MEDICAL LABORATORY EVALUATION

PARTICIPANT SUMMARY

2 • 0 • 2 • 1

Medical Laboratory Evaluation

Hematology, Coagulation,
Blood Bank, Urinalysis, PPM
2021 MLE-M3

Table of Contents

Table of Contents (cont'd)

Hematology (cont'd)

Blood Bank

Coagulation

Table of Contents (cont'd)

Urinalysis

Provider-Performed Microscopy (PPM)

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
Creatinine (Semi-Quantitative)	80% 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 Coagulation (CG Specimens) which consist of peer groups of 5 or more laboratories. Acceptable performance is established on a target value ± 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	± 15%
Automated Differential	± 3 SD
Body Fluid - Red Cell Count	± 2 SD
Body Fluid - White Cell Count	± 2 SD
Creatinine, Urine (Quantitative)	± 17%
Fibrinogen	± 20%
Glucose, Whole Blood – HemoCue	± 6 mg/dL or ± 20%*
Hematocrit	± 6%
Hematocrit, Waived	± 6% or ± 2 SD*
Hemoglobin	± 7%
Hemoglobin, Waived	± 7% or ± 2 SD*
International Normalized Ratio (INR)	± 15%
Microalbumin (Quantitative)	± 30%
Platelet Count	± 25%
Prothrombin Time	± 15%
Red Blood Cell Count	± 6%
Reticulocyte Count	± 30% or ± 2 SD*
Sedimentation Rate	± 3 SD
Specific Gravity	± 0.010
White Blood Cell Count	± 15%

*Whichever is greater

HEMOCUE HEMATOLOGY–HEMOGLOBIN (g/dL)

	Specimen HQ-5						Specimen HQ-6					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	32	13.67	2.34	17.1	12.4	12.7 - 14.7	32	16.96	3.99	23.5	15.4	15.7 - 18.2
All HemoCue 301/801	7	17.30	0.19	1.1	17.4	16.0 - 18.6	7	23.26	0.37	1.6	23.3	21.6 - 24.9
HemoCue 201/+	23	12.33	0.17	1.4	12.3	11.4 - 13.2	23	15.30	0.24	1.6	15.3	14.2 - 16.4
HemoCue 801	7	17.30	0.19	1.1	17.4	16.0 - 18.6	7	23.26	0.37	1.6	23.3	21.6 - 24.9

HEMOCUE HEMATOLOGY–GLUCOSE (mg/dL)

	Specimen HQ-5						Specimen HQ-6					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	26	95.3	6.8	7.1	96	76 - 115	24	0.0	0.1	0.0	0	0 - 6
All HemoCue Methods	26	95.3	6.8	7.1	96	76 - 115	24	0.0	0.1	0.0	0	0 - 6
HemoCue Glucose 201	26	95.3	6.8	7.1	96	76 - 115	24	0.0	0.1	0.0	0	0 - 6

SEDIMENTATION RATE (MM/HR)

	Specimen ES-5						Specimen ES-6					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	75	11.9	3.4	28.8	12	1 - 23	76	55.0	10.7	19.4	56	22 - 88
All Automated Methods	20	12.5	4.5	36.0	13	0 - 26	19	62.8	9.9	15.7	63	33 - 93
All Manual Methods	55	11.6	3.3	28.7	11	1 - 22	56	52.4	9.8	18.7	54	22 - 82
All Vital Diagnostics Methods	12	10.7	4.0	37.8	12	0 - 23	12	61.3	9.0	14.7	63	34 - 89
Vital Diagnostics Excyte M/10	6	12.0	2.4	20.4	12	4 - 20	6	57.3	9.1	15.9	57	30 - 85
Westergren - diluted	49	11.4	3.3	28.8	11	1 - 22	50	52.0	9.7	18.6	54	22 - 82
Westergren - undiluted	5	13.4	3.8	28.2	15	2 - 25	5	56.6	12.0	21.3	62	20 - 93

SEDIMAT SEDIMENTATION RATE (MM/HR)

	Specimen MAT-5						Specimen MAT-6					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
Polymedco Sedimat 15	10	3.0	1.3	43.0	3	0 - 7	10	70.0	3.0	4.3	71	61 - 79

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

	Specimen CL-11						Specimen CL-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	12	7.32	0.80	10.9	7.4	6.2 - 8.5	12	2.83	0.52	18.2	2.8	2.4 - 3.3
All Abbott Cell-Dyn Instruments	12	8.03	0.06	0.7	8.0	6.8 - 9.3	12	3.30	0.10	3.0	3.3	2.8 - 3.8
Abbott Cell-Dyn Emerald 22	6	6.60	0.20	3.0	6.6	5.6 - 7.6	6	2.37	0.06	2.4	2.4	2.0 - 2.8
Abbott Cell-Dyn Ruby	6	8.03	0.06	0.7	8.0	6.8 - 9.3	6	3.30	0.10	3.0	3.3	2.8 - 3.8
	Specimen CL-13						**Specimen CL-14**					
All Method	12	2.82	0.47	16.7	2.8	2.3 - 3.3	12	19.07	1.62	8.5	19.2	16.2 - 22.0
All Abbott Cell-Dyn Instruments	12	3.23	0.15	4.7	3.2	2.7 - 3.8	12	20.53	0.12	0.6	20.6	17.4 - 23.7
Abbott Cell-Dyn Emerald 22	6	2.40	0.10	4.2	2.4	2.0 - 2.8	6	17.60	0.35	2.0	17.4	14.9 - 20.3
Abbott Cell-Dyn Ruby	6	3.23	0.15	4.7	3.2	2.7 - 3.8	6	20.53	0.12	0.6	20.6	17.4 - 23.7
	Specimen CL-15											
All Method	12	7.38	0.91	12.3	7.5	6.2 - 8.5						
All Abbott Cell-Dyn Instruments	12	8.20	0.10	1.2	8.2	6.9 - 9.5						
Abbott Cell-Dyn Emerald 22	6	6.57	0.21	3.2	6.5	5.5 - 7.6						
Abbott Cell-Dyn Ruby	6	8.20	0.10	1.2	8.2	6.9 - 9.5						

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

	Specimen CL-11						Specimen CL-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	12	4.842	0.199	4.1	4.88	4.55 - 5.14	12	2.255	0.053	2.4	2.25	2.11 - 2.40
All Abbott Cell-Dyn Instruments	12	4.977	0.100	2.0	4.94	4.67 - 5.28	12	2.277	0.067	2.9	2.31	2.14 - 2.42
Abbott Cell-Dyn Emerald 22	6	4.707	0.186	3.9	4.76	4.42 - 4.99	6	2.233	0.035	1.6	2.23	2.09 - 2.37
Abbott Cell-Dyn Ruby	6	4.977	0.100	2.0	4.94	4.67 - 5.28	6	2.277	0.067	2.9	2.31	2.14 - 2.42
	Specimen CL-13						**Specimen CL-14**					
All Method	12	2.268	0.044	1.9	2.28	2.13 - 2.41	12	5.245	0.101	1.9	5.25	4.93 - 5.56
All Abbott Cell-Dyn Instruments	12	2.277	0.032	1.4	2.29	2.14 - 2.42	12	5.277	0.112	2.1	5.25	4.96 - 5.60
Abbott Cell-Dyn Emerald 22	6	2.260	0.060	2.7	2.26	2.12 - 2.40	6	5.213	0.100	1.9	5.25	4.90 - 5.53
Abbott Cell-Dyn Ruby	6	2.277	0.032	1.4	2.29	2.14 - 2.42	6	5.277	0.112	2.1	5.25	4.96 - 5.60
	Specimen CL-15											
All Method	12	4.993	0.206	4.1	4.97	4.69 - 5.30						
All Abbott Cell-Dyn Instruments	12	5.057	0.162	3.2	5.03	4.75 - 5.37						
Abbott Cell-Dyn Emerald 22	6	4.930	0.261	5.3	4.91	4.63 - 5.23						
Abbott Cell-Dyn Ruby	6	5.057	0.162	3.2	5.03	4.75 - 5.37						

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

	Specimen CL-11						Specimen CL-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	12	13.00	0.89	6.9	13.1	12.0 - 14.0	10	5.56	0.29	5.2	5.7	5.1 - 6.0
All Abbott Cell-Dyn Instruments	12	13.80	0.10	0.7	13.8	12.8 - 14.8	10	5.77	0.06	1.0	5.8	5.3 - 6.2
Abbott Cell-Dyn Emerald 22	6	12.20	0.26	2.2	12.1	11.3 - 13.1	4	-	-	-	5.3	5.1 - 6.0
Abbott Cell-Dyn Ruby	6	13.80	0.10	0.7	13.8	12.8 - 14.8	6	5.77	0.06	1.0	5.8	5.3 - 6.2
	Specimen CL-13						**Specimen CL-14**					
All Method	10	5.54	0.21	3.7	5.5	5.1 - 6.0	12	16.10	0.77	4.8	16.2	14.9 - 17.3
All Abbott Cell-Dyn Instruments	10	5.67	0.15	2.7	5.7	5.2 - 6.1	12	16.73	0.31	1.8	16.8	15.5 - 18.0
Abbott Cell-Dyn Emerald 22	4	-	-	-	5.4	5.1 - 6.0	6	15.47	0.45	2.9	15.5	14.3 - 16.6
Abbott Cell-Dyn Ruby	6	5.67	0.15	2.7	5.7	5.2 - 6.1	6	16.73	0.31	1.8	16.8	15.5 - 18.0
	Specimen CL- 15											
All Method	12	13.23	0.60	4.5	13.2	12.3 - 14.2						
All Abbott Cell-Dyn Instruments	12	13.73	0.31	2.2	13.8	12.7 - 14.7						
Abbott Cell-Dyn Emerald 22	6	12.73	0.21	1.6	12.8	11.8 - 13.7						
Abbott Cell-Dyn Ruby	6	13.73	0.31	2.2	13.8	12.7 - 14.7						

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

	Specimen CL-11						Specimen CL-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	12	39.42	1.78	4.5	40.0	37.0 - 41.8	12	15.95	0.57	3.6	15.9	14.9 - 17.0
All Abbott Cell-Dyn Instruments	12	38.07	1.44	3.8	37.5	35.7 - 40.4	12	15.67	0.45	2.9	15.7	14.7 - 16.7
Abbott Cell-Dyn Emerald 22	6	40.77	0.60	1.5	40.7	38.3 - 43.3	6	16.23	0.60	3.7	16.3	15.2 - 17.3
Abbott Cell-Dyn Ruby	6	38.07	1.44	3.8	37.5	35.7 - 40.4	6	15.67	0.45	2.9	15.7	14.7 - 16.7
	Specimen CL-13						**Specimen CL-14**					
All Method	12	16.37	0.87	5.3	16.1	15.3 - 17.4	12	45.67	2.44	5.3	46.1	42.9 - 48.5
All Abbott Cell-Dyn Instruments	12	15.77	0.29	1.8	15.6	14.8 - 16.8	12	43.77	1.76	4.0	43.6	41.1 - 46.4
Abbott Cell-Dyn Emerald 22	6	16.97	0.85	5.0	17.0	15.9 - 18.0	6	47.57	1.00	2.1	47.5	44.7 - 50.5
Abbott Cell-Dyn Ruby	6	15.77	0.29	1.8	15.6	14.8 - 16.8	6	43.77	1.76	4.0	43.6	41.1 - 46.4
	Specimen CL-15											
All Method	12	39.35	1.46	3.7	39.6	36.9 - 41.8						
All Abbott Cell-Dyn Instruments	12	38.87	1.76	4.5	39.1	36.5 - 41.2						
Abbott Cell-Dyn Emerald 22	6	39.83	1.22	3.1	40.1	37.4 - 42.3						
Abbott Cell-Dyn Ruby	6	38.87	1.76	4.5	39.1	36.5 - 41.2						

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

	Specimen CL-11						Specimen CL-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	12	255.0	9.0	3.5	258	191 - 319	12	90.2	16.5	18.3	91	67 - 113
All Abbott Cell-Dyn Instruments	12	259.7	5.9	2.3	262	194 - 325	12	75.7	4.0	5.3	75	56 - 95
Abbott Cell-Dyn Emerald 22	6	250.3	10.2	4.1	246	187 - 313	6	104.7	5.5	5.3	102	78 - 131
Abbott Cell-Dyn Ruby	6	259.7	5.9	2.3	262	194 - 325	6	75.7	4.0	5.3	75	56 - 95

	Specimen CL-13						Specimen CL-14					
All Method	12	96.5	22.4	23.2	91	72 - 121	12	495.7	17.4	3.5	500	371 - 620
All Abbott Cell-Dyn Instruments	12	79.0	1.0	1.3	79	59 - 99	12	502.3	17.0	3.4	503	376 - 628
Abbott Cell-Dyn Emerald 22	6	114.0	18.2	16.0	105	85 - 143	6	489.0	18.2	3.7	498	366 - 612
Abbott Cell-Dyn Ruby	6	79.0	1.0	1.3	79	59 - 99	6	502.3	17.0	3.4	503	376 - 628

	Specimen CL-15					
All Method	12	269.7	24.9	9.2	268	202 - 338
All Abbott Cell-Dyn Instruments	12	273.7	19.7	7.2	284	205 - 343
Abbott Cell-Dyn Emerald 22	6	265.7	33.4	12.6	250	199 - 333
Abbott Cell-Dyn Ruby	6	273.7	19.7	7.2	284	205 - 343

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

	Specimen CL-11						Specimen CL-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	12	60.07	1.52	2.5	60.6	55.5 - 64.7	12	46.12	0.79	1.7	46.2	43.7 - 48.5
All Abbott Cell-Dyn Instruments	12	61.00	0.75	1.2	60.9	58.7 - 63.3	12	45.87	0.85	1.9	45.9	43.3 - 48.5
Abbott Cell-Dyn Emerald 22	6	59.13	1.60	2.7	59.0	54.3 - 64.0	6	46.37	0.81	1.7	46.5	43.9 - 48.8
Abbott Cell-Dyn Ruby	6	61.00	0.75	1.2	60.9	58.7 - 63.3	6	45.87	0.85	1.9	45.9	43.3 - 48.5

	Specimen CL-13						Specimen CL-14					
All Method	12	46.05	0.62	1.3	46.1	44.1 - 48.0	12	71.62	0.95	1.3	71.8	68.7 - 74.5
All Abbott Cell-Dyn Instruments	12	46.13	0.75	1.6	46.1	43.8 - 48.4	12	72.30	0.61	0.8	72.0	70.4 - 74.2
Abbott Cell-Dyn Emerald 22	6	45.97	0.61	1.3	46.1	44.1 - 47.8	6	70.93	0.71	1.0	70.8	68.8 - 73.1
Abbott Cell-Dyn Ruby	6	46.13	0.75	1.6	46.1	43.8 - 48.4	6	72.30	0.61	0.8	72.0	70.4 - 74.2

	Specimen CL-15					
All Method	12	59.83	1.25	2.1	59.9	56.0 - 63.6
All Abbott Cell-Dyn Instruments	12	60.87	0.57	0.9	60.7	59.1 - 62.6
Abbott Cell-Dyn Emerald 22	6	58.80	0.62	1.1	59.0	56.9 - 60.7
Abbott Cell-Dyn Ruby	6	60.87	0.57	0.9	60.7	59.1 - 62.6

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

	Specimen CL-11						Specimen CL-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	12	20.27	5.58	27.5	21.1	3.5 - 37.0	12	28.80	8.93	31.0	29.8	2.0 - 55.6
All Abbott Cell-Dyn Instruments	12	25.20	0.36	1.4	25.1	24.1 - 26.3	12	36.83	0.68	1.8	36.6	34.7 - 38.9
Abbott Cell-Dyn Emerald 22	6	15.33	2.14	13.9	15.8	8.9 - 21.8	6	20.77	2.31	11.1	20.5	13.8 - 27.8
Abbott Cell-Dyn Ruby	6	25.20	0.36	1.4	25.1	24.1 - 26.3	6	36.83	0.68	1.8	36.6	34.7 - 38.9

	Specimen CL-13						Specimen CL-14					
All Method	12	30.32	9.32	30.7	30.7	2.3 - 58.3	12	14.12	2.33	16.5	13.4	7.1 - 21.2
All Abbott Cell-Dyn Instruments	12	38.73	1.07	2.8	39.3	35.5 - 42.0	12	15.67	2.49	15.9	14.7	8.1 - 23.2
Abbott Cell-Dyn Emerald 22	6	21.90	1.83	8.4	21.5	16.4 - 27.4	6	12.57	0.42	3.3	12.7	11.3 - 13.9
Abbott Cell-Dyn Ruby	6	38.73	1.07	2.8	39.3	35.5 - 42.0	6	15.67	2.49	15.9	14.7	8.1 - 23.2

	Specimen CL-15					
All Method	12	21.12	4.42	20.9	21.2	7.8 - 34.4
All Abbott Cell-Dyn Instruments	12	25.10	0.66	2.6	25.2	23.1 - 27.1
Abbott Cell-Dyn Emerald 22	6	17.13	0.85	5.0	17.1	14.5 - 19.7
Abbott Cell-Dyn Ruby	6	25.10	0.66	2.6	25.2	23.1 - 27.1

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

	Specimen CL-11						Specimen CL-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	12	13.33	6.69	50.2	12.8	0.0 - 33.5	12	19.27	9.37	48.7	18.8	0.0 - 47.4
All Abbott Cell-Dyn Instruments	12	7.30	0.46	6.3	7.4	5.9 - 8.7	12	10.77	0.84	7.8	11.2	8.2 - 13.3
Abbott Cell-Dyn Emerald 22	6	19.37	1.60	8.3	19.3	14.5 - 24.2	6	27.77	1.50	5.4	27.7	23.2 - 32.3
Abbott Cell-Dyn Ruby	6	7.30	0.46	6.3	7.4	5.9 - 8.7	6	10.77	0.84	7.8	11.2	8.2 - 13.3

	Specimen CL-13						Specimen CL-14					
All Method	12	17.80	9.76	54.9	17.0	0.0 - 47.1	12	6.97	3.27	46.9	6.6	0.0 - 16.8
All Abbott Cell-Dyn Instruments	12	9.00	0.72	8.0	8.8	6.8 - 11.2	12	4.03	0.12	2.9	4.1	3.6 - 4.4
Abbott Cell-Dyn Emerald 22	6	26.60	2.35	8.8	26.7	19.5 - 33.7	6	9.90	0.95	9.6	9.8	7.0 - 12.8
Abbott Cell-Dyn Ruby	6	9.00	0.72	8.0	8.8	6.8 - 11.2	6	4.03	0.12	2.9	4.1	3.6 - 4.4

	Specimen CL-15					
All Method	12	13.18	6.51	49.4	12.8	0.0 - 32.8
All Abbott Cell-Dyn Instruments	12	7.27	0.21	2.9	7.2	6.6 - 7.9
Abbott Cell-Dyn Emerald 22	6	19.10	1.01	5.3	19.3	16.0 - 22.2
Abbott Cell-Dyn Ruby	6	7.27	0.21	2.9	7.2	6.6 - 7.9

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

	Specimen CL-11						Specimen CL-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	12	6.32	0.49	7.7	6.4	4.8 - 7.8	12	5.33	0.52	9.7	5.3	3.7 - 6.9
All Abbott Cell-Dyn Instruments	12	6.20	0.36	5.8	6.3	5.1 - 7.3	12	5.67	0.45	8.0	5.7	4.3 - 7.1
Abbott Cell-Dyn Emerald 22	6	6.43	0.65	10.1	6.4	4.4 - 8.4	6	5.00	0.36	7.2	5.1	3.9 - 6.1
Abbott Cell-Dyn Ruby	6	6.20	0.36	5.8	6.3	5.1 - 7.3	6	5.67	0.45	8.0	5.7	4.3 - 7.1

	Specimen CL-13						Specimen CL-14					
All Method	12	5.18	0.39	7.5	5.2	4.0 - 6.4	12	8.13	0.83	10.2	8.0	5.6 - 10.7
All Abbott Cell-Dyn Instruments	12	5.30	0.53	10.0	5.1	3.7 - 6.9	12	8.83	0.49	5.6	8.6	7.3 - 10.4
Abbott Cell-Dyn Emerald 22	6	5.07	0.23	4.6	5.2	4.3 - 5.8	6	7.43	0.06	0.8	7.4	7.2 - 7.7
Abbott Cell-Dyn Ruby	6	5.30	0.53	10.0	5.1	3.7 - 6.9	6	8.83	0.49	5.6	8.6	7.3 - 10.4

	Specimen CL-15					
All Method	12	6.40	0.15	2.4	6.4	5.9 - 6.9
All Abbott Cell-Dyn Instruments	12	6.43	0.21	3.2	6.5	5.8 - 7.1
Abbott Cell-Dyn Emerald 22	6	6.37	0.12	1.8	6.3	6.0 - 6.8
Abbott Cell-Dyn Ruby	6	6.43	0.21	3.2	6.5	5.8 - 7.1

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

	Specimen CL-11						Specimen CL-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	12	0.42	0.25	59.6	0.4	0.0 - 1.2	12	0.57	0.41	72.0	0.6	0.0 - 1.8
All Abbott Cell-Dyn Instruments	12	0.57	0.25	44.4	0.6	0.0 - 1.4	12	0.90	0.20	22.2	0.9	0.3 - 1.5
Abbott Cell-Dyn Emerald 22	6	0.27	0.15	57.3	0.3	0.0 - 0.8	6	0.23	0.21	89.2	0.3	0.0 - 0.9
Abbott Cell-Dyn Ruby	6	0.57	0.25	44.4	0.6	0.0 - 1.4	6	0.90	0.20	22.2	0.9	0.3 - 1.5

	Specimen CL-13						Specimen CL-14					
All Method	12	0.58	0.50	86.3	0.6	0.0 - 2.1	12	0.33	0.27	82.0	0.3	0.0 - 1.2
All Abbott Cell-Dyn Instruments	12	0.87	0.55	63.5	0.6	0.0 - 2.6	12	0.47	0.35	75.3	0.5	0.0 - 1.6
Abbott Cell-Dyn Emerald 22	6	0.30	0.30	100.0	0.3	0.0 - 1.2	6	0.20	0.10	50.0	0.2	0.0 - 0.5
Abbott Cell-Dyn Ruby	6	0.87	0.55	63.5	0.6	0.0 - 2.6	6	0.47	0.35	75.3	0.5	0.0 - 1.6

	Specimen CL-15					
All Method	12	0.32	0.16	50.6	0.3	0.0 - 0.8
All Abbott Cell-Dyn Instruments	12	0.33	0.15	45.8	0.3	0.0 - 0.8
Abbott Cell-Dyn Emerald 22	6	0.30	0.20	66.7	0.3	0.0 - 0.9
Abbott Cell-Dyn Ruby	6	0.33	0.15	45.8	0.3	0.0 - 0.8

SYSMEX HEMATOLOGY W/ AUTOMATED DIFFERENTIAL–WHITE BLOOD CELL COUNT (x 10^9/L)

	Specimen SYX-11						Specimen SYX-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	44	8.03	0.21	2.6	8.0	6.8 - 9.3	46	2.94	0.11	3.8	2.9	2.4 - 3.4
All Sysmex Instruments	44	8.03	0.21	2.6	8.0	6.8 - 9.3	46	2.94	0.11	3.8	2.9	2.4 - 3.4
Sysmex KX-21N & K-800, 1000, 4500	7	7.90	0.12	1.5	7.9	6.7 - 9.1	7	2.86	0.13	4.5	2.8	2.4 - 3.3
Sysmex pocH-100i	7	7.76	0.30	3.9	7.8	6.5 - 9.0	7	2.87	0.13	4.4	2.8	2.4 - 3.4
Sysmex XP-300	31	8.09	0.19	2.4	8.1	6.8 - 9.4	32	2.97	0.09	3.0	3.0	2.5 - 3.5
	Specimen SYX-13						**Specimen SYX-14**					
All Method	46	2.95	0.14	4.7	2.9	2.5 - 3.4	45	20.61	0.67	3.2	20.6	17.5 - 23.7
All Sysmex Instruments	46	2.95	0.14	4.7	2.9	2.5 - 3.4	45	20.61	0.67	3.2	20.6	17.5 - 23.7
Sysmex KX-21N & K-800, 1000, 4500	7	2.83	0.13	4.4	2.9	2.4 - 3.3	7	20.17	0.24	1.2	20.3	17.1 - 23.2
Sysmex pocH-100i	7	2.84	0.10	3.4	2.8	2.4 - 3.3	7	19.47	0.77	3.9	19.5	16.5 - 22.4
Sysmex XP-300	32	3.00	0.12	4.0	3.0	2.5 - 3.5	32	20.88	0.53	2.6	20.9	17.7 - 24.1
	Specimen SYX-15											
All Method	46	8.03	0.24	3.0	8.0	6.8 - 9.3						
All Sysmex Instruments	46	8.03	0.24	3.0	8.0	6.8 - 9.3						
Sysmex KX-21N & K-800, 1000, 4500	7	7.79	0.19	2.4	7.8	6.6 - 9.0						
Sysmex pocH-100i	7	7.87	0.21	2.7	7.9	6.6 - 9.1						
Sysmex XP-300	32	8.13	0.20	2.5	8.1	6.9 - 9.4						

SYSMEX HEMATOLOGY W/ AUTOMATED DIFFERENTIAL–RED BLOOD CELL COUNT (x 10^{12}/L)

	Specimen SYX-11						Specimen SYX-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	46	4.064	0.065	1.6	4.07	3.82 - 4.31	46	2.477	0.039	1.6	2.47	2.32 - 2.63
All Sysmex Instruments	46	4.064	0.065	1.6	4.07	3.82 - 4.31	46	2.477	0.039	1.6	2.47	2.32 - 2.63
Sysmex KX-21N & K-800, 1000, 4500	7	4.023	0.052	1.3	4.02	3.78 - 4.27	7	2.447	0.026	1.0	2.44	2.30 - 2.60
Sysmex pocH-100i	7	4.123	0.080	1.9	4.15	3.87 - 4.38	7	2.506	0.044	1.7	2.49	2.35 - 2.66
Sysmex XP-300	32	4.061	0.057	1.4	4.06	3.81 - 4.31	32	2.477	0.037	1.5	2.47	2.32 - 2.63
	Specimen SYX-13						**Specimen SYX-14**					
All Method	45	2.474	0.037	1.5	2.48	2.32 - 2.63	45	5.693	0.059	1.0	5.68	5.35 - 6.04
All Sysmex Instruments	45	2.474	0.037	1.5	2.48	2.32 - 2.63	45	5.693	0.059	1.0	5.68	5.35 - 6.04
Sysmex KX-21N & K-800, 1000, 4500	7	2.453	0.043	1.8	2.44	2.30 - 2.61	7	5.663	0.034	0.6	5.65	5.32 - 6.01
Sysmex pocH-100i	7	2.501	0.029	1.1	2.49	2.35 - 2.66	7	5.803	0.057	1.0	5.79	5.45 - 6.16
Sysmex XP-300	31	2.473	0.035	1.4	2.48	2.32 - 2.63	32	5.682	0.050	0.9	5.68	5.34 - 6.03
	Specimen SYX-15											
All Method	45	4.070	0.059	1.5	4.06	3.82 - 4.32						
All Sysmex Instruments	45	4.070	0.059	1.5	4.06	3.82 - 4.32						
Sysmex KX-21N & K-800, 1000, 4500	7	4.037	0.050	1.2	4.05	3.79 - 4.28						
Sysmex pocH-100i	7	4.133	0.062	1.5	4.11	3.88 - 4.39						
Sysmex XP-300	31	4.064	0.052	1.3	4.05	3.81 - 4.31						

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

	Specimen SYX-11						Specimen SYX-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	46	12.07	0.23	1.9	12.1	11.2 - 13.0	46	6.24	0.17	2.7	6.2	5.8 - 6.7
All Sysmex Instruments	46	12.07	0.23	1.9	12.1	11.2 - 13.0	46	6.24	0.17	2.7	6.2	5.8 - 6.7
Sysmex KX-21N & K-800, 1000, 4500	7	12.00	0.15	1.3	12.0	11.1 - 12.9	7	6.23	0.21	3.4	6.3	5.7 - 6.7
Sysmex pocH-100i	7	12.37	0.28	2.3	12.4	11.5 - 13.3	7	6.43	0.18	2.8	6.4	5.9 - 6.9
Sysmex XP-300	31	12.04	0.14	1.1	12.0	11.1 - 12.9	32	6.21	0.13	2.1	6.2	5.7 - 6.7

	Specimen SYX-13						Specimen SYX-14					
All Method	46	6.26	0.14	2.3	6.3	5.8 - 6.7	46	18.30	0.27	1.5	18.3	17.0 - 19.6
All Sysmex Instruments	46	6.26	0.14	2.3	6.3	5.8 - 6.7	46	18.30	0.27	1.5	18.3	17.0 - 19.6
Sysmex KX-21N & K-800, 1000, 4500	7	6.24	0.13	2.0	6.3	5.8 - 6.7	7	18.21	0.24	1.3	18.2	16.9 - 19.5
Sysmex pocH-100i	7	6.37	0.22	3.5	6.4	5.9 - 6.9	7	18.63	0.45	2.4	18.8	17.3 - 20.0
Sysmex XP-300	32	6.24	0.12	1.9	6.2	5.8 - 6.7	32	18.25	0.16	0.9	18.3	16.9 - 19.6

	Specimen SYX-15					
All Method	46	12.14	0.16	1.3	12.1	11.2 - 13.0
All Sysmex Instruments	46	12.14	0.16	1.3	12.1	11.2 - 13.0
Sysmex KX-21N & K-800, 1000, 4500	7	12.06	0.13	1.1	12.1	11.2 - 13.0
Sysmex pocH-100i	7	12.34	0.19	1.5	12.3	11.4 - 13.3
Sysmex XP-300	32	12.12	0.12	1.0	12.1	11.2 - 13.0

SYSMEX HEMATOLOGY W/ AUTOMATED DIFFERENTIAL–HEMATOCRIT (percent)

	Specimen SYX-11						Specimen SYX-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	46	32.80	0.82	2.5	32.7	30.8 - 34.8	44	17.38	0.35	2.0	17.3	16.3 - 18.5
All Sysmex Instruments	46	32.80	0.82	2.5	32.7	30.8 - 34.8	44	17.38	0.35	2.0	17.3	16.3 - 18.5
Sysmex KX-21N & K-800, 1000, 4500	7	32.29	0.56	1.7	32.2	30.3 - 34.3	7	17.10	0.15	0.9	17.0	16.0 - 18.2
Sysmex pocH-100i	7	34.14	0.93	2.7	34.5	32.0 - 36.2	7	18.21	0.45	2.4	18.2	17.1 - 19.4
Sysmex XP-300	32	32.61	0.49	1.5	32.7	30.6 - 34.6	32	17.34	0.26	1.5	17.3	16.2 - 18.4
	Specimen SYX-13						**Specimen SYX-14**					
All Method	46	17.43	0.43	2.5	17.3	16.3 - 18.5	46	49.69	0.97	2.0	49.5	46.7 - 52.7
All Sysmex Instruments	46	17.43	0.43	2.5	17.3	16.3 - 18.5	46	49.69	0.97	2.0	49.5	46.7 - 52.7
Sysmex KX-21N & K-800, 1000, 4500	7	17.09	0.22	1.3	17.1	16.0 - 18.2	7	49.29	0.67	1.4	49.2	46.3 - 52.3
Sysmex pocH-100i	7	18.20	0.32	1.7	18.2	17.1 - 19.3	7	51.37	0.86	1.7	51.4	48.2 - 54.5
Sysmex XP-300	31	17.31	0.22	1.3	17.3	16.2 - 18.4	32	49.41	0.62	1.3	49.5	46.4 - 52.4
	Specimen SYX-15											
All Method	45	32.78	0.71	2.2	32.6	30.8 - 34.8						
All Sysmex Instruments	45	32.78	0.71	2.2	32.6	30.8 - 34.8						
Sysmex KX-21N & K-800, 1000, 4500	7	32.33	0.50	1.5	32.2	30.3 - 34.3						
Sysmex pocH-100i	7	34.19	0.83	2.4	34.4	32.1 - 36.3						
Sysmex XP-300	32	32.65	0.47	1.4	32.6	30.6 - 34.7						

SYSMEX HEMATOLOGY W/ AUTOMATED DIFFERENTIAL–PLATELET COUNT (x10^9/L)

	Specimen SYX-11						Specimen SYX-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	44	211.0	7.3	3.5	212	158 - 264	46	67.3	3.9	5.8	67	50 - 85
All Sysmex Instruments	44	211.0	7.3	3.5	212	158 - 264	46	67.3	3.9	5.8	67	50 - 85
Sysmex KX-21N & K-800, 1000, 4500	7	217.3	5.6	2.6	217	162 - 272	7	67.7	3.1	4.6	67	50 - 85
Sysmex pocH-100i	7	206.4	10.6	5.1	212	154 - 259	7	66.9	2.2	3.3	68	50 - 84
Sysmex XP-300	30	210.5	5.9	2.8	210	157 - 264	32	67.3	4.4	6.6	68	50 - 85

	Specimen SYX-13						Specimen SYX-14					
All Method	46	67.2	5.0	7.4	68	50 - 84	44	399.0	13.1	3.3	399	299 - 499
All Sysmex Instruments	46	67.2	5.0	7.4	68	50 - 84	44	399.0	13.1	3.3	399	299 - 499
Sysmex KX-21N & K-800, 1000, 4500	7	68.3	6.1	8.9	68	51 - 86	7	409.7	10.5	2.6	412	307 - 513
Sysmex pocH-100i	7	71.4	3.0	4.2	71	53 - 90	7	389.1	13.7	3.5	389	291 - 487
Sysmex XP-300	32	66.0	4.6	7.0	67	49 - 83	29	400.1	9.7	2.4	398	300 - 501

	Specimen SYX-15					
All Method	44	212.1	8.1	3.8	212	159 - 266
All Sysmex Instruments	44	212.1	8.1	3.8	212	159 - 266
Sysmex KX-21N & K-800, 1000, 4500	7	211.9	10.7	5.1	212	158 - 265
Sysmex pocH-100i	7	204.9	8.6	4.2	207	153 - 257
Sysmex XP-300	30	213.9	6.5	3.1	215	160 - 268

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

	Specimen SYX-11						Specimen SYX-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	39	28.37	1.32	4.7	28.0	24.4 - 32.4	40	10.38	1.26	12.1	10.7	6.6 - 14.2
All Sysmex Instruments	39	28.37	1.32	4.7	28.0	24.4 - 32.4	40	10.38	1.26	12.1	10.7	6.6 - 14.2
Sysmex KX-21N & K-800, 1000, 4500	6	29.80	0.76	2.5	29.9	27.5 - 32.1	6	10.38	1.24	12.0	10.8	6.6 - 14.2
Sysmex pocH-100i	6	27.48	0.92	3.3	27.4	24.7 - 30.3	6	9.45	1.14	12.0	9.4	6.0 - 12.9
Sysmex XP-300	28	28.42	1.53	5.4	27.9	23.8 - 33.1	28	10.57	1.23	11.7	10.9	6.8 - 14.3

	Specimen SYX-13						Specimen SYX-14					
All Method	39	10.67	1.21	11.3	10.5	7.0 - 14.3	39	60.85	0.91	1.5	61.1	58.1 - 63.6
All Sysmex Instruments	39	10.67	1.21	11.3	10.5	7.0 - 14.3	39	60.85	0.91	1.5	61.1	58.1 - 63.6
Sysmex KX-21N & K-800, 1000, 4500	6	11.32	0.95	8.4	11.2	8.4 - 14.2	6	61.48	0.46	0.7	61.5	60.1 - 62.9
Sysmex pocH-100i	6	9.30	0.97	10.4	9.3	6.3 - 12.3	6	59.90	0.91	1.5	60.0	57.1 - 62.7
Sysmex XP-300	27	10.83	1.10	10.2	10.8	7.5 - 14.2	26	61.02	0.67	1.1	61.2	59.0 - 63.1

	Specimen SYX-15					
All Method	39	28.49	1.48	5.2	28.3	24.0 - 33.0
All Sysmex Instruments	39	28.49	1.48	5.2	28.3	24.0 - 33.0
Sysmex KX-21N & K-800, 1000, 4500	6	29.37	1.35	4.6	29.6	25.3 - 33.5
Sysmex pocH-100i	6	27.40	0.92	3.4	27.6	24.6 - 30.2
Sysmex XP-300	27	28.54	1.49	5.2	28.3	24.0 - 33.1

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

	Specimen SYX-11						Specimen SYX-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	39	15.89	1.03	6.5	15.9	12.8 - 19.0	40	17.75	1.53	8.6	17.7	13.1 - 22.4
All Sysmex Instruments	39	15.89	1.03	6.5	15.9	12.8 - 19.0	40	17.75	1.53	8.6	17.7	13.1 - 22.4
Sysmex KX-21N & K-800, 1000, 4500	6	15.75	0.53	3.4	15.9	14.1 - 17.4	6	17.50	0.93	5.3	17.4	14.7 - 20.3
Sysmex pocH-100i	6	14.02	1.22	8.7	14.2	10.3 - 17.7	6	15.90	1.22	7.7	16.2	12.2 - 19.6
Sysmex XP-300	28	16.18	0.96	5.9	16.1	13.3 - 19.1	28	18.20	1.39	7.7	18.4	14.0 - 22.4

	Specimen SYX-13						Specimen SYX-14					
All Method	40	18.23	1.74	9.6	18.3	12.9 - 23.5	39	11.20	0.65	5.8	11.2	9.2 - 13.2
All Sysmex Instruments	40	18.23	1.74	9.6	18.3	12.9 - 23.5	39	11.20	0.65	5.8	11.2	9.2 - 13.2
Sysmex KX-21N & K-800, 1000, 4500	6	18.50	1.40	7.6	18.1	14.3 - 22.7	6	11.53	0.48	4.2	11.7	10.0 - 13.0
Sysmex pocH-100i	6	16.32	1.84	11.3	16.0	10.7 - 21.9	6	10.30	0.51	4.9	10.1	8.7 - 11.9
Sysmex XP-300	28	18.58	1.56	8.4	18.6	13.8 - 23.3	27	11.32	0.54	4.8	11.3	9.6 - 13.0

	Specimen SYX-15					
All Method	38	15.76	1.35	8.6	15.9	11.6 - 19.9
All Sysmex Instruments	38	15.76	1.35	8.6	15.9	11.6 - 19.9
Sysmex KX-21N & K-800, 1000, 4500	5	15.80	0.85	5.4	15.8	13.2 - 18.4
Sysmex pocH-100i	5	13.06	0.79	6.1	13.4	10.6 - 15.5
Sysmex XP-300	28	16.23	0.85	5.3	16.1	13.6 - 18.8

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

	Specimen SYX-11						Specimen SYX-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	40	55.73	1.97	3.5	55.6	49.8 - 61.7	40	71.89	1.98	2.8	72.0	65.9 - 77.9
All Sysmex Instruments	40	55.73	1.97	3.5	55.6	49.8 - 61.7	40	71.89	1.98	2.8	72.0	65.9 - 77.9
Sysmex KX-21N & K-800, 1000, 4500	6	54.45	1.26	2.3	54.2	50.6 - 58.3	6	72.22	0.55	0.8	72.2	70.5 - 73.9
Sysmex pocH-100i	6	58.50	1.67	2.9	58.5	53.4 - 63.6	6	74.65	1.64	2.2	74.7	69.7 - 79.6
Sysmex XP-300	28	55.41	1.62	2.9	55.5	50.5 - 60.3	28	71.23	1.72	2.4	71.3	66.0 - 76.4
	Specimen SYX-13						**Specimen SYX-14**					
All Method	40	70.96	2.32	3.3	70.9	63.9 - 78.0	40	27.87	1.12	4.0	27.6	24.5 - 31.3
All Sysmex Instruments	40	70.96	2.32	3.3	70.9	63.9 - 78.0	40	27.87	1.12	4.0	27.6	24.5 - 31.3
Sysmex KX-21N & K-800, 1000, 4500	6	70.18	1.71	2.4	70.0	65.0 - 75.4	6	26.98	0.68	2.5	26.9	24.9 - 29.1
Sysmex pocH-100i	6	74.38	1.48	2.0	74.9	69.9 - 78.9	6	29.82	0.70	2.3	29.7	27.7 - 32.0
Sysmex XP-300	28	70.39	1.94	2.8	70.6	64.5 - 76.3	28	27.64	0.75	2.7	27.6	25.3 - 29.9
	Specimen SYX-15											
All Method	40	55.59	1.94	3.5	55.4	49.7 - 61.5						
All Sysmex Instruments	40	55.59	1.94	3.5	55.4	49.7 - 61.5						
Sysmex KX-21N & K-800, 1000, 4500	6	54.07	1.04	1.9	54.0	50.9 - 57.2						
Sysmex pocH-100i	6	59.05	1.02	1.7	59.3	55.9 - 62.2						
Sysmex XP-300	28	55.18	1.29	2.3	55.1	51.2 - 59.1						

BASIC HEMATOLOGY W/ 3-PART DIFFERENTIAL–WHITE BLOOD CELL COUNT (x 10^9/L)

	Specimen HD-11						Specimen HD-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	298	7.63	0.30	4.0	7.6	6.4 - 8.8	303	2.10	0.16	7.7	2.1	1.7 - 2.5
All Abbott Cell-Dyn Instruments	86	7.69	0.30	3.9	7.7	6.5 - 8.9	88	2.19	0.13	6.2	2.2	1.8 - 2.6
All ABX Instruments	48	7.82	0.24	3.0	7.9	6.6 - 9.0	49	2.14	0.08	3.7	2.1	1.8 - 2.5
All Boule (CDS) Instruments	103	7.40	0.19	2.6	7.4	6.2 - 8.6	104	1.94	0.08	4.2	2.0	1.6 - 2.3
All COULTER Instruments	55	7.79	0.25	3.3	7.8	6.6 - 9.0	56	2.25	0.09	4.2	2.3	1.9 - 2.6
Abbott Cell-Dyn 1700	6	8.13	0.40	4.9	8.1	6.9 - 9.4	6	2.28	0.12	5.1	2.3	1.9 - 2.7
Abbott Cell-Dyn 1800	18	7.32	0.31	4.3	7.3	6.2 - 8.5	18	2.02	0.11	5.2	2.0	1.7 - 2.4
Abbott Cell-Dyn Emerald	64	7.75	0.25	3.3	7.8	6.5 - 9.0	64	2.23	0.10	4.6	2.2	1.8 - 2.6
Boule (CDS) Medonic M series	103	7.40	0.19	2.6	7.4	6.2 - 8.6	104	1.94	0.08	4.2	2.0	1.6 - 2.3
COULTER AcT diff/diff 2	54	7.79	0.25	3.2	7.8	6.6 - 9.0	55	2.25	0.09	4.2	2.2	1.9 - 2.6
Diatron Abacus 3 CP	5	7.43	0.33	4.4	7.4	6.3 - 8.6	5	2.00	0.10	5.0	2.0	1.7 - 2.3
Horiba ABX Micros/45/60	48	7.82	0.24	3.0	7.9	6.6 - 9.0	49	2.14	0.08	3.7	2.1	1.8 - 2.5

	Specimen HD-13						Specimen HD-14					
All Method	305	2.09	0.16	7.6	2.1	1.7 - 2.5	300	20.44	0.71	3.5	20.4	17.3 - 23.6
All Abbott Cell-Dyn Instruments	89	2.19	0.14	6.3	2.2	1.8 - 2.6	88	20.17	0.86	4.3	20.1	17.1 - 23.2
All ABX Instruments	50	2.11	0.08	3.8	2.1	1.7 - 2.5	50	20.81	0.60	2.9	20.8	17.6 - 24.0
All Boule (CDS) Instruments	103	1.93	0.09	4.8	1.9	1.6 - 2.3	103	20.19	0.53	2.6	20.2	17.1 - 23.3
All COULTER Instruments	56	2.19	0.10	4.6	2.2	1.8 - 2.6	55	20.93	0.58	2.8	20.9	17.7 - 24.1
Abbott Cell-Dyn 1700	6	2.28	0.12	5.1	2.3	1.9 - 2.7	6	20.82	0.81	3.9	20.5	17.6 - 24.0
Abbott Cell-Dyn 1800	18	2.03	0.10	5.1	2.1	1.7 - 2.4	18	19.72	0.81	4.1	19.8	16.7 - 22.7
Abbott Cell-Dyn Emerald	65	2.23	0.11	5.1	2.2	1.8 - 2.6	64	20.24	0.83	4.1	20.1	17.2 - 23.3
Boule (CDS) Medonic M series	103	1.93	0.09	4.8	1.9	1.6 - 2.3	103	20.19	0.53	2.6	20.2	17.1 - 23.3
COULTER AcT diff/diff 2	55	2.19	0.10	4.6	2.2	1.8 - 2.6	55	20.93	0.58	2.8	20.9	17.7 - 24.1
Diatron Abacus 3 CP	5	1.93	0.05	2.6	1.9	1.6 - 2.3	5	20.20	1.20	6.0	20.4	17.1 - 23.3
Horiba ABX Micros/45/60	50	2.11	0.08	3.8	2.1	1.7 - 2.5	50	20.81	0.60	2.9	20.8	17.6 - 24.0

BASIC HEMATOLOGY W/ 3-PART DIFFERENTIAL–WHITE BLOOD CELL COUNT (x 10^9/L) cont'd

Specimen HD-15

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	303	7.64	0.32	4.2	7.7	6.4 - 8.8
All Abbott Cell-Dyn Instruments	88	7.73	0.33	4.2	7.7	6.5 - 8.9
All ABX Instruments	50	7.74	0.22	2.9	7.7	6.5 - 8.9
All Boule (CDS) Instruments	103	7.41	0.23	3.2	7.4	6.2 - 8.6
All COULTER Instruments	56	7.86	0.27	3.5	7.8	6.6 - 9.1
Abbott Cell-Dyn 1700	6	8.28	0.37	4.4	8.3	7.0 - 9.6
Abbott Cell-Dyn 1800	18	7.37	0.23	3.1	7.5	6.2 - 8.5
Abbott Cell-Dyn Emerald	64	7.78	0.24	3.1	7.8	6.6 - 9.0
Boule (CDS) Medonic M series	103	7.41	0.23	3.2	7.4	6.2 - 8.6
COULTER AcT diff/diff 2	55	7.87	0.27	3.5	7.8	6.6 - 9.1
Diatron Abacus 3 CP	5	7.28	0.26	3.6	7.4	6.1 - 8.4
Horiba ABX Micros/45/60	50	7.74	0.22	2.9	7.7	6.5 - 8.9

BASIC HEMATOLOGY W/ 3-PART DIFFERENTIAL–RED BLOOD CELL COUNT (x 10^{12}/L)

	Specimen HD-11						Specimen HD-12					
Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	300	4.371	0.102	2.3	4.38	4.10 - 4.64	299	2.233	0.058	2.6	2.23	2.09 - 2.37
All Abbott Cell-Dyn Instruments	89	4.330	0.119	2.8	4.32	4.07 - 4.60	90	2.263	0.078	3.4	2.26	2.12 - 2.40
All ABX Instruments	49	4.366	0.085	2.0	4.38	4.10 - 4.63	50	2.217	0.049	2.2	2.22	2.08 - 2.36
All Boule (CDS) Instruments	103	4.397	0.066	1.5	4.40	4.13 - 4.67	104	2.211	0.039	1.8	2.21	2.07 - 2.35
All COULTER Instruments	55	4.406	0.123	2.8	4.43	4.14 - 4.68	55	2.255	0.063	2.8	2.25	2.11 - 2.40
Abbott Cell-Dyn 1700	6	4.345	0.073	1.7	4.35	4.08 - 4.61	6	2.252	0.030	1.3	2.26	2.11 - 2.39
Abbott Cell-Dyn 1800	17	4.388	0.102	2.3	4.40	4.12 - 4.66	18	2.356	0.071	3.0	2.37	2.21 - 2.50
Abbott Cell-Dyn Emerald	66	4.314	0.123	2.9	4.30	4.05 - 4.58	64	2.239	0.055	2.4	2.24	2.10 - 2.38
Boule (CDS) Medonic M series	103	4.397	0.066	1.5	4.40	4.13 - 4.67	104	2.211	0.039	1.8	2.21	2.07 - 2.35
COULTER AcT diff/diff 2	54	4.407	0.124	2.8	4.43	4.14 - 4.68	54	2.256	0.063	2.8	2.25	2.12 - 2.40
Diatron Abacus 3 CP	5	4.280	0.164	3.8	4.32	4.02 - 4.54	5	2.257	0.031	1.4	2.25	2.12 - 2.40
Horiba ABX Micros/45/60	49	4.366	0.085	2.0	4.38	4.10 - 4.63	50	2.217	0.049	2.2	2.22	2.08 - 2.36

BASIC HEMATOLOGY W/ 3-PART DIFFERENTIAL–RED BLOOD CELL COUNT (x 10^{12}/L) cont'd

	Specimen HD-13						Specimen HD-14					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	299	2.234	0.058	2.6	2.23	2.10 - 2.37	298	5.594	0.134	2.4	5.60	5.25 - 5.93
All Abbott Cell-Dyn Instruments	90	2.257	0.078	3.5	2.25	2.12 - 2.40	86	5.490	0.131	2.4	5.50	5.16 - 5.82
All ABX Instruments	49	2.216	0.045	2.0	2.22	2.08 - 2.35	49	5.600	0.098	1.7	5.61	5.26 - 5.94
All Boule (CDS) Instruments	102	2.214	0.038	1.7	2.21	2.08 - 2.35	102	5.667	0.102	1.8	5.67	5.32 - 6.01
All COULTER Instruments	56	2.266	0.066	2.9	2.27	2.12 - 2.41	56	5.611	0.128	2.3	5.62	5.27 - 5.95
Abbott Cell-Dyn 1700	6	2.213	0.096	4.3	2.24	2.08 - 2.35	6	5.435	0.107	2.0	5.43	5.10 - 5.77
Abbott Cell-Dyn 1800	18	2.344	0.082	3.5	2.37	2.20 - 2.49	18	5.444	0.186	3.4	5.48	5.11 - 5.78
Abbott Cell-Dyn Emerald	66	2.237	0.057	2.5	2.24	2.10 - 2.38	63	5.499	0.130	2.4	5.51	5.16 - 5.83
Boule (CDS) Medonic M series	102	2.214	0.038	1.7	2.21	2.08 - 2.35	102	5.667	0.102	1.8	5.67	5.32 - 6.01
COULTER AcT diff/diff 2	55	2.265	0.066	2.9	2.27	2.12 - 2.41	55	5.609	0.129	2.3	5.61	5.27 - 5.95
Diatron Abacus 3 CP	5	2.175	0.101	4.6	2.20	2.04 - 2.31	5	5.687	0.095	1.7	5.69	5.34 - 6.03
Horiba ABX Micros/45/60	49	2.216	0.045	2.0	2.22	2.08 - 2.35	49	5.600	0.098	1.7	5.61	5.26 - 5.94

	Specimen HD-15					
All Method	297	4.372	0.093	2.1	4.38	4.10 - 4.64
All Abbott Cell-Dyn Instruments	89	4.347	0.125	2.9	4.34	4.08 - 4.61
All ABX Instruments	50	4.352	0.090	2.1	4.37	4.09 - 4.62
All Boule (CDS) Instruments	104	4.389	0.078	1.8	4.40	4.12 - 4.66
All COULTER Instruments	56	4.406	0.114	2.6	4.41	4.14 - 4.68
Abbott Cell-Dyn 1700	6	4.370	0.126	2.9	4.33	4.10 - 4.64
Abbott Cell-Dyn 1800	18	4.391	0.101	2.3	4.41	4.12 - 4.66
Abbott Cell-Dyn Emerald	66	4.340	0.138	3.2	4.33	4.07 - 4.61
Boule (CDS) Medonic M series	104	4.389	0.078	1.8	4.40	4.12 - 4.66
COULTER AcT diff/diff 2	55	4.406	0.115	2.6	4.41	4.14 - 4.67
Diatron Abacus 3 CP	5	4.377	0.090	2.0	4.33	4.11 - 4.64
Horiba ABX Micros/45/60	50	4.352	0.090	2.1	4.37	4.09 - 4.62

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

	Specimen HD-11						Specimen HD-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	304	13.39	0.27	2.0	13.4	12.4 - 14.4	304	5.79	0.15	2.6	5.8	5.3 - 6.2
All Abbott Cell-Dyn Instruments	90	13.33	0.29	2.2	13.4	12.3 - 14.3	90	5.78	0.21	3.7	5.8	5.3 - 6.2
All ABX Instruments	48	13.43	0.20	1.5	13.5	12.4 - 14.4	49	5.83	0.09	1.6	5.8	5.4 - 6.3
All Boule (CDS) Instruments	100	13.45	0.16	1.2	13.5	12.5 - 14.4	104	5.83	0.09	1.5	5.8	5.4 - 6.3
All COULTER Instruments	55	13.29	0.38	2.8	13.2	12.3 - 14.3	56	5.73	0.17	2.9	5.7	5.3 - 6.2
Abbott Cell-Dyn 1700	6	13.47	0.18	1.3	13.4	12.5 - 14.5	6	6.03	0.10	1.7	6.0	5.6 - 6.5
Abbott Cell-Dyn 1800	18	13.46	0.24	1.8	13.5	12.5 - 14.5	17	6.03	0.09	1.5	6.0	5.6 - 6.5
Abbott Cell-Dyn Emerald	66	13.28	0.29	2.2	13.3	12.3 - 14.3	64	5.69	0.14	2.4	5.7	5.2 - 6.1
Boule (CDS) Medonic M series	100	13.45	0.16	1.2	13.5	12.5 - 14.4	104	5.83	0.09	1.5	5.8	5.4 - 6.3
COULTER AcT diff/diff 2	54	13.29	0.38	2.9	13.2	12.3 - 14.3	55	5.72	0.17	2.9	5.7	5.3 - 6.2
Diatron Abacus 3 CP	5	13.90	0.34	2.4	14.1	12.9 - 14.9	5	5.98	0.24	4.0	5.9	5.5 - 6.4
Horiba ABX Micros/45/60	48	13.43	0.20	1.5	13.5	12.4 - 14.4	49	5.83	0.09	1.6	5.8	5.4 - 6.3

	Specimen HD-13						Specimen HD-14					
All Method	304	5.79	0.15	2.6	5.8	5.3 - 6.2	303	18.38	0.40	2.2	18.4	17.0 - 19.7
All Abbott Cell-Dyn Instruments	90	5.79	0.20	3.5	5.8	5.3 - 6.2	88	18.32	0.41	2.3	18.4	17.0 - 19.6
All ABX Instruments	48	5.83	0.11	1.8	5.8	5.4 - 6.3	49	18.38	0.28	1.5	18.3	17.0 - 19.7
All Boule (CDS) Instruments	104	5.83	0.09	1.6	5.8	5.4 - 6.3	102	18.56	0.31	1.6	18.6	17.2 - 19.9
All COULTER Instruments	56	5.70	0.17	2.9	5.7	5.2 - 6.1	55	18.21	0.38	2.1	18.2	16.9 - 19.5
Abbott Cell-Dyn 1700	6	6.05	0.10	1.7	6.1	5.6 - 6.5	6	18.27	0.31	1.7	18.2	16.9 - 19.6
Abbott Cell-Dyn 1800	18	6.01	0.14	2.3	6.0	5.5 - 6.5	18	18.47	0.48	2.6	18.6	17.1 - 19.8
Abbott Cell-Dyn Emerald	66	5.70	0.15	2.6	5.7	5.3 - 6.2	64	18.28	0.40	2.2	18.3	16.9 - 19.6
Boule (CDS) Medonic M series	104	5.83	0.09	1.6	5.8	5.4 - 6.3	102	18.56	0.31	1.6	18.6	17.2 - 19.9
COULTER AcT diff/diff 2	55	5.69	0.16	2.8	5.7	5.2 - 6.1	54	18.21	0.38	2.1	18.2	16.9 - 19.5
Diatron Abacus 3 CP	5	5.95	0.25	4.2	5.9	5.5 - 6.4	5	19.55	0.93	4.8	19.7	18.1 - 21.0
Horiba ABX Micros/45/60	48	5.83	0.11	1.8	5.8	5.4 - 6.3	49	18.38	0.28	1.5	18.3	17.0 - 19.7

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

Specimen HD-15

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	303	13.42	0.25	1.9	13.4	12.4 - 14.4
All Abbott Cell-Dyn Instruments	89	13.41	0.27	2.0	13.4	12.4 - 14.4
All ABX Instruments	49	13.48	0.19	1.4	13.4	12.5 - 14.5
All Boule (CDS) Instruments	102	13.46	0.19	1.4	13.5	12.5 - 14.5
All COULTER Instruments	56	13.33	0.36	2.7	13.3	12.3 - 14.3
Abbott Cell-Dyn 1700	6	13.68	0.37	2.7	13.6	12.7 - 14.7
Abbott Cell-Dyn 1800	18	13.58	0.25	1.9	13.7	12.6 - 14.6
Abbott Cell-Dyn Emerald	66	13.36	0.27	2.0	13.4	12.4 - 14.3
Boule (CDS) Medonic M series	102	13.46	0.19	1.4	13.5	12.5 - 14.5
COULTER AcT diff/diff 2	55	13.33	0.36	2.7	13.3	12.3 - 14.3
Diatron Abacus 3 CP	5	13.58	0.50	3.7	13.7	12.6 - 14.6
Horiba ABX Micros/45/60	49	13.48	0.19	1.4	13.4	12.5 - 14.5

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

	Specimen HD-11						**Specimen HD-12**					
Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	303	37.93	1.89	5.0	37.8	35.6 - 40.3	305	16.19	1.14	7.0	16.0	15.2 - 17.2
All Abbott Cell-Dyn Instruments	89	40.00	1.18	2.9	40.1	37.6 - 42.5	88	17.51	0.54	3.1	17.5	16.4 - 18.6
All ABX Instruments	49	37.48	0.88	2.4	37.3	35.2 - 39.8	49	15.60	0.32	2.0	15.6	14.6 - 16.6
All Boule (CDS) Instruments	103	36.22	0.84	2.3	36.1	34.0 - 38.4	103	15.07	0.38	2.5	15.1	14.1 - 16.0
All COULTER Instruments	54	38.18	1.00	2.6	38.2	35.8 - 40.5	56	16.54	0.49	3.0	16.6	15.5 - 17.6
Abbott Cell-Dyn 1700	6	38.55	0.78	2.0	38.5	36.2 - 40.9	6	16.55	0.28	1.7	16.5	15.5 - 17.6
Abbott Cell-Dyn 1800	17	39.66	1.01	2.6	39.9	37.2 - 42.1	18	17.55	0.70	4.0	17.6	16.4 - 18.7
Abbott Cell-Dyn Emerald	66	40.22	1.14	2.8	40.3	37.8 - 42.7	64	17.53	0.44	2.5	17.5	16.4 - 18.6
Boule (CDS) Medonic M series	103	36.22	0.84	2.3	36.1	34.0 - 38.4	103	15.07	0.38	2.5	15.1	14.1 - 16.0
COULTER AcT diff/diff 2	53	38.18	1.01	2.7	38.1	35.8 - 40.5	55	16.55	0.49	3.0	16.6	15.5 - 17.6
Diatron Abacus 3 CP	5	40.23	1.45	3.6	40.2	37.8 - 42.7	5	17.47	0.38	2.2	17.3	16.4 - 18.6
Horiba ABX Micros/45/60	49	37.48	0.88	2.4	37.3	35.2 - 39.8	49	15.60	0.32	2.0	15.6	14.6 - 16.6

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

	Specimen HD-13						Specimen HD-14					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	305	16.16	1.13	7.0	16.0	15.1 - 17.2	298	51.91	1.99	3.8	51.8	48.7 - 55.1
All Abbott Cell-Dyn Instruments	88	17.51	0.57	3.3	17.5	16.4 - 18.6	86	53.78	1.75	3.3	53.9	50.5 - 57.1
All ABX Instruments	49	15.56	0.36	2.3	15.5	14.6 - 16.5	49	51.32	1.07	2.1	51.7	48.2 - 54.5
All Boule (CDS) Instruments	103	15.08	0.42	2.8	15.1	14.1 - 16.0	101	50.59	1.39	2.7	50.7	47.5 - 53.7
All COULTER Instruments	56	16.57	0.50	3.0	16.6	15.5 - 17.6	56	51.66	1.31	2.5	51.8	48.5 - 54.8
Abbott Cell-Dyn 1700	6	16.28	0.68	4.2	16.5	15.3 - 17.3	6	51.17	1.27	2.5	51.2	48.0 - 54.3
Abbott Cell-Dyn 1800	18	17.44	0.68	3.9	17.6	16.3 - 18.5	17	52.54	2.43	4.6	53.0	49.3 - 55.7
Abbott Cell-Dyn Emerald	66	17.58	0.54	3.1	17.6	16.5 - 18.7	63	54.31	1.39	2.6	54.3	51.0 - 57.6
Boule (CDS) Medonic M series	103	15.08	0.42	2.8	15.1	14.1 - 16.0	101	50.59	1.39	2.7	50.7	47.5 - 53.7
COULTER AcT diff/diff 2	55	16.55	0.50	3.0	16.6	15.5 - 17.6	55	51.64	1.31	2.5	51.7	48.5 - 54.8
Diatron Abacus 3 CP	5	16.80	0.67	4.0	16.8	15.7 - 17.9	5	56.17	1.15	2.0	56.2	52.7 - 59.6
Horiba ABX Micros/45/60	49	15.56	0.36	2.3	15.5	14.6 - 16.5	49	51.32	1.07	2.1	51.7	48.2 - 54.5

	Specimen HD-15					
All Method	305	37.95	1.98	5.2	37.6	35.6 - 40.3
All Abbott Cell-Dyn Instruments	89	40.25	1.21	3.0	40.3	37.8 - 42.7
All ABX Instruments	49	37.35	0.80	2.1	37.4	35.1 - 39.6
All Boule (CDS) Instruments	104	36.12	0.92	2.5	36.1	33.9 - 38.3
All COULTER Instruments	56	38.16	1.09	2.8	38.2	35.8 - 40.5
Abbott Cell-Dyn 1700	6	38.72	1.41	3.7	38.3	36.3 - 41.1
Abbott Cell-Dyn 1800	18	39.68	1.28	3.2	40.1	37.2 - 42.1
Abbott Cell-Dyn Emerald	66	40.49	1.12	2.8	40.4	38.0 - 43.0
Boule (CDS) Medonic M series	104	36.12	0.92	2.5	36.1	33.9 - 38.3
COULTER AcT diff/diff 2	55	38.17	1.09	2.9	38.2	35.8 - 40.5
Diatron Abacus 3 CP	5	41.10	0.89	2.2	40.8	38.6 - 43.6
Horiba ABX Micros/45/60	49	37.35	0.80	2.1	37.4	35.1 - 39.6

BASIC HEMATOLOGY W/ 3-PART DIFFERENTIAL–PLATELET COUNT (x 10^9/L)

	Specimen HD-11						Specimen HD-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	305	265.6	17.5	6.6	265	199 - 332	301	68.4	8.1	11.8	67	51 - 86
All Abbott Cell-Dyn Instruments	90	265.5	19.2	7.2	264	199 - 332	89	68.9	10.6	15.4	66	51 - 87
All ABX Instruments	50	267.9	15.2	5.7	270	200 - 335	50	73.7	5.8	7.9	74	55 - 93
All Boule (CDS) Instruments	102	256.7	10.9	4.3	257	192 - 321	101	64.4	4.4	6.9	64	48 - 81
All COULTER Instruments	56	279.5	16.1	5.8	279	209 - 350	54	69.7	6.7	9.6	69	52 - 88
Abbott Cell-Dyn 1700	6	258.8	11.9	4.6	259	194 - 324	6	62.8	5.7	9.1	65	47 - 79
Abbott Cell-Dyn 1800	18	260.4	16.1	6.2	261	195 - 326	18	62.7	4.3	6.9	63	47 - 79
Abbott Cell-Dyn Emerald	66	267.4	20.2	7.6	267	200 - 335	65	71.2	11.3	15.9	70	53 - 89
Boule (CDS) Medonic M series	102	256.7	10.9	4.3	257	192 - 321	101	64.4	4.4	6.9	64	48 - 81
COULTER AcT diff/diff 2	55	280.4	14.9	5.3	279	210 - 351	53	69.9	6.5	9.4	69	52 - 88
Diatron Abacus 3 CP	5	263.5	39.8	15.1	248	197 - 330	5	68.7	2.9	4.2	67	51 - 86
Horiba ABX Micros/45/60	50	267.9	15.2	5.7	270	200 - 335	50	73.7	5.8	7.9	74	55 - 93

	Specimen HD-13						Specimen HD-14					
All Method	302	67.6	7.3	10.7	67	50 - 85	303	553.5	34.8	6.3	551	415 - 692
All Abbott Cell-Dyn Instruments	87	66.0	9.0	13.7	65	49 - 83	90	547.4	39.4	7.2	544	410 - 685
All ABX Instruments	50	73.5	6.3	8.5	74	55 - 92	49	546.8	24.6	4.5	545	410 - 684
All Boule (CDS) Instruments	103	65.0	4.3	6.6	65	48 - 82	102	542.5	20.2	3.7	543	406 - 679
All COULTER Instruments	55	69.6	5.7	8.2	70	52 - 87	56	592.7	30.2	5.1	596	444 - 741
Abbott Cell-Dyn 1700	6	57.8	6.3	10.9	60	43 - 73	6	548.2	27.0	4.9	550	411 - 686
Abbott Cell-Dyn 1800	18	63.6	4.4	6.9	64	47 - 80	18	564.7	42.8	7.6	567	423 - 706
Abbott Cell-Dyn Emerald	64	68.0	10.4	15.3	68	51 - 86	66	542.6	38.5	7.1	542	406 - 679
Boule (CDS) Medonic M series	103	65.0	4.3	6.6	65	48 - 82	102	542.5	20.2	3.7	543	406 - 679
COULTER AcT diff/diff 2	54	69.7	5.7	8.1	70	52 - 88	55	594.2	28.3	4.8	596	445 - 743
Diatron Abacus 3 CP	5	65.0	2.2	3.3	66	48 - 82	5	524.5	56.0	10.7	533	393 - 656
Horiba ABX Micros/45/60	50	73.5	6.3	8.5	74	55 - 92	49	546.8	24.6	4.5	545	410 - 684

BASIC HEMATOLOGY W/ 3-PART DIFFERENTIAL–PLATELET COUNT (x 10^9/L) cont'd

Specimen HD-15

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	303	265.1	17.6	6.6	265	198 - 332
All Abbott Cell-Dyn Instruments	88	267.2	19.1	7.1	267	200 - 335
All ABX Instruments	50	267.2	16.2	6.1	270	200 - 334
All Boule (CDS) Instruments	104	255.4	10.4	4.1	254	191 - 320
All COULTER Instruments	54	279.6	14.1	5.0	281	209 - 350
Abbott Cell-Dyn 1700	6	258.0	9.3	3.6	255	193 - 323
Abbott Cell-Dyn 1800	18	260.4	17.9	6.9	261	195 - 326
Abbott Cell-Dyn Emerald	65	270.9	20.7	7.7	270	203 - 339
Boule (CDS) Medonic M series	104	255.4	10.4	4.1	254	191 - 320
COULTER AcT diff/diff 2	54	279.6	14.1	5.0	281	209 - 350
Diatron Abacus 3 CP	5	253.5	26.7	10.5	258	190 - 317
Horiba ABX Micros/45/60	50	267.2	16.2	6.1	270	200 - 334

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

	Specimen HD-11						**Specimen HD-12**					
Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	295	29.63	3.87	13.1	30.2	18.0 - 41.3	294	54.29	8.43	15.5	56.3	28.9 - 79.6
All Abbott Cell-Dyn Instruments	84	27.62	2.15	7.8	28.2	21.1 - 34.1	85	49.53	3.89	7.9	50.5	37.8 - 61.2
All ABX Instruments	49	23.87	2.95	12.4	23.5	15.0 - 32.8	49	41.38	4.98	12.0	40.0	26.4 - 56.4
All Boule (CDS) Instruments	101	33.31	0.87	2.6	33.3	30.6 - 36.0	100	62.74	1.81	2.9	62.9	57.3 - 68.2
All COULTER Instruments	54	30.59	0.72	2.4	30.8	28.4 - 32.8	54	57.52	1.63	2.8	57.4	52.6 - 62.4
Abbott Cell-Dyn 1700	6	27.47	1.09	4.0	27.3	24.2 - 30.8	6	51.97	3.34	6.4	51.3	41.9 - 62.0
Abbott Cell-Dyn 1800	18	23.95	1.73	7.2	23.9	18.7 - 29.2	18	43.63	3.09	7.1	43.2	34.3 - 53.0
Abbott Cell-Dyn Emerald	61	28.59	1.19	4.2	28.5	25.0 - 32.2	61	51.03	2.06	4.0	51.2	44.8 - 57.2
Boule (CDS) Medonic M series	101	33.31	0.87	2.6	33.3	30.6 - 36.0	100	62.74	1.81	2.9	62.9	57.3 - 68.2
COULTER AcT diff/diff 2	54	30.59	0.72	2.4	30.8	28.4 - 32.8	54	57.52	1.63	2.8	57.4	52.6 - 62.4
Diatron Abacus 3 CP	5	34.75	4.58	13.2	34.2	21.0 - 48.5	5	58.23	4.84	8.3	57.5	43.7 - 72.8
Horiba ABX Micros/45/60	49	23.87	2.95	12.4	23.5	15.0 - 32.8	49	41.38	4.98	12.0	40.0	26.4 - 56.4

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

	Specimen HD-13						Specimen HD-14					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	296	54.60	8.60	15.8	56.4	28.7 - 80.4	291	14.58	1.55	10.7	14.9	9.9 - 19.3
All Abbott Cell-Dyn Instruments	85	49.68	3.56	7.2	50.4	39.0 - 60.4	84	14.89	2.17	14.6	15.0	8.3 - 21.5
All ABX Instruments	49	41.41	5.31	12.8	41.0	25.4 - 57.4	49	13.26	1.30	9.8	13.2	9.3 - 17.2
All Boule (CDS) Instruments	99	63.29	1.46	2.3	63.2	58.9 - 67.7	101	15.63	0.68	4.4	15.6	13.5 - 17.7
All COULTER Instruments	54	57.53	1.64	2.8	57.5	52.6 - 62.5	54	13.65	0.73	5.4	13.5	11.4 - 15.9
Abbott Cell-Dyn 1700	6	50.65	2.60	5.1	50.7	42.8 - 58.5	6	12.73	0.45	3.6	12.8	11.3 - 14.1
Abbott Cell-Dyn 1800	18	44.54	2.64	5.9	44.7	36.6 - 52.5	18	12.48	1.55	12.4	12.2	7.8 - 17.2
Abbott Cell-Dyn Emerald	61	51.09	2.27	4.4	51.3	44.2 - 58.0	60	15.83	1.67	10.5	15.2	10.8 - 20.9
Boule (CDS) Medonic M series	99	63.29	1.46	2.3	63.2	58.9 - 67.7	101	15.63	0.68	4.4	15.6	13.5 - 17.7
COULTER AcT diff/diff 2	54	57.53	1.64	2.8	57.5	52.6 - 62.5	54	13.65	0.73	5.4	13.5	11.4 - 15.9
Diatron Abacus 3 CP	5	57.43	4.06	7.1	57.2	45.2 - 69.7	5	14.07	0.59	4.2	14.3	12.3 - 15.9
Horiba ABX Micros/45/60	49	41.41	5.31	12.8	41.0	25.4 - 57.4	49	13.26	1.30	9.8	13.2	9.3 - 17.2

	Specimen HD-15					
All Method	296	29.59	3.83	12.9	30.0	18.1 - 41.1
All Abbott Cell-Dyn Instruments	85	27.64	2.17	7.9	28.1	21.1 - 34.2
All ABX Instruments	49	23.84	2.71	11.4	23.5	15.7 - 32.0
All Boule (CDS) Instruments	101	33.28	0.91	2.7	33.3	30.5 - 36.0
All COULTER Instruments	54	30.44	0.96	3.2	30.4	27.5 - 33.4
Abbott Cell-Dyn 1700	6	26.97	1.17	4.3	27.1	23.4 - 30.5
Abbott Cell-Dyn 1800	18	24.06	1.85	7.7	23.9	18.5 - 29.7
Abbott Cell-Dyn Emerald	61	28.54	0.95	3.3	28.5	25.6 - 31.4
Boule (CDS) Medonic M series	101	33.28	0.91	2.7	33.3	30.5 - 36.0
COULTER AcT diff/diff 2	54	30.44	0.96	3.2	30.4	27.5 - 33.4
Diatron Abacus 3 CP	5	34.23	2.16	6.3	34.3	27.7 - 40.7
Horiba ABX Micros/45/60	49	23.84	2.71	11.4	23.5	15.7 - 32.0

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

	Specimen HD-11						Specimen HD-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	292	7.65	2.43	31.7	6.9	0.3 - 15.0	294	12.31	5.87	47.7	11.2	0.0 - 30.0
All Abbott Cell-Dyn Instruments	86	8.15	3.07	37.7	6.7	0.0 - 17.4	85	14.06	4.19	29.8	12.1	1.4 - 26.7
All ABX Instruments	48	10.77	1.27	11.8	10.8	6.9 - 14.6	49	21.79	3.00	13.8	22.0	12.7 - 30.8
All Boule (CDS) Instruments	98	5.98	0.68	11.3	5.9	3.9 - 8.1	98	6.86	1.30	18.9	6.7	2.9 - 10.8
All COULTER Instruments	54	7.60	0.57	7.5	7.6	5.8 - 9.4	54	11.43	1.23	10.8	11.7	7.7 - 15.2
Abbott Cell-Dyn 1700	6	9.82	0.62	6.3	10.1	7.9 - 11.7	6	14.60	1.77	12.1	14.9	9.2 - 20.0
Abbott Cell-Dyn 1800	18	13.29	1.12	8.4	13.3	9.9 - 16.7	18	21.29	2.15	10.1	21.1	14.8 - 27.8
Abbott Cell-Dyn Emerald	59	6.42	0.56	8.7	6.2	4.7 - 8.2	59	11.69	1.21	10.3	11.6	8.0 - 15.4
Boule (CDS) Medonic M series	98	5.98	0.68	11.3	5.9	3.9 - 8.1	98	6.86	1.30	18.9	6.7	2.9 - 10.8
COULTER AcT diff/diff 2	54	7.60	0.57	7.5	7.6	5.8 - 9.4	54	11.43	1.23	10.8	11.7	7.7 - 15.2
Diatron Abacus 3 CP	5	4.83	0.85	17.6	4.8	2.2 - 7.4	5	12.27	1.54	12.5	13.0	7.6 - 16.9
Horiba ABX Micros/45/60	48	10.77	1.27	11.8	10.8	6.9 - 14.6	49	21.79	3.00	13.8	22.0	12.7 - 30.8

	Specimen HD-13						Specimen HD-14					
All Method	294	12.29	5.86	47.7	11.3	0.0 - 29.9	287	4.31	0.98	22.8	4.4	1.3 - 7.3
All Abbott Cell-Dyn Instruments	85	14.10	3.98	28.2	12.2	2.1 - 26.1	84	3.80	1.53	40.4	3.1	0.0 - 8.4
All ABX Instruments	49	21.76	2.97	13.6	22.1	12.8 - 30.7	48	4.17	0.33	7.8	4.1	3.1 - 5.2
All Boule (CDS) Instruments	99	6.72	1.36	20.2	6.7	2.6 - 10.8	94	4.59	0.40	8.6	4.6	3.4 - 5.8
All COULTER Instruments	54	11.50	0.98	8.5	11.4	8.5 - 14.5	54	4.48	0.52	11.6	4.5	2.9 - 6.1
Abbott Cell-Dyn 1700	6	14.93	1.37	9.2	15.3	10.8 - 19.1	6	5.30	0.26	4.9	5.4	4.5 - 6.1
Abbott Cell-Dyn 1800	18	20.78	2.04	9.8	20.9	14.6 - 27.0	17	6.46	0.26	4.0	6.5	5.6 - 7.3
Abbott Cell-Dyn Emerald	60	11.94	1.54	12.9	11.5	7.3 - 16.6	60	2.95	0.30	10.1	2.9	2.0 - 3.9
Boule (CDS) Medonic M series	99	6.72	1.36	20.2	6.7	2.6 - 10.8	94	4.59	0.40	8.6	4.6	3.4 - 5.8
COULTER AcT diff/diff 2	54	11.50	0.98	8.5	11.4	8.5 - 14.5	54	4.48	0.52	11.6	4.5	2.9 - 6.1
Diatron Abacus 3 CP	5	13.93	1.10	7.9	14.0	10.6 - 17.3	5	6.73	0.15	2.3	6.7	6.2 - 7.2
Horiba ABX Micros/45/60	49	21.76	2.97	13.6	22.1	12.8 - 30.7	48	4.17	0.33	7.8	4.1	3.1 - 5.2

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

Specimen HD-15

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	290	7.71	2.33	30.2	6.9	0.7 - 14.7
All Abbott Cell-Dyn Instruments	84	8.00	2.83	35.4	6.7	0.0 - 16.5
All ABX Instruments	48	10.81	1.18	10.9	11.0	7.2 - 14.4
All Boule (CDS) Instruments	98	6.02	0.73	12.2	5.9	3.8 - 8.3
All COULTER Instruments	54	7.64	0.71	9.3	7.6	5.5 - 9.8
Abbott Cell-Dyn 1700	6	9.87	0.58	5.9	9.9	8.1 - 11.7
Abbott Cell-Dyn 1800	16	12.84	0.86	6.7	12.5	10.2 - 15.5
Abbott Cell-Dyn Emerald	59	6.50	0.77	11.8	6.4	4.2 - 8.8
Boule (CDS) Medonic M series	98	6.02	0.73	12.2	5.9	3.8 - 8.3
COULTER AcT diff/diff 2	54	7.64	0.71	9.3	7.6	5.5 - 9.8
Diatron Abacus 3 CP	5	6.77	0.93	13.7	6.5	3.9 - 9.6
Horiba ABX Micros/45/60	48	10.81	1.18	10.9	11.0	7.2 - 14.4

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

	Specimen HD-11						Specimen HD-12					
Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	293	62.63	2.41	3.8	62.2	55.4 - 69.9	290	33.30	3.57	10.7	33.0	22.5 - 44.1
All Abbott Cell-Dyn Instruments	84	64.24	1.67	2.6	64.6	59.2 - 69.3	84	36.34	2.11	5.8	36.2	30.0 - 42.7
All ABX Instruments	47	65.40	1.58	2.4	65.6	60.6 - 70.2	47	36.86	2.35	6.4	37.2	29.8 - 44.0
All Boule (CDS) Instruments	99	60.69	1.16	1.9	60.6	57.2 - 64.2	100	30.41	1.98	6.5	30.5	24.4 - 36.4
All COULTER Instruments	54	61.82	0.72	1.2	61.8	59.6 - 64.0	53	31.09	1.24	4.0	31.0	27.3 - 34.9
Abbott Cell-Dyn 1700	6	62.75	0.77	1.2	62.7	60.4 - 65.1	6	33.40	2.06	6.2	33.9	27.2 - 39.6
Abbott Cell-Dyn 1800	18	62.76	1.57	2.5	63.1	58.0 - 67.5	17	34.79	1.78	5.1	34.9	29.4 - 40.2
Abbott Cell-Dyn Emerald	60	64.83	1.39	2.1	65.0	60.6 - 69.0	61	37.06	1.69	4.6	37.0	31.9 - 42.2
Boule (CDS) Medonic M series	99	60.69	1.16	1.9	60.6	57.2 - 64.2	100	30.41	1.98	6.5	30.5	24.4 - 36.4
COULTER AcT diff/diff 2	54	61.82	0.72	1.2	61.8	59.6 - 64.0	53	31.09	1.24	4.0	31.0	27.3 - 34.9
Diatron Abacus 3 CP	5	58.13	1.97	3.4	58.5	52.2 - 64.1	5	30.37	2.47	8.1	29.2	22.9 - 37.8
Horiba ABX Micros/45/60	47	65.40	1.58	2.4	65.6	60.6 - 70.2	47	36.86	2.35	6.4	37.2	29.8 - 44.0

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

	Specimen HD-13						Specimen HD-14					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	292	33.09	3.63	11.0	32.5	22.2 - 44.0	291	81.06	1.62	2.0	81.2	76.2 - 86.0
All Abbott Cell-Dyn Instruments	85	36.25	2.07	5.7	36.4	30.0 - 42.5	84	81.23	1.88	2.3	81.8	75.5 - 86.9
All ABX Instruments	48	36.83	2.76	7.5	37.0	28.5 - 45.2	48	82.56	1.29	1.6	82.6	78.6 - 86.5
All Boule (CDS) Instruments	100	29.91	1.77	5.9	29.8	24.6 - 35.3	99	79.77	0.82	1.0	79.8	77.3 - 82.3
All COULTER Instruments	52	31.05	1.20	3.9	31.1	27.4 - 34.7	54	81.88	0.70	0.9	81.9	79.7 - 84.0
Abbott Cell-Dyn 1700	6	34.40	1.81	5.3	34.2	28.9 - 39.9	6	82.05	0.49	0.6	81.9	80.5 - 83.6
Abbott Cell-Dyn 1800	18	34.67	1.32	3.8	34.5	30.7 - 38.7	18	81.04	1.65	2.0	81.4	76.1 - 86.0
Abbott Cell-Dyn Emerald	61	36.90	1.93	5.2	36.8	31.1 - 42.7	60	81.20	2.03	2.5	81.9	75.1 - 87.3
Boule (CDS) Medonic M series	100	29.91	1.77	5.9	29.8	24.6 - 35.3	99	79.77	0.82	1.0	79.8	77.3 - 82.3
COULTER AcT diff/diff 2	52	31.05	1.20	3.9	31.1	27.4 - 34.7	54	81.88	0.70	0.9	81.9	79.7 - 84.0
Diatron Abacus 3 CP	5	30.20	1.63	5.4	30.1	25.3 - 35.1	5	78.75	1.05	1.3	78.9	75.6 - 81.9
Horiba ABX Micros/45/60	48	36.83	2.76	7.5	37.0	28.5 - 45.2	48	82.56	1.29	1.6	82.6	78.6 - 86.5

	Specimen HD-15					
All Method	294	62.67	2.39	3.8	62.4	55.4 - 69.9
All Abbott Cell-Dyn Instruments	84	64.36	1.70	2.6	64.9	59.2 - 69.5
All ABX Instruments	47	65.41	1.49	2.3	65.6	60.9 - 69.9
All Boule (CDS) Instruments	99	60.69	1.06	1.8	60.6	57.4 - 63.9
All COULTER Instruments	54	61.92	0.76	1.2	61.9	59.6 - 64.3
Abbott Cell-Dyn 1700	6	63.15	1.01	1.6	63.0	60.1 - 66.2
Abbott Cell-Dyn 1800	18	62.89	1.80	2.9	62.9	57.4 - 68.3
Abbott Cell-Dyn Emerald	60	64.93	1.38	2.1	65.2	60.7 - 69.1
Boule (CDS) Medonic M series	99	60.69	1.06	1.8	60.6	57.4 - 63.9
COULTER AcT diff/diff 2	54	61.92	0.76	1.2	61.9	59.6 - 64.3
Diatron Abacus 3 CP	5	57.83	1.03	1.8	57.8	54.7 - 61.0
Horiba ABX Micros/45/60	47	65.41	1.49	2.3	65.6	60.9 - 69.9

HEMATOLOGY W/ 5-PART DIFFERENTIAL–WHITE BLOOD CELL COUNT (x 10^9/L)

	Specimen DIF-11						Specimen DIF-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	21	9.14	0.26	2.8	9.2	7.7 - 10.6	21	3.92	0.16	4.2	3.9	3.3 - 4.6
All COULTER Instruments	21	9.14	0.26	2.8	9.2	7.7 - 10.6	21	3.92	0.16	4.2	3.9	3.3 - 4.6
Coulter DxH 500	5	8.98	0.29	3.2	8.9	7.6 - 10.4	5	3.88	0.13	3.2	3.9	3.2 - 4.5
Coulter DxH 520	11	9.26	0.52	5.6	9.2	7.8 - 10.7	11	3.92	0.20	5.1	3.9	3.3 - 4.6
	Specimen DIF-13						**Specimen DIF-14**					
All Method	21	3.92	0.12	3.1	3.9	3.3 - 4.6	21	20.83	0.39	1.9	20.8	17.7 - 24.0
All COULTER Instruments	21	3.92	0.12	3.1	3.9	3.3 - 4.6	21	20.83	0.39	1.9	20.8	17.7 - 24.0
Coulter DxH 500	5	3.95	0.13	3.3	4.0	3.3 - 4.6	5	20.80	0.64	3.1	20.6	17.6 - 24.0
Coulter DxH 520	11	3.95	0.22	5.5	3.9	3.3 - 4.6	11	20.87	0.36	1.7	20.8	17.7 - 24.1
	Specimen DIF-15											
All Method	21	9.08	0.28	3.1	9.1	7.7 - 10.5						
All COULTER Instruments	21	9.08	0.28	3.1	9.1	7.7 - 10.5						
Coulter DxH 500	5	9.03	0.25	2.8	9.1	7.6 - 10.4						
Coulter DxH 520	11	8.98	0.19	2.2	9.0	7.6 - 10.4						

HEMATOLOGY W/ 5-PART DIFFERENTIAL–RED BLOOD CELL COUNT (x 10^{12}/L)

	Specimen DIF-11						Specimen DIF-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	21	4.135	0.130	3.1	4.13	3.88 - 4.39	21	2.584	0.066	2.5	2.57	2.42 - 2.74
All COULTER Instruments	21	4.135	0.130	3.1	4.13	3.88 - 4.39	21	2.584	0.066	2.5	2.57	2.42 - 2.74
Coulter DxH 500	5	3.978	0.112	2.8	3.97	3.73 - 4.22	5	2.525	0.034	1.4	2.52	2.37 - 2.68
Coulter DxH 520	11	4.192	0.105	2.5	4.21	3.94 - 4.45	11	2.606	0.069	2.7	2.60	2.44 - 2.77
	Specimen DIF-13						**Specimen DIF-14**					
All Method	21	2.598	0.056	2.2	2.60	2.44 - 2.76	21	5.391	0.108	2.0	5.38	5.06 - 5.72
All COULTER Instruments	21	2.598	0.056	2.2	2.60	2.44 - 2.76	21	5.391	0.108	2.0	5.38	5.06 - 5.72
Coulter DxH 500	5	2.590	0.075	2.9	2.57	2.43 - 2.75	5	5.403	0.107	2.0	5.40	5.07 - 5.73
Coulter DxH 520	11	2.599	0.058	2.2	2.60	2.44 - 2.76	11	5.405	0.113	2.1	5.38	5.08 - 5.73
	Specimen DIF-15											
All Method	21	4.133	0.097	2.4	4.14	3.88 - 4.39						
All COULTER Instruments	21	4.133	0.097	2.4	4.14	3.88 - 4.39						
Coulter DxH 500	5	4.120	0.065	1.6	4.12	3.87 - 4.37						
Coulter DxH 520	11	4.128	0.118	2.9	4.13	3.88 - 4.38						

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

	Specimen DIF-11						Specimen DIF-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	21	12.00	0.33	2.7	12.1	11.1 - 12.9	21	5.91	0.19	3.2	5.9	5.4 - 6.4
All COULTER Instruments	21	12.00	0.33	2.7	12.1	11.1 - 12.9	21	5.91	0.19	3.2	5.9	5.4 - 6.4
Coulter DxH 500	5	11.78	0.29	2.4	11.7	10.9 - 12.6	5	5.78	0.10	1.7	5.8	5.3 - 6.2
Coulter DxH 520	11	11.99	0.32	2.6	12.0	11.1 - 12.9	11	5.87	0.15	2.5	5.9	5.4 - 6.3
	Specimen DIF-13						**Specimen DIF-14**					
All Method	21	5.93	0.13	2.2	5.9	5.5 - 6.4	21	17.10	0.29	1.7	17.0	15.9 - 18.3
All COULTER Instruments	21	5.93	0.13	2.2	5.9	5.5 - 6.4	21	17.10	0.29	1.7	17.0	15.9 - 18.3
Coulter DxH 500	5	5.88	0.15	2.6	5.9	5.4 - 6.3	5	17.13	0.36	2.1	17.1	15.9 - 18.4
Coulter DxH 520	11	5.90	0.08	1.3	5.9	5.4 - 6.4	11	17.13	0.29	1.7	17.1	15.9 - 18.4
	Specimen DIF-15											
All Method	21	11.83	0.33	2.8	11.8	11.0 - 12.7						
All COULTER Instruments	21	11.83	0.33	2.8	11.8	11.0 - 12.7						
Coulter DxH 500	5	11.68	0.24	2.0	11.6	10.8 - 12.5						
Coulter DxH 520	11	11.74	0.26	2.2	11.8	10.9 - 12.6						

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

	Specimen DIF-11						Specimen DIF-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	21	37.22	1.45	3.9	36.9	34.9 - 39.5	21	19.36	0.63	3.2	19.2	18.1 - 20.6
All COULTER Instruments	21	37.22	1.45	3.9	36.9	34.9 - 39.5	21	19.36	0.63	3.2	19.2	18.1 - 20.6
Coulter DxH 500	5	35.43	0.76	2.1	35.2	33.2 - 37.6	5	18.73	0.13	0.7	18.7	17.6 - 19.9
Coulter DxH 520	11	37.45	1.16	3.1	37.1	35.2 - 39.8	11	19.47	0.66	3.4	19.3	18.3 - 20.7
	Specimen DIF-13						**Specimen DIF-14**					
All Method	21	19.43	0.63	3.2	19.5	18.2 - 20.6	21	55.28	1.22	2.2	55.1	51.9 - 58.7
All COULTER Instruments	21	19.43	0.63	3.2	19.5	18.2 - 20.6	21	55.28	1.22	2.2	55.1	51.9 - 58.7
Coulter DxH 500	5	18.77	0.49	2.6	19.0	17.6 - 19.9	5	54.75	1.29	2.4	54.6	51.4 - 58.1
Coulter DxH 520	11	19.45	0.57	2.9	19.5	18.2 - 20.7	11	55.31	1.19	2.2	55.3	51.9 - 58.7
	Specimen DIF-15											
All Method	21	37.16	1.32	3.5	36.9	34.9 - 39.4						
All COULTER Instruments	21	37.16	1.32	3.5	36.9	34.9 - 39.4						
Coulter DxH 500	5	36.50	0.37	1.0	36.5	34.3 - 38.7						
Coulter DxH 520	11	36.91	1.27	3.4	36.8	34.6 - 39.2						

HEMATOLOGY W/ 5-PART DIFFERENTIAL–PLATELET COUNT (x 10^9/L)

	Specimen DIF-11						Specimen DIF-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	21	267.8	25.3	9.4	270	200 - 335	21	80.9	12.3	15.2	79	60 - 102
All COULTER Instruments	21	267.8	25.3	9.4	270	200 - 335	21	80.9	12.3	15.2	79	60 - 102
Coulter DxH 500	5	257.3	14.2	5.5	258	192 - 322	5	95.3	15.4	16.2	92	71 - 120
Coulter DxH 520	11	271.9	30.5	11.2	278	203 - 340	11	76.9	9.0	11.7	78	57 - 97
	Specimen DIF-13						**Specimen DIF-14**					
All Method	21	82.1	11.9	14.5	81	61 - 103	21	480.1	30.2	6.3	479	360 - 601
All COULTER Instruments	21	82.1	11.9	14.5	81	61 - 103	21	480.1	30.2	6.3	479	360 - 601
Coulter DxH 500	5	93.3	16.9	18.1	92	69 - 117	5	470.3	38.1	8.1	469	352 - 588
Coulter DxH 520	11	79.9	9.3	11.7	83	59 - 100	11	478.5	30.6	6.4	478	358 - 599
	Specimen DIF-15											
All Method	21	275.6	15.5	5.6	273	206 - 345						
All COULTER Instruments	21	275.6	15.5	5.6	273	206 - 345						
Coulter DxH 500	5	276.3	19.5	7.1	272	207 - 346						
Coulter DxH 520	11	277.5	16.0	5.8	274	208 - 347						

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

Instrument	Labs	Mean	SD	CV	Median	Range
Specimen DIF-11						
All Method	21	36.97	11.19	30.3	32.4	3.4 - 70.6
All COULTER DxH 500/520	16	32.19	2.18	6.8	32.0	25.6 - 38.8
All COULTER Instruments	5	60.90	0.36	0.6	60.8	59.8 - 62.0
Coulter DxH 500	5	32.25	1.65	5.1	32.1	27.2 - 37.3
Coulter DxH 520	11	32.16	2.42	7.5	32.0	24.9 - 39.5
Specimen DIF-12						
All Method	21	38.93	7.53	19.3	37.1	16.3 - 61.6
All COULTER DxH 500/520	16	35.89	2.97	8.3	36.5	26.9 - 44.8
All COULTER Instruments	5	54.17	1.45	2.7	54.9	49.8 - 58.6
Coulter DxH 500	5	36.23	1.34	3.7	36.0	32.2 - 40.3
Coulter DxH 520	11	35.76	3.42	9.6	36.5	25.4 - 46.1
Specimen DIF-13						
All Method	21	38.83	7.29	18.8	36.3	16.9 - 60.8
All COULTER DxH 500/520	16	35.75	1.85	5.2	35.8	30.1 - 41.3
All COULTER Instruments	5	54.23	0.93	1.7	53.8	51.4 - 57.1
Coulter DxH 500	5	35.78	0.83	2.3	35.6	33.2 - 38.3
Coulter DxH 520	11	35.74	2.14	6.0	35.8	29.3 - 42.2
Specimen DIF-14						
All Method	21	33.50	15.69	46.8	27.0	0.0 - 80.6
All COULTER DxH 500/520	16	26.69	0.92	3.4	26.8	23.9 - 29.5
All COULTER Instruments	5	67.53	0.71	1.1	67.4	65.4 - 69.7
Coulter DxH 500	5	26.08	1.06	4.1	26.5	22.8 - 29.3
Coulter DxH 520	11	26.92	0.79	3.0	27.0	24.5 - 29.4
Specimen DIF-15						
All Method	21	36.59	11.25	30.7	32.5	2.8 - 70.4
All COULTER DxH 500/520	16	31.77	1.91	6.0	32.4	26.0 - 37.5
All COULTER Instruments	5	60.73	0.81	1.3	61.1	58.2 - 63.2
Coulter DxH 500	5	31.68	1.78	5.6	32.0	26.3 - 37.1
Coulter DxH 520	11	31.80	2.03	6.4	32.4	25.6 - 38.0

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

Specimen DIF-11

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	21	4.83	10.45	216.5	0.3	0.0 - 36.2
All COULTER DxH 500/520	16	0.29	0.17	60.2	0.2	0.0 - 0.9
All COULTER Instruments	5	27.53	0.49	1.8	27.3	26.0 - 29.1
Coulter DxH 500	5	0.28	0.10	34.8	0.3	0.0 - 0.6
Coulter DxH 520	11	0.29	0.20	67.8	0.2	0.0 - 0.9

Specimen DIF-12

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	21	6.03	13.31	220.8	0.3	0.0 - 46.0
All COULTER DxH 500/520	16	0.25	0.17	66.5	0.2	0.0 - 0.8
All COULTER Instruments	5	34.90	2.33	6.7	34.2	27.9 - 41.9
Coulter DxH 500	5	0.23	0.13	55.9	0.2	0.0 - 0.7
Coulter DxH 520	11	0.26	0.19	70.5	0.3	0.0 - 0.9

Specimen DIF-13

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	21	6.06	13.40	221.1	0.2	0.0 - 46.3
All COULTER DxH 500/520	16	0.21	0.07	30.9	0.2	0.0 - 0.5
All COULTER Instruments	5	35.13	2.12	6.0	36.1	28.7 - 41.5
Coulter DxH 500	5	0.23	0.05	22.2	0.2	0.0 - 0.4
Coulter DxH 520	11	0.25	0.16	64.2	0.2	0.0 - 0.8

Specimen DIF-14

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	21	4.02	7.28	181.4	1.0	0.0 - 25.9
All COULTER DxH 500/520	16	0.85	0.27	32.2	0.9	0.0 - 1.7
All COULTER Instruments	5	19.83	0.51	2.6	19.7	18.2 - 21.4
Coulter DxH 500	5	0.88	0.21	23.6	0.9	0.2 - 1.5
Coulter DxH 520	11	0.85	0.30	36.0	0.7	0.0 - 1.8

Specimen DIF-15

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	21	4.96	10.74	216.4	0.3	0.0 - 37.2
All COULTER DxH 500/520	16	0.30	0.17	56.3	0.3	0.0 - 0.9
All COULTER Instruments	5	28.27	1.31	4.6	28.7	24.3 - 32.2
Coulter DxH 500	5	0.25	0.06	23.1	0.3	0.0 - 0.5
Coulter DxH 520	11	0.32	0.19	61.0	0.3	0.0 - 1.0

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

	Specimen DIF-11						Specimen DIF-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	21	1.09	2.10	192.6	0.2	0.0 - 7.4	21	0.65	1.17	180.1	0.2	0.0 - 4.2
All COULTER DxH 500/520	16	0.18	0.11	60.1	0.2	0.0 - 0.6	16	0.16	0.13	81.1	0.2	0.0 - 0.6
All COULTER Instruments	5	5.63	0.35	6.2	5.6	4.5 - 6.7	5	3.10	0.85	27.6	3.0	0.5 - 5.7
Coulter DxH 500	5	0.15	0.06	38.5	0.2	0.0 - 0.4	5	0.10	0.14	141.4	0.1	0.0 - 0.6
Coulter DxH 520	11	0.19	0.12	64.0	0.2	0.0 - 0.6	11	0.18	0.13	68.8	0.2	0.0 - 0.6

	Specimen DIF-13						Specimen DIF-14					
All Method	21	0.67	1.16	172.4	0.2	0.0 - 4.2	21	1.61	3.15	196.0	0.3	0.0 - 11.1
All COULTER DxH 500/520	16	0.19	0.18	94.7	0.1	0.0 - 0.8	16	0.24	0.15	60.6	0.2	0.0 - 0.7
All COULTER Instruments	5	3.07	0.93	30.3	2.8	0.2 - 5.9	5	8.43	0.38	4.5	8.6	7.2 - 9.6
Coulter DxH 500	5	0.15	0.06	38.5	0.2	0.0 - 0.4	5	0.33	0.10	29.5	0.4	0.0 - 0.7
Coulter DxH 520	11	0.21	0.21	101.4	0.1	0.0 - 0.9	11	0.21	0.15	72.4	0.2	0.0 - 0.7

	Specimen DIF-15					
All Method	21	0.94	1.78	188.9	0.2	0.0 - 6.3
All COULTER DxH 500/520	16	0.17	0.13	73.8	0.2	0.0 - 0.6
All COULTER Instruments	5	4.80	0.44	9.1	5.0	3.4 - 6.2
Coulter DxH 500	5	0.28	0.15	54.5	0.3	0.0 - 0.8
Coulter DxH 520	11	0.14	0.10	75.3	0.2	0.0 - 0.5

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

	Specimen DIF-11						Specimen DIF-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	21	56.99	23.59	41.4	67.2	0.0 - 127.8	21	54.29	21.55	39.7	62.5	0.0 - 119.0
All COULTER DxH 500/520	16	67.20	2.35	3.5	67.4	60.1 - 74.3	16	63.58	2.97	4.7	63.1	54.6 - 72.5
All COULTER Instruments	5	5.93	0.38	6.4	6.1	4.7 - 7.1	5	7.83	0.23	2.9	7.7	7.1 - 8.6
Coulter DxH 500	5	67.20	1.75	2.6	67.4	61.9 - 72.5	5	63.35	1.30	2.1	63.5	59.4 - 67.3
Coulter DxH 520	11	67.20	2.62	3.9	67.4	59.3 - 75.1	11	63.66	3.43	5.4	63.0	53.3 - 74.0
	Specimen DIF-13						**Specimen DIF-14**					
All Method	21	53.49	21.95	41.0	63.0	0.0 - 119.4	21	60.71	26.02	42.9	71.8	0.0 - 138.8
All COULTER DxH 500/520	16	63.33	1.34	2.1	63.7	59.2 - 67.4	16	72.01	1.08	1.5	72.0	68.7 - 75.3
All COULTER Instruments	5	7.57	0.31	4.0	7.5	6.6 - 8.5	5	4.20	0.10	2.4	4.2	3.9 - 4.5
Coulter DxH 500	5	63.75	0.87	1.4	63.9	61.1 - 66.4	5	72.48	1.20	1.7	72.1	68.8 - 76.1
Coulter DxH 520	11	63.16	1.50	2.4	63.5	58.6 - 67.7	11	71.84	1.04	1.4	72.0	68.7 - 75.0
	Specimen DIF-15											
All Method	21	57.38	23.64	41.2	67.0	0.0 - 128.3						
All COULTER DxH 500/520	16	67.63	1.99	2.9	67.0	61.6 - 73.6						
All COULTER Instruments	5	6.17	0.46	7.5	5.9	4.7 - 7.6						
Coulter DxH 500	5	67.70	1.71	2.5	67.3	62.5 - 72.9						
Coulter DxH 520	11	67.60	2.15	3.2	67.0	61.1 - 74.1						

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

	Specimen DIF-11						Specimen DIF-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	21	0.03	0.04	178.9	0.0	0.0 - 0.2	21	0.00	0.01	0.0	0.0	0.0 - 0.1
All COULTER DxH 500/520	16	0.05	0.09	171.0	0.0	0.0 - 0.4	16	0.00	0.01	0.0	0.0	0.0 - 0.1
All COULTER Instruments	5	0.00	0.01	0.0	0.0	0.0 - 0.1	5	0.00	0.01	0.0	0.0	0.0 - 0.1
Coulter DxH 500	5	0.20	0.34	168.3	0.1	0.0 - 1.3	5	0.00	0.01	0.0	0.0	0.0 - 0.1
Coulter DxH 520	11	0.05	0.09	171.3	0.0	0.0 - 0.4	11	0.00	0.01	0.0	0.0	0.0 - 0.1

	Specimen DIF-13						Specimen DIF-14					
All Method	21	0.00	0.01	0.0	0.0	0.0 - 0.1	21	0.06	0.08	121.5	0.0	0.0 - 0.4
All COULTER DxH 500/520	16	0.00	0.01	0.0	0.0	0.0 - 0.1	16	0.08	0.08	102.0	0.1	0.0 - 0.4
All COULTER Instruments	5	0.00	0.01	0.0	0.0	0.0 - 0.1	5	0.00	0.01	0.0	0.0	0.0 - 0.1
Coulter DxH 500	5	0.00	0.01	0.0	0.0	0.0 - 0.1	5	0.15	0.06	38.5	0.2	0.0 - 0.4
Coulter DxH 520	11	0.00	0.01	0.0	0.0	0.0 - 0.1	11	0.13	0.26	208.1	0.0	0.0 - 1.0

	Specimen DIF-15					
All Method	21	0.02	0.04	192.5	0.0	0.0 - 0.2
All COULTER DxH 500/520	16	0.02	0.04	207.0	0.0	0.0 - 0.2
All COULTER Instruments	5	0.03	0.06	173.2	0.0	0.0 - 0.3
Coulter DxH 500	5	0.00	0.01	0.0	0.0	0.0 - 0.1
Coulter DxH 520	11	0.03	0.05	171.3	0.0	0.0 - 0.2

RETICULOCYTE COUNT (percent)

	Specimen RT-5						Specimen RT-6					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	25	5.98	1.17	19.6	5.8	3.6 - 8.4	25	0.95	0.16	17.2	0.9	0.6 - 1.3
All Automated Methods	20	5.77	0.84	14.6	5.8	4.0 - 7.5	20	0.96	0.13	13.8	0.9	0.6 - 1.3
All Manual Methods	5	7.08	2.02	28.5	7.2	3.0 - 11.2	5	0.95	0.31	32.7	1.1	0.3 - 1.6
Sysmex XN-1000	17	5.89	0.83	14.1	5.9	4.1 - 7.7	17	0.98	0.12	12.1	0.9	0.6 - 1.3

HEMATOLOGY W/ 5-PART DIFFERENTIAL–WHITE BLOOD CELL COUNT (x 10^9/L)

	Specimen BCX-11						Specimen BCX-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	87	23.69	0.61	2.6	23.7	20.1 - 27.3	87	4.60	0.11	2.5	4.6	3.9 - 5.3
All ABX Instruments	82	23.70	0.59	2.5	23.7	20.1 - 27.3	82	4.60	0.11	2.4	4.6	3.9 - 5.3
All COULTER Instruments	5	23.37	1.31	5.6	23.8	19.8 - 26.9	5	4.60	0.20	4.3	4.6	3.9 - 5.3
ABX Pentra 60C+	75	23.70	0.60	2.5	23.7	20.1 - 27.3	75	4.59	0.11	2.5	4.6	3.9 - 5.3
ABX Pentra 80 / XL 80	7	23.73	0.44	1.8	23.6	20.1 - 27.3	7	4.67	0.08	1.6	4.7	3.9 - 5.4
COULTER AcT 5diff	5	23.37	1.31	5.6	23.8	19.8 - 26.9	5	4.60	0.20	4.3	4.6	3.9 - 5.3

	Specimen BCX-13						Specimen BCX-14					
All Method	87	16.90	0.37	2.2	16.9	14.3 - 19.5	87	15.01	0.31	2.1	15.1	12.7 - 17.3
All ABX Instruments	82	16.91	0.36	2.1	16.9	14.3 - 19.5	82	15.02	0.31	2.1	15.1	12.7 - 17.3
All COULTER Instruments	5	16.03	0.78	4.8	15.8	13.6 - 18.5	5	14.47	0.51	3.5	14.6	12.2 - 16.7
ABX Pentra 60C+	75	16.90	0.36	2.1	16.9	14.3 - 19.5	75	15.00	0.31	2.1	15.0	12.7 - 17.3
ABX Pentra 80 / XL 80	7	17.04	0.37	2.2	17.1	14.4 - 19.6	7	15.20	0.32	2.1	15.1	12.9 - 17.5
COULTER AcT 5diff	5	16.03	0.78	4.8	15.8	13.6 - 18.5	5	14.47	0.51	3.5	14.6	12.2 - 16.7

	Specimen BCX-15					
All Method	87	2.42	0.07	2.8	2.4	2.0 - 2.8
All ABX Instruments	82	2.42	0.07	2.8	2.4	2.0 - 2.8
All COULTER Instruments	5	2.37	0.06	2.4	2.4	2.0 - 2.8
ABX Pentra 60C+	75	2.42	0.07	2.8	2.4	2.0 - 2.8
ABX Pentra 80 / XL 80	7	2.46	0.05	2.2	2.5	2.0 - 2.9
COULTER AcT 5diff	5	2.37	0.06	2.4	2.4	2.0 - 2.8

HEMATOLOGY W/ 5-PART DIFFERENTIAL–RED BLOOD CELL COUNT (x 10^{12}/L)

	Specimen BCX-11						Specimen BCX-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	87	5.959	0.087	1.5	5.96	5.60 - 6.32	87	4.266	0.060	1.4	4.26	4.01 - 4.53
All ABX Instruments	82	5.960	0.087	1.5	5.96	5.60 - 6.32	82	4.267	0.060	1.4	4.26	4.01 - 4.53
All COULTER Instruments	5	5.947	0.091	1.5	5.96	5.58 - 6.31	5	4.247	0.064	1.5	4.22	3.99 - 4.51
ABX Pentra 60C+	75	5.953	0.074	1.2	5.96	5.59 - 6.32	75	4.263	0.056	1.3	4.26	4.00 - 4.52
ABX Pentra 80 / XL 80	7	6.066	0.114	1.9	6.12	5.70 - 6.43	7	4.311	0.086	2.0	4.35	4.05 - 4.58
COULTER AcT 5diff	5	5.947	0.091	1.5	5.96	5.58 - 6.31	5	4.247	0.064	1.5	4.22	3.99 - 4.51
	Specimen BCX-13						**Specimen BCX-14**					
All Method	87	4.940	0.066	1.3	4.93	4.64 - 5.24	87	4.251	0.066	1.5	4.25	3.99 - 4.51
All ABX Instruments	82	4.941	0.067	1.3	4.93	4.64 - 5.24	82	4.250	0.064	1.5	4.25	3.99 - 4.51
All COULTER Instruments	5	4.900	0.030	0.6	4.90	4.60 - 5.20	5	4.273	0.111	2.6	4.26	4.01 - 4.53
ABX Pentra 60C+	75	4.939	0.063	1.3	4.93	4.64 - 5.24	75	4.251	0.065	1.5	4.25	3.99 - 4.51
ABX Pentra 80 / XL 80	7	4.966	0.103	2.1	5.02	4.66 - 5.27	7	4.241	0.065	1.5	4.26	3.98 - 4.50
COULTER AcT 5diff	5	4.900	0.030	0.6	4.90	4.60 - 5.20	5	4.273	0.111	2.6	4.26	4.01 - 4.53
	Specimen BCX-15											
All Method	87	2.346	0.049	2.1	2.34	2.20 - 2.49						
All ABX Instruments	82	2.346	0.046	2.0	2.34	2.20 - 2.49						
All COULTER Instruments	5	2.353	0.120	5.1	2.36	2.21 - 2.50						
ABX Pentra 60C+	75	2.349	0.045	1.9	2.35	2.20 - 2.50						
ABX Pentra 80 / XL 80	7	2.307	0.039	1.7	2.31	2.16 - 2.45						
COULTER AcT 5diff	5	2.353	0.120	5.1	2.36	2.21 - 2.50						

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

	Specimen BCX-11						Specimen BCX-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	87	18.29	0.23	1.2	18.3	17.0 - 19.6	87	12.93	0.16	1.2	12.9	12.0 - 13.9
All ABX Instruments	82	18.29	0.23	1.3	18.3	17.0 - 19.6	82	12.92	0.16	1.3	12.9	12.0 - 13.9
All COULTER Instruments	5	18.17	0.12	0.6	18.1	16.8 - 19.5	5	13.00	0.01	0.0	13.0	12.0 - 14.0
ABX Pentra 60C+	75	18.29	0.23	1.2	18.3	17.0 - 19.6	75	12.93	0.16	1.2	12.9	12.0 - 13.9
ABX Pentra 80 / XL 80	7	18.39	0.29	1.6	18.5	17.0 - 19.7	7	12.91	0.21	1.6	13.0	12.0 - 13.9
COULTER AcT 5diff	5	18.17	0.12	0.6	18.1	16.8 - 19.5	5	13.00	0.01	0.0	13.0	12.0 - 14.0
	Specimen BCX-13						**Specimen BCX-14**					
												10.8 - 12.6
All Method	87	16.32	0.20	1.2	16.3	15.1 - 17.5	87	11.70	0.15	1.2	11.7	10.8 - 12.6
All ABX Instruments	82	16.32	0.20	1.2	16.3	15.1 - 17.5	82	11.70	0.14	1.2	11.7	11.1 - 12.9
All COULTER Instruments	5	16.30	0.10	0.6	16.3	15.1 - 17.5	5	11.97	0.21	1.7	11.9	10.8 - 12.6
ABX Pentra 60C+	75	16.32	0.20	1.2	16.3	15.1 - 17.5	75	11.70	0.14	1.2	11.7	10.8 - 12.5
ABX Pentra 80 / XL 80	7	16.33	0.24	1.5	16.3	15.1 - 17.5	7	11.64	0.15	1.3	11.7	11.1 - 12.9
COULTER AcT 5diff	5	16.30	0.10	0.6	16.3	15.1 - 17.5	5	11.97	0.21	1.7	11.9	10.8 - 12.6
	Specimen BCX-15											
All Method	87	6.38	0.10	1.5	6.4	5.9 - 6.9						
All ABX Instruments	82	6.38	0.09	1.5	6.4	5.9 - 6.9						
All COULTER Instruments	5	6.60	0.10	1.5	6.6	6.1 - 7.1						
ABX Pentra 60C+	75	6.38	0.10	1.5	6.4	5.9 - 6.9						
ABX Pentra 80 / XL 80	7	6.37	0.10	1.5	6.3	5.9 - 6.9						
COULTER AcT 5diff	5	6.60	0.10	1.5	6.6	6.1 - 7.1						

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

	Specimen BCX-11						Specimen BCX-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	87	51.72	0.78	1.5	51.7	48.6 - 54.9	87	36.60	0.69	1.9	36.6	34.4 - 38.8
All ABX Instruments	82	51.76	0.75	1.4	51.7	48.6 - 54.9	82	36.63	0.67	1.8	36.6	34.4 - 38.9
All COULTER Instruments	5	50.67	1.01	2.0	50.8	47.6 - 53.8	5	35.73	0.72	2.0	36.1	33.5 - 37.9
ABX Pentra 60C+	75	51.70	0.62	1.2	51.7	48.5 - 54.9	75	36.57	0.61	1.7	36.5	34.3 - 38.8
ABX Pentra 80 / XL 80	7	52.10	1.42	2.7	52.5	48.9 - 55.3	7	37.31	0.97	2.6	37.7	35.0 - 39.6
COULTER AcT 5diff	5	50.67	1.01	2.0	50.8	47.6 - 53.8	5	35.73	0.72	2.0	36.1	33.5 - 37.9
	Specimen BCX-13						**Specimen BCX-14**					
All Method	87	45.93	0.70	1.5	45.9	43.1 - 48.7	87	33.71	0.68	2.0	33.7	31.6 - 35.8
All ABX Instruments	82	45.94	0.70	1.5	45.9	43.1 - 48.7	82	33.72	0.65	1.9	33.7	31.6 - 35.8
All COULTER Instruments	5	44.93	1.42	3.2	45.2	42.2 - 47.7	5	33.37	1.36	4.1	34.1	31.3 - 35.4
ABX Pentra 60C+	75	45.91	0.64	1.4	45.9	43.1 - 48.7	75	33.69	0.64	1.9	33.7	31.6 - 35.8
ABX Pentra 80 / XL 80	7	46.23	1.24	2.7	46.8	43.4 - 49.1	7	34.00	0.77	2.3	34.2	31.9 - 36.1
COULTER AcT 5diff	5	44.93	1.42	3.2	45.2	42.2 - 47.7	5	33.37	1.36	4.1	34.1	31.3 - 35.4
	Specimen BCX-15											
All Method	87	18.29	0.42	2.3	18.3	17.1 - 19.4						
All ABX Instruments	82	18.29	0.42	2.3	18.3	17.1 - 19.4						
All COULTER Instruments	5	18.27	0.68	3.7	18.5	17.1 - 19.4						
ABX Pentra 60C+	75	18.25	0.39	2.1	18.3	17.1 - 19.4						
ABX Pentra 80 / XL 80	7	18.76	0.51	2.7	18.9	17.6 - 19.9						
COULTER AcT 5diff	5	18.27	0.68	3.7	18.5	17.1 - 19.4						

HEMATOLOGY W/ 5-PART DIFFERENTIAL–PLATELET COUNT (x 10^9/L)

	Specimen BCX-11						Specimen BCX-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	87	518.6	16.3	3.1	519	388 - 649	87	239.2	9.4	3.9	239	179 - 300
All ABX Instruments	82	518.7	16.0	3.1	519	389 - 649	82	239.2	9.5	4.0	239	179 - 299
All COULTER Instruments	5	533.7	40.9	7.7	540	400 - 668	5	252.7	21.2	8.4	243	189 - 316
ABX Pentra 60C+	75	517.7	15.8	3.0	517	388 - 648	75	239.2	9.7	4.1	239	179 - 299
ABX Pentra 80 / XL 80	7	529.0	16.6	3.1	533	396 - 662	7	239.1	7.5	3.1	238	179 - 299
COULTER AcT 5diff	5	533.7	40.9	7.7	540	400 - 668	5	252.7	21.2	8.4	243	189 - 316
	Specimen BCX-13						**Specimen BCX-14**					
All Method	87	501.8	17.1	3.4	503	376 - 628	87	226.7	8.6	3.8	227	170 - 284
All ABX Instruments	82	500.8	14.9	3.0	502	375 - 627	82	226.8	8.7	3.8	227	170 - 284
All COULTER Instruments	5	511.7	46.8	9.1	533	383 - 640	5	238.0	26.5	11.1	228	178 - 298
ABX Pentra 60C+	75	500.0	14.7	2.9	502	375 - 625	75	226.6	8.8	3.9	227	169 - 284
ABX Pentra 80 / XL 80	7	509.4	15.1	3.0	515	382 - 637	7	228.6	8.5	3.7	229	171 - 286
COULTER AcT 5diff	5	511.7	46.8	9.1	533	383 - 640	5	238.0	26.5	11.1	228	178 - 298

	Specimen BCX-15					
All Method	87	72.3	3.8	5.2	72	54 - 91
All ABX Instruments	82	72.2	3.6	5.0	72	54 - 91
All COULTER Instruments	5	76.3	5.5	7.2	76	57 - 96
ABX Pentra 60C+	75	72.3	3.8	5.2	72	54 - 91
ABX Pentra 80 / XL 80	7	71.1	1.5	2.1	71	53 - 89
COULTER AcT 5diff	5	76.3	5.5	7.2	76	57 - 96

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

	Specimen BCX-11						Specimen BCX-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	87	45.34	3.77	8.3	45.6	34.0 - 56.7	87	54.52	4.40	8.1	54.4	41.3 - 67.8
All ABX Instruments	82	45.74	3.37	7.4	46.4	35.6 - 55.9	82	54.64	4.42	8.1	54.5	41.3 - 68.0
All COULTER Instruments	5	42.07	1.50	3.6	42.5	37.5 - 46.6	5	51.17	1.51	3.0	50.5	46.6 - 55.8
ABX Pentra 60C+	75	46.10	3.02	6.6	46.8	37.0 - 55.2	75	55.07	3.97	7.2	54.6	43.1 - 67.0
ABX Pentra 80 / XL 80	7	38.57	4.49	11.7	36.7	25.0 - 52.1	7	49.90	6.50	13.0	52.0	30.3 - 69.5
COULTER AcT 5diff	5	42.07	1.50	3.6	42.5	37.5 - 46.6	5	51.17	1.51	3.0	50.5	46.6 - 55.8
	Specimen BCX-13						**Specimen BCX-14**					
All Method	87	66.33	4.76	7.2	66.4	52.0 - 80.7	87	66.40	3.50	5.3	66.7	55.9 - 76.9
All ABX Instruments	82	66.78	4.19	6.3	66.9	54.2 - 79.4	82	66.49	3.42	5.1	66.8	56.2 - 76.8
All COULTER Instruments	5	52.27	5.05	9.7	52.5	37.1 - 67.5	5	53.73	4.92	9.2	53.2	38.9 - 68.5
ABX Pentra 60C+	75	67.16	3.89	5.8	67.9	55.4 - 78.9	75	66.93	2.92	4.4	66.9	58.1 - 75.7
ABX Pentra 80 / XL 80	7	58.21	6.30	10.8	56.3	39.3 - 77.2	7	59.81	5.16	8.6	58.4	44.3 - 75.3
COULTER AcT 5diff	5	52.27	5.05	9.7	52.5	37.1 - 67.5	5	53.73	4.92	9.2	53.2	38.9 - 68.5
	Specimen BCX-15											
All Method	87	66.71	3.88	5.8	66.9	55.0 - 78.4						
All ABX Instruments	82	67.15	3.35	5.0	67.2	57.0 - 77.2						
All COULTER Instruments	5	58.40	3.91	6.7	56.4	46.6 - 70.2						
ABX Pentra 60C+	75	67.43	3.23	4.8	67.4	57.7 - 77.2						
ABX Pentra 80 / XL 80	7	62.47	3.96	6.3	62.2	50.5 - 74.4						
COULTER AcT 5diff	5	58.40	3.91	6.7	56.4	46.6 - 70.2						

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

	Specimen BCX-11						Specimen BCX-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	87	50.19	4.02	8.0	49.4	38.1 - 62.3	87	37.52	4.05	10.8	37.2	25.3 - 49.7
All ABX Instruments	82	50.40	3.93	7.8	49.5	38.6 - 62.2	82	37.56	4.08	10.9	37.3	25.3 - 49.9
All COULTER Instruments	5	44.50	1.90	4.3	44.0	38.8 - 50.2	5	36.43	3.26	9.0	35.7	26.6 - 46.3
ABX Pentra 60C+	75	49.72	3.13	6.3	49.3	40.3 - 59.2	75	37.32	4.03	10.8	36.9	25.2 - 49.4
ABX Pentra 80 / XL 80	7	57.79	4.29	7.4	60.2	44.9 - 70.7	7	44.64	6.24	14.0	42.8	25.9 - 63.4
COULTER AcT 5diff	5	44.50	1.90	4.3	44.0	38.8 - 50.2	5	36.43	3.26	9.0	35.7	26.6 - 46.3
	Specimen BCX-13						**Specimen BCX-14**					
All Method	87	29.61	4.34	14.6	29.2	16.6 - 42.7	87	28.72	3.49	12.2	28.6	18.2 - 39.2
All ABX Instruments	82	29.46	4.24	14.4	29.1	16.7 - 42.2	82	28.65	3.48	12.2	28.6	18.1 - 39.1
All COULTER Instruments	5	33.50	6.22	18.6	32.9	14.8 - 52.2	5	30.70	3.72	12.1	32.0	19.5 - 41.9
ABX Pentra 60C+	75	29.04	3.85	13.3	28.6	17.4 - 40.6	75	28.16	2.94	10.4	28.1	19.3 - 37.0
ABX Pentra 80 / XL 80	7	38.76	6.35	16.4	40.6	19.7 - 57.9	7	35.76	4.73	13.2	37.2	21.5 - 50.0
COULTER AcT 5diff	5	33.50	6.22	18.6	32.9	14.8 - 52.2	5	30.70	3.72	12.1	32.0	19.5 - 41.9
	Specimen BCX-15											
All Method	87	23.61	3.14	13.3	23.5	14.1 - 33.1						
All ABX Instruments	82	23.81	2.96	12.4	23.7	14.9 - 32.7						
All COULTER Instruments	5	17.87	3.00	16.8	18.0	8.8 - 26.9						
ABX Pentra 60C+	75	23.40	2.67	11.4	23.4	15.4 - 31.4						
ABX Pentra 80 / XL 80	7	28.31	2.26	8.0	28.3	21.5 - 35.1						
COULTER AcT 5diff	5	17.87	3.00	16.8	18.0	8.8 - 26.9						

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

	Specimen BCX-11						Specimen BCX-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	87	1.16	0.38	32.7	1.2	0.0 - 2.3	87	0.74	0.41	54.9	0.7	0.0 - 2.0
All ABX Instruments	82	1.14	0.37	32.2	1.2	0.0 - 2.3	82	0.74	0.41	55.1	0.7	0.0 - 2.0
All COULTER Instruments	5	1.60	0.50	31.3	1.6	0.1 - 3.1	5	0.90	0.52	57.7	1.2	0.0 - 2.5
ABX Pentra 60C+	75	1.15	0.37	31.9	1.2	0.0 - 2.3	75	0.74	0.41	55.2	0.7	0.0 - 2.0
ABX Pentra 80 / XL 80	7	1.06	0.40	37.4	0.9	0.0 - 2.3	7	0.77	0.45	58.3	0.6	0.0 - 2.2
COULTER AcT 5diff	5	1.60	0.50	31.3	1.6	0.1 - 3.1	5	0.90	0.52	57.7	1.2	0.0 - 2.5

	Specimen BCX-13						Specimen BCX-14					
All Method	87	0.69	0.27	38.6	0.7	0.0 - 1.5	87	0.89	0.40	44.8	0.8	0.0 - 2.1
All ABX Instruments	82	0.69	0.27	38.9	0.7	0.0 - 1.6	82	0.88	0.38	43.6	0.8	0.0 - 2.1
All COULTER Instruments	5	1.90	1.01	53.4	2.1	0.0 - 5.0	5	1.13	0.78	68.5	0.9	0.0 - 3.5
ABX Pentra 60C+	75	0.70	0.27	38.3	0.7	0.0 - 1.6	75	0.89	0.38	43.4	0.8	0.0 - 2.1
ABX Pentra 80 / XL 80	7	0.57	0.26	44.9	0.6	0.0 - 1.4	7	0.83	0.41	49.6	0.7	0.0 - 2.1
COULTER AcT 5diff	5	1.90	1.01	53.4	2.1	0.0 - 5.0	5	1.13	0.78	68.5	0.9	0.0 - 3.5

	Specimen BCX-15					
All Method	87	0.59	0.38	63.9	0.4	0.0 - 1.8
All ABX Instruments	82	0.59	0.38	64.7	0.4	0.0 - 1.8
All COULTER Instruments	5	0.60	0.26	44.1	0.7	0.0 - 1.4
ABX Pentra 60C+	75	0.62	0.38	61.2	0.4	0.0 - 1.8
ABX Pentra 80 / XL 80	7	0.29	0.29	99.9	0.4	0.0 - 1.2
COULTER AcT 5diff	5	0.60	0.26	44.1	0.7	0.0 - 1.4

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

	Specimen BCX-11						Specimen BCX-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	87	2.58	0.58	22.5	2.6	0.8 - 4.4	87	6.22	1.84	29.6	6.3	0.6 - 11.8
All ABX Instruments	82	2.55	0.56	22.2	2.6	0.8 - 4.3	82	6.17	1.85	30.0	6.2	0.6 - 11.8
All COULTER Instruments	5	3.47	0.25	7.3	3.5	2.7 - 4.3	5	7.60	0.36	4.7	7.7	6.5 - 8.7
ABX Pentra 60C+	75	2.58	0.56	21.8	2.6	0.8 - 4.3	75	6.33	1.83	28.9	6.3	0.8 - 11.9
ABX Pentra 80 / XL 80	7	2.26	0.57	25.3	2.2	0.5 - 4.0	7	4.46	1.19	26.7	4.6	0.8 - 8.1
COULTER AcT 5diff	5	3.47	0.25	7.3	3.5	2.7 - 4.3	5	7.60	0.36	4.7	7.7	6.5 - 8.7

	Specimen BCX-13						Specimen BCX-14					
All Method	87	2.49	0.67	26.9	2.5	0.4 - 4.6	87	3.48	0.87	25.1	3.5	0.8 - 6.1
All ABX Instruments	82	2.46	0.66	26.8	2.4	0.4 - 4.5	82	3.48	0.87	25.1	3.5	0.8 - 6.1
All COULTER Instruments	5	3.33	0.45	13.5	3.3	1.9 - 4.7	5	7.57	1.34	17.7	7.0	3.5 - 11.6
ABX Pentra 60C+	75	2.50	0.66	26.5	2.5	0.5 - 4.5	75	3.50	0.88	25.2	3.5	0.8 - 6.2
ABX Pentra 80 / XL 80	7	2.06	0.52	25.2	2.0	0.4 - 3.7	7	3.30	0.84	25.4	3.1	0.7 - 5.9
COULTER AcT 5diff	5	3.33	0.45	13.5	3.3	1.9 - 4.7	5	7.57	1.34	17.7	7.0	3.5 - 11.6

	Specimen BCX-15					
All Method	87	8.22	2.64	32.1	7.8	0.2 - 16.2
All ABX Instruments	82	8.04	2.51	31.2	7.5	0.5 - 15.6
All COULTER Instruments	5	13.10	0.66	5.0	13.0	11.1 - 15.1
ABX Pentra 60C+	75	7.99	2.50	31.3	7.3	0.4 - 15.6
ABX Pentra 80 / XL 80	7	8.47	2.69	31.8	8.1	0.4 - 16.6
COULTER AcT 5diff	5	13.10	0.66	5.0	13.0	11.1 - 15.1

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

	Specimen BCX-11						Specimen BCX-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	87	0.35	0.05	15.1	0.3	0.1 - 0.6	87	0.24	0.05	20.5	0.2	0.0 - 0.4
All ABX Instruments	82	0.35	0.05	15.1	0.3	0.1 - 0.6	82	0.24	0.05	20.5	0.2	0.0 - 0.4
All COULTER Instruments	5	7.03	1.07	15.2	6.8	3.8 - 10.3	5	4.90	0.20	4.1	4.9	4.3 - 5.5
ABX Pentra 60C+	75	0.35	0.05	15.2	0.3	0.1 - 0.6	75	0.24	0.05	20.6	0.2	0.0 - 0.4
ABX Pentra 80 / XL 80	7	0.33	0.05	14.8	0.3	0.1 - 0.5	7	0.23	0.05	21.3	0.2	0.0 - 0.4
COULTER AcT 5diff	5	7.03	1.07	15.2	6.8	3.8 - 10.3	5	4.90	0.20	4.1	4.9	4.3 - 5.5

	Specimen BCX-13						Specimen BCX-14					
All Method	87	0.43	0.05	11.0	0.4	0.2 - 0.6	87	0.32	0.04	13.2	0.3	0.1 - 0.5
All ABX Instruments	82	0.43	0.05	11.0	0.4	0.2 - 0.6	82	0.32	0.04	13.2	0.3	0.1 - 0.5
All COULTER Instruments	5	9.00	0.26	2.9	8.9	8.2 - 9.8	5	7.20	0.56	7.7	7.1	5.5 - 8.9
ABX Pentra 60C+	75	0.44	0.05	11.1	0.4	0.2 - 0.6	75	0.33	0.04	13.5	0.3	0.1 - 0.5
ABX Pentra 80 / XL 80	7	0.40	0.01	0.0	0.4	0.3 - 0.5	7	0.30	0.01	0.0	0.3	0.2 - 0.4
COULTER AcT 5diff	5	9.00	0.26	2.9	8.9	8.2 - 9.8	5	7.20	0.56	7.7	7.1	5.5 - 8.9

	Specimen BCX-15					
All Method	87	0.46	0.05	11.1	0.5	0.3 - 0.7
All ABX Instruments	82	0.46	0.05	11.1	0.5	0.3 - 0.7
All COULTER Instruments	5	9.37	0.23	2.5	9.5	8.6 - 10.1
ABX Pentra 60C+	75	0.46	0.05	11.2	0.5	0.3 - 0.7
ABX Pentra 80 / XL 80	7	0.46	0.05	11.7	0.5	0.2 - 0.7
COULTER AcT 5diff	5	9.37	0.23	2.5	9.5	8.6 - 10.1

HEMATOLOGY W/ 5 or 6-PART DIFFERENTIAL–WHITE BLOOD CELL COUNT (x 10^9/L)

Specimen MX-11

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	123	7.34	0.42	5.7	7.2	6.2 - 8.5
All Sysmex XN/XS Instruments	123	7.34	0.42	5.7	7.2	6.2 - 8.5
Sysmex XN-1000	20	7.77	0.13	1.6	7.8	6.6 - 9.0
Sysmex XN-330	7	6.90	0.12	1.7	6.9	5.8 - 8.0
Sysmex XN-430	37	7.23	0.29	4.1	7.2	6.1 - 8.4
Sysmex XN-450	11	7.05	0.18	2.6	7.1	5.9 - 8.2
Sysmex XN-530	5	7.10	0.25	3.6	7.1	6.0 - 8.2
Sysmex XN-550	23	7.02	0.18	2.5	7.0	5.9 - 8.1
Sysmex XS-1000i	19	7.92	0.16	2.0	7.9	6.7 - 9.2

Specimen MX-12

Labs	*Mean*	*SD*	*CV*	*Median*	*Range*
123	3.60	0.30	8.4	3.5	3.0 - 4.2
123	3.60	0.30	8.4	3.5	3.0 - 4.2
20	3.93	0.11	2.9	3.9	3.3 - 4.6
7	3.23	0.10	2.9	3.2	2.7 - 3.8
37	3.49	0.18	5.2	3.5	2.9 - 4.1
11	3.38	0.08	2.2	3.4	2.8 - 3.9
5	3.46	0.26	7.5	3.4	2.9 - 4.0
23	3.39	0.13	3.8	3.4	2.8 - 3.9
19	4.02	0.10	2.5	4.0	3.4 - 4.7

Specimen MX-13

All Method	123	3.60	0.29	8.2	3.5	3.0 - 4.2
All Sysmex XN/XS Instruments	123	3.60	0.29	8.2	3.5	3.0 - 4.2
Sysmex XN-1000	20	3.95	0.08	1.9	3.9	3.3 - 4.6
Sysmex XN-330	7	3.23	0.11	3.4	3.2	2.7 - 3.8
Sysmex XN-430	37	3.50	0.19	5.3	3.5	2.9 - 4.1
Sysmex XN-450	11	3.39	0.09	2.8	3.4	2.8 - 3.9
Sysmex XN-530	5	3.46	0.21	6.0	3.4	2.9 - 4.0
Sysmex XN-550	23	3.38	0.13	3.9	3.4	2.8 - 3.9
Sysmex XS-1000i	19	3.98	0.09	2.3	4.0	3.3 - 4.6

Specimen MX-14

121	20.86	0.48	2.3	20.8	17.7 - 24.0
121	20.86	0.48	2.3	20.8	17.7 - 24.0
20	21.34	0.34	1.6	21.3	18.1 - 24.6
7	20.31	0.33	1.6	20.3	17.2 - 23.4
36	20.91	0.48	2.3	20.9	17.7 - 24.1
11	20.86	0.39	1.8	20.9	17.7 - 24.0
5	20.76	0.34	1.6	20.7	17.6 - 23.9
23	20.59	0.27	1.3	20.7	17.4 - 23.7
19	20.95	0.67	3.2	20.7	17.8 - 24.1

Specimen MX-15

All Method	123	7.35	0.42	5.7	7.2	6.2 - 8.5
All Sysmex XN/XS Instruments	123	7.35	0.42	5.7	7.2	6.2 - 8.5
Sysmex XN-1000	20	7.78	0.17	2.1	7.8	6.6 - 9.0
Sysmex XN-330	7	6.87	0.18	2.6	6.8	5.8 - 8.0
Sysmex XN-430	37	7.25	0.30	4.1	7.2	6.1 - 8.4
Sysmex XN-450	11	7.07	0.13	1.9	7.1	6.0 - 8.2
Sysmex XN-530	5	7.10	0.27	3.9	7.1	6.0 - 8.2
Sysmex XN-550	23	7.06	0.20	2.8	7.1	5.9 - 8.2
Sysmex XS-1000i	19	7.93	0.17	2.2	7.9	6.7 - 9.2

HEMATOLOGY W/ 5 or 6-PART DIFFERENTIAL–RED BLOOD CELL COUNT (x 10^{12}/L)

	Specimen MX-11						Specimen MX-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	121	4.660	0.048	1.0	4.66	4.38 - 4.94	121	2.310	0.027	1.2	2.31	2.17 - 2.45
All Sysmex XN/XS Instruments	121	4.660	0.048	1.0	4.66	4.38 - 4.94	121	2.310	0.027	1.2	2.31	2.17 - 2.45
Sysmex XN-1000	20	4.660	0.048	1.0	4.67	4.38 - 4.94	20	2.319	0.023	1.0	2.33	2.17 - 2.46
Sysmex XN-330	7	4.634	0.067	1.4	4.67	4.35 - 4.92	7	2.289	0.048	2.1	2.31	2.15 - 2.43
Sysmex XN-430	36	4.665	0.041	0.9	4.67	4.38 - 4.95	37	2.304	0.033	1.4	2.31	2.16 - 2.45
Sysmex XN-450	11	4.631	0.050	1.1	4.61	4.35 - 4.91	11	2.296	0.025	1.1	2.30	2.15 - 2.44
Sysmex XN-530	5	4.670	0.067	1.4	4.66	4.38 - 4.96	5	2.308	0.018	0.8	2.31	2.16 - 2.45
Sysmex XN-550	23	4.668	0.050	1.1	4.66	4.38 - 4.95	23	2.310	0.025	1.1	2.31	2.17 - 2.45
Sysmex XS-1000i	19	4.656	0.060	1.3	4.67	4.37 - 4.94	20	2.326	0.032	1.4	2.33	2.18 - 2.47

	Specimen MX-13						Specimen MX-14					
All Method	123	2.305	0.026	1.1	2.30	2.16 - 2.45	122	5.636	0.055	1.0	5.64	5.29 - 5.98
All Sysmex XN/XS Instruments	123	2.305	0.026	1.1	2.30	2.16 - 2.45	122	5.636	0.055	1.0	5.64	5.29 - 5.98
Sysmex XN-1000	20	2.315	0.025	1.1	2.32	2.17 - 2.46	20	5.619	0.061	1.1	5.64	5.28 - 5.96
Sysmex XN-330	7	2.303	0.036	1.6	2.31	2.16 - 2.45	7	5.633	0.114	2.0	5.68	5.29 - 5.98
Sysmex XN-430	37	2.303	0.022	1.0	2.30	2.16 - 2.45	37	5.655	0.045	0.8	5.65	5.31 - 6.00
Sysmex XN-450	11	2.285	0.020	0.9	2.29	2.14 - 2.43	11	5.627	0.048	0.9	5.61	5.28 - 5.97
Sysmex XN-530	5	2.294	0.015	0.7	2.30	2.15 - 2.44	5	5.668	0.025	0.4	5.67	5.32 - 6.01
Sysmex XN-550	23	2.302	0.025	1.1	2.30	2.16 - 2.44	23	5.637	0.046	0.8	5.64	5.29 - 5.98
Sysmex XS-1000i	20	2.323	0.035	1.5	2.33	2.18 - 2.47	20	5.598	0.065	1.2	5.61	5.26 - 5.94

	Specimen MX-15					
All Method	124	4.658	0.049	1.1	4.66	4.37 - 4.94
All Sysmex XN/XS Instruments	124	4.658	0.049	1.1	4.66	4.37 - 4.94
Sysmex XN-1000	20	4.677	0.061	1.3	4.68	4.39 - 4.96
Sysmex XN-330	7	4.654	0.058	1.2	4.68	4.37 - 4.94
Sysmex XN-430	36	4.655	0.034	0.7	4.65	4.37 - 4.94
Sysmex XN-450	11	4.627	0.047	1.0	4.60	4.34 - 4.91
Sysmex XN-530	5	4.696	0.034	0.7	4.68	4.41 - 4.98
Sysmex XN-550	23	4.651	0.041	0.9	4.65	4.37 - 4.93
Sysmex XS-1000i	20	4.658	0.055	1.2	4.66	4.37 - 4.94

HEMATOLOGY W/ 5 or 6-PART DIFFERENTIAL–HEMOGLOBIN (g/dL)

Specimen MX-11

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	123	13.23	0.12	0.9	13.2	12.3 - 14.2
All Sysmex XN/XS Instruments	123	13.23	0.12	0.9	13.2	12.3 - 14.2
Sysmex XN-1000	20	13.31	0.10	0.8	13.3	12.3 - 14.3
Sysmex XN-330	7	13.11	0.11	0.8	13.1	12.1 - 14.1
Sysmex XN-430	37	13.22	0.11	0.9	13.2	12.2 - 14.2
Sysmex XN-450	11	13.15	0.14	1.1	13.1	12.2 - 14.1
Sysmex XN-530	5	13.26	0.11	0.9	13.3	12.3 - 14.2
Sysmex XN-550	23	13.26	0.09	0.7	13.2	12.3 - 14.2
Sysmex XS-1000i	20	13.23	0.12	0.9	13.2	12.3 - 14.2

Specimen MX-12

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	124	5.93	0.08	1.4	5.9	5.5 - 6.4
All Sysmex XN/XS Instruments	124	5.93	0.08	1.4	5.9	5.5 - 6.4
Sysmex XN-1000	20	6.01	0.09	1.4	6.0	5.5 - 6.5
Sysmex XN-330	7	5.86	0.05	0.9	5.9	5.4 - 6.3
Sysmex XN-430	37	5.93	0.07	1.2	5.9	5.5 - 6.4
Sysmex XN-450	11	5.90	0.06	1.1	5.9	5.4 - 6.4
Sysmex XN-530	5	5.94	0.05	0.9	5.9	5.5 - 6.4
Sysmex XN-550	23	5.95	0.06	1.0	5.9	5.5 - 6.4
Sysmex XS-1000i	20	5.90	0.09	1.5	5.9	5.4 - 6.4

Specimen MX-13

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	124	5.92	0.07	1.3	5.9	5.5 - 6.4
All Sysmex XN/XS Instruments	124	5.92	0.07	1.3	5.9	5.5 - 6.4
Sysmex XN-1000	20	5.99	0.06	1.0	6.0	5.5 - 6.5
Sysmex XN-330	7	5.86	0.05	0.9	5.9	5.4 - 6.3
Sysmex XN-430	37	5.93	0.07	1.2	5.9	5.5 - 6.4
Sysmex XN-450	11	5.88	0.06	1.0	5.9	5.4 - 6.3
Sysmex XN-530	5	5.92	0.04	0.8	5.9	5.5 - 6.4
Sysmex XN-550	22	5.91	0.04	0.6	5.9	5.4 - 6.4
Sysmex XS-1000i	20	5.88	0.08	1.4	5.9	5.4 - 6.3

Specimen MX-14

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	121	17.42	0.14	0.8	17.4	16.2 - 18.7
All Sysmex XN/XS Instruments	121	17.42	0.14	0.8	17.4	16.2 - 18.7
Sysmex XN-1000	19	17.48	0.14	0.8	17.5	16.2 - 18.8
Sysmex XN-330	7	17.30	0.13	0.7	17.4	16.0 - 18.6
Sysmex XN-430	36	17.39	0.13	0.8	17.4	16.1 - 18.7
Sysmex XN-450	11	17.37	0.17	1.0	17.3	16.1 - 18.6
Sysmex XN-530	5	17.44	0.09	0.5	17.5	16.2 - 18.7
Sysmex XN-550	23	17.43	0.12	0.7	17.4	16.2 - 18.7
Sysmex XS-1000i	19	17.50	0.11	0.6	17.5	16.2 - 18.8

Specimen MX-15

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	121	13.28	0.11	0.8	13.3	12.3 - 14.3
All Sysmex XN/XS Instruments	121	13.28	0.11	0.8	13.3	12.3 - 14.3
Sysmex XN-1000	19	13.38	0.13	1.0	13.4	12.4 - 14.4
Sysmex XN-330	7	13.17	0.08	0.6	13.2	12.2 - 14.1
Sysmex XN-430	37	13.26	0.11	0.8	13.2	12.3 - 14.2
Sysmex XN-450	11	13.19	0.13	1.0	13.2	12.2 - 14.2
Sysmex XN-530	5	13.34	0.09	0.7	13.3	12.4 - 14.3
Sysmex XN-550	23	13.27	0.10	0.7	13.3	12.3 - 14.3
Sysmex XS-1000i	20	13.29	0.11	0.8	13.3	12.3 - 14.3

HEMATOLOGY W/ 5 or 6-PART DIFFERENTIAL – HEMATOCRIT (percent)

Specimen MX-11

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	122	39.34	0.61	1.6	39.4	36.9 - 41.8
All Sysmex XN/XS Instruments	122	39.34	0.61	1.6	39.4	36.9 - 41.8
Sysmex XN-1000	20	39.15	0.46	1.2	39.3	36.8 - 41.5
Sysmex XN-330	7	38.93	0.83	2.1	38.7	36.5 - 41.3
Sysmex XN-430	36	39.31	0.61	1.6	39.4	36.9 - 41.7
Sysmex XN-450	11	39.00	0.44	1.1	39.0	36.6 - 41.4
Sysmex XN-530	5	39.40	0.39	1.0	39.4	37.0 - 41.8
Sysmex XN-550	23	39.43	0.58	1.5	39.5	37.0 - 41.9
Sysmex XS-1000i	19	39.81	0.62	1.5	39.8	37.4 - 42.2

Specimen MX-12

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	123	17.86	0.32	1.8	17.8	16.7 - 19.0
All Sysmex XN/XS Instruments	123	17.86	0.32	1.8	17.8	16.7 - 19.0
Sysmex XN-1000	20	17.73	0.19	1.0	17.8	16.6 - 18.8
Sysmex XN-330	7	17.64	0.35	2.0	17.7	16.5 - 18.8
Sysmex XN-430	37	17.78	0.31	1.7	17.8	16.7 - 18.9
Sysmex XN-450	11	17.76	0.29	1.6	17.7	16.6 - 18.9
Sysmex XN-530	5	17.86	0.15	0.8	17.8	16.7 - 19.0
Sysmex XN-550	23	17.87	0.26	1.5	17.8	16.7 - 19.0
Sysmex XS-1000i	20	18.30	0.30	1.6	18.3	17.2 - 19.4

Specimen MX-13

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	123	17.83	0.31	1.7	17.8	16.7 - 18.9
All Sysmex XN/XS Instruments	123	17.83	0.31	1.7	17.8	16.7 - 18.9
Sysmex XN-1000	20	17.68	0.22	1.3	17.7	16.6 - 18.8
Sysmex XN-330	7	17.73	0.34	1.9	17.6	16.6 - 18.8
Sysmex XN-430	37	17.78	0.27	1.5	17.7	16.7 - 18.9
Sysmex XN-450	11	17.69	0.25	1.4	17.6	16.6 - 18.8
Sysmex XN-530	5	17.72	0.16	0.9	17.8	16.6 - 18.8
Sysmex XN-550	23	17.84	0.26	1.5	17.9	16.7 - 19.0
Sysmex XS-1000i	20	18.27	0.30	1.6	18.2	17.1 - 19.4

Specimen MX-14

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	124	51.54	0.83	1.6	51.6	48.4 - 54.7
All Sysmex XN/XS Instruments	124	51.54	0.83	1.6	51.6	48.4 - 54.7
Sysmex XN-1000	20	51.12	0.71	1.4	51.3	48.0 - 54.2
Sysmex XN-330	7	51.23	1.13	2.2	50.7	48.1 - 54.4
Sysmex XN-430	37	51.56	0.80	1.6	51.5	48.4 - 54.7
Sysmex XN-450	11	51.27	0.52	1.0	51.1	48.1 - 54.4
Sysmex XN-530	5	51.78	0.23	0.4	51.8	48.6 - 54.9
Sysmex XN-550	23	51.46	0.74	1.4	51.5	48.3 - 54.6
Sysmex XS-1000i	20	52.20	0.89	1.7	52.3	49.0 - 55.4

Specimen MX-15

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	123	39.34	0.61	1.5	39.4	36.9 - 41.8
All Sysmex XN/XS Instruments	123	39.34	0.61	1.5	39.4	36.9 - 41.8
Sysmex XN-1000	20	39.27	0.59	1.5	39.3	36.9 - 41.7
Sysmex XN-330	7	39.11	0.65	1.7	39.1	36.7 - 41.5
Sysmex XN-430	36	39.26	0.60	1.5	39.2	36.9 - 41.7
Sysmex XN-450	11	39.03	0.50	1.3	39.0	36.6 - 41.4
Sysmex XN-530	5	39.62	0.18	0.5	39.6	37.2 - 42.0
Sysmex XN-550	23	39.30	0.55	1.4	39.3	36.9 - 41.7
Sysmex XS-1000i	20	39.81	0.60	1.5	39.8	37.4 - 42.2

HEMATOLOGY W/ 5 or 6-PART DIFFERENTIAL–PLATELET COUNT (x 10^9/L)

Specimen MX-11

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	121	206.9	6.7	3.2	207	155 - 259
All Sysmex XN/XS Instruments	121	206.9	6.7	3.2	207	155 - 259
Sysmex XN-1000	20	210.6	7.5	3.6	211	157 - 264
Sysmex XN-330	7	205.6	6.8	3.3	208	154 - 257
Sysmex XN-430	37	205.9	6.9	3.4	207	154 - 258
Sysmex XN-450	11	211.0	6.7	3.2	211	158 - 264
Sysmex XN-530	5	209.0	3.9	1.9	211	156 - 262
Sysmex XN-550	23	205.2	8.3	4.0	205	153 - 257
Sysmex XS-1000i	19	204.3	5.2	2.5	203	153 - 256

Specimen MX-12

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	124	47.9	3.8	8.0	48	35 - 60
All Sysmex XN/XS Instruments	124	47.9	3.8	8.0	48	35 - 60
Sysmex XN-1000	20	46.9	3.7	7.8	46	35 - 59
Sysmex XN-330	7	45.7	3.1	6.9	45	34 - 58
Sysmex XN-430	37	47.6	3.4	7.0	47	35 - 60
Sysmex XN-450	11	49.4	3.9	7.9	50	37 - 62
Sysmex XN-530	5	48.2	2.8	5.8	49	36 - 61
Sysmex XN-550	23	45.4	2.8	6.2	45	34 - 57
Sysmex XS-1000i	20	52.1	2.9	5.6	52	39 - 66

Specimen MX-13

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	124	48.4	4.0	8.2	48	36 - 61
All Sysmex XN/XS Instruments	124	48.4	4.0	8.2	48	36 - 61
Sysmex XN-1000	20	47.0	2.9	6.1	47	35 - 59
Sysmex XN-330	7	45.7	3.3	7.1	46	34 - 58
Sysmex XN-430	37	47.2	3.1	6.5	47	35 - 60
Sysmex XN-450	11	47.7	3.1	6.4	48	35 - 60
Sysmex XN-530	5	49.8	2.0	4.1	50	37 - 63
Sysmex XN-550	23	47.2	3.2	6.8	47	35 - 59
Sysmex XS-1000i	20	54.3	2.9	5.3	54	40 - 68

Specimen MX-14

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	124	406.9	15.8	3.9	408	305 - 509
All Sysmex XN/XS Instruments	124	406.9	15.8	3.9	408	305 - 509
Sysmex XN-1000	20	412.1	11.9	2.9	414	309 - 516
Sysmex XN-330	7	409.4	16.4	4.0	411	307 - 512
Sysmex XN-430	37	405.8	15.5	3.8	407	304 - 508
Sysmex XN-450	11	422.6	9.5	2.3	419	316 - 529
Sysmex XN-530	5	417.2	8.9	2.1	414	312 - 522
Sysmex XN-550	23	407.3	14.3	3.5	407	305 - 510
Sysmex XS-1000i	20	390.9	12.5	3.2	392	293 - 489

Specimen MX-15

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	123	206.7	7.3	3.5	207	155 - 259
All Sysmex XN/XS Instruments	123	206.7	7.3	3.5	207	155 - 259
Sysmex XN-1000	20	209.0	8.5	4.1	210	156 - 262
Sysmex XN-330	7	206.0	6.2	3.0	206	154 - 258
Sysmex XN-430	37	206.1	8.1	3.9	207	154 - 258
Sysmex XN-450	11	208.7	4.5	2.2	209	156 - 261
Sysmex XN-530	5	214.6	4.8	2.2	216	160 - 269
Sysmex XN-550	23	204.0	8.5	4.2	205	152 - 255
Sysmex XS-1000i	20	205.0	4.2	2.1	206	153 - 257

HEMATOLOGY W/ 5 or 6-PART DIFFERENTIAL – NEUTROPHILS (percent)

	Specimen MX-11						Specimen MX-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	120	46.80	1.53	3.3	46.5	42.1 - 51.5	120	58.39	1.95	3.3	57.9	52.5 - 64.3
All Sysmex XN/XS Instruments	120	46.80	1.53	3.3	46.5	42.1 - 51.5	120	58.39	1.95	3.3	57.9	52.5 - 64.3
Sysmex XN-1000	19	49.21	0.59	1.2	49.2	47.4 - 51.0	19	61.78	0.60	1.0	61.7	59.9 - 63.6
Sysmex XN-330	7	45.89	0.77	1.7	45.8	43.5 - 48.3	7	57.60	1.12	1.9	57.7	54.2 - 61.0
Sysmex XN-430	35	46.08	0.84	1.8	45.9	43.5 - 48.7	35	57.76	0.85	1.5	57.8	55.2 - 60.4
Sysmex XN-450	11	47.12	1.05	2.2	46.9	43.9 - 50.3	11	57.53	0.58	1.0	57.4	55.7 - 59.3
Sysmex XN-530	5	45.43	0.72	1.6	45.4	43.2 - 47.6	5	58.03	0.83	1.4	57.8	55.5 - 60.6
Sysmex XN-550	23	46.27	1.16	2.5	46.4	42.8 - 49.8	23	56.95	1.27	2.2	56.9	53.1 - 60.8
Sysmex XS-1000i	18	46.23	0.85	1.8	46.3	43.6 - 48.8	19	58.94	1.69	2.9	58.4	53.8 - 64.1

	Specimen MX-13						Specimen MX-14					
All Method	121	58.26	1.99	3.4	57.8	52.3 - 64.3	119	54.98	1.47	2.7	54.7	50.5 - 59.4
All Sysmex XN/XS Instruments	121	58.26	1.99	3.4	57.8	52.3 - 64.3	119	54.98	1.47	2.7	54.7	50.5 - 59.4
Sysmex XN-1000	19	61.63	0.54	0.9	61.5	60.0 - 63.3	19	57.83	0.42	0.7	57.8	56.5 - 59.1
Sysmex XN-330	7	57.41	1.15	2.0	57.7	53.9 - 60.9	7	54.60	0.95	1.7	54.3	51.7 - 57.5
Sysmex XN-430	36	57.42	1.36	2.4	57.2	53.3 - 61.5	36	54.52	0.79	1.4	54.6	52.1 - 56.9
Sysmex XN-450	11	57.07	1.34	2.3	56.6	53.0 - 61.1	11	54.57	0.56	1.0	54.4	52.9 - 56.3
Sysmex XN-530	5	57.10	0.92	1.6	57.1	54.3 - 59.9	5	54.75	0.82	1.5	54.6	52.2 - 57.3
Sysmex XN-550	22	57.27	0.73	1.3	57.3	55.0 - 59.5	23	54.70	0.59	1.1	54.9	52.9 - 56.5
Sysmex XS-1000i	20	59.01	1.48	2.5	58.9	54.5 - 63.5	18	53.75	1.00	1.9	53.8	50.7 - 56.8

	Specimen MX-15					
All Method	117	46.87	1.47	3.1	46.8	42.4 - 51.3
All Sysmex XN/XS Instruments	117	46.87	1.47	3.1	46.8	42.4 - 51.3
Sysmex XN-1000	18	49.38	0.61	1.2	49.6	47.5 - 51.2
Sysmex XN-330	7	46.39	0.81	1.8	46.5	43.9 - 48.9
Sysmex XN-430	35	46.45	0.87	1.9	46.6	43.8 - 49.1
Sysmex XN-450	11	46.33	1.20	2.6	46.4	42.7 - 50.0
Sysmex XN-530	5	45.73	0.87	1.9	45.4	43.1 - 48.4
Sysmex XN-550	22	46.15	1.08	2.3	46.4	42.9 - 49.4
Sysmex XS-1000i	20	47.30	2.08	4.4	47.0	41.0 - 53.6

HEMATOLOGY W/ 5 or 6-PART DIFFERENTIAL – LYMPHOCYTES (percent)

	Specimen MX-11						Specimen MX-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	118	32.13	1.32	4.1	32.4	28.1 - 36.2	118	16.88	1.07	6.3	17.0	13.6 - 20.1
All Sysmex XN/XS Instruments	118	32.13	1.32	4.1	32.4	28.1 - 36.2	118	16.88	1.07	6.3	17.0	13.6 - 20.1
Sysmex XN-1000	19	29.92	0.68	2.3	30.0	27.8 - 32.0	19	15.86	0.69	4.4	15.8	13.7 - 18.0
Sysmex XN-330	7	32.59	0.73	2.2	32.9	30.3 - 34.8	7	17.67	0.67	3.8	17.5	15.6 - 19.7
Sysmex XN-430	35	32.74	0.86	2.6	33.0	30.1 - 35.4	35	17.20	0.85	4.9	17.1	14.6 - 19.8
Sysmex XN-450	11	32.41	0.84	2.6	32.6	29.8 - 35.0	11	17.47	0.56	3.2	17.7	15.8 - 19.2
Sysmex XN-530	5	33.25	0.47	1.4	33.4	31.8 - 34.7	5	16.90	1.29	7.7	17.4	13.0 - 20.8
Sysmex XN-550	23	32.78	1.06	3.2	32.8	29.6 - 36.0	23	17.50	0.81	4.6	17.5	15.0 - 20.0
Sysmex XS-1000i	18	31.94	0.78	2.4	31.8	29.6 - 34.3	20	15.56	1.45	9.3	15.7	11.2 - 20.0

	Specimen MX-13						Specimen MX-14					
All Method	121	16.84	1.15	6.8	16.9	13.3 - 20.3	118	21.55	0.76	3.5	21.6	19.2 - 23.9
All Sysmex XN/XS Instruments	121	16.84	1.15	6.8	16.9	13.3 - 20.3	118	21.55	0.76	3.5	21.6	19.2 - 23.9
Sysmex XN-1000	19	15.88	0.65	4.1	16.0	13.9 - 17.9	19	20.31	0.33	1.6	20.2	19.3 - 21.3
Sysmex XN-330	7	17.51	0.85	4.8	17.7	14.9 - 20.1	7	21.80	0.43	2.0	22.0	20.5 - 23.1
Sysmex XN-430	36	17.23	1.05	6.1	17.5	14.0 - 20.4	35	21.69	0.43	2.0	21.8	20.4 - 23.0
Sysmex XN-450	11	17.24	0.57	3.3	17.0	15.5 - 19.0	11	21.54	0.42	2.0	21.5	20.2 - 22.9
Sysmex XN-530	5	17.43	0.70	4.0	17.5	15.3 - 19.6	5	21.68	0.46	2.1	21.8	20.2 - 23.1
Sysmex XN-550	23	17.42	0.91	5.3	17.3	14.6 - 20.2	23	21.55	0.38	1.8	21.5	20.4 - 22.7
Sysmex XS-1000i	20	15.78	1.15	7.3	16.1	12.3 - 19.3	18	22.51	0.58	2.6	22.5	20.7 - 24.3

	Specimen MX-15					
All Method	117	31.84	1.29	4.1	32.2	27.9 - 35.8
All Sysmex XN/XS Instruments	117	31.84	1.29	4.1	32.2	27.9 - 35.8
Sysmex XN-1000	18	29.69	0.73	2.5	29.7	27.5 - 31.9
Sysmex XN-330	7	32.33	0.76	2.4	32.0	30.0 - 34.7
Sysmex XN-430	35	32.36	0.87	2.7	32.5	29.7 - 35.0
Sysmex XN-450	11	32.25	1.08	3.3	32.4	29.0 - 35.5
Sysmex XN-530	5	33.05	0.52	1.6	32.9	31.4 - 34.7
Sysmex XN-550	23	32.38	0.98	3.0	32.4	29.4 - 35.4
Sysmex XS-1000i	20	30.87	2.36	7.6	31.4	23.7 - 38.0

HEMATOLOGY W/ 5 or 6-PART DIFFERENTIAL – MONOCYTES (percent)

	Specimen MX-11						Specimen MX-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	119	1.78	0.58	32.3	1.6	0.0 - 3.6	119	0.79	0.32	41.0	0.6	0.0 - 1.8
All Sysmex XN/XS Instruments	119	1.78	0.58	32.3	1.6	0.0 - 3.6	119	0.79	0.32	41.0	0.6	0.0 - 1.8
Sysmex XN-1000	19	2.97	0.23	7.7	3.0	2.2 - 3.7	19	1.35	0.16	12.2	1.3	0.8 - 1.9
Sysmex XN-330	7	1.57	0.28	17.9	1.5	0.7 - 2.5	7	0.61	0.20	33.1	0.6	0.0 - 1.3
Sysmex XN-430	36	1.52	0.26	16.8	1.6	0.7 - 2.3	35	0.67	0.18	26.5	0.6	0.1 - 1.2
Sysmex XN-450	11	1.60	0.27	17.0	1.6	0.7 - 2.5	11	0.65	0.23	34.4	0.6	0.0 - 1.4
Sysmex XN-530	5	1.53	0.22	14.5	1.5	0.8 - 2.2	5	0.68	0.15	22.2	0.6	0.2 - 1.2
Sysmex XN-550	23	1.51	0.28	18.4	1.5	0.6 - 2.4	23	0.63	0.20	32.0	0.6	0.0 - 1.3
Sysmex XS-1000i	20	2.12	1.36	64.0	1.7	0.0 - 6.2	18	0.78	0.23	29.4	0.8	0.0 - 1.5

	Specimen MX-13						Specimen MX-14					
All Method	118	0.78	0.34	43.5	0.6	0.0 - 1.9	118	1.22	0.45	36.4	1.1	0.0 - 2.6
All Sysmex XN/XS Instruments	118	0.78	0.34	43.5	0.6	0.0 - 1.9	118	1.22	0.45	36.4	1.1	0.0 - 2.6
Sysmex XN-1000	19	1.39	0.26	18.6	1.5	0.6 - 2.2	19	2.11	0.19	9.0	2.1	1.5 - 2.7
Sysmex XN-330	7	0.56	0.21	37.2	0.6	0.0 - 1.2	7	0.93	0.19	20.4	0.8	0.3 - 1.5
Sysmex XN-430	36	0.68	0.19	27.6	0.6	0.1 - 1.3	36	1.01	0.15	14.9	1.0	0.5 - 1.5
Sysmex XN-450	11	0.73	0.20	27.6	0.8	0.1 - 1.4	11	1.05	0.14	13.7	1.1	0.6 - 1.5
Sysmex XN-530	5	0.53	0.15	28.6	0.6	0.0 - 1.0	5	0.95	0.17	18.2	1.0	0.4 - 1.5
Sysmex XN-550	23	0.59	0.19	32.2	0.6	0.0 - 1.2	23	1.00	0.18	18.3	1.0	0.4 - 1.6
Sysmex XS-1000i	20	1.14	0.92	81.5	0.8	0.0 - 4.0	19	1.46	0.54	37.0	1.3	0.0 - 3.1

	Specimen MX-15					
All Method	119	1.82	0.60	32.8	1.7	0.0 - 3.7
All Sysmex XN/XS Instruments	119	1.82	0.60	32.8	1.7	0.0 - 3.7
Sysmex XN-1000	19	3.04	0.32	10.5	3.1	2.0 - 4.0
Sysmex XN-330	7	1.60	0.24	15.3	1.6	0.8 - 2.4
Sysmex XN-430	36	1.55	0.25	16.1	1.6	0.8 - 2.4
Sysmex XN-450	11	1.58	0.29	18.3	1.7	0.7 - 2.5
Sysmex XN-530	5	1.53	0.17	11.2	1.6	1.0 - 2.1
Sysmex XN-550	23	1.60	0.27	16.9	1.7	0.7 - 2.5
Sysmex XS-1000i	18	1.66	0.29	17.4	1.8	0.7 - 2.6

HEMATOLOGY W/ 5 or 6-PART DIFFERENTIAL – EOSINOPHILS (percent)

	Specimen MX-11						Specimen MX-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	118	12.56	0.52	4.1	12.6	11.0 - 14.2	118	15.75	0.57	3.6	15.8	14.0 - 17.5
All Sysmex XN/XS Instruments	118	12.56	0.52	4.1	12.6	11.0 - 14.2	118	15.75	0.57	3.6	15.8	14.0 - 17.5
Sysmex XN-1000	19	13.12	0.29	2.2	13.1	12.2 - 14.1	19	16.18	0.34	2.1	16.3	15.1 - 17.3
Sysmex XN-330	7	12.54	0.44	3.5	12.7	11.2 - 13.9	7	15.30	0.58	3.8	15.1	13.5 - 17.1
Sysmex XN-430	35	12.48	0.55	4.4	12.5	10.8 - 14.2	36	15.78	0.58	3.7	15.9	14.0 - 17.6
Sysmex XN-450	11	12.37	0.59	4.8	12.3	10.6 - 14.2	11	15.54	0.56	3.6	15.6	13.8 - 17.3
Sysmex XN-530	5	12.35	0.51	4.1	12.6	10.8 - 13.9	5	15.68	0.78	5.0	15.6	13.3 - 18.1
Sysmex XN-550	23	12.32	0.51	4.1	12.4	10.7 - 13.9	23	15.80	0.59	3.7	15.9	14.0 - 17.6
Sysmex XS-1000i	18	12.64	0.19	1.5	12.7	12.0 - 13.3	17	15.52	0.39	2.5	15.5	14.3 - 16.7

	Specimen MX-13						Specimen MX-14					
All Method	118	15.73	0.55	3.5	15.8	14.0 - 17.4	118	14.51	0.56	3.9	14.4	12.8 - 16.3
All Sysmex XN/XS Instruments	118	15.73	0.55	3.5	15.8	14.0 - 17.4	118	14.51	0.56	3.9	14.4	12.8 - 16.3
Sysmex XN-1000	19	16.27	0.29	1.8	16.3	15.3 - 17.2	19	14.91	0.39	2.6	15.0	13.7 - 16.1
Sysmex XN-330	7	15.39	0.61	4.0	15.5	13.5 - 17.3	7	14.56	0.53	3.6	14.3	12.9 - 16.2
Sysmex XN-430	36	15.81	0.52	3.3	15.8	14.2 - 17.4	36	14.62	0.51	3.5	14.7	13.0 - 16.2
Sysmex XN-450	11	15.56	0.66	4.2	15.8	13.5 - 17.6	11	14.25	0.28	2.0	14.3	13.4 - 15.1
Sysmex XN-530	5	15.65	0.61	3.9	15.8	13.8 - 17.5	5	14.23	0.67	4.7	13.9	12.2 - 16.3
Sysmex XN-550	23	15.65	0.44	2.8	15.6	14.3 - 17.0	23	14.59	0.60	4.1	14.4	12.7 - 16.4
Sysmex XS-1000i	17	15.31	0.41	2.7	15.3	14.0 - 16.6	18	13.95	0.46	3.3	14.0	12.5 - 15.4

	Specimen MX-15					
All Method	118	12.66	0.48	3.8	12.7	11.2 - 14.2
All Sysmex XN/XS Instruments	118	12.66	0.48	3.8	12.7	11.2 - 14.2
Sysmex XN-1000	19	13.09	0.42	3.2	13.0	11.8 - 14.4
Sysmex XN-330	7	12.54	0.42	3.3	12.6	11.2 - 13.8
Sysmex XN-430	36	12.62	0.53	4.2	12.5	11.0 - 14.3
Sysmex XN-450	11	12.52	0.55	4.4	12.5	10.8 - 14.2
Sysmex XN-530	5	12.45	0.49	4.0	12.5	10.9 - 14.0
Sysmex XN-550	23	12.47	0.49	3.9	12.4	11.0 - 14.0
Sysmex XS-1000i	18	12.74	0.24	1.9	12.8	12.0 - 13.5

HEMATOLOGY W/ 5 or 6-PART DIFFERENTIAL – BASOPHILS (percent)

	Specimen MX-11						Specimen MX-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	82	7.12	0.54	7.6	7.0	5.5 - 8.8	82	8.86	0.75	8.5	8.5	6.5 - 11.2
All Sysmex XN/XS Instruments	119	6.80	1.03	15.1	7.0	3.7 - 9.9	118	8.27	1.68	20.3	8.5	3.2 - 13.4
Sysmex XN-1000	19	4.79	0.13	2.6	4.8	4.4 - 5.2	19	4.83	0.12	2.5	4.8	4.4 - 5.2
Sysmex XN-330	7	7.41	0.30	4.1	7.5	6.5 - 8.4	7	8.81	0.70	7.9	8.3	6.7 - 11.0
Sysmex XN-430	36	7.16	0.52	7.2	7.2	5.6 - 8.8	36	8.77	0.74	8.4	8.7	6.5 - 11.0
Sysmex XN-450	11	6.78	0.44	6.4	6.7	5.4 - 8.1	11	8.81	0.63	7.1	8.6	6.9 - 10.7
Sysmex XN-530	5	7.20	0.64	8.9	7.0	5.2 - 9.2	5	8.73	0.48	5.5	8.6	7.2 - 10.2
Sysmex XN-550	23	7.11	0.62	8.7	7.2	5.2 - 9.0	23	9.11	0.87	9.6	9.0	6.5 - 11.8
Sysmex XS-1000i	18	7.49	0.70	9.4	7.4	5.3 - 9.6	17	9.28	0.85	9.2	9.5	6.7 - 11.9

	Specimen MX-13						Specimen MX-14					
All Method	82	9.06	0.93	10.3	8.8	6.2 - 11.9	82	8.27	0.59	7.2	8.2	6.4 - 10.1
All Sysmex XN/XS Instruments	118	8.40	1.78	21.2	8.8	3.0 - 13.8	119	7.75	1.38	17.9	8.2	3.5 - 12.0
Sysmex XN-1000	19	4.83	0.11	2.2	4.8	4.5 - 5.2	19	4.85	0.11	2.2	4.9	4.5 - 5.2
Sysmex XN-330	7	9.13	0.75	8.2	9.0	6.8 - 11.4	7	8.11	0.72	8.9	8.0	5.9 - 10.3
Sysmex XN-430	36	8.85	0.96	10.9	8.8	5.9 - 11.8	36	8.24	0.66	8.0	8.2	6.2 - 10.3
Sysmex XN-450	11	9.40	1.14	12.1	9.9	5.9 - 12.9	11	8.59	0.54	6.2	8.5	6.9 - 10.2
Sysmex XN-530	5	9.30	0.47	5.0	9.4	7.8 - 10.8	5	8.43	0.37	4.4	8.4	7.3 - 9.6
Sysmex XN-550	23	9.23	0.84	9.1	9.0	6.7 - 11.8	23	8.17	0.48	5.9	8.2	6.7 - 9.7
Sysmex XS-1000i	17	9.18	0.82	8.9	9.4	6.7 - 11.7	18	8.44	0.63	7.4	8.4	6.5 - 10.4

	Specimen MX-15					
All Method	82	7.20	0.61	8.4	7.1	5.3 - 9.1
All Sysmex XN/XS Instruments	119	6.84	1.04	15.2	7.1	3.7 - 10.0
Sysmex XN-1000	19	4.83	0.14	3.0	4.8	4.3 - 5.3
Sysmex XN-330	7	7.11	0.53	7.5	6.9	5.5 - 8.8
Sysmex XN-430	36	7.04	0.61	8.7	7.0	5.2 - 8.9
Sysmex XN-450	11	7.32	0.54	7.4	7.4	5.6 - 9.0
Sysmex XN-530	5	7.25	0.37	5.1	7.1	6.1 - 8.4
Sysmex XN-550	23	7.37	0.66	9.0	7.5	5.3 - 9.4
Sysmex XS-1000i	18	7.32	0.58	7.9	7.2	5.5 - 9.1

HEMATOLOGY W/ 5 or 6-PART DIFFERENTIAL – Immature Granulocytes (percent)

Specimen MX-11

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	96	12.57	0.66	5.2	12.6	10.6 - 14.6
All Sysmex XN/XS Instruments	96	12.57	0.66	5.2	12.6	10.6 - 14.6
Sysmex XN-1000	18	12.39	0.36	2.9	12.5	11.3 - 13.5
Sysmex XN-330	7	12.57	0.85	6.8	12.5	10.0 - 15.2
Sysmex XN-430	35	12.50	0.67	5.4	12.5	10.4 - 14.6
Sysmex XN-450	11	12.90	0.65	5.1	12.8	10.9 - 14.9
Sysmex XN-530	5	12.93	0.74	5.7	13.0	10.7 - 15.2
Sysmex XN-550	20	12.58	0.74	5.9	12.7	10.3 - 14.9

Specimen MX-12

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	96	15.57	0.88	5.6	15.4	12.9 - 18.3
All Sysmex XN/XS Instruments	96	15.57	0.88	5.6	15.4	12.9 - 18.3
Sysmex XN-1000	18	14.98	0.50	3.4	15.0	13.4 - 16.5
Sysmex XN-330	7	15.83	1.02	6.5	15.7	12.7 - 19.0
Sysmex XN-430	35	15.62	0.77	4.9	15.5	13.3 - 18.0
Sysmex XN-450	11	15.63	1.01	6.5	16.0	12.5 - 18.7
Sysmex XN-530	5	16.20	0.99	6.1	16.2	13.2 - 19.2
Sysmex XN-550	20	15.67	0.99	6.3	15.5	12.7 - 18.7

Specimen MX-13

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	96	15.56	0.91	5.9	15.3	12.8 - 18.3
All Sysmex XN/XS Instruments	96	15.56	0.91	5.9	15.3	12.8 - 18.3
Sysmex XN-1000	18	14.89	0.46	3.1	14.9	13.5 - 16.3
Sysmex XN-330	7	16.06	0.96	6.0	16.4	13.1 - 19.0
Sysmex XN-430	35	15.81	0.91	5.7	15.9	13.0 - 18.6
Sysmex XN-450	11	15.43	1.15	7.4	15.2	11.9 - 18.9
Sysmex XN-530	5	14.83	0.41	2.8	14.9	13.5 - 16.1
Sysmex XN-550	20	15.78	0.82	5.2	15.6	13.3 - 18.3

Specimen MX-14

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	96	14.52	0.66	4.5	14.4	12.5 - 16.5
All Sysmex XN/XS Instruments	96	14.52	0.66	4.5	14.4	12.5 - 16.5
Sysmex XN-1000	18	14.02	0.26	1.9	14.1	13.2 - 14.9
Sysmex XN-330	7	14.47	0.74	5.1	14.1	12.2 - 16.7
Sysmex XN-430	35	14.51	0.64	4.4	14.4	12.5 - 16.5
Sysmex XN-450	11	14.80	0.71	4.8	14.9	12.6 - 17.0
Sysmex XN-530	5	14.80	0.47	3.2	14.8	13.3 - 16.3
Sysmex XN-550	20	14.84	0.68	4.6	14.9	12.8 - 16.9

Specimen MX-15

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	96	12.58	0.57	4.5	12.6	10.8 - 14.3
All Sysmex XN/XS Instruments	96	12.58	0.57	4.5	12.6	10.8 - 14.3
Sysmex XN-1000	18	12.37	0.52	4.2	12.4	10.8 - 14.0
Sysmex XN-330	7	13.00	0.66	5.0	12.7	11.0 - 15.0
Sysmex XN-430	35	12.62	0.62	4.9	12.5	10.7 - 14.5
Sysmex XN-450	11	12.52	0.51	4.1	12.7	10.9 - 14.1
Sysmex XN-530	5	12.48	0.66	5.3	12.5	10.5 - 14.5
Sysmex XN-550	20	12.60	0.51	4.0	12.6	11.0 - 14.2

2021 M3
BLOOD CELL IDENTIFICATION
Specimens BC-13 through BC-18

CASE HISTORY:

A 65-year-old male presented to his internist for an overdue annual physical. He was now fully vaccinated and catching up on the medical and dental care he had postponed because of the COVID-19 pandemic. The patient noticed bleeding and swollen gums in the weeks preceding his appointment and stated that his recent activities have left him feeling exhausted. Physical exam revealed petechiae on the oral mucosa, several bruises on the arms and legs, and splenomegaly. A CBC was performed, and the results appear below.

.

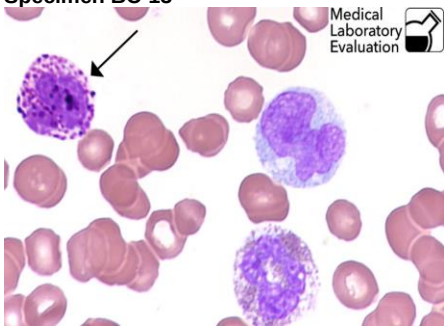
Test	Results	Reference Range
WBC	22.0 x 10^9/L	4.5 - 15.0 x 10^9/L
RBC	4.4 x 10^{12}/L	4.6 - 6.0 x 10^{12}/L
HGB	13.7 g/dL	14.0 - 18.0 g/dL
HCT	39 %	40 - 54 %
PLT	95 x 10^9/L	150 - 450 x 10^9/L
MCV	89 fL	80 - 94 fL
MCH	35 pg	26 - 32 pg
MCHC	34 g/dL	32 - 36 g/dL
RDW	15 %	11.5 - 14.5 %

This patient was diagnosed with **acute myelogenous leukemia (AML).**

Acute Myelogenous Leukemia is the most common leukemia in adults, especially in males over 65. Leukemia is a disease in which a single type of white blood cell abnormally proliferates in the bone marrow. These cells live longer than normal cells but remain immature and undifferentiated and are non-functional. The abnormal cells take up space in the bone marrow, which inhibits the production of normal blood cells. This results in anemia (due to decreased RBC production), bleeding and bruising (due to decreased platelet production), and infection (due to dysfunctional WBCs). Leukemic cells also accumulate in the blood stream, organs, and tissues, which causes swelling of the spleen, liver, and lymph nodes. Acute leukemias usually present with abrupt onset of signs and symptoms, whereas chronic leukemias tend to have a more gradual onset. AML is caused by the clonal expansion of myeloid blasts in the blood and bone marrow. Normal blast cells in the myeloid cell line mature into granulocytes, erythrocytes, or megakaryocytes. There are a number of categories and subtypes of AML, some of which are named for the affected stage or cell type. These include acute myeloblastic leukemia, acute promyelocytic leukemia, acute monocytic leukemia, acute myelomonocytic leukemia, erythroleukemia, and acute megakaryoblastic leukemia.

BLOOD CELL IDENTIFICATION

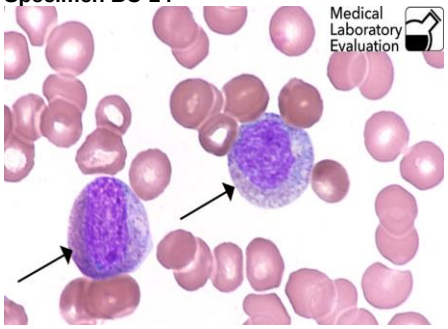
Specimen BC-13



Identification	Labs	Percent	Performance
Basophil, any stage	129	94.85%	Acceptable
Eosinophil, any stage	3	2.21%	

The arrow in this photograph points to a **basophil**. The characteristic large, dense, blue-black granules protrude from the cytoplasmic edge, and the granules can be so numerous that they obscure the features of the nucleus. To view another photo of a basophil, see 2017 M1 Specimen BC-4.

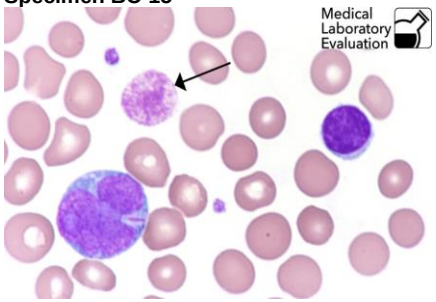
Specimen BC-14



Identification	Labs	Percent	Performance
Myelocyte cell	62	45.49%	Acceptable
Immature/abnormal cell – refer	63	46.32%	Acceptable
Metamyelocyte	4	2.94%	

The arrows in this photograph point to **myelocytes**. Myelocytes are immature granulocytes that will normally develop into metamyelocytes, then bands, then segmented neutrophils. The typical myelocyte has an eccentric nucleus that is flat on one side with fine reddish-purple chromatin. These cells have a bluish-pink cytoplasm, due to containing both primary and secondary granules. As a myelocyte matures, more secondary granules accumulate and the cytoplasm's color becomes progressively more pink. To view another myelocyte, see 2013 M1 Specimen BC-4.

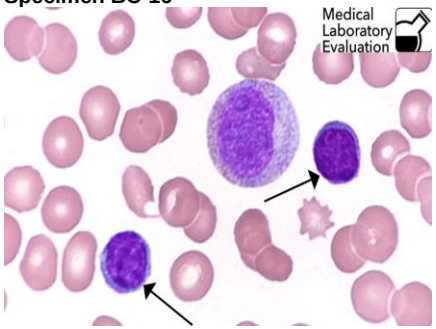
Specimen BC-15



Identification	Labs	Percent	Performance
Platelet, giant	128	94.12%	Acceptable
Platelet, abnormal morphology	1	0.74%	Acceptable
Immature/abnormal cell – refer	4	2.94%	Acceptable

The arrow in this photograph points to a **giant platelet.** This abnormally large platelet is about the same size as some of the red blood cells surrounding it. The arrowed platelet is many times larger than to the two normal platelets in the same field, but its color and morphology is similar. Abnormal platelets can be seen in malignant conditions or inherited disorders; however, an occasional giant platelet is usually not clinically significant. To view another photo of a giant platelet, see 2017 M2 Specimen BC-8.

Specimen BC-16

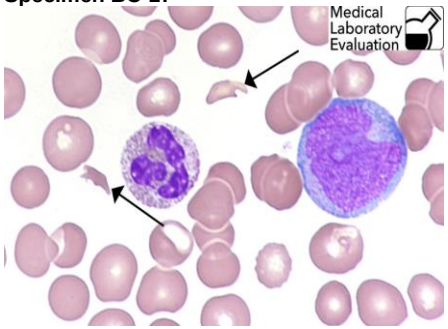


Identification	Labs	Percent	Performance
Lymphocyte	131	96.32%	Acceptable
Lymphocyte, reactive	3	2.21%	

The arrows in this photograph point to **normal lymphocytes**. The nucleus is usually eccentric (off-center) and round to oval in shape. The nuclear chromatin is dark and condensed, and there is only a scant (small amount of) blue cytoplasm visible surrounding the nucleus. To view another photo of a mature, resting lymphocyte, see 2018 M1 Specimen BC-4.

BLOOD CELL IDENTIFICATION

Specimen BC-17

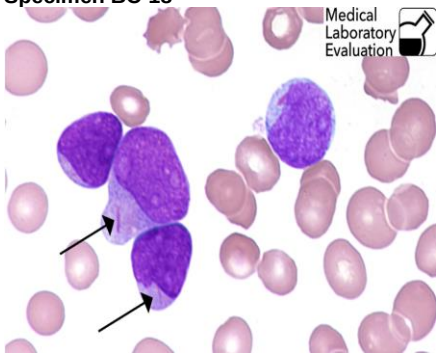


Identification	Labs	Percent	Performance
Fragmented cell	127	93.18%	Acceptable
Immature/abnormal cell – refer	1	0.74%	Acceptable
Acanthocyte	7	5.15%	

The arrows in this photograph point to **fragmented red blood cells (schistocytes.)** Ragged pieces of broken red blood cells in the peripheral smear are a sign of intravascular hemolysis. Red blood cell fragments are smaller than normal red cells, and appear in many sizes and shapes, usually with pointed ends. Sometimes fragmented cells are called by other terms that describe their shape. For example, the cell at the top of this photo might be called a “helmet cell”. A few participants incorrectly identified these as acanthocytes. Acanthocytes are contracted, whole cells with irregularly spaced long, thin, thorn-like projections, often combined with rounded projections. Acanthocytes are never helmet shaped and lack a central pallor. To view another photo of schistocytes, see 2019 M1 Specimen BC-4. To view a photo of acanthocytes, see 2021 M1 Specimen BC-6.

BLOOD CELL IDENTIFICATION

Specimen BC-18



Identification	Labs	Percent	Performance
Auer Rod	85	62.50%	Not graded – Educational challenge
Immature/abnormal cell – refer	50	36.76%	

The arrows in this educational challenge point to **Aüer rods**. AML blasts have abundant cytoplasm, and in about 10% of patients with AML, the blasts contain Aüer rods. Aüer rods are pink-staining, rod-shaped cytoplasmic inclusions. Aüer rods are characteristic for multiple presentations of AML. They can be found in myeloblastic, myelomonocytic, or monocytic leukemia. The two smaller blasts in this photo are a type of myeloblast seen in AML called microblasts. It is important to be able to tell the difference between these blasts and the lymphocytes in BC-16 above, because microblasts can be mistaken for small lymphocytes, leading to a missed diagnosis. To view another photo of a blast cell with Aüer rod, see 2014 M2 Specimen BC-12.

References:

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

BLOOD BANK

ABO GROUP

Specimen	Results	Labs	Percent	Performance
BB-11	Group O	6	100%	Acceptable
BB-12	Group A	6	100%	Acceptable
BB-13	Group A	6	100%	Acceptable
BB-14	Group O	6	100%	Acceptable
BB-15	Group B	6	100%	Acceptable

RH FACTOR (D TYPE)

Specimen	Results	Labs	Percent	Performance
BB-11	Rh Negative	16	100%	Acceptable
BB-12	Rh Positive	16	100%	Acceptable
BB-13	Rh Negative	16	100%	Acceptable
BB-14	Rh Positive	16	100%	Acceptable
BB-15	Rh Positive	16	100%	Acceptable

UNEXPECTED ANTIBODY DETECTION

Specimen	Results	Labs	Percent	Performance
AB-11	No unexpected antibody detected	6	100%	Acceptable
AB-12	Unexpected antibody detected	6	100%	Acceptable
AB-13	No unexpected antibody detected	6	100%	Acceptable
AB-14	Unexpected antibody detected	6	100%	Acceptable
AB-15	No unexpected antibody detected	6	100%	Acceptable

BLOOD BANK

ANTIBODY IDENTIFICATION

Specimen	Results	Labs	Percent	Performance
AB-11	No antibody detected	1	100%	Acceptable
AB-12	Anti-E	1	100%	Acceptable
AB-13	No antibody detected	1	100%	Acceptable
AB-14	Anti-c	1	100%	Acceptable
AB-15	No antibody detected	1	100%	Acceptable

COMPATIBILITY TESTING

Specimen	Results	Labs	Percent	Performance
AB-11	Compatible	6	100%	Acceptable
AB-12	Compatible	6	100%	Acceptable
AB-13	Compatible	6	100%	Acceptable
AB-14	Not Compatible	6	100%	Acceptable
AB-15	Compatible	6	100%	Acceptable

PROTHROMBIN TIME (seconds)

Reagent/Instrument	Specimen CG-11 Labs	Mean	SD	CV	Median	Range	Specimen CG-12 Labs	Mean	SD	CV	Median	Range
All Method	21	10.46	0.50	4.8	10.5	8.8 - 12.1	21	13.37	0.70	5.3	13.1	11.3 - 15.4
Dade Innovin												
Dade Behring BFT II	5	9.60	0.28	2.9	9.6	8.1 - 11.1	5	12.75	0.21	1.7	12.8	10.8 - 14.7
Sysmex CA-500/600 series	12	10.52	0.40	3.8	10.5	8.9 - 12.1	12	13.27	0.60	4.5	13.1	11.2 - 15.3
All Coagulation Instruments	18	10.38	0.48	4.6	10.4	8.8 - 12.0	18	13.18	0.57	4.4	13.1	11.1 - 15.2

Reagent/Instrument	Specimen CG-13 Labs	Mean	SD	CV	Median	Range	Specimen CG-14 Labs	Mean	SD	CV	Median	Range
All Method	21	10.67	0.48	4.5	10.7	9.0 - 12.3	21	29.90	3.00	10.0	29.5	25.4 - 34.4
Dade Innovin												
Dade Behring BFT II	5	9.90	0.28	2.9	9.9	8.4 - 11.4	5	30.60	0.57	1.8	30.6	26.0 - 35.2
Sysmex CA-500/600 series	12	10.72	0.31	2.9	10.7	9.1 - 12.4	12	29.84	1.89	6.3	29.3	25.3 - 34.4
All Coagulation Instruments	18	10.59	0.41	3.8	10.6	8.9 - 12.2	18	29.53	1.07	3.6	29.3	25.0 - 34.0

Reagent/Instrument	Specimen CG-15 Labs	Mean	SD	CV	Median	Range
All Method	21	18.59	1.24	6.7	18.3	15.8 - 21.4
Dade Innovin						
Dade Behring BFT II	5	18.80	0.71	3.8	18.8	15.9 - 21.7
Sysmex CA-500/600 series	12	18.43	0.66	3.6	18.3	15.6 - 21.2
All Coagulation Instruments	18	18.41	0.70	3.8	18.3	15.6 - 21.2

PROTHROMBIN TIME–INTERNATIONAL NORMALIZED RATIO (INR)

Reagent/Instrument	Specimen CG-11 Labs	Mean	SD	CV	Median	Range	Specimen CG-12 Labs	Mean	SD	CV	Median	Range
All Method	21	1.01	0.06	6.2	1.0	0.8 - 1.2	21	1.31	0.08	6.0	1.3	1.1 - 1.6
Dade Innovin												
Dade Behring BFT II	5	1.00	0.01	0.0	1.0	0.8 - 1.2	5	1.35	0.07	5.2	1.4	1.1 - 1.6
Sysmex CA-500/600 series	12	1.03	0.05	4.7	1.0	0.8 - 1.2	12	1.29	0.08	5.9	1.3	1.0 - 1.5
All Coagulation Instruments	18	1.03	0.04	4.4	1.0	0.8 - 1.2	18	1.30	0.07	5.6	1.3	1.1 - 1.5

Reagent/Instrument	Specimen CG-13 Labs	Mean	SD	CV	Median	Range	Specimen CG-14 Labs	Mean	SD	CV	Median	Range
All Method	21	1.04	0.09	8.7	1.0	0.8 - 1.2	21	2.99	0.27	8.9	2.9	2.5 - 3.5
Dade Innovin												
Dade Behring BFT II	5	1.10	0.01	0.0	1.1	0.9 - 1.3	5	2.85	0.21	7.4	2.9	2.4 - 3.3
Sysmex CA-500/600 series	12	1.06	0.09	8.2	1.0	0.9 - 1.3	12	2.98	0.21	7.0	2.9	2.5 - 3.5
All Coagulation Instruments	18	1.06	0.08	7.6	1.1	0.9 - 1.3	18	2.96	0.20	6.7	2.9	2.5 - 3.5

Reagent/Instrument	Specimen CG-15 Labs	Mean	SD	CV	Median	Range
All Method	21	1.84	0.11	5.8	1.8	1.5 - 2.2
Dade Innovin						
Dade Behring BFT II	5	1.90	0.14	7.4	1.9	1.6 - 2.2
Sysmex CA-500/600 series	12	1.82	0.07	4.0	1.8	1.5 - 2.1
All Coagulation Instruments	18	1.83	0.09	4.7	1.8	1.5 - 2.1

ACTIVATED PARTIAL THROMBOPLASTIN (seconds)

Reagent/Instrument	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
	Specimen CG-11						Specimen CG-12					
All Method	13	25.9	2.2	8.5	25	22 - 30	13	29.6	2.3	7.8	29	25 - 34
Dade Actin FSL												
Sysmex CA-500/600 series	6	25.0	1.0	4.0	25	21 - 29	6	28.6	1.3	4.5	28	24 - 33
	Specimen CG-13						Specimen CG-14					
All Method	13	27.2	6.8	24.9	25	23 - 32	13	53.8	8.9	16.6	51	45 - 62
Dade Actin FSL												
Sysmex CA-500/600 series	6	24.6	0.5	2.2	25	20 - 29	6	49.9	1.3	2.7	50	42 - 58
	Specimen CG-15											
All Method	13	34.4	5.6	16.3	32	29 - 40						
Dade Actin FSL												
Sysmex CA-500/600 series	6	31.9	0.4	1.2	32	27 - 37						

Fibrinogen (mg/dL)

One participant reported Fibrinogen. The vendor assay values on a Sysmex CA-540 for specimens CG-11 through CG-15 are: 201 mg/dL, 132 mg/dL, 394 mg/dL, 208 mg/dL, and 196 mg/dL, respectively.

COAGUCHEK XS PLUS PROTHROMBIN TIME (seconds)

Instrument	Specimen XS-11 Labs	Mean	SD	CV	Median	Range	Specimen XS-12 Labs	Mean	SD	CV	Median	Range
All Method	13	14.95	0.28	1.9	15.0	12.7 - 17.2	13	23.93	0.78	3.3	24.1	20.3 - 27.6
All Roche CoaguChek XS Plus Instruments	13	14.95	0.28	1.9	15.0	12.7 - 17.2	13	23.93	0.78	3.3	24.1	20.3 - 27.6
Roche CoaguChek XS Plus - Waived	8	16.19	3.37	20.8	15.1	13.7 - 18.7	8	22.64	3.18	14.0	23.5	19.2 - 26.1
Roche CoaguChek XS Plus	5	14.88	0.33	2.2	15.0	12.6 - 17.2	5	24.24	0.23	0.9	24.3	20.6 - 27.9

Instrument	Specimen XS-13 Labs	Mean	SD	CV	Median	Range	Specimen XS-14 Labs	Mean	SD	CV	Median	Range
All Method	6	32.47	0.51	1.6	32.6	27.5 - 37.4	6	14.98	0.13	0.8	15.0	12.7 - 17.3
All Roche CoaguChek XS Plus Instruments	6	32.47	0.51	1.6	32.6	27.5 - 37.4	6	14.98	0.13	0.8	15.0	12.7 - 17.3
Roche CoaguChek XS Plus - Waived	4	-	-	-	32.6	27.5 - 37.4	4	-	-	-	15.1	12.7 - 17.3
Roche CoaguChek XS Plus	2	-	-	-	32.4	27.5 - 37.4	2	-	-	-	14.9	12.7 - 17.3

Instrument	Specimen XS-15 Labs	Mean	SD	CV	Median	Range
All Method	6	24.25	1.08	4.5	24.6	20.6 - 27.9
All Roche CoaguChek XS Plus Instruments	6	24.25	1.08	4.5	24.6	20.6 - 27.9
Roche CoaguChek XS Plus - Waived	4	-	-	-	24.0	20.6 - 27.9
Roche CoaguChek XS Plus	2	-	-	-	24.6	20.6 - 27.9

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

	Specimen XS-11						Specimen XS-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	29	1.26	0.05	4.0	1.3	1.0 - 1.5	29	2.00	0.07	3.3	2.0	1.7 - 2.3
All Roche CoaguChek XS Plus Instruments	29	1.26	0.05	4.0	1.3	1.0 - 1.5	29	2.00	0.07	3.3	2.0	1.7 - 2.3
Roche CoaguChek XS Plus - Waived	21	1.26	0.05	4.0	1.3	1.0 - 1.5	21	2.00	0.07	3.3	2.0	1.7 - 2.4
Roche CoaguChek XS Plus	8	1.25	0.05	4.3	1.3	1.0 - 1.5	8	1.99	0.06	3.2	2.0	1.6 - 2.3
	Specimen XS-13						**Specimen XS-14**					
All Method	7	2.72	0.04	1.6	2.7	2.3 - 3.2	7	1.23	0.05	4.2	1.2	1.0 - 1.5
All Roche CoaguChek XS Plus Instruments	7	2.72	0.04	1.6	2.7	2.3 - 3.2	7	1.23	0.05	4.2	1.2	1.0 - 1.5
Roche CoaguChek XS Plus - Waived	5	2.73	0.06	2.1	2.7	2.3 - 3.2	5	1.25	0.06	4.6	1.3	1.0 - 1.5
Roche CoaguChek XS Plus	2	-	-	-	2.7	2.3 - 3.2	2	-	-	-	1.2	1.0 - 1.5
	Specimen XS-15											
All Method	7	2.05	0.08	4.1	2.1	1.7 - 2.4						
All Roche CoaguChek XS Plus Instruments	7	2.05	0.08	4.1	2.1	1.7 - 2.4						
Roche CoaguChek XS Plus - Waived	5	2.05	0.10	4.9	2.1	1.7 - 2.4						
Roche CoaguChek XS Plus	2	-	-	-	2.1	1.7 - 2.4						

COAGUCHECK XS - INTERNATIONAL NORMALIZED RATIO (INR)

	Specimen INX-5						Specimen INX-6					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
Roche CoaguChek XS	87	2.01	0.07	3.6	2.0	1.7 - 2.4	87	2.70	0.09	3.3	2.7	2.2 - 3.2

i-Stat PROTHROMBIN TIME (seconds)

	Specimen PTI-11						Specimen PTI-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
i-Stat Prothrombin Time	10	15.27	0.40	2.6	15.5	12.9 - 17.6	10	15.53	1.00	6.4	15.6	13.2 - 17.9
	Specimen PTI-13						**Specimen PTI-14**					
i-Stat Prothrombin Time	10	27.60	1.65	6.0	28.5	23.4 - 31.8	10	16.23	1.20	7.4	16.3	13.7 - 18.7
	Specimen PTI-15											
i-Stat Prothrombin Time	10	27.93	1.25	4.5	28.5	23.7 - 32.2						

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

	Specimen PTI-11						Specimen PTI-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
i-Stat Prothrombin Time	10	1.27	0.06	4.6	1.3	1.0 - 1.5	10	1.30	0.10	7.7	1.3	1.1 - 1.5
	Specimen PTI-13						**Specimen PTI-14**					
i-Stat Prothrombin Time	10	2.40	0.17	7.2	2.5	2.0 - 2.8	10	1.30	0.10	7.7	1.3	1.1 - 1.5
	Specimen PTI-15											
i-Stat Prothrombin Time	10	2.43	0.12	4.7	2.5	2.0 - 2.8						

FLUID CELL COUNT – WHITE BLOOD CELL COUNT (µL)

	Specimen BF-5						Specimen BF-6					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	5	201.5	9.2	4.6	202	183 - 220	5	3.5	2.1	60.6	4	0 - 8

FLUID CELL COUNT – RED BLOOD CELL COUNT (µL)

	Specimen BF-5						Specimen BF-6					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	5	892.0	134.4	15.1	892	623 - 1161	5	0.0	0.1	0.0	0	0 - 1

2021 M3
FLUID CRYSTAL IDENTIFICATION
Specimens FC-5 and FC-6

Crystals can generally be classified as either optically isotropic or anisotropic. Isotropic solids refract light rays equally in all directions throughout the crystalline structure, regardless of the crystal's orientation to the light source. In contrast, anisotropic crystals interact with light in a manner that is dependent upon the alignment of the crystal. Anisotropic crystals have an internal structure that will cause a ray of light to split into two rays, each traveling in a different direction. A light beam hitting the crystal from one direction or angle will react differently than a beam hitting the crystal at a different angle. This property of splitting light is called **birefringence** or double refraction.

Microscopic examination of synovial fluid for crystals is an important diagnostic test in the evaluation of arthritis. Some crystals can be identified by their shape or morphology alone. Others have similar shapes and need specialized techniques for identification. Using compensated polarized light helps us to identify crystals based on the optical differences described above. Adding a red compensator filter separates the microscope's light rays into slow-moving and fast-moving vibrations or waves. The compensator is marked with an arrow indicating the direction of the slow vibration. The "axis" in the photos below indicates the direction of the slow wave. Color produced by a crystal aligned with the slow-vibration ray of light can be used to identify the crystal. This difference in color is due to the molecular structure inside the crystal, which either allows the light to pass through unchanged, or impedes the light. A **negatively** birefringent crystal such as MSU will appear yellow when aligned with the axis and blue when perpendicular to the axis. Conversely, a **positively** birefringent crystal such as CPPD will appear blue when aligned with the axis and yellow when perpendicular

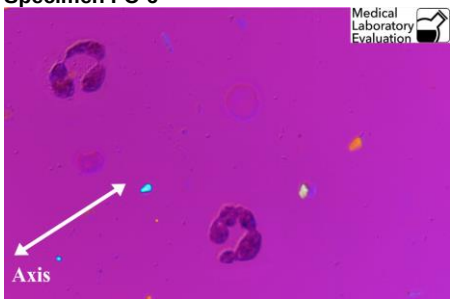
Specimen FC-5

Identification	Labs	Percent	Performance
MSU (Monosodium Urate) crystals	5	100%	Acceptable

The objects in this photograph are **monosodium urate (MSU) crystals**. MSU crystals are usually thin and needle-like with pointed ends. They can be intracellular or extracellular. MSU crystals are associated with gout, which is a common crystal-induced inflammatory arthritis. They cause joint inflammation and soft tissue damage resulting in painful swelling. Usually one joint is affected, and most commonly it is the base of the big toe. Gout is caused by elevated uric acid, either due to decreased excretion of uric acid into the urine, or increased production of uric acid. There are many factors that contribute to gout, including alcohol use, purine-rich diets, obesity, metabolic syndrome, and dehydration or use of diuretic agents. Since there are other crystals that can be needle-shaped, examination with a red plate compensator can help with identification. MSU crystals are **negatively birefringent**, meaning the crystals that are lying parallel to (aligned with) the compensator filter axis are yellow, and the crystals lying perpendicular to the filter axis are blue. To view another photo of MSU, see 2019 M2 Specimen FC-4.

2021 M3
FLUID CRYSTAL IDENTIFICATION

Specimen FC-6



Identification	Labs	Percent	Performance
No crystals observed	5	100%	Acceptable

There are **no crystals present** in this photograph of a synovial fluid preparation. The brightly colored objects are artefacts/debris. There are a few red blood cells and two polymorphonuclear white blood cells present.

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MICROALBUMIN, DIPSTICK

Specimen UM-3

		Participant Results								
Method	***Labs***	***Negative***	***10 mg/L***	***20 mg/L***	***30 mg/L***	***50 mg/L***	***80 mg/L***	***100 mg/L***	***150 mg/L***	***+ (4 - 8 mg/dL)***	***++ (>8 mg/dL)***
ALL METHODS	24	1	18	-	4	1	-	-	-	-	-
McKesson Reagent Strips	3	-	2	-	1	-	-	-	-	-	-
Other Dipstick Method	1	-	1	-	-	-	-	-	-	-	-
Roche Micral - 1 minute	1	-	-	-	-	1	-	-	-	-	-
Siemens Clinitek Microalbumin	18	-	15	-	3	-	-	-	-	-	-
UriScan Reagent Strips	1	1	-	-	-	-	-	-	-	-	-

CREATININE, DIPSTICK

Specimen UM-3

		Participant Results						
Method	***Labs***	***Negative***	***10 mg/dL***	***30 mg/dL***	***50 mg/dL***	***100 mg/dL***	***200 mg/dL***	***300 mg/dL***
ALL METHODS	25	-	1	-	-	-	5	19
McKesson Reagent Strips	3	-	-	-	-	-	1	2
Other Dipstick Method	1	-	-	-	-	-	1	-
Siemens Clinitek Microalbumin	18	-	1	-	-	-	3	14
Siemens Multistix Pro	2	-	-	-	-	-	-	2
UriScan Reagent Strips	1	-	-	-	-	-	-	1

MICROALBUMIN, QUANTITATIVE (mg/L)

Specimen UM-3

Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	37	25.99	3.18	12.2	26.2	18.1 - 33.8
All Alere Afinion Analyzers	6	23.65	3.05	12.9	23.8	16.5 - 30.8
Alere Afinion AS100	5	23.58	3.40	14.4	23.6	16.5 - 30.7
Beckman AU	11	21.97	6.71	30.6	24.3	15.3 - 28.6
Siemens DCA Vantage	5	25.56	2.50	9.8	26.2	17.8 - 33.3
Siemens Dimension	9	27.89	2.63	9.4	27.1	19.5 - 36.3

CREATININE, URINE (mg/dL)

Specimen UM-3

Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	34	204.41	13.69	6.7	205.2	169.6 - 239.2
All Alere Afinion Analyzers	6	204.68	4.81	2.3	205.9	169.8 - 239.5
Alere Afinion AS100	5	205.50	4.89	2.4	207.7	170.5 - 240.5
Beckman AU	9	187.51	4.51	2.4	186.2	155.6 - 219.4
Siemens DCA Vantage	6	220.28	15.16	6.9	221.8	182.8 - 257.8
Siemens Dimension	7	207.14	4.41	2.1	205.3	171.9 - 242.4

WAIVED HEMATOLOGY–HEMOGLOBIN (g/dL)

	Specimen HD-11						Specimen HD-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	74	13.16	0.40	3.0	13.2	12.2 - 14.1	74	5.99	0.59	9.9	5.9	4.8 - 7.2
All HemoCue 301/801	5	18.90	0.46	2.4	19.0	17.5 - 20.3	5	8.20	0.17	2.1	8.3	7.6 - 8.8
All Stanbio Methods	12	13.24	0.51	3.9	13.4	12.2 - 14.3	12	5.90	0.07	1.3	5.9	5.4 - 6.4
Alere (Stanbio) HemoPoint H2	12	13.24	0.51	3.9	13.4	12.2 - 14.3	12	5.90	0.07	1.3	5.9	5.4 - 6.4
HemoCue 201/+	58	13.14	0.37	2.8	13.1	12.2 - 14.1	58	5.90	0.42	7.0	5.9	5.0 - 6.8
HemoCue 801	5	18.90	0.46	2.4	19.0	17.5 - 20.3	5	8.20	0.17	2.1	8.3	7.6 - 8.8

WAIVED HEMATOLOGY–HEMATOCRIT (percent)

	Specimen HD-11						Specimen HD-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	11	38.63	1.24	3.2	39.0	36.1 - 41.2	10	17.43	0.46	2.6	17.6	16.3 - 18.5

KOH SKIN PREPARATION

Specimen	***Identification***	***Labs***	***Percent***	***Performance***
K-5	Yeast/fungal elements present	62	92.54%	Acceptable
	Yeast/fungal elements absent	5	7.46%	

Organism present in specimen K-5: *Tritirachium oryzae*

K-6	Yeast/fungal elements present	58	86.57%	Acceptable
	Yeast/fungal elements absent	9	13.43%	

Organism present in specimen K-6: *Aspergillus brasiliensis*

URINALYSIS DIPSTICK–SPECIFIC GRAVITY

Specimen UA-3

Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	576	1.0232	0.0034	0.3	1.025	1.013 - 1.034
All Refractive Index Methods	5	1.0280	0.0045	0.4	1.030	1.018 - 1.038
All Roche Methods	11	1.0164	0.0023	0.2	1.015	1.006 - 1.027
All Siemens Methods	449	1.0236	0.0029	0.3	1.025	1.013 - 1.034
Consult Diagnostics Urine Analyzer	7	1.0243	0.0045	0.4	1.025	1.014 - 1.035
Diagnostic Test Group Clarity Urocheck 120	10	1.0260	0.0021	0.2	1.025	1.016 - 1.036
Henry Schein Urispec / Urispec Plus	15	1.0187	0.0023	0.2	1.020	1.008 - 1.029
McKesson 120 Urine Analyzer	27	1.0244	0.0025	0.2	1.025	1.014 - 1.035
McKesson Reagent Strips	10	1.0205	0.0060	0.6	1.020	1.010 - 1.031
Roche Chemstrips	23	1.0163	0.0023	0.2	1.015	1.006 - 1.027
Roche Urisys	9	1.0167	0.0025	0.2	1.015	1.006 - 1.027
Siemens Clinitek 50	5	1.0230	0.0027	0.3	1.025	1.013 - 1.033
Siemens Clinitek Advantus	11	1.0250	0.0001	0.0	1.025	1.015 - 1.035
Siemens Clinitek Status / Status+	332	1.0236	0.0028	0.3	1.025	1.013 - 1.034
Siemens Multistix Pro	12	1.0242	0.0029	0.3	1.025	1.014 - 1.035
Siemens Reagent Strips	84	1.0236	0.0035	0.3	1.025	1.013 - 1.034

URINALYSIS DIPSTICK–pH

Specimen UA-3

Participant Results

Method	*Labs*	*≤3.5*	*4.0*	*4.5*	*5.0*	*5.5*	*6.0*	*6.5*	*7.0*	*7.5*	*8.0*	*8.5*	*≥9.0*
ALL METHODS	591	1	-	-	323	183	81	1	-	2	-	-	-
Consult Diagnostics Reagent Strips	2	-	-	-	-	2	-	-	-	-	-	-	-
Consult Diagnostics Urine Analyzer	7	-	-	-	-	2	4	-	-	1	-	-	-
CTMI CT-120 Urine Analyzer	2	-	-	-	-	-	2	-	-	-	-	-	-
Diagnostic Test Group Clarity Urocheck	3	-	-	-	-	1	2	-	-	-	-	-	-
Diagnostic Test Group Clarity Urocheck 120	11	-	-	-	-	3	8	-	-	-	-	-	-
Germaine Labs AimStrip Urine Analyzer	1	-	-	-	-	-	1	-	-	-	-	-	-
Henry Schein One Step Plus	1	-	-	-	1	-	-	-	-	-	-	-	-
Henry Schein Urispec / Urispec Plus	15	-	-	-	15	-	-	-	-	-	-	-	-
Immunostics Detector Urine Strips	1	-	-	-	1	-	-	-	-	-	-	-	-
McKesson 120 Urine Analyzer	27	-	-	-	-	10	17	-	-	-	-	-	-
McKesson Reagent Strips	10	-	-	-	5	2	3	-	-	-	-	-	-
Medline 120 Urine Analyzer	4	-	-	-	1	-	3	-	-	-	-	-	-
Medline Urinalysis Reagent Strips	2	-	-	-	2	-	-	-	-	-	-	-	-
NDC Pro Advantage	1	-	-	-	-	-	1	-	-	-	-	-	-
Other Dipstick Method	3	-	-	-	2	-	1	-	-	-	-	-	-
Roche Chemstrips	27	-	-	-	26	1	-	-	-	-	-	-	-
Roche Criterion Analyzer	1	-	-	-	1	-	-	-	-	-	-	-	-
Roche SuperUA/ChemstripUA	1	-	-	-	1	-	-	-	-	-	-	-	-
Roche Urisys	8	-	-	-	7	-	-	1	-	-	-	-	-
Siemens Clinitek 10 / 100	2	-	-	-	2	-	-	-	-	-	-	-	-
Siemens Clinitek 50	4	-	-	-	3	1	-	-	-	-	-	-	-
Siemens Clinitek 500	1	-	-	-	-	1	-	-	-	-	-	-	-
Siemens Clinitek Advantus	13	-	-	-	3	9	1	-	-	-	-	-	-
Siemens Clinitek Status / Status+	340	-	-	-	193	141	5	-	-	1	-	-	-
Siemens Multistix Pro	11	-	-	-	5	3	3	-	-	-	-	-	-
Siemens Reagent Strips	90	1	-	-	53	7	29	-	-	-	-	-	-
Teco Diagnostics URS	1	-	-	-	-	-	1	-	-	-	-	-	-
Uriscan Optima	1	-	-	-	1	-	-	-	-	-	-	-	-
UriScan Reagent Strips	1	-	-	-	1	-	-	-	-	-	-	-	-

URINALYSIS DIPSTICK–PROTEIN QUALITATIVE

Specimen UA-3

		Participant Results										
Method	***Labs***	***Negative***	***Trace***	***(1+)***	***(2+)***	***(3+)***	***(4+)***	***10 - 20 mg/dL***	***30 - 70 mg/dL***	***75 mg/dL***	***100 - 200 mg/dL***	***≥300 - 600 mg/dL***	***>600 or ≥1000 mg/dL***
ALL METHODS	595	587	3	-	3	-	-	1	-	-	-	1	-
Consult Diagnostics Reagent Strips	2	2	-	-	-	-	-	-	-	-	-	-	-
Consult Diagnostics Urine Analyzer	7	6	-	-	1	-	-	-	-	-	-	-	-
CTMI CT-120 Urine Analyzer	2	2	-	-	-	-	-	-	-	-	-	-	-
Diagnostic Test Group Clarity Urocheck	3	3	-	-	-	-	-	-	-	-	-	-	-
Diagnostic Test Group Clarity Urocheck 120	11	11	-	-	-	-	-	-	-	-	-	-	-
Germaine Labs AimStrip Urine Analyzer	1	1	-	-	-	-	-	-	-	-	-	-	-
Henry Schein One Step Plus	1	1	-	-	-	-	-	-	-	-	-	-	-
Henry Schein Urispec / Urispec Plus	15	15	-	-	-	-	-	-	-	-	-	-	-
Immunostics Detector Urine Strips	1	1	-	-	-	-	-	-	-	-	-	-	-
McKesson 120 Urine Analyzer	27	27	-	-	-	-	-	-	-	-	-	-	-
McKesson Reagent Strips	10	9	-	-	-	-	-	1	-	-	-	-	-
Medline 120 Urine Analyzer	4	4	-	-	-	-	-	-	-	-	-	-	-
Medline Urinalysis Reagent Strips	2	2	-	-	-	-	-	-	-	-	-	-	-
NDC Pro Advantage	1	1	-	-	-	-	-	-	-	-	-	-	-
Other Dipstick Method	3	3	-	-	-	-	-	-	-	-	-	-	-
PSS Select Reagent Strips	1	1	-	-	-	-	-	-	-	-	-	-	-
Roche Chemstrips	31	29	1	-	1	-	-	-	-	-	-	-	-
Roche Criterion Analyzer	1	1	-	-	-	-	-	-	-	-	-	-	-
Roche SuperUA/ChemstripUA	1	1	-	-	-	-	-	-	-	-	-	-	-
Roche Urisys	8	8	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek 10 / 100	2	2	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek 50	4	4	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek 500	1	1	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek Advantus	13	13	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek Atlas	1	1	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek Status / Status+	336	335	-	-	-	-	-	-	-	-	-	1	-
Siemens Multistix Pro	11	11	-	-	-	-	-	-	-	-	-	-	-
Siemens Reagent Strips	91	89	2	-	-	-	-	-	-	-	-	-	-
Siemens Uristix	1	1	-	-	-	-	-	-	-	-	-	-	-
Teco Diagnostics URS	1	1	-	-	-	-	-	-	-	-	-	-	-
Uriscan Optima	1	1	-	-	-	-	-	-	-	-	-	-	-
UriScan Reagent Strips	1	-	-	-	1	-	-	-	-	-	-	-	-

URINALYSIS DIPSTICK–GLUCOSE

Specimen UA-3

Method	Labs	Participant Results									
		Negative or Normal	Trace	(1+)	(2+)	(3+)	(4+)	30 - 100 mg/dL	150 - 300 mg/dL	500 mg/dL	>500 or ≥1000 or ≥2000 mg/dL
ALL METHODS	596	29	58	108	1	1	2	163	182	3	49
Consult Diagnostics Reagent Strips	2	1	-	1	-	-	-	-	-	-	-
Consult Diagnostics Urine Analyzer	7	3	-	3	-	-	-	1	-	-	-
CTMI CT-120 Urine Analyzer	2	-	1	-	-	-	-	1	-	-	-
Diagnostic Test Group Clarity Urocheck	4	-	-	4	-	-	-	-	-	-	-
Diagnostic Test Group Clarity Urocheck 120	10	-	1	6	-	-	-	1	2	-	-
Germaine Labs AimStrip Urine Analyzer	1	-	-	1	-	-	-	-	-	-	-
Henry Schein One Step Plus	1	-	-	-	-	-	-	-	-	-	1
Henry Schein Urispec / Urispec Plus	15	-	1	-	-	-	-	-	1	1	12
Immunostics Detector Urine Strips	1	1	-	-	-	-	-	-	-	-	-
McKesson 120 Urine Analyzer	26	-	-	25	-	-	-	-	1	-	-
McKesson Reagent Strips	10	5	1	3	-	-	-	1	-	-	-
Medline 120 Urine Analyzer	5	-	-	5	-	-	-	-	-	-	-
Medline Urinalysis Reagent Strips	2	-	-	-	-	-	-	-	1	-	1
NDC Pro Advantage	1	-	-	1	-	-	-	-	-	-	-
Other Dipstick Method	3	-	-	2	-	-	-	-	1	-	-
Roche Chemstrips	30	-	1	-	-	1	2	-	-	1	25
Roche Criterion Analyzer	1	-	-	-	-	-	-	-	-	-	1
Roche SuperUA/ChemstripUA	1	-	-	-	-	-	-	-	-	-	1
Roche Urisys	8	-	-	-	-	-	-	-	-	-	8
Siemens Clinitek 10 / 100	2	-	1	-	-	-	-	-	1	-	-
Siemens Clinitek 50	4	-	-	-	-	-	-	-	4	-	-
Siemens Clinitek 500	1	-	-	-	-	-	-	1	-	-	-
Siemens Clinitek Advantus	13	-	4	2	-	-	-	5	2	-	-
Siemens Clinitek Status / Status+	340	3	31	47	1	-	-	120	138	-	-
Siemens Multistix Pro	10	2	-	2	-	-	-	5	1	-	-
Siemens Reagent Strips	92	13	15	5	-	-	-	28	30	1	-
Siemens Uristix	1	-	1	-	-	-	-	-	-	-	-
Teco Diagnostics URS	1	-	1	-	-	-	-	-	-	-	-
Uriscan Optima	1	-	-	1	-	-	-	-	-	-	-
UriScan Reagent Strips	1	1	-	-	-	-	-	-	-	-	-

URINALYSIS DIPSTICK–KETONES

Specimen UA-3

		Participant Results													
Method	***Labs***	***Negative***	***Trace***	***Small***	***Moderate***	***Large***	***(1+)***	***(2+)***	***(3+)***	***(4+)***	***5 - 10 mg/dL***	***15 - 25 mg/dL***	***40 - 60 mg/dL***	***80 - 100 mg/dL***	***≥150 mg/dL***
ALL METHODS	588	4	-	1	26	30	5	129	41	-	1	27	273	49	2
Consult Diagnostics Reagent Strips	2	-	-	-	-	-	-	-	2	-	-	-	-	-	-
Consult Diagnostics Urine Analyzer	7	-	-	-	-	-	-	6	1	-	-	-	-	-	-
CTMI CT-120 Urine Analyzer	2	-	-	-	-	-	1	-	1	-	-	-	-	-	-
Diagnostic Test Group Clarity Urocheck	4	-	-	-	-	-	-	2	2	-	-	-	-	-	-
Diagnostic Test Group Clarity Urocheck 120	10	-	-	-	-	-	-	4	4	-	-	-	1	1	-
Germaine Labs AimStrip Urine Analyzer	1	-	-	-	-	-	-	-	-	-	-	1	-	-	-
Henry Schein One Step Plus	1	-	-	-	-	-	-	-	-	-	-	1	-	-	-
Henry Schein Urispec / Urispec Plus	15	-	-	-	-	-	-	-	1	-	-	14	-	-	-
Immunostics Detector Urine Strips	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-
McKesson 120 Urine Analyzer	26	-	-	-	-	-	-	14	11	-	-	-	1	-	-
McKesson Reagent Strips	10	1	-	-	-	1	1	5	1	-	-	1	-	-	-
Medline 120 Urine Analyzer	5	-	-	-	-	-	-	4	1	-	-	-	-	-	-
Medline Urinalysis Reagent Strips	2	-	-	-	-	-	1	-	-	-	-	-	-	1	-
NDC Pro Advantage	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-
Other Dipstick Method	3	-	-	-	1	-	-	-	-	-	1	-	-	1	-
Roche Chemstrips	27	2	-	1	4	3	-	9	7	-	-	-	1	-	-
Roche Criterion Analyzer	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-
Roche SuperUA/ChemstripUA	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-
Roche Urisys	8	-	-	-	-	-	-	-	-	-	-	-	8	-	-
Siemens Clinitek 10 / 100	2	-	-	-	-	-	-	-	-	-	-	1	1	-	-
Siemens Clinitek 50	4	-	-	-	-	-	-	-	-	-	-	-	4	-	-
Siemens Clinitek 500	1	-	-	-	-	-	-	-	-	-	-	1	-	-	-
Siemens Clinitek Advantus	13	-	-	-	-	-	-	7	-	-	-	1	5	-	-
Siemens Clinitek Status / Status+	340	1	-	-	2	1	2	68	7	-	-	5	227	27	-
Siemens Multistix Pro	9	-	-	-	2	-	-	1	-	-	-	-	5	-	1
Siemens Reagent Strips	91	-	-	-	17	25	-	6	3	-	-	2	18	19	1
Uriscan Optima	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-

URINALYSIS DIPSTICK–BILIRUBIN

Specimen UA-3

			Participant Results												
Method	***Labs***	***Negative***	***Positive (Ictotest ONLY)***	***Trace***	***Small***	***Moderate***	***Large***	***(1+)***	***(2+)***	***(3+)***	***(4+)***	***0.5 - 1.0 mg/dL***	***2.0 - 4.0 mg/dL***	***6.0 - 10.0 mg/dL***	***>10.0 mg/dL***
ALL METHODS	577	572	-	-	2	1	-	2	-	-	-	-	-	-	-
Consult Diagnostics Reagent Strips	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-
Consult Diagnostics Urine Analyzer	7	6	-	-	-	-	-	1	-	-	-	-	-	-	-
CTMI CT-120 Urine Analyzer	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-
Diagnostic Test Group Clarity Urocheck	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Diagnostic Test Group Clarity Urocheck 120	10	10	-	-	-	-	-	-	-	-	-	-	-	-	-
Germaine Labs AimStrip Urine Analyzer	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Henry Schein One Step Plus	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Henry Schein Urispec / Urispec Plus	15	15	-	-	-	-	-	-	-	-	-	-	-	-	-
Immunostics Detector Urine Strips	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
McKesson 120 Urine Analyzer	26	26	-	-	-	-	-	-	-	-	-	-	-	-	-
McKesson Reagent Strips	10	10	-	-	-	-	-	-	-	-	-	-	-	-	-
Medline 120 Urine Analyzer	5	5	-	-	-	-	-	-	-	-	-	-	-	-	-
Medline Urinalysis Reagent Strips	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
NDC Pro Advantage	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Dipstick Method	2	1	-	-	1	-	-	-	-	-	-	-	-	-	-
Roche Chemstrips	26	26	-	-	-	-	-	-	-	-	-	-	-	-	-
Roche Criterion Analyzer	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Roche SuperUA/ChemstripUA	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Roche Urisys	8	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek 10 / 100	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek 50	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek 500	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek Advantus	13	13	-	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek Status / Status+	338	336	-	-	1	-	-	1	-	-	-	-	-	-	-
Siemens Multistix Pro	10	10	-	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Reagent Strips	84	83	-	-	-	1	-	-	-	-	-	-	-	-	-
Uriscan Optima	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-

URINALYSIS DIPSTICK–UROBILINOGEN

Specimen UA-3

		Participant Results				
Method	***Labs***	***Normal or 0.0 - 0.2 mg/dL or <3.2 µmol/L***	***1.0 or <2.0 mg/dL or 16 or 17 µmol/L***	***2.0/3.0 mg/dL or 34 or 35 µmol/L***	***4.0 or 4.0/6.0 mg/dL or 70 µmol/L***	***≥8.0 or ≥12.0 mg/dL or ≥140 or 200 µmol/L***
ALL METHODS	574	566	3	3	1	1
Consult Diagnostics Reagent Strips	2	2	-	-	-	-
Consult Diagnostics Urine Analyzer	7	6	1	-	-	-
CTMI CT-120 Urine Analyzer	2	2	-	-	-	-
Diagnostic Test Group Clarity Urocheck	3	3	-	-	-	-
Diagnostic Test Group Clarity Urocheck 120	11	10	-	1	-	-
Germaine Labs AimStrip Urine Analyzer	1	1	-	-	-	-
Henry Schein One Step Plus	1	1	-	-	-	-
Henry Schein Urispec / Urispec Plus	15	15	-	-	-	-
Immunostics Detector Urine Strips	1	1	-	-	-	-
McKesson 120 Urine Analyzer	26	24	-	1	1	-
McKesson Reagent Strips	10	10	-	-	-	-
Medline 120 Urine Analyzer	5	4	1	-	-	-
Medline Urinalysis Reagent Strips	1	1	-	-	-	-
NDC Pro Advantage	1	1	-	-	-	-
Other Dipstick Method	2	2	-	-	-	-
Roche Chemstrips	26	25	-	-	-	1
Roche Criterion Analyzer	1	1	-	-	-	-
Roche SuperUA/ChemstripUA	1	1	-	-	-	-
Roche Urisys	8	8	-	-	-	-
Siemens Clinitek 10 / 100	2	2	-	-	-	-
Siemens Clinitek 50	4	4	-	-	-	-
Siemens Clinitek 500	1	1	-	-	-	-
Siemens Clinitek Advantus	12	12	-	-	-	-
Siemens Clinitek Status / Status+	335	334	-	1	-	-
Siemens Multistix Pro	10	10	-	-	-	-
Siemens Reagent Strips	85	84	1	-	-	-
Uriscan Optima	1	1	-	-	-	-

URINALYSIS DIPSTICK–BLOOD/HEMOGLOBIN

Specimen UA-3

									Participant Results									
Method	***Labs***	***Negative***	***Trace***	***Small***	***Moderate***	***Large***	***(1+)***	***(2+)***	***(3+)***	***(4+)***	***(5+)***	***5 - 25 Ery/µL***	***50 - 100 Ery/µL***	***200 - 300 Ery/µL***	***±0.03 mg/dL***	***0.06 - 0.10 mg/dL***	***0.2 - 0.5 mg/dL***	***≥ 1.0 mg/dL***
ALL METHODS	591	575	10	1	-	1	1	-	1	-	-	2	-	-	-	-	-	-
Consult Diagnostics Reagent Strips	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Consult Diagnostics Urine Analyzer	7	6	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
CTMI CT-120 Urine Analyzer	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diagnostic Test Group Clarity Urocheck	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diagnostic Test Group Clarity Urocheck 120	10	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Germaine Labs AimStrip Urine Analyzer	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Henry Schein One Step Plus	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Henry Schein Urispec / Urispec Plus	15	12	1	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-
Immunostics Detector Urine Strips	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
McKesson 120 Urine Analyzer	26	26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
McKesson Reagent Strips	9	8	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
Medline 120 Urine Analyzer	5	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Medline Urinalysis Reagent Strips	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NDC Pro Advantage	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Dipstick Method	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Roche Chemstrips	30	29	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Roche Criterion Analyzer	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Roche SuperUA/ChemstripUA	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Roche Urisys	8	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek 10 / 100	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek 50	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek 500	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek Advantus	13	12	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek Atlas	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek Status / Status+	337	329	7	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Multistix Pro	10	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Reagent Strips	92	91	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Uriscan Optima	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
UriScan Reagent Strips	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

URINALYSIS DIPSTICK–LEUKOCYTE ESTERASE

Specimen UA-3

		Participant Results											
Method	***Labs***	***Negative***	***Trace***	***Small***	***Moderate***	***Large***	***(1+)***	***(2+)***	***(3+)***	***(4+)***	***15 or 25 µL***	***75 or 100 µL***	***250 or 500 µL***
ALL METHODS	590	7	31	264	60	2	123	71	2	-	3	2	25
Consult Diagnostics Reagent Strips	2	-	-	-	-	-	1	1	-	-	-	-	-
Consult Diagnostics Urine Analyzer	7	1	-	-	-	-	3	2	-	-	1	-	-
CTMI CT-120 Urine Analyzer	2	-	-	-	-	-	2	-	-	-	-	-	-
Diagnostic Test Group Clarity Urocheck	3	-	-	-	-	-	1	2	-	-	-	-	-
Diagnostic Test Group Clarity Urocheck 120	11	-	-	-	-	-	4	7	-	-	-	-	-
Germaine Labs AimStrip Urine Analyzer	1	-	-	-	-	-	-	1	-	-	-	-	-
Henry Schein One Step Plus	1	-	-	-	-	-	-	-	-	-	-	-	1
Henry Schein Urispec / Urispec Plus	15	-	1	-	-	-	-	-	-	-	-	-	14
Immunostics Detector Urine Strips	1	1	-	-	-	-	-	-	-	-	-	-	-
McKesson 120 Urine Analyzer	26	-	1	-	-	-	18	6	1	-	-	-	-
McKesson Reagent Strips	10	-	-	1	-	-	5	2	-	-	-	2	-
Medline 120 Urine Analyzer	4	-	1	-	-	-	1	1	-	-	1	-	-
Medline Urinalysis Reagent Strips	2	-	-	-	-	-	1	1	-	-	-	-	-
NDC Pro Advantage	1	-	-	-	-	-	1	-	-	-	-	-	-
Other Dipstick Method	3	-	-	-	3	-	-	-	-	-	-	-	-
Roche Chemstrips	30	-	-	-	1	1	-	27	-	-	-	-	1
Roche Criterion Analyzer	1	-	-	-	-	-	-	-	-	-	-	-	1
Roche SuperUA/ChemstripUA	1	-	-	-	-	-	-	1	-	-	-	-	-
Roche Urisys	8	-	-	-	-	-	-	-	-	-	-	-	8
Siemens Clinitek 10 / 100	2	-	2	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek 50	4	-	-	4	-	-	-	-	-	-	-	-	-
Siemens Clinitek 500	1	-	1	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek Advantus	13	-	-	7	-	-	6	-	-	-	-	-	-
Siemens Clinitek Status / Status+	337	2	21	219	25	-	64	6	-	-	-	-	-
Siemens Multistix Pro	10	-	1	4	1	-	3	1	-	-	-	-	-
Siemens Reagent Strips	91	3	3	28	30	1	13	12	-	-	1	-	-
Siemens Uristix	1	-	-	1	-	-	-	-	-	-	-	-	-
Uriscan Optima	1	-	-	-	-	-	-	1	-	-	-	-	-
UriScan Reagent Strips	1	-	-	-	-	-	-	-	1	-	-	-	-

URINALYSIS DIPSTICK–NITRITE

Specimen UA-3

		Participant Results	
Method	***Labs***	***Negative***	***Positive***
ALL METHODS	593	9	584
Consult Diagnostics Reagent Strips	2	-	2
Consult Diagnostics Urine Analyzer	7	1	6
CTMI CT-120 Urine Analyzer	2	-	2
Diagnostic Test Group Clarity Urocheck	4	-	4
Diagnostic Test Group Clarity Urocheck 120	10	1	9
Germaine Labs AimStrip Urine Analyzer	1	-	1
Henry Schein One Step Plus	2	-	2
Henry Schein Urispec / Urispec Plus	14	1	13
Immunostics Detector Urine Strips	1	-	1
McKesson 120 Urine Analyzer	26	-	26
McKesson Reagent Strips	10	-	10
Medline 120 Urine Analyzer	5	-	5
Medline Urinalysis Reagent Strips	2	-	2
NDC Pro Advantage	1	-	1
Other Dipstick Method	3	-	3
Roche Chemstrips	30	1	29
Roche Criterion Analyzer	1	-	1
Roche SuperUA/ChemstripUA	1	-	1
Roche Urisys	8	-	8
Siemens Clinitek 10 / 100	2	-	2
Siemens Clinitek 50	4	-	4
Siemens Clinitek 500	1	-	1
Siemens Clinitek Advantus	13	-	13
Siemens Clinitek Status / Status+	338	2	336
Siemens Multistix Pro	10	-	10
Siemens Reagent Strips	92	2	90
Siemens Uristix	1	-	1
Uriscan Optima	1	1	-
UriScan Reagent Strips	1	-	1

URINALYSIS –MICROALBUMIN (dipstick only)

Specimen UA-3

		Participant Results								
Method	***Labs***	***Negative***	***10 mg/L***	***20 mg/L***	***30 mg/L***	***50 mg/L***	***80 mg/L***	***100 mg/L***	***150 mg/L***	***+ (4 - 8 mg/dL)***	***++ (>8 mg/dL)***
ALL METHODS	43	2	39	2	-	-	-	-	-	-	-
Roche Micral - 1 minute	2	-	-	2	-	-	-	-	-	-	-
Siemens Clinitek Microalbumin	39	-	39	-	-	-	-	-	-	-	-

URINALYSIS –URINE hCG

Specimen UA-3

		Participant Results	
Method	***Labs***	***Positive***	***Negative***
ALL METHODS	346	1	345
Alere Acceava hCG-Urine	1	-	1
Alere Clearview hCG Cassette	4	-	4
Alere hCG Combo Cassette	5	-	5
Alfa Scientific Instant View	4	-	4
Beckman Coulter ICON 20 hCG	4	-	4
Beckman Coulter ICON 25 hCG	22	-	22
Beckman Coulter ICON II	1	-	1
BioSign hCG	1	-	1
BTNX Rapid Response hCG	4	-	4
Cardinal Health SP Brand combo	21	-	21
Cardinal Hlth SPBrand-cassette	6	-	6
Clarity Diagnostics hCG strip/cassette	11	-	11
CONSULT diagnostics hCG Cassette	56	-	56
CONSULT diagnostics hCG Combo	8	-	8
CONSULT diagnostics hCG Dipstick	18	-	18
Henry Schein One Step	33	-	33
Henry Schein One Step Plus	21	-	21
Jant Pharmacal Accutest	1	-	1
LifeSign Status hCG	1	-	1
McKesson hCG Combo Cassette	6	-	6
McKesson hCG Urine Cassette	11	-	11
McKesson urine hCG-all 20 mIU kits	1	-	1
Medline hCG Combo Test Cassette	4	-	4
Medline hCG Test Cassette	7	-	7
NDC Pro Advantage	1	-	1
PEP (Lab Supply) HCG	1	-	1
Quidel QuickVue One-Step Combo	10	-	10
Quidel QuickVue One-Step Urine	18	-	18
Quidel QuickVue+ One-Step Combo	19	-	19
Quidel Sofia hCG	1	-	1
SA Scientific Serum/Urine	1	-	1
Sekisui OSOM Card Pregnancy	8	-	8
Sekisui OSOM hCG Combo Test	3	-	3
Siemens Clinitek Status / Status+	9	-	9
Stanbio QuPID	8	-	8
Stanbio QuPID Plus	2	-	2
Stanbio TRUE hCG	7	-	7
Sure-Vue hCG - 25mIU	1	-	1
Sure-Vue hCG-STAT	4	-	4

FECAL OCCULT BLOOD

	Specimen OC-5			Specimen OC-6		
Method	***Labs***	***Positive***	***Negative***	***Labs***	***Positive***	***Negative***
ALL METHODS	258	255	3	258	11	247
Alere Clearview iFOBT Complete	1	1	-	1	-	1
Beckman Coulter Hemoccult ICT	40	39	1	40	4	36
Guaiac (slide) Test	147	146	1	147	5	142
Hemosure IFOB	31	31	-	31	-	31
Other Immunochemical FOB kit	30	29	1	30	2	28
Polymedco OC Auto Micro 80	4	4	-	4	-	4
Polymedco OC-Light iFOB	2	2	-	2	-	2
Quidel QuickVue iFOB	2	2	-	2	-	2

2021 M3
Urine Sediment Identification
SPECIMENS US-5 AND US-6

CASE HISTORY:

A 68-year-old male presented to his primary care physician for swollen feet and ankles. His eyelids appear puffy, and he has gained weight despite having a poor appetite and eating less food. The patient's medical history includes lung cancer, diabetes, hypertension, and high cholesterol. On examination his lungs sound clear but his blood pressure is elevated. Urine dipstick results appear below.

Color: Yellow
Appearance: Hazy

Specific Gravity = 1.025
pH = 8.0
Protein = 4+
Glucose = 100 mg/dL
Ketones = Negative
Bilirubin = Negative
Urobilinogen = Normal
Blood = 1+
Leukocyte Esterase = 1+
Nitrite = Negative

This patient was diagnosed with nephrotic syndrome. Nephrotic syndrome is a group of symptoms caused by excessive loss of plasma protein through the kidneys. An alternate name for this condition is nephrosis. Damage to the glomerular membrane makes the filtering part of the kidney extra permeable which allows protein, lipids, and other large molecules to pass into the urine. Urinalysis observations may include a foamy appearance of the urine, marked proteinuria (>300 mg/dL), microscopic hematuria, renal tubular cells, fat droplets, oval fat bodies, fatty casts, and waxy casts. Membranous glomerulonephritis is the most common cause of nephrotic syndrome in adults, but there are many diseases that can contribute to the nephrotic syndrome including systemic diseases that affect other organs in addition to the kidneys, such as lupus, diabetes or cancer. The loss of protein from the bloodstream causes decreased serum albumin, increased serum cholesterol, edema with weight gain, swollen legs and abdomen, poor appetite, and hypertension.

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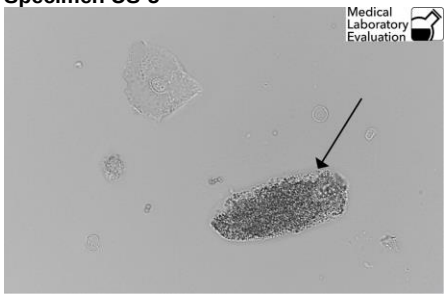
Urine Sediment Identification

Specimen US-5

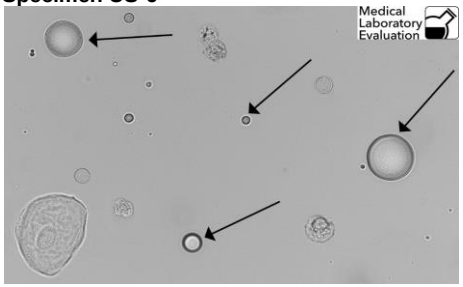


Identification	Labs	Percent	Performance
Granular cast	303	93.23%	Acceptable
RBC/blood/hgb cast	7	2.15%	
Fatty cast	4	1.23%	
Cellular (RTE) cast	3	0.92%	
Red blood cell	3	0.92%	

The arrow in this photograph points to a **granular cast.** The renal tubules in the kidney secrete a mucoprotein called Tamm-Horsfall protein, which is believed to form the basic matrix of all casts. The protein in casts does not cause a positive reaction with the urine reagent strip test for protein, which only detects albumin. Casts are cylindrical in shape and have nearly parallel sides. Granules may appear throughout the entire cast matrix or confined to one area of the cast. The number and size of granules in a granular cast can vary greatly. Differentiating the granules as coarse or fine is not necessary or clinically significant. Large numbers of granular casts are abnormal, and are associated with intrinsic renal disease. However, granular casts may be seen in the urine of healthy patients after strenuous physical exercise. To view another granular cast, see 2012 M3 Specimen US-5. To view a hyaline cast, see 2014 M1 Specimen US-2.

Urine Sediment Identification

Specimen US-6



Identification	Labs	Percent	Performance
Fat droplets or globules	266	81.85%	Acceptable
Red blood cell (RBC)	38	11.69%	
Identification unknown – refer	14	4.31%	
Fatty cast	3	0.62%	

The arrows in this photograph point to **fat droplets or globules.** Lipids can appear in the urine sediment as fat within cells, within casts, or as free fat globules. Here, the lipids appear as free, highly refractile, spherical globules. Although the shape and appearance resemble red blood cells, the extreme variation in size should help to rule out RBCs as a possible ID. Oil droplets can be contaminants from immersion oil, lotions or creams, so their presence should be considered in the context of the other urinalysis results and patient history. Some participants thought the fat droplets were air bubbles. Again, the dipstick results and patient history should be correlated with the microscopic findings. The 4+ protein and edema should alert the microscopist to be on the look-out for abnormal elements in the sediment that would accompany nephrotic syndrome. *Technical tip: Air bubbles tend to have a much wider and more pronounced edge/border than fat; this border changes wildly as you fine focus. Air bubbles will often appear most in focus when the cells are out of focus because the bubbles are floating at the top.* To view another photo of fat droplets, see 2007 M3 Specimen US-6. To view a photo of red blood cells, see 2021 M2 Specimen US-3.

REFERENCES:

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

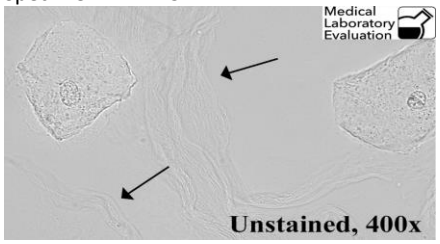
Strasinger, S.K, DiLorenzo, M.S.: *Urinalysis and Body Fluids, 4th ed.* Philadelphia: F.A. Davis Co, 2001.

Turgeon,M.L.: *Linné & Ringsrud's Clinical Laboratory Science: Concepts, Procedures, and Clinical Applications,7th ed.* St. Louis, Mosby, 2015.

2021 M3
PROVIDER-PERFORMED MICROSCOPY (PPM)
Specimens PPM-13 through PPM-18

WET MOUNT PREPARATION

Specimen PPM-13



Identification	Labs	Percent	Performance
Mucus strands	347	91.08%	Acceptable
Fiber/fecal contamination	12	3.15%	
Identification unknown – refer	6	1.57%	
Yeast/fungi	6	1.57%	

The arrows in this photograph point to **mucus strands**. Mucus is secreted by glands in the terminal urethra and vagina. It is a very common normal, non-pathologic finding, especially in females. Mucus appears as long thin delicate strands or threads with undefined edges and pointed or frayed ends. Some participants thought this object was a fiber or fecal contamination. Fibers tend to be flat, with dark edges and indentations. To view another photo of mucus strands, see 2013 M2 Specimen PPM-7. To view a photo of a fiber, see 2018 M1 Specimen US-1.

KOH PREPARATION

Specimen PPM-14

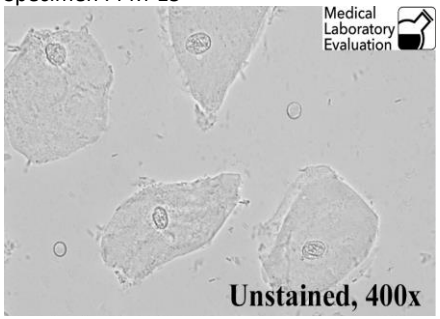
Identification	Labs	Percent	Performance
Yeast/fungal elements absent	307	98.40%	Acceptable
Yeast/fungal elements present	5	1.60%	

Yeast and fungal elements are absent in this photograph of a vaginal KOH preparation. To view a positive KOH prep, see 2019 M1 Specimen PPM-2.

PROVIDER-PERFORMED MICROSCOPY (PPM)

SPERM DETECTION

Specimen PPM-15



Identification	Labs	Percent	Performance
Sperm absent	187	99.47%	Acceptable
Sprem present	1	0.53%	

Spermatozoa are absent in this photograph of a vaginal wet mount preparation. To view a photo of spermatozoa, see 2019 M3 Specimen PPM-15.

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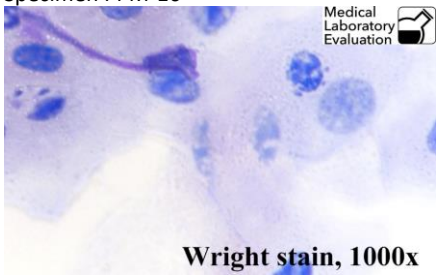
NASAL SMEAR

Specimen PPM-16



Identification	Labs	Percent	Performance
Eosinophils absent	44	88.00%	Acceptable
Eosinophils present	6	12.00%	

Eosinophils are absent in this photograph of Wright-stained nasal mucus. The eosinophil is a specific type of leukocyte that is increased in allergic conditions. "Eos" have a unique red-orange color that comes from the dye eosin, which is a component of Wright stain. The cells shown in this photo are **not** orange/eosinophilic. Another distinguishing characteristic is the nucleus of an eosinophil normally has two segments or lobes, whereas the cells shown are mononuclear. To view a photo of eosinophils in a nasal smear, see 2019 M3 Specimen PPM-16.

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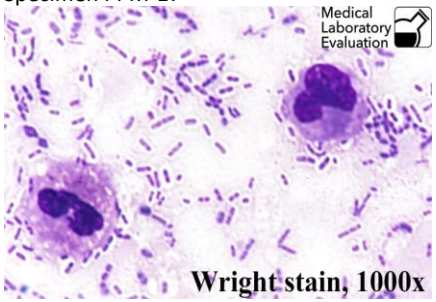
PROVIDER-PERFORMED MICROSCOPY (PPM)

STOOL PREPARATION

Specimen PPM-17



Identification	Labs	Percent	Performance
Leukocytes present	121	98.37%	Acceptable
Leukocytes absent	2	1.63%	

Leukocytes are present in this photograph of a Wright-stained stool preparation. Leukocytes are white blood cells (WBC). The presence of fecal leukocytes indicates inflammation due enteritis or ulcerative colitis. To view another photo of a positive fecal leukocyte prep, see 2019 M2 Specimen PPM-11.

FERN TEST

Specimen PPM-18

Identification	Labs	Percent	Performance
Ferning present	107	100%	Acceptable

Ferning is present in this photograph of air-dried vaginal secretions. The fern test is used to detect ruptured membranes. Unlike normal vaginal secretions or urine, which do not crystallize, amniotic fluid crystallizes when dried on a microscope slide to form a pattern resembling a leaf. Ferning indicates leakage of amniotic fluid. To view another photo of a positive fern prep, see 2019 M3 Specimen PPM-18.

REFERENCES:

Fischer, P. M.: *The Office Laboratory.* Norwalk, Conn.: Appleton-Century-Crofts, 1983.

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.

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