1	7.9	3.4	233	174 - 292						
Sysmex XS-1000i	26	234.3	7.8	3.3	234	175 - 293						

HEMATOLOGY W/ 5-PART DIFFERENTIAL – NEUTROPHILS (percent)

Specimen MX-11							Specimen MX-12					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	44	62.40	3.35	5.4	60.8	52.3 - 72.5	44	48.85	4.72	9.7	48.1	34.6 - 63.0
All Sysmex XE/XT Instruments	13	66.78	2.27	3.4	67.0	59.9 - 73.6	13	53.86	3.02	5.6	55.1	44.8 - 63.0
All Sysmex XN/XS Instruments	28	60.26	0.97	1.6	60.4	57.3 - 63.2	30	46.60	3.54	7.6	45.0	35.9 - 57.3
Sysmex XS-1000i	25	60.34	1.25	2.1	59.9	56.5 - 64.1	26	46.48	3.72	8.0	44.8	35.3 - 57.7
Specimen MX-13							Specimen MX-14					
All Method	43	59.08	5.41	9.2	56.2	42.8 - 75.4	44	62.29	3.21	5.2	61.0	52.6 - 72.0
All Sysmex XE/XT Instruments	13	60.86	3.35	5.5	62.4	50.8 - 71.0	13	66.38	2.40	3.6	66.6	59.1 - 73.6
All Sysmex XN/XS Instruments	29	57.97	5.78	10.0	55.7	40.6 - 75.4	30	60.59	1.50	2.5	60.3	56.0 - 65.1
Sysmex XS-1000i	25	58.35	6.14	10.5	55.7	39.9 - 76.8	26	60.58	1.52	2.5	60.3	56.0 - 65.2
Specimen MX-15												
All Method	43	48.97	4.34	8.9	48.8	35.9 - 62.1						
All Sysmex XE/XT Instruments	12	53.82	2.18	4.1	54.6	47.2 - 60.4						
All Sysmex XN/XS Instruments	30	46.96	3.39	7.2	45.5	36.7 - 57.2						
Sysmex XS-1000i	26	46.90	3.54	7.6	45.5	36.2 - 57.6						

HEMATOLOGY W/ 5-PART DIFFERENTIAL – LYMPHOCYTES (percent)

Specimen MX-11							Specimen MX-12					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	44	14.75	2.93	19.8	14.7	5.9 - 23.6	44	31.29	5.40	17.3	33.6	15.0 - 47.6
All Sysmex XE/XT Instruments	13	16.82	2.77	16.4	16.3	8.5 - 25.2	13	30.68	4.03	13.1	29.0	18.5 - 42.8
All Sysmex XN/XS Instruments	30	13.97	2.56	18.4	14.1	6.2 - 21.7	30	31.85	5.78	18.2	34.8	14.5 - 49.2
Sysmex XS-1000i	26	13.25	1.86	14.1	14.0	7.6 - 18.9	26	31.65	6.10	19.3	34.9	13.3 - 50.0
Specimen MX-13							Specimen MX-14					
All Method	43	21.64	3.28	15.1	21.3	11.8 - 31.5	44	14.73	2.94	20.0	14.4	5.9 - 23.6
All Sysmex XE/XT Instruments	13	23.70	3.70	15.6	21.3	12.5 - 34.9	13	16.87	2.95	17.5	16.3	8.0 - 25.8
All Sysmex XN/XS Instruments	29	20.88	2.61	12.5	21.4	13.0 - 28.8	30	13.91	2.48	17.8	14.2	6.4 - 21.4
Sysmex XS-1000i	25	20.38	2.38	11.7	21.2	13.2 - 27.6	26	13.25	1.89	14.2	14.0	7.5 - 19.0
Specimen MX-15												
All Method	43	31.39	5.02	16.0	33.1	16.3 - 46.5						
All Sysmex XE/XT Instruments	13	29.17	7.10	24.3	29.1	7.8 - 50.5						
All Sysmex XN/XS Instruments	30	31.88	5.36	16.8	34.8	15.8 - 48.0						
Sysmex XS-1000i	26	31.71	5.60	17.6	34.9	14.9 - 48.5						

HEMATOLOGY W/ 5-PART DIFFERENTIAL – MONOCYTES (percent)

Specimen MX-11							Specimen MX-12					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	42	1.05	0.80	76.7	0.8	0.0 - 3.5	42	2.64	2.04	77.2	1.9	0.0 - 8.8
All Sysmex XE/XT Instruments	13	1.05	0.41	38.8	1.1	0.0 - 2.3	13	2.72	1.16	42.7	3.0	0.0 - 6.2
All Sysmex XN/XS Instruments	28	0.98	0.88	89.8	0.8	0.0 - 3.7	28	2.44	2.21	90.6	1.5	0.0 - 9.1
Sysmex XS-1000i	24	1.08	0.91	83.8	0.8	0.0 - 3.9	24	2.50	2.37	94.7	1.5	0.0 - 9.7
Specimen MX-13							Specimen MX-14					
All Method	42	1.71	1.24	72.2	1.4	0.0 - 5.5	43	1.22	0.94	77.4	0.8	0.0 - 4.1
All Sysmex XE/XT Instruments	13	2.24	0.68	30.4	2.3	0.1 - 4.3	13	1.29	0.49	38.1	1.3	0.0 - 2.8
All Sysmex XN/XS Instruments	28	1.39	1.30	93.4	0.8	0.0 - 5.3	29	1.12	1.04	92.9	0.8	0.0 - 4.3
Sysmex XS-1000i	24	1.35	1.36	100.5	0.7	0.0 - 5.5	25	1.24	1.07	86.2	0.8	0.0 - 4.5
Specimen MX-15												
All Method	43	2.74	2.05	74.9	1.6	0.0 - 8.9						
All Sysmex XE/XT Instruments	13	2.95	1.62	54.9	2.9	0.0 - 7.9						
All Sysmex XN/XS Instruments	29	2.52	2.16	85.7	1.4	0.0 - 9.1						
Sysmex XS-1000i	25	2.56	2.30	89.8	1.4	0.0 - 9.5						

HEMATOLOGY W/ 5-PART DIFFERENTIAL – EOSINOPHILS (percent)

Specimen MX-11							Specimen MX-12					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	44	17.14	3.42	19.9	15.9	6.8 - 27.4	44	13.27	2.64	19.9	12.3	5.3 - 21.2
All Sysmex XE/XT Instruments	13	15.35	0.76	4.9	15.3	13.0 - 17.7	13	12.61	0.48	3.8	12.7	11.1 - 14.1
All Sysmex XN/XS Instruments	30	17.63	3.61	20.5	15.9	6.8 - 28.5	30	13.36	2.98	22.3	12.1	4.4 - 22.4
Sysmex XS-1000i	26	17.96	3.77	21.0	16.0	6.6 - 29.3	26	13.48	3.19	23.7	11.9	3.9 - 23.1
Specimen MX-13							Specimen MX-14					
All Method	41	13.37	1.33	10.0	13.6	9.3 - 17.4	44	17.16	3.45	20.1	15.8	6.8 - 27.6
All Sysmex XE/XT Instruments	13	13.20	0.72	5.5	13.1	11.0 - 15.4	13	15.45	0.59	3.8	15.6	13.6 - 17.3
All Sysmex XN/XS Instruments	27	13.56	1.46	10.8	14.0	9.1 - 18.0	30	17.64	3.72	21.1	16.0	6.4 - 28.9
Sysmex XS-1000i	23	13.49	1.56	11.6	14.0	8.7 - 18.2	26	17.89	3.95	22.1	16.0	6.0 - 29.8
Specimen MX-15												
All Method	44	13.52	2.63	19.4	12.4	5.6 - 21.5						
All Sysmex XE/XT Instruments	13	13.06	1.41	10.8	13.2	8.8 - 17.3						
All Sysmex XN/XS Instruments	30	13.50	2.81	20.8	12.3	5.0 - 22.0						
Sysmex XS-1000i	26	13.64	2.98	21.9	12.3	4.6 - 22.6						

HEMATOLOGY W/ 5-PART DIFFERENTIAL – BASOPHILS (percent)

Specimen MX-11							Specimen MX-12					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	12	85.44	0.96	1.1	9.5	82.5 - 88.4	13	70.58	1.35	1.9	7.5	66.5 - 74.7
All Sysmex XE/XT Instruments	12	85.44	0.96	1.1	85.6	82.5 - 88.4	13	70.58	1.35	1.9	70.9	66.5 - 74.7
All Sysmex XN/XS Instruments	28	7.03	3.70	52.6	8.9	0.0 - 18.2	30	5.34	3.14	58.8	6.8	0.0 - 14.8
Sysmex XS-1000i	24	7.40	3.88	52.4	9.2	0.0 - 19.1	26	5.42	3.37	62.3	7.1	0.0 - 15.6
Specimen MX-13							Specimen MX-14					
All Method	13	82.42	2.11	2.6	8.3	76.0 - 88.8	13	85.86	0.82	1.0	9.6	83.4 - 88.4
All Sysmex XE/XT Instruments	13	82.42	2.11	2.6	83.1	76.0 - 88.8	13	85.86	0.82	1.0	86.2	83.4 - 88.4
All Sysmex XN/XS Instruments	29	6.39	3.20	50.0	8.1	0.0 - 16.0	29	6.87	3.90	56.8	8.8	0.0 - 18.6
Sysmex XS-1000i	25	6.64	3.38	51.0	8.2	0.0 - 16.8	25	7.19	4.11	57.2	9.0	0.0 - 19.6
Specimen MX-15												
All Method	13	70.27	1.33	1.9	6.9	66.2 - 74.3						
All Sysmex XE/XT Instruments	13	70.27	1.33	1.9	70.1	66.2 - 74.3						
All Sysmex XN/XS Instruments	29	5.17	2.76	53.4	6.5	0.0 - 13.5						
Sysmex XS-1000i	25	5.22	2.97	56.9	6.6	0.0 - 14.2						

2015 M3
BLOOD CELL IDENTIFICATION
Specimens BC-13 through BC-18

Case history:

An 11 year old male with a chronic disease presented to a children's hospital emergency department with his mother. The child had a very painful erection of the penis having lasted more than two hours. Upon physical examination, the patient appeared thin and small for his age, and had mild scleral icterus. A Complete Blood Count was performed, and significant results appear below.

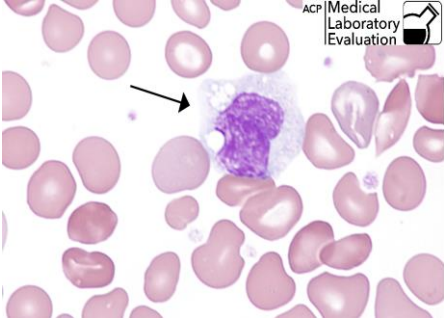
Test	Results	Normal Range
WBC	$16.6 \times 10^9/\text{L}$	$4 - 14 \times 10^9/\text{L}$
RBC	$2.85 \times 10^{12}/\text{L}$	$4.0 - 5.4 \times 10^{12}/\text{L}$
Hgb	8.6 g/dL	12 - 15 g/dL
Hct	26.4 %	35 - 49 %
Plt	$425 \times 10^9/\text{L}$	$150 - 400 \times 10^9/\text{L}$
MCV	92 fL	80 - 94 fL
MCH	30 pg	26 - 32 pg
MCHC	33 g/dL	32 - 36 g/dL
RDW	21 %	11 - 14.5 %
Reticulocyte Count	11 %	0.5 - 1.5 %

This patient was previously diagnosed with sickle cell disease. Some males born with sickle cell disease can suffer from painful, persistent erections beginning in early childhood. If left untreated for more than a few hours, this condition, called *priapism*, can cause permanent tissue damage and impotence. Priapism is just one of many potentially serious complications of sickle cell disease (SCD), a group of inherited disorders of hemoglobin production. Hemoglobin is the red-colored substance in the blood that carries oxygen to the tissues throughout the body. In SCD, abnormal hemoglobin molecules cause some of the red blood cells to deform and change from their normal, flexible, biconcave disc shape to a rigid crescent or "sickle" shape. Chronic hemolytic anemia results from shortened survival of the abnormal red cells. Sickle cells cause extremely painful blockages in small blood vessels, resulting in tissue and organ damage throughout the body. Recurrent severely painful episodes are referred to as *crises*.

The severity of each patient's disease can vary widely depending upon their genotype. Persons who are heterozygous for hemoglobin S (inheriting only one sickle cell gene) have "sickle cell trait," and are generally asymptomatic and have normal blood morphology. Patients who are homozygous for hemoglobin S (inheriting sickle cell genes from both parents) have the most severe disease, with complications such as strokes, debilitating pain, infections, kidney damage, blindness, gallstones, and multiple organ failure. Common variants of sickle cell disease include hemoglobin SS disease, hemoglobin SC disease, and the sickle beta-thalassemias. Although sickle cell anemia is found mostly in persons of African descent, sickle cell disease and its variants occur in many races and nationalities. The patient's race should not be used to rule out the diagnosis.

BLOOD CELL IDENTIFICATION

Specimen BC-13

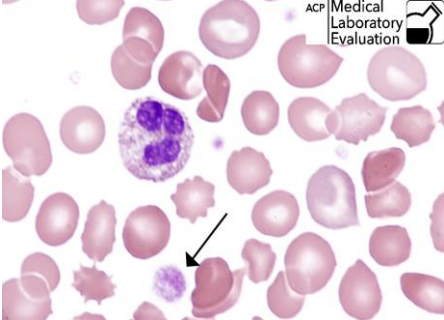


The arrow in this photograph points to a **monocyte**. The nucleus is indented and the nuclear chromatin is lacy with small clumps. The cytoplasm is abundant, pale gray-blue, and filled with swirls of minute granules that produce a cloudy, turbid, or “ground glass” appearance. The typical monocyte has an irregular cytoplasmic membrane, numerous cytoplasmic vacuoles, and pseudopods reaching out to push away adjacent red blood cells. To view another photo of a monocyte, see 2014 M2 Specimen BC-7.

<u>Identification</u>	<u>Labs</u>	<u>Percent</u>	<u>Performance</u>
Monocyte	217	99.09%	Acceptable

BLOOD CELL IDENTIFICATION

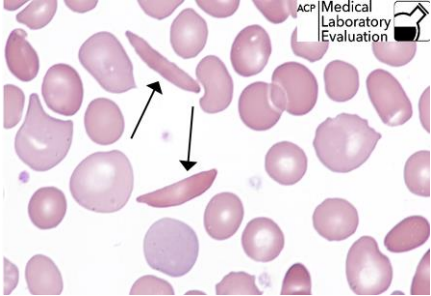
Specimen BC-14



The arrow in this photograph points to a **giant platelet**. This abnormally large platelet is nearly as large as some of the red blood cells surrounding it, and is more than five times larger than the other (normal size) platelet in the field. Although the size is abnormally large, giant platelets have normal morphology. Platelets with abnormal morphology can be seen in malignant conditions or inherited disorders, however, occasional giant platelets are not clinically significant. To view another photo of a giant platelet, see 2012 M3 Specimen BC-18.

<u>Identification</u>	<u>Labs</u>	<u>Percent</u>	<u>Performance</u>
Platelet, giant	201	91.78%	Acceptable
Platelet, abnormal morphology	10	4.57%	
Platelet, normal	8	3.65%	

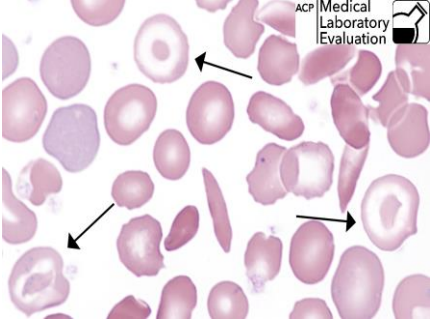
Specimen BC-15



The arrows in this photograph point to sickle cells. The characteristic sickle cell is long, curved, and pointed at both ends. These erythrocytes containing hemoglobin S were once normal in shape but have become distorted. The peripheral smear morphology typically shows marked poikilocytosis, anisocytosis, and polychromasia. To view another photo of sickle cells, see 2010 M1 Specimen BC-3.

<u>Identification</u>	<u>Labs</u>	<u>Percent</u>	<u>Performance</u>
Sickle cell	206	94.06%	Acceptable
Ovalocyte	9	4.11%	

Specimen BC-16

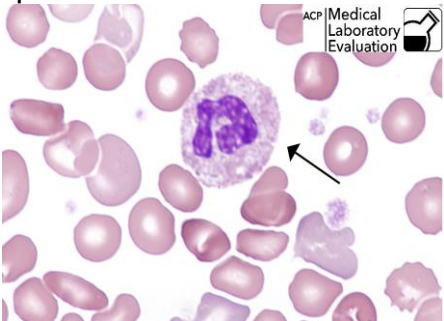


The arrows in this photograph point to **target cells**, also called codocytes. These cells have a bull's-eye appearance due to the dark center and periphery, and clear ring in between. They are frequently seen in iron deficiency and liver disease. To view another photo of target cells, see 2011 M3 Specimen BC-15.

<u>Identification</u>	<u>Labs</u>	<u>Percent</u>	<u>Performance</u>
Target cell	218	99.54%	Acceptable

BLOOD CELL IDENTIFICATION

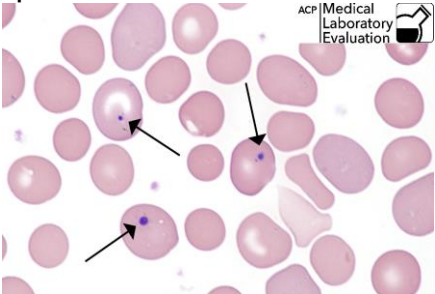
Specimen BC-17



Identification	Labs	Percent	Performance
Neutrophil-Segmented or band	207	94.52%	Acceptable
Neutrophil-seg/band w/toxic granulation	12	5.48%	

The arrow in this photograph points to a **band neutrophil**, sometimes called a stab. The nucleus is indented more than 50% of its width, resulting in a C- or horseshoe-shaped nucleus with chromatin visible between the parallel sides. This cell does not display any toxic granulation (presence of dark purple or black granules in the cytoplasm.) To view another photo of a band, see 2013 M1 Specimen BC-1.

Specimen BC-18



Identification	Labs	Percent	Performance
Howell-Jolly body	185	84.86%	Not graded – Educational Challenge
Immature/abnormal cell – refer	18	8.26%	
Pappenheimer body	11	5.05%	
Reticulocyte	3	1.38%	
Erythrocyte w/overlay platelet	1	0.46%	

The arrows in this ungraded educational challenge point to erythrocytes containing **Howell-Jolly bodies**. Howell-Jolly bodies are very small, round, dense, blue inclusion bodies. They are remnants of nuclear chromatin normally removed by the spleen, but patients with sickle cell disease usually have damaged, nonfunctional spleens that are unable to remove this cellular debris. Howell-Jolly bodies are common in hemolytic and megaloblastic anemias. Heinz bodies are not visible in Wright’s stained preparations. To view another photo of Howell-Jolly bodies, see 2008 M3 Specimen BC-18.

References:

Rodak, B. F.: *Hematology: Clinical Principles and Applications*. 3rd ed. W. B. Saunders, Philadelphia, 2007.

Schrier, S. L. “Hemoglobinopathies and Hemolytic Anemias.” *ACP Medicine*. Ed. D. C. Dale. New York: WebMD, Inc., 2004. 1096-1099.

“What Is Sickle Cell Anemia?” National Heart, Lung, and Blood Institute, National Institutes of Health, 28 Sept. 2012. Web. Accessed 08 May 2015. Available at: <http://www.nhlbi.nih.gov/health/health-topics/topics/sca>

BLOOD BANK

ABO GROUP

<u>Specimen</u>	<u>Results</u>	<u>Labs</u>	<u>Percent</u>	<u>Performance</u>
BB-11	Group O	9	100%	Acceptable
BB-12	Group A	9	100%	Acceptable
BB-13	Group B	9	100%	Acceptable
BB-14	Group O	9	100%	Acceptable
BB-15	Group A	9	100%	Acceptable

RH FACTOR (D TYPE)

<u>Specimen</u>	<u>Results</u>	<u>Labs</u>	<u>Percent</u>	<u>Performance</u>
BB-11	Rh Negative	14	100%	Acceptable
BB-12	Rh Positive	14	100%	Acceptable
BB-13	Rh Positive	13	92.86%	Acceptable
	Rh Negative	1	7.14%	
BB-14	Rh Positive	14	100%	Acceptable
BB-15	Rh Negative	14	100%	Acceptable

Specimen BB-13 was graded by 100% referee consensus.

UNEXPECTED ANTIBODY DETECTION

<u>Specimen</u>	<u>Results</u>	<u>Labs</u>	<u>Percent</u>	<u>Performance</u>
AB-11	No unexpected antibody detected	9	100%	Acceptable
AB-12	No unexpected antibody detected	9	100%	Acceptable
AB-13	Unexpected antibody detected	9	100%	Acceptable
AB-14	No unexpected antibody detected	9	100%	Acceptable
AB-15	Unexpected antibody detected	9	100%	Acceptable

BLOOD BANK

ANTIBODY IDENTIFICATION

<u>Specimen</u>	<u>Results</u>	<u>Labs</u>	<u>Percent</u>	<u>Performance</u>
AB-11	No antibody detected	1	100%	Acceptable
AB-12	No antibody detected	1	100%	Acceptable
AB-13	Anti-E	1	100%	Acceptable
AB-14	No antibody detected	1	100%	Acceptable
AB-10	Anti-D	1	100%	Acceptable

COMPATIBILITY TESTING

<u>Specimen</u>	<u>Results</u>	<u>Labs</u>	<u>Percent</u>	<u>Performance</u>
AB-11	Compatible	5	100%	Acceptable
AB-12	Compatible	5	100%	Acceptable
AB-13	Compatible	5	100%	Acceptable
AB-14	Compatible	5	100%	Acceptable
AB-15	Not Compatible	5	100%	Acceptable

PROTHROMBIN TIME (seconds)

Specimen CG-11							Specimen CG-12					
<u>Reagent/Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	54	25.39	3.43	13.5	25.2	21.5 - 29.2	54	42.57	7.71	18.1	42.5	36.1 - 49.0
Dade Innovin												
Dade Behring BFT II	5	25.78	2.05	7.9	25.5	21.9 - 29.7	5	44.98	3.85	8.6	44.3	38.2 - 51.8
Sysmex CA-500/600 series	26	25.29	0.89	3.5	25.2	21.4 - 29.1	26	42.64	1.77	4.1	42.5	36.2 - 49.1
All Coagulation Instruments	33	25.45	1.17	4.6	25.4	21.6 - 29.3	34	43.51	2.96	6.8	42.7	36.9 - 50.1
HemosIL RecombiPlasTin 2G												
IL ACL, all models	5	31.06	0.95	3.1	31.0	26.4 - 35.8	5	53.68	1.95	3.6	54.0	45.6 - 61.8
IL TEST PT Fibrinogen												
IL ACL, all models	9	20.89	0.67	3.2	21.0	17.7 - 24.1	9	31.33	1.23	3.9	31.7	26.6 - 36.1
Specimen CG-13							Specimen CG-14					
All Method	53	10.71	0.78	7.3	10.6	9.0 - 12.4	54	11.25	0.96	8.6	11.1	9.5 - 13.0
Dade Innovin												
Dade Behring BFT II	5	9.26	0.58	6.2	9.2	7.8 - 10.7	5	9.46	0.74	7.8	9.3	8.0 - 10.9
Sysmex CA-500/600 series	26	10.47	0.30	2.8	10.4	8.8 - 12.1	27	10.98	0.28	2.5	10.9	9.3 - 12.7
All Coagulation Instruments	33	10.26	0.56	5.4	10.3	8.7 - 11.8	34	10.71	0.67	6.3	10.9	9.0 - 12.4
HemosIL RecombiPlasTin 2G												
IL ACL, all models	5	11.22	0.30	2.7	11.2	9.5 - 13.0	5	12.44	0.23	1.9	12.4	10.5 - 14.4
IL TEST PT Fibrinogen												
IL ACL, all models	9	11.36	0.36	3.2	11.4	9.6 - 13.1	9	11.74	0.21	1.8	11.7	9.9 - 13.6
Specimen CG-15												
All Method	53	12.59	0.67	5.3	12.6	10.7 - 14.5						
Dade Innovin												
Dade Behring BFT II	5	11.58	0.55	4.8	11.6	9.8 - 13.4						
Sysmex CA-500/600 series	27	12.59	0.39	3.1	12.6	10.6 - 14.5						
All Coagulation Instruments	34	12.37	0.59	4.7	12.5	10.5 - 14.3						
HemosIL RecombiPlasTin 2G												
IL ACL, all models	5	12.24	0.36	3.0	12.4	10.4 - 14.1						
IL TEST PT Fibrinogen												
IL ACL, all models	9	13.31	0.32	2.4	13.3	11.3 - 15.4						

PROTHROMBIN TIME–INTERNATIONAL NORMALIZED RATIO (INR)

Specimen CG-11							Specimen CG-12					
<u>Reagent/Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	55	2.66	0.33	12.2	2.5	2.1 - 3.2	54	4.79	1.08	22.6	4.3	3.8 - 5.8
Dade Innovin												
Dade Behring BFT II	5	2.46	0.15	6.2	2.4	1.9 - 3.0	5	3.94	0.28	7.1	3.8	3.1 - 4.8
Sysmex CA-500/600 series	27	2.44	0.12	5.0	2.4	1.9 - 3.0	27	4.09	0.25	6.1	4.0	3.2 - 5.0
All Coagulation Instruments	34	2.45	0.12	5.0	2.5	1.9 - 3.0	34	4.07	0.25	6.2	4.0	3.2 - 4.9
HemosIL RecombiPlasTin 2G												
IL ACL, all models	5	2.92	0.13	4.5	2.9	2.3 - 3.6	5	5.20	0.25	4.9	5.2	4.1 - 6.3
IL TEST PT Fibrinogen												
IL ACL, all models	9	2.89	0.27	9.2	2.9	2.3 - 3.5	9	5.88	0.58	9.9	5.8	4.7 - 7.1
PH/CMS Thromboplastin-D												
All Coagulation Instruments	4	3.33	0.51	15.4	3.3	2.6 - 4.0	4	8.38	1.39	16.6	8.3	6.7 - 10.1
Specimen CG-13							Specimen CG-14					
All Method	55	1.01	0.07	6.5	1.0	0.8 - 1.3	56	1.07	0.07	6.1	1.1	0.8 - 1.3
Dade Innovin												
Dade Behring BFT II	5	1.02	0.04	4.4	1.0	0.8 - 1.3	5	1.06	0.05	5.2	1.1	0.8 - 1.3
Sysmex CA-500/600 series	26	1.02	0.07	6.9	1.0	0.8 - 1.3	27	1.07	0.05	5.1	1.1	0.8 - 1.3
All Coagulation Instruments	33	1.03	0.07	6.6	1.0	0.8 - 1.3	34	1.07	0.05	4.9	1.1	0.8 - 1.3
HemosIL RecombiPlasTin 2G												
IL ACL, all models	5	1.02	0.04	4.4	1.0	0.8 - 1.3	5	1.14	0.05	4.8	1.1	0.9 - 1.4
IL TEST PT Fibrinogen												
IL ACL, all models	9	0.99	0.06	6.1	1.0	0.7 - 1.2	9	1.02	0.07	6.5	1.0	0.8 - 1.3
PH/CMS Thromboplastin-D												
All Coagulation Instruments	4	1.00	0.01	0.0	1.0	0.8 - 1.2	4	1.15	0.06	5.0	1.2	0.9 - 1.4
Specimen CG-15												
All Method	56	1.22	0.09	7.8	1.2	0.9 - 1.5						
Dade Innovin												
Dade Behring BFT II	5	1.28	0.04	3.5	1.3	1.0 - 1.6						
Sysmex CA-500/600 series	27	1.21	0.08	6.2	1.2	0.9 - 1.5						
All Coagulation Instruments	34	1.22	0.07	6.0	1.2	0.9 - 1.5						
HemosIL RecombiPlasTin 2G												
IL ACL, all models	5	1.14	0.05	4.8	1.1	0.9 - 1.4						
IL TEST PT Fibrinogen												
IL ACL, all models	9	1.28	0.07	5.2	1.3	1.0 - 1.6						
PH/CMS Thromboplastin-D												
All Coagulation Instruments	4	1.30	0.14	10.9	1.3	1.0 - 1.6						

ACTIVATED PARTIAL THROMBOPLASTIN (seconds)

Specimen CG-11							Specimen CG-12					
<u>Reagent/Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	23	51.0	7.0	13.7	48	43 - 59	22	73.9	8.9	12.0	71	62 - 85
Dade Actin FSL												
Sysmex CA-500/600 series	13	47.2	1.3	2.9	48	40 - 55	13	69.2	2.1	3.1	69	58 - 80
Hemoliance SynthASil												
IL ACL, all models	4	59.8	1.0	1.6	60	50 - 69	4	89.3	3.5	3.9	91	75 - 103
IL TEST APTT-SP												
IL ACL, all models	4	47.5	2.4	5.0	49	40 - 55	4	70.0	2.2	3.1	71	59 - 81
Specimen CG-13							Specimen CG-14					
All Method	23	26.5	3.0	11.4	25	22 - 31	21	30.8	0.9	3.0	31	26 - 36
Dade Actin FSL												
Sysmex CA-500/600 series	13	24.6	0.5	2.1	25	20 - 29	12	30.5	0.7	2.2	31	25 - 36
Hemoliance SynthASil												
IL ACL, all models	4	31.0	0.1	0.0	31	26 - 36	4	31.3	0.5	1.6	31	26 - 36
IL TEST APTT-SP												
IL ACL, all models	4	25.5	1.3	5.1	26	21 - 30	4	31.3	1.7	5.5	32	26 - 36
Specimen CG-15												
All Method	23	34.5	7.5	21.7	29	29 - 40						
Dade Actin FSL												
Sysmex CA-500/600 series	13	29.0	0.1	0.0	29	24 - 34						
Hemoliance SynthASil												
IL ACL, all models	4	47.0	1.2	2.5	47	39 - 55						
IL TEST APTT-SP												
IL ACL, all models	4	35.0	1.4	4.0	35	29 - 41						

Fibrinogen (mg/dL)

One participant reported Fibrinogen. The vendor assay values for specimens CG-11 through CG-15 are: 269 mg/dL, 262 mg/dL, 312 mg/dL, 566 mg/dL and 105 mg/dL respectively.

RH FACTOR (Slide Method)

<u>Specimen</u>	<u>Results</u>	<u>Labs</u>	<u>Percent</u>	<u>Performance</u>
RH-11	Rh Negative	5	100%	Acceptable
RH-12	Rh Positive	5	100%	Acceptable
RH-13	Rh Positive	5	100%	Acceptable
RH-14	Rh Positive	5	100%	Acceptable
RH-15	Rh Negative	5	100%	Acceptable

COAGUCHEK XS PLUS PROTHROMBIN TIME (seconds)

Specimen XS-11							Specimen XS-12					
<i><u>Instrument</u></i>	<i><u>Labs</u></i>	<i><u>Mean</u></i>	<i><u>SD</u></i>	<i><u>CV</u></i>	<i><u>Median</u></i>	<i><u>Range</u></i>	<i><u>Labs</u></i>	<i><u>Mean</u></i>	<i><u>SD</u></i>	<i><u>CV</u></i>	<i><u>Median</u></i>	<i><u>Range</u></i>
All Method	22	48.71	3.42	7.0	48.3	41.3 - 56.1	22	14.72	0.23	1.6	14.8	12.5 - 17.0
All Roche CoaguChek XS Plus Instruments	21	49.22	2.32	4.7	48.3	41.8 - 56.7	21	14.73	0.23	1.6	14.8	12.5 - 17.0
Roche CoaguChek XS Plus - Waived	11	49.59	2.61	5.3	49.1	42.1 - 57.1	11	14.72	0.28	1.9	14.8	12.5 - 17.0
Roche CoaguChek XS Plus	10	48.67	1.89	3.9	48.1	41.3 - 56.0	10	14.73	0.18	1.2	14.8	12.5 - 17.0
Specimen XS-13							Specimen XS-14					
All Method	13	47.05	5.13	10.9	48.5	39.9 - 54.2	13	33.35	1.56	4.7	33.9	28.3 - 38.4
All Roche CoaguChek XS Plus Instruments	12	46.68	5.25	11.3	48.1	39.6 - 53.7	12	33.29	1.63	4.9	33.9	28.2 - 38.3
Roche CoaguChek XS Plus - Waived	10	44.47	5.76	13.0	46.2	37.7 - 51.2	10	32.50	1.58	4.9	32.3	27.6 - 37.4
Specimen XS-15												
All Method	13	14.67	0.24	1.6	14.6	12.4 - 16.9						
All Roche CoaguChek XS Plus Instruments	12	14.68	0.25	1.7	14.7	12.4 - 16.9						
Roche CoaguChek XS Plus - Waived	10	14.68	0.22	1.5	14.7	12.4 - 16.9						

COAGUCHEK XS PLUS PROTHROMBIN TIME–INTERNATIONAL NORMALIZED RATIO (INR)

Specimen XS-11							Specimen XS-12					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	22	4.09	0.19	4.6	4.0	3.2 - 5.0	22	1.20	0.01	0.0	1.2	0.9 - 1.5
All Roche CoaguChek XS Plus Instruments	21	4.09	0.18	4.4	4.0	3.2 - 5.0	21	1.20	0.01	0.0	1.2	0.9 - 1.5
Roche CoaguChek XS Plus - Waived	11	4.10	0.19	4.6	4.1	3.2 - 5.0	11	1.20	0.01	0.0	1.2	0.9 - 1.5
Roche CoaguChek XS Plus	10	4.07	0.18	4.3	4.0	3.2 - 4.9	10	1.20	0.01	0.0	1.2	0.9 - 1.5
Specimen XS-13							Specimen XS-14					
All Method	13	3.94	0.39	10.0	4.1	3.1 - 4.8	13	2.76	0.12	4.2	2.8	2.2 - 3.4
All Roche CoaguChek XS Plus Instruments	12	3.92	0.40	10.3	4.0	3.1 - 4.8	12	2.76	0.12	4.3	2.8	2.2 - 3.4
Roche CoaguChek XS Plus - Waived	10	3.82	0.44	11.5	3.9	3.0 - 4.6	10	2.72	0.11	4.0	2.7	2.1 - 3.3
Specimen XS-15												
All Method	13	1.20	0.01	0.0	1.2	0.9 - 1.5						
All Roche CoaguChek XS Plus Instruments	12	1.20	0.01	0.0	1.2	0.9 - 1.5						
Roche CoaguChek XS Plus - Waived	10	1.20	0.01	0.0	1.2	0.9 - 1.5						

COAGUCHECK XS - INTERNATIONAL NORMALIZED RATIO (INR)

Specimen INX-5							Specimen INX-6					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
Roche CoaguChek XS	142	1.23	0.05	3.7	1.2	0.9 - 1.5	143	2.71	0.11	4.2	2.7	2.1 - 3.3

i-Stat PROTHROMBIN TIME (seconds)

Specimen PTI-11							Specimen PTI-12					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
i-Stat Prothrombin Time	11	14.67	0.50	3.4	14.7	12.4 - 16.9	11	28.27	2.25	8.0	28.0	24.0 - 32.6
Specimen PTI-13							Specimen PTI-14					
i-Stat Prothrombin Time	11	27.98	1.84	6.6	27.9	23.7 - 32.2	11	14.47	0.89	6.1	14.3	12.2 - 16.7
Specimen PTI-15												
i-Stat Prothrombin Time	11	14.57	0.74	5.1	14.6	12.3 - 16.8						

i-Stat PROTHROMBIN TIME - INTERNATIONAL NORMALIZED RATIO (INR)

Specimen PTI-11							Specimen PTI-12					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
i-Stat Prothrombin Time	11	1.25	0.05	4.4	1.3	1.0 - 1.5	11	2.45	0.22	8.8	2.4	1.9 - 3.0
Specimen PTI-13							Specimen PTI-14					
i-Stat Prothrombin Time	11	2.43	0.16	6.7	2.5	1.9 - 3.0	11	1.22	0.08	6.2	1.2	0.9 - 1.5
Specimen PTI-15												
i-Stat Prothrombin Time	11	1.23	0.08	6.6	1.3	0.9 - 1.5						

FLUID CELL COUNT – WHITE BLOOD CELL COUNT (µL)

Specimen BF-5							Specimen BF-6					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	5	273.0	114.1	41.8	286	44 - 502	5	7.7	10.7	139.5	2	0 - 30

FLUID CELL COUNT – RED BLOOD CELL COUNT (µL)

Specimen BF-5							Specimen BF-6					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	5	881.3	290.4	32.9	864	300 - 1463	5	0.7	1.2	173.2	0	0 - 3

2015 M3
FLUID CRYSTAL IDENTIFICATION
Specimens FC-5 and FC-6

Crystals are classified as being either optically isotropic or anisotropic. Isotropic solids refract light rays equally in all directions throughout the crystalline structure. All isotropic crystals interact with light in a similar manner, regardless of the crystal orientation. If you look at an object through a large isotropic crystal, such as a piece of glass, you see only one image.

Anisotropic crystals have a different internal structure that will cause a single ray of light entering the crystal to split into two rays, each traveling in a different direction. This property of splitting light is called birefringence or double refraction. If you were to look at this page through a large anisotropic crystal, you would see two images.

Anisotropic crystals interact with light in a manner that is dependent upon the orientation of the crystal. A light beam hitting the crystal from one direction or angle will react differently than a beam hitting the crystal at a different angle. Use of a compensator allows this optical property to be used to identify crystals.

Gout is caused by monosodium urate crystals, while pseudogout is caused by calcium pyrophosphate crystals. Synovial fluid analysis offers a valuable diagnostic tool for evaluating patients with gout or pseudogout. An accurate diagnosis can be made by a trained observer by detecting and identifying MSU crystals or CPPD crystals. Crystal analysis is done with compensated polarized light.

Specimen FC-5

Identification

MSU (Monosodium Urate) Crystals

Labs

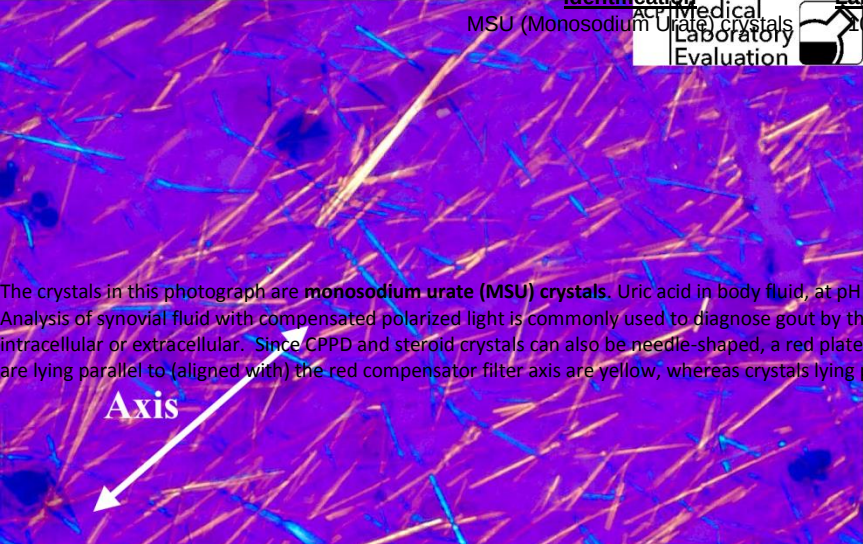
10

Percent

100%

Performance

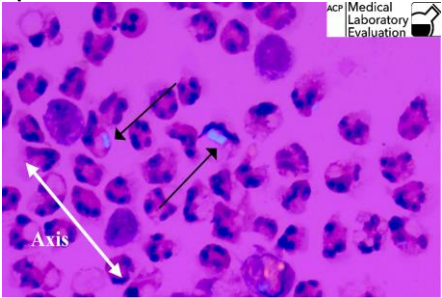
Acceptable



The crystals in this photograph are **monosodium urate (MSU) crystals**. Uric acid in body fluid, at pH 7.4, exists in the urate form. Thus, when referring to uric acid in physiologic fluid it is preferable to use the term *urate*. Analysis of synovial fluid with compensated polarized light is commonly used to diagnose gout by the presence of MSU crystals. MSU crystals in synovial fluid are usually thin and needle-like with pointed ends, and may be intracellular or extracellular. Since CPPD and steroid crystals can also be needle-shaped, a red plate compensator can help with identification. MSU crystals polarize light and are **negatively birefringent**, meaning crystals that are lying parallel to (aligned with) the red compensator filter axis are yellow, whereas crystals lying perpendicular to the filter axis are blue.

2015 M3
FLUID CRYSTAL IDENTIFICATION
Specimen FC-6

Specimen FC-6



There are no crystals present in this photograph of an unstained wet mount preparation of synovial fluid.

Identification	Labs	Percent	Performance
No crystals observed	8	80%	Acceptable
Hematoidin crystals	2	20%	

References:
Abramowitz, M, Davidson, MW. "Optical Birefringence." *Olympus Microscopy Resource Center*. Available at: <http://www.olympusmicro.com/primer/lightandcolor/birefringence.html>. Accessed 2015.

Al-Ashkar, F. "Gout and Pseudogout." *Cleveland Clinic Center for Continuing Education*. Available at: <http://www.clevelandclinicmeded.com/medicalpubs/diseasemanagement/rheumatology/gout-and-pseudogout/default.htm>. Accessed 2015.

Carr, J.H., Rodak, B.F.: *Clinical Hematology Atlas*, 3rd ed. Saunders, St. Louis, 2009.

"Double Refraction / Optics." *Encyclopedia Britannica Online*. Encyclopedia Britannica, n.d. Web. 18 May 2015. Available at: <http://www.britannica.com/EBchecked/topic/170003/double-refraction>

Mundt, L.A, Shanahan, K.: *Graff's Textbook of Routine Urinalysis and Body Fluids*, 2nd ed. Philadelphia: Lippincott Williams & Wilkins, 2011.

Ringsrud, K. M., Linné, J. J.: *Urinalysis and Body Fluids/ A ColorText and Atlas*. St. Louis, Mosby, 1995.

MICROALBUMIN, DIPSTICK**Specimen UM-3****Participant Results**

<u>Method</u>	<u>Labs</u>	<u>Negative</u>	<u>10 mg/L</u>	<u>20 mg/L</u>	<u>30 mg/L</u>	<u>50 mg/L</u>	<u>80 mg/L</u>	<u>100 mg/L</u>	<u>150 mg/L</u>	<u>+ (4 - 8 mg/dL)</u>	<u>++ (>8 mg/dL)</u>
ALL METHODS	38	-	2	-	33	3	-	-	-	-	-
Roche Micral - 1 minute	3	-	-	-	-	3	-	-	-	-	-
Siemens Clinitek Microalbumin	35	-	2	-	33	-	-	-	-	-	-

CREATININE, DIPSTICK**Specimen UM-3****Participant Results**

<u>Method</u>	<u>Labs</u>	<u>Negative</u>	<u>10 mg/dL</u>	<u>30 mg/dL</u>	<u>50 mg/dL</u>	<u>100 mg/dL</u>	<u>200 mg/dL</u>	<u>300 mg/dL</u>
ALL METHODS	35	-	1	-	-	-	2	32
Siemens Clinitek Microalbumin	34	-	1	-	-	-	2	31
Siemens Multistix Pro	1	-	-	-	-	-	-	1

MICROALBUMIN, QUANTITATIVE**Specimen UM-3**

<u>Method</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	80	38.86	3.69	9.5	39.5	27.1 - 50.6
Axis-Shield Afinion AS100	10	31.92	2.72	8.5	32.6	22.3 - 41.5
Beckman AU	10	35.81	1.61	4.5	36.0	25.0 - 46.6
Siemens DCA Vantage	10	37.55	2.10	5.6	37.6	26.2 - 48.9
Siemens Dimension/AR/ES/RxL/Xpand	27	41.35	1.55	3.7	41.2	28.9 - 53.8

CREATININE, URINE (mg/dL)**Specimen UM-3**

<u>Method</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	77	260.37	14.41	5.5	262.2	216.1 - 304.7
Axis-Shield Afinion AS100	10	253.35	13.00	5.1	252.5	210.2 - 296.5
Beckman AU	12	266.70	7.22	2.7	266.4	221.3 - 312.1
Siemens DCA Vantage	10	274.81	9.66	3.5	274.1	228.0 - 321.6
Siemens Dimension/AR/ES/RxL/Xpand	22	257.11	14.24	5.5	262.0	213.4 - 300.9

WAIVED HEMATOLOGY–HEMOGLOBIN (g/dL)

Specimen HD-11							Specimen HD-12					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	94	6.22	0.17	2.8	6.2	5.7 - 6.7	97	13.24	0.49	3.7	13.3	12.2 - 14.3
All Stanbio Methods	30	6.31	0.11	1.8	6.3	5.8 - 6.8	31	13.56	0.27	2.0	13.6	12.6 - 14.6
HemoCue	61	6.19	0.14	2.2	6.2	5.7 - 6.7	61	13.18	0.39	2.9	13.1	12.2 - 14.2
Stanbio HemoPoint H2	29	6.31	0.11	1.7	6.3	5.8 - 6.8	29	13.61	0.21	1.6	13.6	12.6 - 14.6

WAIVED HEMATOLOGY–HEMATOCRIT (percent)

Specimen HD-11							Specimen HD-12					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	15	16.40	1.93	11.8	16.2	12.5 - 20.3	21	36.68	3.31	9.0	36.0	30.0 - 43.3
All Microhematocrit Methods	11	15.56	1.51	9.7	16.0	12.5 - 18.6	11	34.38	2.88	8.4	35.0	28.6 - 40.2
CritSpin/StatSpin	5	16.04	0.09	0.6	16.0	15.0 - 17.1	5	35.24	2.95	8.4	36.0	29.3 - 41.2
Microhematocrit	5	14.80	2.05	13.8	14.0	10.7 - 18.9	5	33.60	3.21	9.6	35.0	27.1 - 40.1
Stanbio HemoPoint H2	1	-	-	-	19.0	12.5 - 20.3	6	39.83	0.41	1.0	40.0	37.4 - 42.3

KOH SKIN PREPARATION

<u>Specimen</u>	<u>Identification</u>	<u>Labs</u>	<u>Percent</u>	<u>Performance</u>
K-5	Yeast/fungal elements absent	146	92.41%	Acceptable
	Yeast/fungal elements present	12	7.59%	
Organism present in specimen K-5: <i>Staphylococcus aureus</i> .				
K-6	Yeast/fungal elements present	156	98.73%	Acceptable
	Yeast/fungal elements absent	2	1.27%	

Organism present in specimen K-6: *Trichophyton mentagrophytes*.

URINALYSIS DIPSTICK–SPECIFIC GRAVITY

Specimen UA-3

<u>Method</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	839	1.0143	0.0043	0.4	1.015	1.004 - 1.025
All Roche Methods	43	1.0110	0.0023	0.2	1.010	1.001 - 1.022
All Siemens Methods	412	1.0160	0.0035	0.3	1.015	1.005 - 1.026
Consult Diagnostics Urine Analyzer	13	1.0154	0.0024	0.2	1.015	1.005 - 1.026
Diagnostic Test Group Clarity Urocheck 120	11	1.0186	0.0050	0.5	1.015	1.008 - 1.029
Henry Schein Urispec	10	1.0100	0.0001	0.0	1.010	1.000 - 1.020
Other Dipstick Method	15	1.0150	0.0057	0.6	1.015	1.005 - 1.025
Roche Chemstrips	44	1.0115	0.0023	0.2	1.010	1.001 - 1.022
Roche Urisys	32	1.0114	0.0026	0.3	1.010	1.001 - 1.022
Siemens Clinitek 10 / 100	14	1.0146	0.0031	0.3	1.015	1.004 - 1.025
Siemens Clinitek 50	32	1.0100	0.0028	0.3	1.010	1.000 - 1.020
Siemens Clinitek Advantus	24	1.0113	0.0023	0.2	1.010	1.001 - 1.022
Siemens Clinitek Status / Status+	330	1.0169	0.0027	0.3	1.015	1.006 - 1.027
Siemens Reagent Strips	216	1.0112	0.0031	0.3	1.010	1.001 - 1.022

URINALYSIS DIPSTICK–pH

Specimen UA-3

Participant Results

<u>Method</u>	<u>Labs</u>	<u>≤3.5</u>	<u>4.0</u>	<u>4.5</u>	<u>5.0</u>	<u>5.5</u>	<u>6.0</u>	<u>6.5</u>	<u>7.0</u>	<u>7.5</u>	<u>8.0</u>	<u>8.5</u>	<u>≥9.0</u>
ALL METHODS	867	-	-	-	8	2	18	64	737	38	-	-	-
Arkray DiaScreen	1	-	-	-	-	-	-	1	-	-	-	-	-
Consult Diagnostics Urine Analyzer	14	-	-	-	-	-	-	8	6	-	-	-	-
CTMI CT-120 Urine Analyzer	8	-	-	-	-	-	-	7	1	-	-	-	-
Diagnostic Test Group Clarity Urocheck	9	-	-	-	1	-	-	6	1	1	-	-	-
Diagnostic Test Group Clarity Urocheck 120	11	-	-	-	-	-	1	6	4	-	-	-	-
Germaine Laboratories AimStrip	3	-	-	-	-	-	-	1	1	1	-	-	-
Henry Schein One Step Plus	6	-	-	-	-	-	-	1	5	-	-	-	-
Henry Schein Urispec	11	-	-	-	-	-	-	1	10	-	-	-	-
Iris Diagnostics iChem Velocity Strips	1	-	-	-	-	-	-	-	1	-	-	-	-
McKesson 10SG Reagent Strips	8	-	-	-	1	-	2	1	4	-	-	-	-
McKesson 120 Urine Analyzer	9	-	-	-	-	-	1	7	1	-	-	-	-
NDC Pro Advantage	1	-	-	-	-	-	-	1	-	-	-	-	-
Other Analyzer Method	6	-	-	-	-	-	-	4	2	-	-	-	-
Other Dipstick Method	16	-	-	-	2	-	-	3	11	-	-	-	-
pH Paper	1	-	-	-	-	-	-	1	-	-	-	-	-
PSS Select Reagent Strips	7	-	-	-	1	-	-	-	6	-	-	-	-
PSS Select Urine Analyzer	1	-	-	-	-	-	-	1	-	-	-	-	-
Roche Chemstrip 101	4	-	-	-	-	-	-	-	4	-	-	-	-
Roche Chemstrips	50	-	-	-	-	1	-	-	49	-	-	-	-
Roche Criterion Analyzer	6	-	-	-	-	-	-	-	6	-	-	-	-
Roche SuperUA/ChemstripUA	1	-	-	-	-	-	-	-	1	-	-	-	-
Roche Urisys	33	-	-	-	-	-	-	2	31	-	-	-	-
Siemens Clinitek 10 / 100	14	-	-	-	-	-	-	1	13	-	-	-	-
Siemens Clinitek 50	33	-	-	-	-	-	1	-	32	-	-	-	-
Siemens Clinitek 500	8	-	-	-	-	-	-	-	8	-	-	-	-
Siemens Clinitek Advantus	26	-	-	-	-	-	-	-	26	-	-	-	-
Siemens Clinitek Atlas	5	-	-	-	-	-	-	-	5	-	-	-	-
Siemens Clinitek Status / Status+	339	-	-	-	-	1	-	1	336	1	-	-	-
Siemens Hemacombistix	1	-	-	-	-	-	-	-	1	-	-	-	-
Siemens Multistix Pro	5	-	-	-	-	-	-	1	4	-	-	-	-
Siemens Reagent Strips	223	-	-	-	3	-	13	9	163	35	-	-	-
UriScan Reagent Strips	1	-	-	-	-	-	-	-	1	-	-	-	-

URINALYSIS DIPSTICK–PROTEIN QUALITATIVE

Specimen UA-3

<u>Method</u>	<i>Participant Results</i>												
	<u>Labs</u>	<u>Negative</u>	<u>Trace</u>	<u>(1+)</u>	<u>(2+)</u>	<u>(3+)</u>	<u>(4+)</u>	<u>10 - 20</u> <u>mg/dL</u>	<u>30 - 70</u> <u>mg/dL</u>	<u>75</u> <u>mg/dL</u>	<u>100 - 200</u> <u>mg/dL</u>	<u>≥300 -</u> <u>600</u> <u>mg/dL</u>	<u>>600 or</u> <u>≥1000</u> <u>mg/dL</u>
ALL METHODS	904	875	18	2	2	-	-	2	2	-	2	1	-
Arkray DiaScreen	1	1	-	-	-	-	-	-	-	-	-	-	-
Consult Diagnostics Urine Analyzer	14	14	-	-	-	-	-	-	-	-	-	-	-
CTMI CT-120 Urine Analyzer	8	8	-	-	-	-	-	-	-	-	-	-	-
Diagnostic Test Group Clarity Urocheck	9	8	1	-	-	-	-	-	-	-	-	-	-
Diagnostic Test Group Clarity Urocheck 120	11	11	-	-	-	-	-	-	-	-	-	-	-
Germaine Laboratories AimStrip	3	2	1	-	-	-	-	-	-	-	-	-	-
Henry Schein One Step Plus	6	6	-	-	-	-	-	-	-	-	-	-	-
Henry Schein Uriscan	11	10	-	-	-	-	-	-	-	-	1	-	-
Iris Diagnostics iChem Velocity Strips	1	1	-	-	-	-	-	-	-	-	-	-	-
McKesson 10SG Reagent Strips	8	6	2	-	-	-	-	-	-	-	-	-	-
McKesson 120 Urine Analyzer	9	9	-	-	-	-	-	-	-	-	-	-	-
NDC Pro Advantage	1	1	-	-	-	-	-	-	-	-	-	-	-
Other Analyzer Method	4	4	-	-	-	-	-	-	-	-	-	-	-
Other Dipstick Method	18	11	2	2	1	-	-	2	-	-	-	-	-
PSS Select Reagent Strips	7	6	1	-	-	-	-	-	-	-	-	-	-
PSS Select Urine Analyzer	1	1	-	-	-	-	-	-	-	-	-	-	-
Roche Chemstrip 101	4	3	1	-	-	-	-	-	-	-	-	-	-
Roche Chemstrips	63	58	4	-	-	-	-	-	-	-	-	1	-
Roche Criterion Analyzer	6	6	-	-	-	-	-	-	-	-	-	-	-
Roche SuperUA/ChemstripUA	1	1	-	-	-	-	-	-	-	-	-	-	-
Roche Uriscan	33	33	-	-	-	-	-	-	-	-	-	-	-
Siemens Albustix	1	1	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek 10 / 100	14	14	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek 50	33	33	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek 500	8	8	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek Advantus	26	26	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek Atlas	5	5	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek Status / Status+	340	338	-	-	1	-	-	-	-	-	1	-	-
Siemens Hemacombistix	1	1	-	-	-	-	-	-	-	-	-	-	-
Siemens Multistix Pro	5	5	-	-	-	-	-	-	-	-	-	-	-
Siemens Reagent Strips	226	218	6	-	-	-	-	-	2	-	-	-	-
Siemens Uristix	19	19	-	-	-	-	-	-	-	-	-	-	-
UriScan Reagent Strips	1	1	-	-	-	-	-	-	-	-	-	-	-

URINALYSIS DIPSTICK–GLUCOSE

Specimen UA-3

<u>Method</u>	<u>Labs</u>	<u>Negative</u>	<u>Trace</u>	<u>(1+)</u>	<u>Participant Results</u>			<u>30 - 100</u> <u>mg/dL</u>	<u>150 -</u> <u>300</u> <u>mg/dL</u>	<u>500</u> <u>mg/dL</u>	<u>>500 or</u> <u>≥1000 or</u> <u>≥2000</u> <u>mg/dL</u>
					<u>(2+)</u>	<u>(3+)</u>	<u>(4+)</u>				
ALL METHODS	887	15	3	59	143	42	14	5	122	316	168
Arkray DiaScreen	1	-	-	-	-	-	-	-	1	-	-
Consult Diagnostics Urine Analyzer	14	-	1	1	2	3	-	-	2	3	2
CTMI CT-120 Urine Analyzer	8	-	-	4	1	-	-	-	3	-	-
Diagnostic Test Group Clarity Urocheck	9	-	-	2	2	-	1	1	1	2	-
Diagnostic Test Group Clarity Urocheck 120	11	-	-	6	2	-	-	-	1	1	1
Germaine Laboratories AimStrip	3	-	-	1	2	-	-	-	-	-	-
Henry Schein One Step Plus	6	-	-	-	-	-	-	-	-	-	6
Henry Schein Urispec	11	1	-	-	-	1	-	-	-	-	9
Iris Diagnostics iChem Velocity Strips	1	-	-	-	-	-	-	-	-	-	1
McKesson 10SG Reagent Strips	8	-	-	-	1	-	-	1	5	-	1
McKesson 120 Urine Analyzer	9	-	-	2	6	1	-	-	-	-	-
NDC Pro Advantage	1	-	-	-	1	-	-	-	-	-	-
Other Analyzer Method	4	-	-	2	1	-	-	-	-	1	-
Other Dipstick Method	19	1	1	1	7	3	1	-	1	-	4
PSS Select Reagent Strips	7	-	-	-	3	1	1	1	-	-	1
PSS Select Urine Analyzer	1	-	-	-	1	-	-	-	-	-	-
Roche Chemstrip 101	4	-	-	-	-	-	-	-	-	-	4
Roche Chemstrips	64	1	-	-	-	3	6	-	-	2	52
Roche Criterion Analyzer	6	-	-	-	-	1	-	-	-	-	5
Roche SuperUA/ChemstripUA	1	-	-	-	-	-	-	-	-	-	1
Roche Urisys	33	-	-	-	-	14	-	-	-	1	18
Siemens Clinitek 10 / 100	14	1	-	2	4	-	-	-	1	4	2
Siemens Clinitek 50	33	-	-	-	8	3	-	-	-	11	11
Siemens Clinitek 500	8	-	-	1	2	-	-	-	-	5	-
Siemens Clinitek Advantus	25	-	-	2	13	1	-	-	4	4	1
Siemens Clinitek Atlas	5	-	-	-	-	1	-	-	-	-	4
Siemens Clinitek Status / Status+	332	8	-	24	66	1	-	1	65	166	1
Siemens Clinitest, 5 drop	1	-	-	-	-	1	-	-	-	-	-
Siemens Hemacombistix	1	-	-	-	-	-	-	-	-	-	1
Siemens Multistix Pro	5	-	-	-	-	-	1	-	1	3	-
Siemens Reagent Strips	233	2	1	11	18	8	3	1	37	111	41
Siemens Uristix	3	1	-	-	1	-	-	-	-	1	-
UriScan Reagent Strips	1	-	-	-	-	-	-	-	-	-	1

URINALYSIS DIPSTICK–KETONES

Specimen UA-3

<u>Method</u>	<u>Labs</u>	<u>Participant Results</u>													
		<u>Negative</u>	<u>Trace</u>	<u>Small</u>	<u>Moderate</u>	<u>Large</u>	<u>(1+)</u>	<u>(2+)</u>	<u>(3+)</u>	<u>(4+)</u>	<u>5 - 10</u> <u>mg/dL</u>	<u>15 - 20</u> <u>mg/dL</u>	<u>40 - 60</u> <u>mg/dL</u>	<u>80 - 100</u> <u>mg/dL</u>	<u>≥150</u> <u>mg/dL</u>
ALL METHODS	862	3	1	-	3	192	2	3	143	116	-	-	11	86	302
Arkray DiaScreen	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-
Consult Diagnostics Urine Analyzer	14	-	-	-	-	1	-	1	4	-	-	-	6	2	-
CTMI CT-120 Urine Analyzer	8	-	-	-	-	-	-	-	6	-	-	-	-	2	-
Diagnostic Test Group Clarity Urocheck	9	-	-	-	-	1	-	-	2	4	-	-	-	2	-
Diagnostic Test Group Clarity Urocheck 120	11	-	-	-	-	-	1	-	9	-	-	-	1	-	-
Germaine Laboratories AimStrip	3	-	-	-	-	-	-	-	1	2	-	-	-	-	-
Henry Schein One Step Plus	6	-	-	-	-	-	-	-	2	-	-	-	-	1	3
Henry Schein Urispec	11	1	-	-	-	-	1	-	2	1	-	-	-	1	5
Iris Diagnostics iChem Velocity Strips	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-
McKesson 10SG Reagent Strips	8	-	-	-	-	1	-	-	-	1	-	-	-	1	5
McKesson 120 Urine Analyzer	9	-	-	-	-	-	-	-	9	-	-	-	-	-	-
NDC Pro Advantage	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-
Other Analyzer Method	4	-	-	-	-	-	-	-	3	-	-	-	-	1	-
Other Dipstick Method	16	-	-	-	-	4	-	-	4	2	-	-	1	2	3
PSS Select Reagent Strips	6	-	-	-	-	1	-	-	1	3	-	-	-	1	-
PSS Select Urine Analyzer	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-
Roche Chemstrip 101	4	-	-	-	-	2	-	-	1	-	-	-	-	-	1
Roche Chemstrips	50	-	-	-	1	17	-	2	27	1	-	-	1	-	1
Roche Criterion Analyzer	6	-	-	-	-	-	-	-	1	-	-	-	-	-	5
Roche SuperUA/ChemstripUA	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-
Roche Urisys	33	-	-	-	-	-	-	-	14	-	-	-	1	-	18
Siemens Acetest	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-
Siemens Clinitek 10 / 100	14	-	-	-	-	2	-	-	3	2	-	-	-	7	-
Siemens Clinitek 50	33	-	-	-	-	-	-	-	10	1	-	-	-	21	1
Siemens Clinitek 500	8	-	-	-	-	-	-	-	3	-	-	-	-	5	-
Siemens Clinitek Advantus	25	-	-	-	-	-	-	-	16	-	-	-	-	9	-
Siemens Clinitek Atlas	5	-	-	-	-	-	-	-	1	-	-	-	-	3	1
Siemens Clinitek Status / Status+	338	-	1	-	-	7	-	-	13	81	-	-	-	23	213
Siemens Ketostix	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-
Siemens Multistix Pro	5	-	-	-	-	4	-	-	-	-	-	-	-	-	1
Siemens Reagent Strips	224	2	-	-	2	147	-	-	7	17	-	-	-	4	45
UriScan Reagent Strips	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-

URINALYSIS DIPSTICK–BILIRUBIN

Specimen UA-3

<u>Method</u>	<u>Labs</u>	<u>Negative</u>	<u>Trace</u>	<u>Small</u>	<u>Moderate</u>	<u>Participant Results</u>					<u>0.5 - 1.0 mg/dL</u>	<u>2.0 - 4.0 mg/dL</u>	<u>6.0 - 10.0 mg/dL</u>	<u>>10.0 mg/dL</u>
						<u>Large</u>	<u>(1+)</u>	<u>(2+)</u>	<u>(3+)</u>	<u>(4+)</u>				
ALL METHODS	848	844	-	1	-	2	-	-	-	1	-	-	-	-
Arkray DiaScreen	1	1	-	-	-	-	-	-	-	-	-	-	-	-
Consult Diagnostics Urine Analyzer	14	14	-	-	-	-	-	-	-	-	-	-	-	-
CTMI CT-120 Urine Analyzer	8	8	-	-	-	-	-	-	-	-	-	-	-	-
Diagnostic Test Group Clarity Urocheck	9	9	-	-	-	-	-	-	-	-	-	-	-	-
Diagnostic Test Group Clarity Urocheck 120	11	11	-	-	-	-	-	-	-	-	-	-	-	-
Germaine Laboratories AimStrip	3	3	-	-	-	-	-	-	-	-	-	-	-	-
Henry Schein One Step Plus	6	6	-	-	-	-	-	-	-	-	-	-	-	-
Henry Schein Urispec	11	11	-	-	-	-	-	-	-	-	-	-	-	-
Iris Diagnostics iChem Velocity Strips	1	1	-	-	-	-	-	-	-	-	-	-	-	-
McKesson 10SG Reagent Strips	8	8	-	-	-	-	-	-	-	-	-	-	-	-
McKesson 120 Urine Analyzer	9	9	-	-	-	-	-	-	-	-	-	-	-	-
NDC Pro Advantage	1	1	-	-	-	-	-	-	-	-	-	-	-	-
Other Analyzer Method	4	4	-	-	-	-	-	-	-	-	-	-	-	-
Other Dipstick Method	16	14	-	1	-	1	-	-	-	-	-	-	-	-
PSS Select Reagent Strips	6	6	-	-	-	-	-	-	-	-	-	-	-	-
PSS Select Urine Analyzer	1	1	-	-	-	-	-	-	-	-	-	-	-	-
Roche Chemstrip 101	4	4	-	-	-	-	-	-	-	-	-	-	-	-
Roche Chemstrips	49	49	-	-	-	-	-	-	-	-	-	-	-	-
Roche Criterion Analyzer	6	6	-	-	-	-	-	-	-	-	-	-	-	-
Roche SuperUA/ChemstripUA	1	1	-	-	-	-	-	-	-	-	-	-	-	-
Roche Urisys	33	33	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek 10 / 100	14	14	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek 50	32	32	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek 500	8	8	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek Advantus	25	25	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek Atlas	5	5	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek Status / Status+	330	329	-	-	-	-	-	-	-	1	-	-	-	-
Siemens Multistix Pro	5	5	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Reagent Strips	220	219	-	-	-	1	-	-	-	-	-	-	-	-
UriScan Reagent Strips	1	1	-	-	-	-	-	-	-	-	-	-	-	-

URINALYSIS DIPSTICK–UROBILINOGEN

Specimen UA-3

<u>Method</u>	<u>Labs</u>	<i>Participant Results</i>				
		<u>Neg or 0.0 - 0.2 mg/dL</u>	<u>1.0 or <2.0 mg/dL</u>	<u>2.0/3.0 mg/dL</u>	<u>4.0 or 4.0/6.0 mg/dL</u>	<u>≥8.0 or ≥12.0 mg/dL</u>
ALL METHODS	825	816	2	7	-	-
Arkray DiaScreen	1	1	-	-	-	-
Consult Diagnostics Urine Analyzer	13	12	-	1	-	-
CTMI CT-120 Urine Analyzer	7	7	-	-	-	-
Diagnostic Test Group Clarity Urocheck	9	9	-	-	-	-
Diagnostic Test Group Clarity Urocheck 120	11	10	1	-	-	-
Germaine Laboratories AimStrip	3	3	-	-	-	-
Henry Schein One Step Plus	6	6	-	-	-	-
Henry Schein Urispec	11	11	-	-	-	-
Iris Diagnostics iChem Velocity Strips	1	1	-	-	-	-
McKesson 10SG Reagent Strips	7	7	-	-	-	-
McKesson 120 Urine Analyzer	9	9	-	-	-	-
NDC Pro Advantage	1	1	-	-	-	-
Other Analyzer Method	4	4	-	-	-	-
Other Dipstick Method	16	16	-	-	-	-
PSS Select Reagent Strips	6	6	-	-	-	-
PSS Select Urine Analyzer	1	1	-	-	-	-
Roche Chemstrip 101	4	4	-	-	-	-
Roche Chemstrips	47	47	-	-	-	-
Roche Criterion Analyzer	6	6	-	-	-	-
Roche Urisys	32	32	-	-	-	-
Siemens Clinitek 10 / 100	13	13	-	-	-	-
Siemens Clinitek 50	32	32	-	-	-	-
Siemens Clinitek 500	4	4	-	-	-	-
Siemens Clinitek Advantus	24	24	-	-	-	-
Siemens Clinitek Atlas	1	1	-	-	-	-
Siemens Clinitek Status / Status+	327	321	-	6	-	-
Siemens Multistix Pro	5	5	-	-	-	-
Siemens Reagent Strips	218	217	1	-	-	-
UriScan Reagent Strips	1	1	-	-	-	-

URINALYSIS DIPSTICK–BLOOD/HEMOGLOBIN

Specimen UA-3

<u>Method</u>	<i>Participant Results</i>																	
	<u>Labs</u>	<u>Negative</u>	<u>Trace</u>	<u>Small</u>	<u>Moderate</u>	<u>Large</u>	<u>(1+)</u>	<u>(2+)</u>	<u>(3+)</u>	<u>(4+)</u>	<u>(5+)</u>	<u>5 - 25</u> <u>Ery/μL</u>	<u>50 -</u> <u>100</u> <u>Ery/μL</u>	<u>250</u> <u>Ery/μL</u>	<u>±0.03</u> <u>mg/dL</u>	<u>0.06</u> <u>-</u> <u>0.10</u> <u>mg/</u> <u>dL</u>	<u>0.2 -</u> <u>0.5</u> <u>mg/</u> <u>dL</u>	<u>≥ 1.0</u> <u>mg/</u> <u>dL</u>
ALL METHODS	869	845	15	-	-	2	3	-	-	-	-	2	-	2	-	-	-	-
Arkray DiaScreen	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Consult Diagnostics Urine Analyzer	13	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CTMI CT-120 Urine Analyzer	7	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diagnostic Test Group Clarity Urocheck	9	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diagnostic Test Group Clarity Urocheck 120	11	10	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
Germaine Laboratories AimStrip	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Henry Schein One Step Plus	6	4	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-
Henry Schein Urispec	11	8	-	-	-	-	2	-	-	-	-	-	-	1	-	-	-	-
Iris Diagnostics iChem Velocity Strips	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
McKesson 10SG Reagent Strips	7	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
McKesson 120 Urine Analyzer	9	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NDC Pro Advantage	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Analyzer Method	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Dipstick Method	16	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PSS Select Reagent Strips	7	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PSS Select Urine Analyzer	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Roche Chemstrip 101	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Roche Chemstrips	59	57	1	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
Roche Criterion Analyzer	6	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Roche Urisys	32	32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek 10 / 100	13	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek 50	33	32	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek 500	8	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek Advantus	26	26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek Atlas	5	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek Status / Status+	339	331	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Hemacombistix	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Multistix Pro	5	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Reagent Strips	223	216	5	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-
UriScan Reagent Strips	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

URINALYSIS DIPSTICK–LEUKOCYTE ESTERASE

Specimen UA-3

<u>Method</u>	<i>Participant Results</i>												
	<u>Labs</u>	<u>Negative</u>	<u>Trace</u>	<u>Small</u>	<u>Moderate</u>	<u>Large</u>	<u>(1+)</u>	<u>(2+)</u>	<u>(3+)</u>	<u>(4+)</u>	<u>25 µL</u>	<u>75 or 100 µL</u>	<u>250 or 500 µL</u>
ALL METHODS	882	3	17	96	225	113	50	246	74	4	1	4	49
Arkray DiaScreen	1	-	-	-	-	-	-	-	-	-	-	1	-
Consult Diagnostics Urine Analyzer	13	-	-	-	-	2	-	1	5	-	1	2	2
CTMI CT-120 Urine Analyzer	7	-	-	-	-	-	-	4	2	-	-	1	-
Diagnostic Test Group Clarity Urocheck	9	-	-	-	1	1	1	4	1	-	-	-	1
Diagnostic Test Group Clarity Urocheck 120	11	-	-	-	-	-	-	7	3	-	-	-	1
Germaine Laboratories AimStrip	3	-	-	-	-	-	-	3	-	-	-	-	-
Henry Schein One Step Plus	6	-	-	-	-	1	-	-	1	-	-	-	4
Henry Schein Urispec	11	1	-	-	-	-	-	-	2	-	-	-	8
Iris Diagnostics iChem Velocity Strips	1	-	-	-	-	-	-	-	-	-	-	-	1
McKesson 10SG Reagent Strips	7	-	-	-	1	2	-	2	1	-	-	-	1
McKesson 120 Urine Analyzer	9	-	-	-	-	-	-	1	8	-	-	-	-
NDC Pro Advantage	1	-	-	-	-	-	-	-	1	-	-	-	-
Other Analyzer Method	4	-	-	-	-	-	-	-	3	-	-	-	1
Other Dipstick Method	16	-	-	-	4	3	-	1	3	1	-	-	4
PSS Select Reagent Strips	7	-	-	-	-	2	-	1	2	1	-	-	1
PSS Select Urine Analyzer	1	-	-	-	-	-	-	1	-	-	-	-	-
Roche Chemstrip 101	4	-	-	-	-	1	1	1	-	-	-	-	1
Roche Chemstrips	59	1	-	-	-	3	1	51	1	1	-	-	1
Roche Criterion Analyzer	6	-	-	-	-	-	-	1	-	-	-	-	5
Roche Urisys	32	-	-	-	1	1	-	13	-	-	-	-	17
Siemens Clinitek 10 / 100	13	-	-	1	5	1	1	4	1	-	-	-	-
Siemens Clinitek 2000	1	-	-	-	1	-	-	-	-	-	-	-	-
Siemens Clinitek 50	33	-	3	2	12	5	4	6	1	-	-	-	-
Siemens Clinitek 500	8	-	-	-	4	1	-	3	-	-	-	-	-
Siemens Clinitek Advantus	26	-	-	-	9	-	-	17	-	-	-	-	-
Siemens Clinitek Atlas	5	-	-	-	-	4	-	-	1	-	-	-	-
Siemens Clinitek Status / Status+	339	1	13	85	87	62	36	31	24	-	-	-	-
Siemens Multistix Pro	5	-	-	1	3	-	-	1	-	-	-	-	-
Siemens Reagent Strips	220	-	1	6	84	23	3	89	13	1	-	-	-
Siemens Uristix	16	-	-	-	13	-	2	1	-	-	-	-	-
UriScan Reagent Strips	1	-	-	-	-	-	-	-	-	-	-	-	1

URINALYSIS DIPSTICK–NITRITE

Specimen UA-3

Participant Results

<u>Method</u>	<u>Labs</u>	<u>Positive</u>	<u>Negative</u>
ALL METHODS	883	876	7
Arkray DiaScreen	1	1	-
Consult Diagnostics Urine Analyzer	13	13	-
CTMI CT-120 Urine Analyzer	7	7	-
Diagnostic Test Group Clarity Urocheck	9	9	-
Diagnostic Test Group Clarity Urocheck 120	11	11	-
Germaine Laboratories AimStrip	3	3	-
Henry Schein One Step Plus	6	6	-
Henry Schein Urispec	11	9	2
Iris Diagnostics iChem Velocity Strips	1	1	-
McKesson 10SG Reagent Strips	7	7	-
McKesson 120 Urine Analyzer	9	9	-
NDC Pro Advantage	1	1	-
Other Analyzer Method	4	4	-
Other Dipstick Method	16	16	-
PSS Select Reagent Strips	7	7	-
PSS Select Urine Analyzer	1	1	-
Roche Chemstrip 101	4	4	-
Roche Chemstrips	59	57	2
Roche Criterion Analyzer	6	6	-
Roche Urisys	32	32	-
Siemens Clinitek 10 / 100	13	13	-
Siemens Clinitek 50	33	32	1
Siemens Clinitek 500	8	8	-
Siemens Clinitek Advantus	26	26	-
Siemens Clinitek Atlas	5	5	-
Siemens Clinitek Status / Status+	339	338	1
Siemens Multistix Pro	5	5	-
Siemens Reagent Strips	222	221	1
Siemens Uristix	16	16	-
UriScan Reagent Strips	1	1	-

URINALYSIS –MICROALBUMIN (dipstick only)

Specimen UA-3

<u>Method</u>	<u>Labs</u>	<u>Negative</u>	<i>Participant Results</i>								
			<u>10 mg/L</u>	<u>20 mg/L</u>	<u>30 mg/L</u>	<u>50 mg/L</u>	<u>80 mg/L</u>	<u>100 mg/L</u>	<u>150 mg/L</u>	<u>+ (4 - 8 mg/dL)</u>	<u>++ (>8 mg/dL)</u>
ALL METHODS	58	13	35	6	3	1	-	-	-	-	-
Roche Micral - 1 minute	18	6	-	12	-	-	-	-	-	-	-
Siemens Clinitek Microalbumin	40	1	35	-	3	1	-	-	-	-	-

URINALYSIS –URINE hCG
Specimen UA-3

<u>Method</u>	<i>Participant Results</i>		
	<u>Labs</u>	<u>Positive</u>	<u>Negative</u>
ALL METHODS	522	3	519
AimStep Combo Pregnancy	4	-	4
Alere Aceava hCG-Urine	3	-	3
Alere Clearview 25 hCG Combo	2	-	2
Alere Clearview hCG Cassette	4	-	4
Alere Clearview hCG Combo II	4	-	4
Alfa Scientific Instant View	5	-	5
Beckman Coulter ICON 25 hCG	27	-	27
Beckman Coulter ICON II/20 HCG	7	-	7
BioSign hCG	1	-	1
Cardinal Health SP Brand combo	19	-	19
Cardinal Hlth SPBrand-cassette	8	1	7
CONSULT diagnostics hCG Cassette	55	-	55
CONSULT diagnostics hCG Combo	18	-	18
CONSULT diagnostics hCG Dipstick	29	1	28
Diagnostic Test Group Clarity hCG strip/cassette	6	1	5
Diagnostic Test Group Clarity Urocheck 120	1	-	1
Germaine Laboratories AimStrip Pregnancy	7	-	7
Henry Schein One Step	58	-	58
Immunostics Cept-D	1	-	1
Immunostics Detector Combi	1	-	1
Immunostics hCG Detector-urine	5	-	5
Instant Tech. i Pregnancy	1	-	1
McKesson hCG Combo Cassette	4	-	4
McKesson hCG Urine Cassette	10	-	10
McKesson urine hCG-all 20 mIU kits	1	-	1
MediChoice hCG Combi Cassette	9	-	9
MediChoice hCG Urine Cassette	1	-	1
NDC Pro Advantage	1	-	1
Other Dipstick Method	2	-	2
PEP (Lab Supply) HCG	3	-	3
Polymedco Poly stat hCG	8	-	8
PSS Select hCG Cassette	4	-	4
Quidel QuickVue One-Step Combo	27	-	27
Quidel QuickVue One-Step Urine	61	-	61
Quidel QuickVue+ One-Step Combo	24	-	24
Quidel RapidVue	2	-	2
Quidel Sofia hCG	1	-	1
RefuAH hCG Dipstick	10	-	10

URINALYSIS –URINE hCG
Specimen UA-3

<u>Method</u>	<i>Participant Results</i>		
	<u>Labs</u>	<u>Positive</u>	<u>Negative</u>
Sekisui OSOM - Urine Test	9	-	9
Sekisui OSOM Card Pregnancy	5	-	5
Sekisui OSOM hCG Combo Test	8	-	8
Siemens Clinitek Status / Status+	4	-	4
Stanbio QuPID	8	-	8
Stanbio QuPID Plus	4	-	4
Stanbio TRUE hCG	6	-	6
Sure-Vue hCG - 25mIU	4	-	4
Sure-Vue hCG-STAT	7	-	7

FECAL OCCULT BLOOD

<u>Method</u>	Specimen OC-5			Specimen OC-6		
	<u>Labs</u>	<u>Positive</u>	<u>Negative</u>	<u>Labs</u>	<u>Positive</u>	<u>Negative</u>
ALL METHODS	409	400	9	409	9	400
Alere Clearview iFOBT Complete	2	2	-	2	-	2
Alfa Scientific Instant View	1	1	-	1	-	1
Beckman Coulter Hemoccult ICT	45	45	-	45	1	44
Guaiaac (slide) Test	253	247	6	253	6	247
Hemosure iFOB	35	33	2	35	2	33
Other Immunochemical FOB kit	26	25	1	26	-	26
Polymedco OC Auto Micro 80	6	6	-	6	-	6
Polymedco OC-Light iFOB	10	10	-	10	-	10
Quidel QuickVue iFOB	13	13	-	13	-	13

2015 M3
Urine Sediment Identification
SPECIMENS US-5 AND US-6

CASE HISTORY:

A 51-year-old female presented to her internist for a checkup. Her chief complaints included occasional urinary incontinence and frequent urination during the night. A routine urinalysis was performed, and the results appear below.

Color= Straw
Appearance= Clear

Dipstick results:

Specific gravity = 1.020

pH = 7.5

Protein, Glucose, Ketones, Bilirubin, Urobilinogen, Blood, Leukocyte esterase, and Nitrite = Negative

This patient was diagnosed with overactive bladder. The urinalysis results are normal.

Overactive bladder (OAB) is not a disease, but a symptom complex. The muscles of the bladder contract involuntarily even when the volume of urine in the bladder is low, creating the urgent need to urinate. A diagnosis of OAB depends on the presence of urgency, which differs from a simple urge to void. A typical urge to void is a normal sensation that progressively strengthens when deferred. In contrast, urgency is an abnormal condition characterized by a sudden onset of urgency and difficulty in deferring urination.

OAB is often associated with urinary frequency and nocturia in the absence of pathologic or metabolic conditions. *Urinary frequency* is defined as voiding 8 or more times in a 24-hour period, and *nocturia* is defined as the need to wake one or more times per night to void. Often, the specific cause of an overactive bladder isn't known. Other unrelated causes of urinary frequency, urgency, and urinary incontinence include: urinary tract infections, polyuria, medications, transitional cell carcinoma of the bladder, and underlying neurologic abnormalities.

OAB significantly affects the patient's quality of life and interactions with friends, colleagues, and families. Components of behavioral therapy for OAB include education, dietary and lifestyle modification, bladder training, pelvic floor muscle therapy, and self-monitoring with bladder/voiding diaries.

Specimen US-5



<u>Identification</u>	<u>Labs</u>	<u>Percent</u>	<u>Performance</u>
Squamous epithelial cell	562	98.42%	Acceptable
Transitional epithelial cell	5	0.88%	

The arrow in this photograph points to a **squamous epithelial cell**. Squamous epithelial cells line the lower urinary tract, vaginal mucosa, and external skin surfaces. Squamous cells are large, flat, and irregularly shaped, with a single small nucleus and plentiful cytoplasm. They often appear folded or rolled. They are routinely seen in normal urine specimens from female patients. Large numbers of these cells can indicate contamination from external skin or vaginal secretions during specimen collection. Use of the proper midstream collection technique minimizes contamination. To view another photo of squamous epithelial cells, see 2013 M1 Specimen US-1.

Specimen US-6



<u>Identification</u>	<u>Labs</u>	<u>Percent</u>	<u>Performance</u>
White blood cell (WBC)	541	94.91%	Acceptable
Cellular (WBC) cast	10	1.75%	
Renal tubular epithelial (RTE)	8	1.40%	
Red blood cell (RBC)	6	1.05%	

The arrows in this photograph point to **white blood cells (WBC.)** White blood cells, or leukocytes, appear granular with visible nuclei inside. Red blood cells generally appear hollow/empty and smaller in size. It is common to see a few white blood cells per high power field in normal urine samples. The granulocytic white blood cells that respond to infection and inflammation produce enzymes called esterases. When many WBCs are present in the urine due to infection of the bladder or kidneys, the dipstick result for leukocyte esterase turns positive, indicating pyuria. To view another photo of WBCs, see 2014 M2 Specimen US-4.

References:

Ellsworth, P. I., MD. "Overactive Bladder - Etiology, Diagnosis, and Impact ." WebMD LLC, 16 July 2013. Web. Accessed Nov.6, 2015. Available at: <http://emedicine.medscape.com/article/459502-overview>

Haber, M.H.: *Urinary Sediment: A Textbook Atlas*. Chicago, American Society of Clinical Pathologists, 1981.

Mundt, L.A, Shanahan, K.: *Graff's Textbook of Routine Urinalysis and Body Fluids*, 2nd ed. Philadelphia: Lippincott Williams & Wilkins, 2011.

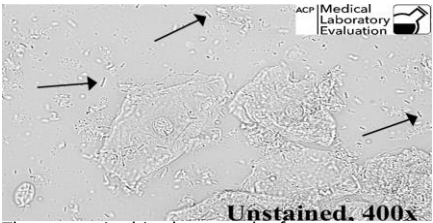
"Overactive Bladder." *Mayo Clinic*. Mayo Foundation for Medical Education and Research, 26 Sept. 2014. Web. Accessed Nov.6, 2015. Available at: <http://www.mayoclinic.org/diseases-conditions/overactive-bladder/basics/causes/con-20027632>

Ringsrud, K. M., Linné, J. J.: *Urinalysis and Body Fluids/ A ColorText and Atlas*. St. Louis: Mosby, 1995.

PROVIDER-PERFORMED MICROSCOPY (PPM)

Wet Mount Preparation

Specimen PPM-13

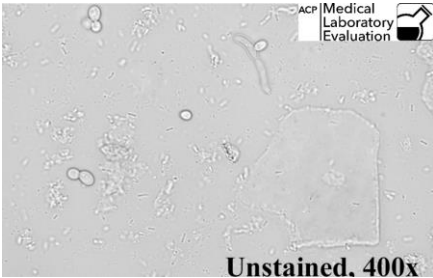


The arrows in this photograph of a wet mount preparation point to **bacteria**.

<u>Identification</u>	<u>Labs</u>	<u>Percent</u>	<u>Performance</u>
Bacteria	526	94.27%	Acceptable
Yeast/fungi	12	2.15%	
Clue cell	6	1.08%	

KOH Preparation

Specimen PPM-14



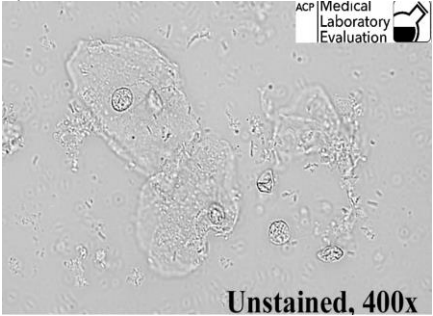
Yeast and fungal elements are present in this photograph of a vaginal KOH prep.

<u>Identification</u>	<u>Labs</u>	<u>Percent</u>	<u>Performance</u>
Yeast/fungal elements present	499	94.87%	Acceptable
Yeast/fungal elements absent	27	5.13%	

PROVIDER-PERFORMED MICROSCOPY (PPM)

Sperm Identification

Specimen PPM-15

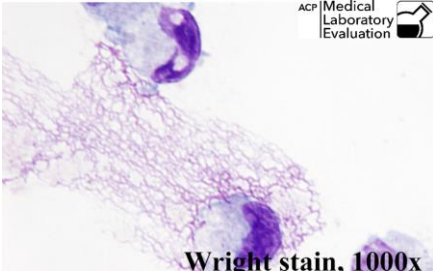


Spermatozoa are absent in this photograph of a vaginal wet mount preparation.

Identification	Labs	Percent	Performance
Sperm absent	514	98.47%	Acceptable
Sperm present	8	1.53%	

Nasal Smear

Specimen PPM-10

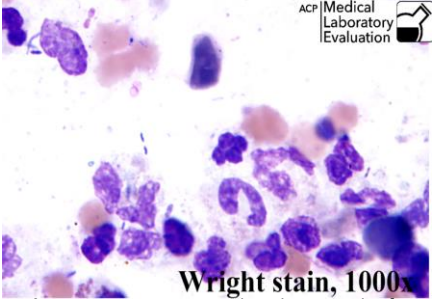


Eosinophils are absent in this photograph of Wright-stained nasal mucus. The purpose of examining the leukocytes in stained nasal secretions is to differentiate allergic conditions from infections. Eosinophils are a specific type of leukocyte (white blood cell) that is increased in allergic conditions. “Eos” have a unique red-orange color that makes them easy to spot and identify. The orange color comes from the dye eosin, which is a component of Wright stain. The cells shown in this photo are **not** eosinophils. They indicate infection rather than allergy. The cytoplasm of an eosinophil is filled with large, round, orange-staining granules that surround the purple nucleus but do not obscure it from view. To view a photo of eosinophils, see 2015 M2 Specimen PPM-10. This challenge was graded by 100% referee consensus.

Identification	Labs	Percent	Performance
Eosinophils absent	131	79.39%	Acceptable
Eosinophils present	34	20.61%	

Stool Preparation

Specimen PPM-17

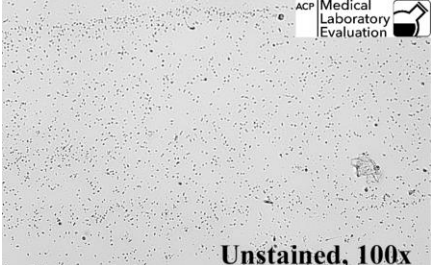


Leukocytes are present in this photograph of a Wright-stained stool preparation.

Identification	Labs	Percent	Performance
Leukocytes present	203	98.07%	Acceptable
Leukocytes absent	4	1.93%	

PROVIDER-PERFORMED MICROSCOPY (PPM)

Vaginal Fluid Preparation
Specimen PPM-12



Ferning is absent in this photograph of air-dried vaginal secretions.

<u>Identification</u>	<u>Labs</u>	<u>Percent</u>	<u>Performance</u>
Ferning absent	233	99.57%	Acceptable
Ferning present	1	0.43%	

Medical Laboratory Evaluation
25 Massachusetts Ave NW Ste 700
Washington, DC 20001-7401
800-338-2746 • 202-261-4500 • Fax: 202-835-0440
www.acponline.org/mle