MEDICAL LABORATORY EVALUATION

PARTICIPANT SUMMARY

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Hematology, Coagulation,
Blood Bank, Urinalysis, PPM
2021 MLE-M1

ACP | Medical Laboratory Evaluation

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

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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-1						Specimen HQ-2					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	29	14.18	2.40	16.9	12.9	13.1 - 15.2	29	6.50	0.96	14.8	6.0	6.0 - 7.0
All HemoCue 301/801	5	18.58	0.13	0.7	18.6	17.2 - 19.9	5	8.33	0.13	1.5	8.3	7.7 - 9.0
HemoCue 201/+	23	13.03	0.77	5.9	12.9	12.1 - 14.0	23	6.02	0.09	1.5	6.0	5.5 - 6.5
HemoCue 801	5	18.58	0.13	0.7	18.6	17.2 - 19.9	5	8.33	0.13	1.5	8.3	7.7 - 9.0

HEMOCUE HEMATOLOGY–GLUCOSE (mg/dL)

	Specimen HQ-1						Specimen HQ-2					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	24	191.3	8.1	4.2	190	153 - 230	24	103.0	5.8	5.6	104	82 - 124
All HemoCue Methods	24	191.3	8.1	4.2	190	153 - 230	24	103.0	5.8	5.6	104	82 - 124
HemoCue Glucose 201	24	191.3	8.1	4.2	190	153 - 230	24	103.0	5.8	5.6	104	82 - 124

SEDIMENTATION RATE (MM/HR)

	Specimen ES-1						Specimen ES-2					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	79	8.3	2.6	31.3	8	0 - 17	76	52.4	11.6	22.1	51	17 - 88
All Automated Methods	22	10.2	3.3	32.9	9	0 - 21	21	64.3	14.1	21.9	62	21 - 107
All Manual Methods	58	7.9	2.7	33.6	8	0 - 16	53	48.2	7.4	15.3	48	26 - 71
All Vital Diagnostics Methods	14	8.9	2.1	23.0	9	2 - 16	14	61.1	8.7	14.2	60	35 - 88
Vital Diagnostics Excyte M/10	7	8.3	1.5	18.1	8	3 - 13	7	58.6	10.1	17.2	58	28 - 89
Westergren - diluted	50	8.0	2.4	30.3	8	0 - 16	45	48.0	7.8	16.2	46	24 - 72
Westergren - undiluted	7	8.6	3.3	38.6	8	0 - 19	7	49.4	5.2	10.5	51	33 - 66

SEDIMAT SEDIMENTATION RATE (MM/HR)

	Specimen MAT-1						Specimen MAT-2					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
Polymedco Sedimat 15	10	3.0	1.1	37.3	3	0 - 7	10	62.7	6.2	9.8	59	44 - 82

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

Specimen CL-1

Instrument	Labs	Mean	SD	CV	Median	Range
All Method	12	19.28	1.60	8.3	19.5	16.3 - 22.2
All Abbott Cell-Dyn Instruments	12	20.67	0.45	2.2	20.7	17.5 - 23.8
Abbott Cell-Dyn Emerald 22	6	17.90	0.70	3.9	17.6	15.2 - 20.6
Abbott Cell-Dyn Ruby	6	20.67	0.45	2.2	20.7	17.5 - 23.8

Specimen CL-2

Instrument	Labs	Mean	SD	CV	Median	Range
All Method	12	2.52	0.39	15.4	2.5	2.1 - 2.9
All Abbott Cell-Dyn Instruments	12	2.87	0.06	2.0	2.9	2.4 - 3.3
Abbott Cell-Dyn Emerald 22	6	2.17	0.06	2.7	2.2	1.8 - 2.5
Abbott Cell-Dyn Ruby	6	2.87	0.06	2.0	2.9	2.4 - 3.3

Specimen CL-3

Instrument	Labs	Mean	SD	CV	Median	Range
All Method	12	6.97	0.68	9.8	7.0	5.9 - 8.1
All Abbott Cell-Dyn Instruments	12	7.57	0.21	2.8	7.5	6.4 - 8.8
Abbott Cell-Dyn Emerald 22	6	6.37	0.21	3.3	6.3	5.4 - 7.4
Abbott Cell-Dyn Ruby	6	7.57	0.21	2.8	7.5	6.4 - 8.8

Specimen CL-4

Instrument	Labs	Mean	SD	CV	Median	Range
All Method	12	2.43	0.41	16.8	2.4	2.0 - 2.8
All Abbott Cell-Dyn Instruments	12	2.80	0.10	3.6	2.8	2.3 - 3.3
Abbott Cell-Dyn Emerald 22	6	2.07	0.06	2.8	2.1	1.7 - 2.4
Abbott Cell-Dyn Ruby	6	2.80	0.10	3.6	2.8	2.3 - 3.3

Specimen CL-5

Instrument	Labs	Mean	SD	CV	Median	Range
All Method	12	19.65	2.32	11.8	19.3	16.7 - 22.6
All Abbott Cell-Dyn Instruments	12	21.40	2.01	9.4	20.5	18.1 - 24.7
Abbott Cell-Dyn Emerald 22	6	17.90	0.53	3.0	17.7	15.2 - 20.6
Abbott Cell-Dyn Ruby	6	21.40	2.01	9.4	20.5	18.1 - 24.7

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

Specimen CL-1

Instrument	Labs	Mean	SD	CV	Median	Range
All Method	12	5.143	0.116	2.2	5.13	4.83 - 5.46
All Abbott Cell-Dyn Instruments	12	5.200	0.125	2.4	5.24	4.88 - 5.52
Abbott Cell-Dyn Emerald 22	6	5.087	0.091	1.8	5.05	4.78 - 5.40
Abbott Cell-Dyn Ruby	6	5.200	0.125	2.4	5.24	4.88 - 5.52

Specimen CL-2

Instrument	Labs	Mean	SD	CV	Median	Range
All Method	12	2.312	0.066	2.9	2.33	2.17 - 2.46
All Abbott Cell-Dyn Instruments	12	2.363	0.021	0.9	2.37	2.22 - 2.51
Abbott Cell-Dyn Emerald 22	6	2.260	0.050	2.2	2.26	2.12 - 2.40
Abbott Cell-Dyn Ruby	6	2.363	0.021	0.9	2.37	2.22 - 2.51

Specimen CL-3

Instrument	Labs	Mean	SD	CV	Median	Range
All Method	12	4.383	0.110	2.5	4.37	4.12 - 4.65
All Abbott Cell-Dyn Instruments	12	4.440	0.122	2.7	4.38	4.17 - 4.71
Abbott Cell-Dyn Emerald 22	6	4.327	0.075	1.7	4.37	4.06 - 4.59
Abbott Cell-Dyn Ruby	6	4.440	0.122	2.7	4.38	4.17 - 4.71

Specimen CL-4

Instrument	Labs	Mean	SD	CV	Median	Range
All Method	12	2.323	0.083	3.6	2.35	2.18 - 2.47
All Abbott Cell-Dyn Instruments	12	2.387	0.023	1.0	2.40	2.24 - 2.53
Abbott Cell-Dyn Emerald 22	6	2.260	0.069	3.1	2.22	2.12 - 2.40
Abbott Cell-Dyn Ruby	6	2.387	0.023	1.0	2.40	2.24 - 2.53

Specimen CL-5

Instrument	Labs	Mean	SD	CV	Median	Range
All Method	12	5.123	0.093	1.8	5.13	4.81 - 5.44
All Abbott Cell-Dyn Instruments	12	5.153	0.100	1.9	5.16	4.84 - 5.47
Abbott Cell-Dyn Emerald 22	6	5.093	0.095	1.9	5.09	4.78 - 5.40
Abbott Cell-Dyn Ruby	6	5.153	0.100	1.9	5.16	4.84 - 5.47

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

	Specimen CL-1						Specimen CL-2					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	12	16.30	0.78	4.8	16.3	15.1 - 17.5	12	5.43	0.31	5.7	5.5	5.0 - 5.9
All Abbott Cell-Dyn Instruments	12	17.00	0.20	1.2	17.0	15.8 - 18.2	12	5.70	0.10	1.8	5.7	5.3 - 6.1
Abbott Cell-Dyn Emerald 22	6	15.60	0.10	0.6	15.6	14.5 - 16.7	6	5.17	0.12	2.2	5.1	4.8 - 5.6
Abbott Cell-Dyn Ruby	6	17.00	0.20	1.2	17.0	15.8 - 18.2	6	5.70	0.10	1.8	5.7	5.3 - 6.1
	Specimen CL-3						**Specimen CL-4**					
All Method	12	13.12	0.62	4.7	13.1	12.1 - 14.1	12	5.35	0.34	6.3	5.3	4.9 - 5.8
All Abbott Cell-Dyn Instruments	12	13.67	0.21	1.5	13.6	12.7 - 14.7	12	5.63	0.21	3.7	5.7	5.2 - 6.1
Abbott Cell-Dyn Emerald 22	6	12.57	0.06	0.5	12.6	11.6 - 13.5	6	5.07	0.06	1.1	5.1	4.7 - 5.5
Abbott Cell-Dyn Ruby	6	13.67	0.21	1.5	13.6	12.7 - 14.7	6	5.63	0.21	3.7	5.7	5.2 - 6.1
	Specimen CL- 5											
All Method	12	16.07	0.74	4.6	15.9	14.9 - 17.2						
All Abbott Cell-Dyn Instruments	12	16.67	0.50	3.0	16.6	15.5 - 17.9						
Abbott Cell-Dyn Emerald 22	6	15.47	0.15	1.0	15.5	14.3 - 16.6						
Abbott Cell-Dyn Ruby	6	16.67	0.50	3.0	16.6	15.5 - 17.9						

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

	Specimen CL-1						Specimen CL-2					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	12	46.32	1.49	3.2	46.2	43.5 - 49.1	12	16.30	0.40	2.5	16.3	15.3 - 17.3
All Abbott Cell-Dyn Instruments	12	45.23	0.59	1.3	45.0	42.5 - 48.0	12	16.30	0.35	2.1	16.5	15.3 - 17.3
Abbott Cell-Dyn Emerald 22	6	47.40	1.31	2.8	46.8	44.5 - 50.3	6	16.30	0.53	3.2	16.1	15.3 - 17.3
Abbott Cell-Dyn Ruby	6	45.23	0.59	1.3	45.0	42.5 - 48.0	6	16.30	0.35	2.1	16.5	15.3 - 17.3
	Specimen CL-3						**Specimen CL-4**					
All Method	12	39.07	1.40	3.6	39.5	36.7 - 41.5	12	16.27	0.46	2.8	16.2	15.2 - 17.3
All Abbott Cell-Dyn Instruments	12	38.27	1.52	4.0	38.0	35.9 - 40.6	12	16.30	0.30	1.8	16.3	15.3 - 17.3
Abbott Cell-Dyn Emerald 22	6	39.87	0.81	2.0	40.0	37.4 - 42.3	6	16.23	0.67	4.1	15.9	15.2 - 17.3
Abbott Cell-Dyn Ruby	6	38.27	1.52	4.0	38.0	35.9 - 40.6	6	16.30	0.30	1.8	16.3	15.3 - 17.3
	Specimen CL-5											
All Method	12	46.75	1.50	3.2	46.9	43.9 - 49.6						
All Abbott Cell-Dyn Instruments	12	46.37	1.89	4.1	46.8	43.5 - 49.2						
Abbott Cell-Dyn Emerald 22	6	47.13	1.27	2.7	46.9	44.3 - 50.0						
Abbott Cell-Dyn Ruby	6	46.37	1.89	4.1	46.8	43.5 - 49.2						

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

	Specimen CL-1						Specimen CL-2					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	12	477.2	9.4	2.0	481	357 - 597	12	97.0	11.9	12.2	101	72 - 122
All Abbott Cell-Dyn Instruments	12	479.0	3.0	0.6	479	359 - 599	12	88.3	10.5	11.9	88	66 - 111
Abbott Cell-Dyn Emerald 22	6	475.3	14.2	3.0	482	356 - 595	6	105.7	4.0	3.8	105	79 - 133
Abbott Cell-Dyn Ruby	6	479.0	3.0	0.6	479	359 - 599	6	88.3	10.5	11.9	88	66 - 111
	Specimen CL-3						**Specimen CL-4**					
All Method	12	278.8	9.0	3.2	275	209 - 349	12	90.7	13.0	14.3	90	68 - 114
All Abbott Cell-Dyn Instruments	12	273.0	2.0	0.7	273	204 - 342	12	79.0	1.0	1.3	79	59 - 99
Abbott Cell-Dyn Emerald 22	6	284.7	9.7	3.4	287	213 - 356	6	102.3	3.5	3.4	102	76 - 128
Abbott Cell-Dyn Ruby	6	273.0	2.0	0.7	273	204 - 342	6	79.0	1.0	1.3	79	59 - 99
	Specimen CL-5											
All Method	12	486.8	16.4	3.4	487	365 - 609						
All Abbott Cell-Dyn Instruments	12	485.3	19.2	4.0	482	363 - 607						
Abbott Cell-Dyn Emerald 22	6	488.3	17.2	3.5	491	366 - 611						
Abbott Cell-Dyn Ruby	6	485.3	19.2	4.0	482	363 - 607						

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

	Specimen CL-1						Specimen CL-2					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	12	69.72	8.00	11.5	72.7	45.7 - 93.8	12	51.85	3.40	6.6	53.1	41.6 - 62.1
All Abbott Cell-Dyn Instruments	12	75.53	0.23	0.3	75.4	74.8 - 76.3	12	54.30	0.85	1.6	54.2	51.7 - 56.9
Abbott Cell-Dyn Emerald 22	6	63.90	7.64	12.0	66.5	40.9 - 86.9	6	49.40	3.20	6.5	49.4	39.8 - 59.0
Abbott Cell-Dyn Ruby	6	75.53	0.23	0.3	75.4	74.8 - 76.3	6	54.30	0.85	1.6	54.2	51.7 - 56.9
	Specimen CL-3						**Specimen CL-4**					
All Method	12	59.85	4.89	8.2	61.4	45.1 - 74.6	12	51.83	3.11	6.0	53.1	42.5 - 61.2
All Abbott Cell-Dyn Instruments	12	63.10	0.35	0.5	62.9	62.0 - 64.2	12	53.67	0.21	0.4	53.6	53.0 - 54.3
Abbott Cell-Dyn Emerald 22	6	56.60	5.28	9.3	59.5	40.7 - 72.5	6	50.00	3.75	7.5	51.7	38.7 - 61.3
Abbott Cell-Dyn Ruby	6	63.10	0.35	0.5	62.9	62.0 - 64.2	6	53.67	0.21	0.4	53.6	53.0 - 54.3
	Specimen CL-5											
All Method	12	69.98	7.91	11.3	72.8	46.2 - 93.8						
All Abbott Cell-Dyn Instruments	12	76.10	0.26	0.3	76.2	75.3 - 76.9						
Abbott Cell-Dyn Emerald 22	6	63.87	6.64	10.4	65.1	43.9 - 83.8						
Abbott Cell-Dyn Ruby	6	76.10	0.26	0.3	76.2	75.3 - 76.9						

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

	Specimen CL-1						Specimen CL-2					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	12	16.68	1.49	8.9	16.2	12.2 - 21.2	12	34.77	2.40	6.9	33.9	27.5 - 42.0
All Abbott Cell-Dyn Instruments	12	15.97	0.35	2.2	16.0	14.9 - 17.1	12	33.30	0.53	1.6	33.1	31.7 - 34.9
Abbott Cell-Dyn Emerald 22	6	17.40	1.97	11.3	16.8	11.4 - 23.4	6	36.23	2.77	7.7	35.5	27.9 - 44.6
Abbott Cell-Dyn Ruby	6	15.97	0.35	2.2	16.0	14.9 - 17.1	6	33.30	0.53	1.6	33.1	31.7 - 34.9
	Specimen CL-3						**Specimen CL-4**					
All Method	12	25.10	0.94	3.7	25.3	22.2 - 28.0	12	35.03	2.95	8.4	33.9	26.1 - 43.9
All Abbott Cell-Dyn Instruments	12	25.53	0.70	2.8	25.6	23.4 - 27.7	12	33.33	0.65	2.0	33.3	31.3 - 35.3
Abbott Cell-Dyn Emerald 22	6	24.67	1.07	4.3	24.9	21.4 - 27.9	6	36.73	3.56	9.7	35.7	26.0 - 47.5
Abbott Cell-Dyn Ruby	6	25.53	0.70	2.8	25.6	23.4 - 27.7	6	33.33	0.65	2.0	33.3	31.3 - 35.3
	Specimen CL-5											
All Method	12	16.72	1.79	10.7	16.1	11.3 - 22.1						
All Abbott Cell-Dyn Instruments	12	15.73	0.15	1.0	15.7	15.2 - 16.2						
Abbott Cell-Dyn Emerald 22	6	17.70	2.26	12.8	16.6	10.9 - 24.5						
Abbott Cell-Dyn Ruby	6	15.73	0.15	1.0	15.7	15.2 - 16.2						

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

	Specimen CL-1						Specimen CL-2					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	12	8.37	4.21	50.4	7.7	0.0 - 21.1	12	7.48	2.18	29.1	7.5	0.9 - 14.1
All Abbott Cell-Dyn Instruments	12	4.60	0.17	3.8	4.7	4.0 - 5.2	12	5.67	0.80	14.2	5.6	3.2 - 8.1
Abbott Cell-Dyn Emerald 22	6	12.13	1.34	11.1	12.7	8.1 - 16.2	6	9.30	1.15	12.4	8.9	5.8 - 12.8
Abbott Cell-Dyn Ruby	6	4.60	0.17	3.8	4.7	4.0 - 5.2	6	5.67	0.80	14.2	5.6	3.2 - 8.1
	Specimen CL-3						**Specimen CL-4**					
All Method	12	8.23	4.37	53.0	8.3	0.0 - 21.4	12	7.97	1.97	24.8	8.0	2.0 - 13.9
All Abbott Cell-Dyn Instruments	12	4.27	0.47	11.1	4.1	2.8 - 5.7	12	6.27	0.81	12.9	6.4	3.8 - 8.7
Abbott Cell-Dyn Emerald 22	6	12.20	0.50	4.1	12.2	10.7 - 13.7	6	9.67	0.65	6.7	9.7	7.7 - 11.7
Abbott Cell-Dyn Ruby	6	4.27	0.47	11.1	4.1	2.8 - 5.7	6	6.27	0.81	12.9	6.4	3.8 - 8.7
	Specimen CL-5											
All Method	12	8.37	4.09	48.9	8.0	0.0 - 20.7						
All Abbott Cell-Dyn Instruments	12	4.70	0.36	7.7	4.8	3.6 - 5.8						
Abbott Cell-Dyn Emerald 22	6	12.03	1.15	9.6	12.0	8.5 - 15.5						
Abbott Cell-Dyn Ruby	6	4.70	0.36	7.7	4.8	3.6 - 5.8						

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

	Specimen CL-1						Specimen CL-2					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	12	3.75	0.80	21.4	3.6	1.3 - 6.2	12	5.28	1.28	24.1	5.6	1.4 - 9.2
All Abbott Cell-Dyn Instruments	12	3.43	0.25	7.3	3.4	2.6 - 4.2	12	6.07	0.81	13.3	5.6	3.6 - 8.5
Abbott Cell-Dyn Emerald 22	6	4.07	1.12	27.4	4.5	0.7 - 7.5	6	4.50	1.25	27.8	4.4	0.7 - 8.3
Abbott Cell-Dyn Ruby	6	3.43	0.25	7.3	3.4	2.6 - 4.2	6	6.07	0.81	13.3	5.6	3.6 - 8.5

	Specimen CL-3						Specimen CL-4					
All Method	12	6.77	1.17	17.4	6.8	3.2 - 10.3	12	5.33	1.03	19.2	5.3	2.2 - 8.5
All Abbott Cell-Dyn Instruments	12	6.97	0.40	5.8	6.9	5.7 - 8.2	12	6.07	0.51	8.5	6.2	4.5 - 7.7
Abbott Cell-Dyn Emerald 22	6	6.57	1.78	27.1	6.2	1.2 - 12.0	6	4.60	0.87	18.8	5.1	2.0 - 7.2
Abbott Cell-Dyn Ruby	6	6.97	0.40	5.8	6.9	5.7 - 8.2	6	6.07	0.51	8.5	6.2	4.5 - 7.7

	Specimen CL-5					
All Method	12	3.70	0.88	23.7	3.4	1.0 - 6.4
All Abbott Cell-Dyn Instruments	12	3.23	0.21	6.4	3.3	2.6 - 3.9
Abbott Cell-Dyn Emerald 22	6	4.17	1.11	26.5	4.3	0.8 - 7.5
Abbott Cell-Dyn Ruby	6	3.23	0.21	6.4	3.3	2.6 - 3.9

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

	Specimen CL-1						Specimen CL-2					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	12	0.43	0.15	34.7	0.4	0.0 - 0.9	12	0.60	0.14	23.6	0.6	0.1 - 1.1
All Abbott Cell-Dyn Instruments	12	0.37	0.06	15.7	0.4	0.1 - 0.6	12	0.63	0.15	24.1	0.6	0.1 - 1.1
Abbott Cell-Dyn Emerald 22	6	0.50	0.20	40.0	0.5	0.0 - 1.1	6	0.57	0.15	27.0	0.6	0.1 - 1.1
Abbott Cell-Dyn Ruby	6	0.37	0.06	15.7	0.4	0.1 - 0.6	6	0.63	0.15	24.1	0.6	0.1 - 1.1

	Specimen CL-3						Specimen CL-4					
All Method	12	0.37	0.30	82.1	0.3	0.0 - 1.3	12	0.45	0.24	54.0	0.4	0.0 - 1.2
All Abbott Cell-Dyn Instruments	12	0.10	0.01	0.0	0.1	0.0 - 0.2	12	0.57	0.32	56.7	0.7	0.0 - 1.6
Abbott Cell-Dyn Emerald 22	6	0.63	0.12	18.2	0.7	0.2 - 1.0	6	0.33	0.06	17.3	0.3	0.1 - 0.6
Abbott Cell-Dyn Ruby	6	0.10	0.01	0.0	0.1	0.0 - 0.2	6	0.57	0.32	56.7	0.7	0.0 - 1.6

	Specimen CL-5					
All Method	12	0.38	0.29	74.5	0.2	0.0 - 1.3
All Abbott Cell-Dyn Instruments	12	0.20	0.01	0.0	0.2	0.1 - 0.3
Abbott Cell-Dyn Emerald 22	6	0.57	0.32	56.7	0.7	0.0 - 1.6
Abbott Cell-Dyn Ruby	6	0.20	0.01	0.0	0.2	0.1 - 0.3

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

	Specimen SYX-1						Specimen SYX-2					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	50	20.34	0.49	2.4	20.3	17.2 - 23.4	51	2.86	0.10	3.6	2.9	2.4 - 3.3
All Sysmex Instruments	50	20.34	0.49	2.4	20.3	17.2 - 23.4	51	2.86	0.10	3.6	2.9	2.4 - 3.3
Sysmex KX-21N & K-800, 1000, 4500	9	19.74	0.35	1.8	19.7	16.7 - 22.8	9	2.80	0.10	3.6	2.8	2.3 - 3.3
Sysmex pocH-100i	7	20.21	0.32	1.6	20.3	17.1 - 23.3	7	2.81	0.11	3.8	2.8	2.3 - 3.3
Sysmex XP-300	34	20.52	0.42	2.0	20.6	17.4 - 23.6	35	2.89	0.10	3.4	2.9	2.4 - 3.4
	Specimen SYX-3						**Specimen SYX-4**					
All Method	52	8.20	0.26	3.2	8.2	6.9 - 9.5	51	2.87	0.10	3.4	2.9	2.4 - 3.4
All Sysmex Instruments	52	8.20	0.26	3.2	8.2	6.9 - 9.5	51	2.87	0.10	3.4	2.9	2.4 - 3.4
Sysmex KX-21N & K-800, 1000, 4500	9	7.94	0.21	2.7	7.9	6.7 - 9.2	9	2.84	0.12	4.3	2.8	2.4 - 3.3
Sysmex pocH-100i	7	7.94	0.23	2.9	7.9	6.7 - 9.2	7	2.86	0.22	7.8	2.8	2.4 - 3.3
Sysmex XP-300	35	8.34	0.16	1.9	8.4	7.0 - 9.6	36	2.89	0.08	2.7	2.9	2.4 - 3.4
	Specimen SYX-5											
All Method	52	20.24	0.52	2.6	20.3	17.2 - 23.3						
All Sysmex Instruments	52	20.24	0.52	2.6	20.3	17.2 - 23.3						
Sysmex KX-21N & K-800, 1000, 4500	9	19.68	0.45	2.3	19.7	16.7 - 22.7						
Sysmex pocH-100i	7	20.00	0.32	1.6	19.9	17.0 - 23.0						
Sysmex XP-300	36	20.43	0.45	2.2	20.5	17.3 - 23.5						

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

	Specimen SYX-1						Specimen SYX-2					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	51	5.670	0.091	1.6	5.67	5.32 - 6.02	51	2.602	0.040	1.5	2.59	2.44 - 2.76
All Sysmex Instruments	51	5.670	0.091	1.6	5.67	5.32 - 6.02	51	2.602	0.040	1.5	2.59	2.44 - 2.76
Sysmex KX-21N & K-800, 1000, 4500	10	5.609	0.063	1.1	5.60	5.27 - 5.95	10	2.584	0.018	0.7	2.59	2.42 - 2.74
Sysmex pocH-100i	7	5.821	0.075	1.3	5.86	5.47 - 6.18	7	2.649	0.039	1.5	2.64	2.48 - 2.81
Sysmex XP-300	34	5.657	0.065	1.1	5.65	5.31 - 6.00	34	2.598	0.038	1.5	2.59	2.44 - 2.76
	Specimen SYX-3						**Specimen SYX-4**					
All Method	50	4.049	0.059	1.5	4.04	3.80 - 4.30	50	2.601	0.041	1.6	2.59	2.44 - 2.76
All Sysmex Instruments	50	4.049	0.059	1.5	4.04	3.80 - 4.30	50	2.601	0.041	1.6	2.59	2.44 - 2.76
Sysmex KX-21N & K-800, 1000, 4500	10	4.008	0.040	1.0	4.02	3.76 - 4.25	10	2.573	0.025	1.0	2.57	2.41 - 2.73
Sysmex pocH-100i	7	4.179	0.102	2.4	4.14	3.92 - 4.43	7	2.681	0.095	3.6	2.67	2.52 - 2.85
Sysmex XP-300	34	4.045	0.046	1.1	4.04	3.80 - 4.29	33	2.597	0.033	1.3	2.59	2.44 - 2.76
	Specimen SYX-5											
All Method	52	5.653	0.090	1.6	5.63	5.31 - 6.00						
All Sysmex Instruments	52	5.653	0.090	1.6	5.63	5.31 - 6.00						
Sysmex KX-21N & K-800, 1000, 4500	10	5.605	0.049	0.9	5.62	5.26 - 5.95						
Sysmex pocH-100i	7	5.784	0.069	1.2	5.78	5.43 - 6.14						
Sysmex XP-300	35	5.640	0.078	1.4	5.62	5.30 - 5.98						

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

	Specimen SYX-1						Specimen SYX-2					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	50	18.02	0.27	1.5	18.0	16.7 - 19.3	52	6.16	0.13	2.0	6.2	5.7 - 6.6
All Sysmex Instruments	50	18.02	0.27	1.5	18.0	16.7 - 19.3	52	6.16	0.13	2.0	6.2	5.7 - 6.6
Sysmex KX-21N & K-800, 1000, 4500	9	17.90	0.16	0.9	18.0	16.6 - 19.2	9	6.16	0.10	1.6	6.2	5.7 - 6.6
Sysmex pocH-100i	7	18.41	0.28	1.5	18.3	17.1 - 19.8	7	6.27	0.05	0.8	6.3	5.8 - 6.8
Sysmex XP-300	34	17.97	0.22	1.2	17.9	16.7 - 19.3	36	6.14	0.13	2.1	6.1	5.7 - 6.6
	Specimen SYX-3						**Specimen SYX-4**					
All Method	51	11.95	0.13	1.1	12.0	11.1 - 12.8	51	6.13	0.12	2.0	6.1	5.7 - 6.6
All Sysmex Instruments	51	11.95	0.13	1.1	12.0	11.1 - 12.8	51	6.13	0.12	2.0	6.1	5.7 - 6.6
Sysmex KX-21N & K-800, 1000, 4500	9	11.87	0.09	0.7	11.8	11.0 - 12.7	9	6.12	0.10	1.6	6.1	5.6 - 6.6
Sysmex pocH-100i	7	12.11	0.33	2.7	12.0	11.2 - 13.0	7	6.33	0.30	4.8	6.2	5.8 - 6.8
Sysmex XP-300	36	11.96	0.14	1.1	12.0	11.1 - 12.8	36	6.12	0.13	2.1	6.1	5.6 - 6.6
	Specimen SYX-5											
All Method	52	18.03	0.18	1.0	18.0	16.7 - 19.3						
All Sysmex Instruments	52	18.03	0.18	1.0	18.0	16.7 - 19.3						
Sysmex KX-21N & K-800, 1000, 4500	9	17.97	0.12	0.7	18.0	16.7 - 19.3						
Sysmex pocH-100i	7	18.07	0.22	1.2	18.1	16.8 - 19.4						
Sysmex XP-300	36	18.03	0.19	1.0	18.0	16.7 - 19.3						

SYSMEX HEMATOLOGY W/ AUTOMATED DIFFERENTIAL–HEMATOCRIT (percent)

	Specimen SYX-1						Specimen SYX-2					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	50	50.79	1.23	2.4	50.3	47.7 - 53.9	51	18.27	0.52	2.9	18.0	17.1 - 19.4
All Sysmex Instruments	50	50.79	1.23	2.4	50.3	47.7 - 53.9	51	18.27	0.52	2.9	18.0	17.1 - 19.4
Sysmex KX-21N & K-800, 1000, 4500	9	49.54	1.40	2.8	49.9	46.5 - 52.6	9	17.90	0.11	0.6	17.9	16.8 - 19.0
Sysmex pocH-100i	7	52.73	0.97	1.8	52.7	49.5 - 55.9	7	19.06	0.49	2.6	18.9	17.9 - 20.3
Sysmex XP-300	35	50.59	1.00	2.0	50.2	47.5 - 53.7	34	18.17	0.36	2.0	18.0	17.0 - 19.3
	Specimen SYX-3						**Specimen SYX-4**					
All Method	50	32.93	0.80	2.4	32.8	30.9 - 35.0	50	18.24	0.47	2.6	18.1	17.1 - 19.4
All Sysmex Instruments	50	32.93	0.80	2.4	32.8	30.9 - 35.0	50	18.24	0.47	2.6	18.1	17.1 - 19.4
Sysmex KX-21N & K-800, 1000, 4500	9	32.23	0.46	1.4	32.1	30.2 - 34.2	9	17.81	0.28	1.6	17.8	16.7 - 18.9
Sysmex pocH-100i	7	34.83	1.07	3.1	34.4	32.7 - 37.0	7	19.26	0.86	4.5	19.0	18.1 - 20.5
Sysmex XP-300	35	32.84	0.49	1.5	32.8	30.8 - 34.9	35	18.22	0.34	1.9	18.1	17.1 - 19.4
	Specimen SYX-5											
All Method	50	50.63	1.18	2.3	50.3	47.5 - 53.7						
All Sysmex Instruments	50	50.63	1.18	2.3	50.3	47.5 - 53.7						
Sysmex KX-21N & K-800, 1000, 4500	9	49.12	2.35	4.8	49.8	46.1 - 52.1						
Sysmex pocH-100i	7	52.57	0.65	1.2	52.6	49.4 - 55.8						
Sysmex XP-300	34	50.32	0.81	1.6	50.1	47.3 - 53.4						

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

	Specimen SYX-1						Specimen SYX-2					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	51	397.7	16.3	4.1	398	298 - 498	51	63.7	4.0	6.3	64	47 - 80
All Sysmex Instruments	51	397.7	16.3	4.1	398	298 - 498	51	63.7	4.0	6.3	64	47 - 80
Sysmex KX-21N & K-800, 1000, 4500	9	396.7	7.3	1.8	399	297 - 496	9	63.9	4.1	6.4	64	47 - 80
Sysmex pocH-100i	7	387.7	8.7	2.2	385	290 - 485	7	63.4	1.3	2.0	64	47 - 80
Sysmex XP-300	35	399.9	18.4	4.6	403	299 - 500	36	64.2	5.0	7.9	64	48 - 81
	Specimen SYX-3						**Specimen SYX-4**					
All Method	51	198.2	10.1	5.1	199	148 - 248	52	63.4	5.0	7.9	63	47 - 80
All Sysmex Instruments	51	198.2	10.1	5.1	199	148 - 248	52	63.4	5.0	7.9	63	47 - 80
Sysmex KX-21N & K-800, 1000, 4500	9	193.0	6.4	3.3	193	144 - 242	9	61.6	5.0	8.1	61	46 - 77
Sysmex pocH-100i	7	199.3	6.4	3.2	199	149 - 250	7	64.9	2.5	3.9	65	48 - 82
Sysmex XP-300	35	199.3	11.2	5.6	202	149 - 250	36	63.6	5.3	8.4	64	47 - 80
	Specimen SYX-5											
All Method	51	398.0	15.5	3.9	401	298 - 498						
All Sysmex Instruments	51	398.0	15.5	3.9	401	298 - 498						
Sysmex KX-21N & K-800, 1000, 4500	9	398.4	13.2	3.3	402	298 - 499						
Sysmex pocH-100i	7	383.1	7.2	1.9	384	287 - 479						
Sysmex XP-300	35	400.9	15.7	3.9	402	300 - 502						

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

	Specimen SYX-1						Specimen SYX-2					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	45	60.71	0.70	1.2	60.7	58.6 - 62.9	45	11.57	1.50	12.9	11.5	7.0 - 16.1
All Sysmex Instruments	45	60.71	0.70	1.2	60.7	58.6 - 62.9	45	11.57	1.50	12.9	11.5	7.0 - 16.1
Sysmex KX-21N & K-800, 1000, 4500	8	60.65	0.57	0.9	60.6	58.9 - 62.4	8	11.35	1.52	13.4	11.6	6.7 - 16.0
Sysmex pocH-100i	6	61.00	0.62	1.0	60.9	59.1 - 62.9	6	9.85	0.88	9.0	9.6	7.2 - 12.5
Sysmex XP-300	31	60.67	0.75	1.2	60.7	58.4 - 63.0	31	11.96	1.36	11.4	12.1	7.8 - 16.1
	Specimen SYX-3						**Specimen SYX-4**					
All Method	45	31.97	0.99	3.1	32.0	29.0 - 35.0	45	11.71	1.42	12.1	11.6	7.4 - 16.0
All Sysmex Instruments	45	31.97	0.99	3.1	32.0	29.0 - 35.0	45	11.71	1.42	12.1	11.6	7.4 - 16.0
Sysmex KX-21N & K-800, 1000, 4500	8	32.15	0.62	1.9	31.9	30.2 - 34.1	8	11.90	0.92	7.7	11.9	9.1 - 14.7
Sysmex pocH-100i	6	30.85	0.82	2.7	30.8	28.3 - 33.4	6	10.10	1.15	11.4	10.4	6.6 - 13.6
Sysmex XP-300	31	32.15	0.97	3.0	32.2	29.2 - 35.1	31	11.97	1.39	11.6	11.7	7.7 - 16.2
	Specimen SYX-5											
All Method	44	60.71	0.67	1.1	60.8	58.6 - 62.8						
All Sysmex Instruments	44	60.71	0.67	1.1	60.8	58.6 - 62.8						
Sysmex KX-21N & K-800, 1000, 4500	8	60.80	0.99	1.6	61.1	57.8 - 63.8						
Sysmex pocH-100i	6	61.12	0.70	1.1	61.2	59.0 - 63.3						
Sysmex XP-300	30	60.61	0.55	0.9	60.8	58.9 - 62.3						

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

	Specimen SYX-1						Specimen SYX-2					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	44	12.54	0.84	6.7	12.5	10.0 - 15.1	45	19.09	1.67	8.7	19.0	14.0 - 24.1
All Sysmex Instruments	44	12.54	0.84	6.7	12.5	10.0 - 15.1	45	19.09	1.67	8.7	19.0	14.0 - 24.1
Sysmex KX-21N & K-800, 1000, 4500	8	12.55	0.61	4.8	12.4	10.7 - 14.4	8	19.01	1.84	9.7	19.0	13.5 - 24.6
Sysmex pocH-100i	6	11.65	0.63	5.4	11.5	9.7 - 13.6	6	17.30	1.49	8.6	17.7	12.8 - 21.8
Sysmex XP-300	30	12.71	0.83	6.5	12.7	10.2 - 15.3	31	19.46	1.46	7.5	19.7	15.0 - 23.9
	Specimen SYX-3						**Specimen SYX-4**					
All Method	45	16.61	1.09	6.6	16.6	13.3 - 19.9	45	18.92	1.71	9.1	18.8	13.7 - 24.1
All Sysmex Instruments	45	16.61	1.09	6.6	16.6	13.3 - 19.9	45	18.92	1.71	9.1	18.8	13.7 - 24.1
Sysmex KX-21N & K-800, 1000, 4500	8	16.94	0.93	5.5	16.9	14.1 - 19.8	8	19.58	1.93	9.9	19.1	13.7 - 25.4
Sysmex pocH-100i	6	15.05	0.49	3.3	15.1	13.5 - 16.6	6	17.02	1.21	7.1	17.0	13.3 - 20.7
Sysmex XP-300	31	16.83	0.97	5.8	16.6	13.9 - 19.8	31	19.12	1.52	8.0	19.0	14.5 - 23.7
	Specimen SYX-5											
All Method	45	12.48	0.77	6.2	12.6	10.1 - 14.8						
All Sysmex Instruments	45	12.48	0.77	6.2	12.6	10.1 - 14.8						
Sysmex KX-21N & K-800, 1000, 4500	8	13.03	0.93	7.1	12.8	10.2 - 15.9						
Sysmex pocH-100i	6	11.45	0.33	2.9	11.5	10.4 - 12.5						
Sysmex XP-300	31	12.54	0.59	4.7	12.6	10.7 - 14.4						

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

	Specimen SYX-1						Specimen SYX-2					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	44	26.72	0.86	3.2	26.8	24.1 - 29.3	44	69.19	1.91	2.8	69.3	63.4 - 75.0
All Sysmex Instruments	44	26.72	0.86	3.2	26.8	24.1 - 29.3	44	69.19	1.91	2.8	69.3	63.4 - 75.0
Sysmex KX-21N & K-800, 1000, 4500	9	26.78	0.58	2.2	26.6	25.0 - 28.6	9	69.49	1.34	1.9	69.3	65.4 - 73.6
Sysmex pocH-100i	6	27.35	0.76	2.8	27.6	25.0 - 29.7	6	72.88	1.94	2.7	72.6	67.0 - 78.8
Sysmex XP-300	29	26.57	0.91	3.4	26.7	23.8 - 29.3	30	68.59	1.63	2.4	68.6	63.7 - 73.5
	Specimen SYX-3						**Specimen SYX-4**					
All Method	45	51.42	1.63	3.2	51.3	46.5 - 56.4	44	69.41	1.97	2.8	69.1	63.4 - 75.4
All Sysmex Instruments	45	51.42	1.63	3.2	51.3	46.5 - 56.4	44	69.41	1.97	2.8	69.1	63.4 - 75.4
Sysmex KX-21N & K-800, 1000, 4500	9	50.96	1.23	2.4	50.7	47.2 - 54.7	9	68.58	1.67	2.4	68.6	63.5 - 73.7
Sysmex pocH-100i	6	54.10	0.97	1.8	54.0	51.1 - 57.1	6	72.88	1.08	1.5	73.2	69.6 - 76.2
Sysmex XP-300	30	51.02	1.32	2.6	51.0	47.0 - 55.0	29	68.94	1.39	2.0	69.0	64.7 - 73.2
	Specimen SYX-5											
All Method	44	26.72	0.75	2.8	26.8	24.4 - 29.0						
All Sysmex Instruments	44	26.72	0.75	2.8	26.8	24.4 - 29.0						
Sysmex KX-21N & K-800, 1000, 4500	9	26.30	0.69	2.6	26.3	24.2 - 28.4						
Sysmex pocH-100i	6	27.25	0.61	2.2	27.2	25.4 - 29.1						
Sysmex XP-300	29	26.74	0.73	2.7	26.8	24.5 - 29.0						

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

	Specimen HD-1						Specimen HD-2					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	322	20.35	0.69	3.4	20.3	17.2 - 23.5	321	2.03	0.16	8.0	2.0	1.7 - 2.4
All Abbott Cell-Dyn Instruments	84	19.94	0.85	4.3	19.7	16.9 - 23.0	81	2.13	0.14	6.5	2.1	1.8 - 2.5
All ABX Instruments	54	20.42	0.63	3.1	20.6	17.3 - 23.5	55	1.99	0.08	3.9	2.0	1.6 - 2.3
All Boule (CDS) Instruments	113	20.41	0.46	2.3	20.3	17.3 - 23.5	112	1.89	0.09	4.8	1.9	1.6 - 2.2
All COULTER Instruments	67	20.63	0.70	3.4	20.7	17.5 - 23.8	68	2.19	0.11	4.9	2.2	1.8 - 2.6
Abbott Cell-Dyn 1700	7	21.51	0.71	3.3	21.7	18.2 - 24.8	7	2.26	0.11	5.0	2.3	1.9 - 2.6
Abbott Cell-Dyn 1800	17	20.15	0.83	4.1	20.4	17.1 - 23.2	17	1.98	0.08	4.2	2.0	1.6 - 2.3
Abbott Cell-Dyn Emerald	57	19.66	0.48	2.4	19.6	16.7 - 22.7	57	2.16	0.12	5.5	2.1	1.8 - 2.5
Boule (CDS) Medonic M series	113	20.41	0.46	2.3	20.3	17.3 - 23.5	112	1.89	0.09	4.8	1.9	1.6 - 2.2
COULTER AcT diff/diff 2	63	20.66	0.61	2.9	20.7	17.5 - 23.8	66	2.19	0.11	4.9	2.2	1.8 - 2.6
Diatron Abacus 3 CP	5	21.10	0.50	2.4	21.1	17.9 - 24.3	5	2.00	0.01	0.0	2.0	1.7 - 2.3
Horiba ABX Micros/45/60	54	20.42	0.63	3.1	20.6	17.3 - 23.5	55	1.99	0.08	3.9	2.0	1.6 - 2.3

	Specimen HD-3						Specimen HD-4					
All Method	321	7.63	0.29	3.9	7.6	6.4 - 8.8	322	1.99	0.15	7.3	2.0	1.6 - 2.3
All Abbott Cell-Dyn Instruments	80	7.73	0.33	4.3	7.7	6.5 - 8.9	82	2.08	0.13	6.2	2.1	1.7 - 2.4
All ABX Instruments	55	7.63	0.25	3.3	7.6	6.4 - 8.8	55	1.99	0.09	4.4	2.0	1.6 - 2.3
All Boule (CDS) Instruments	113	7.46	0.23	3.0	7.4	6.3 - 8.6	112	1.85	0.08	4.3	1.9	1.5 - 2.2
All COULTER Instruments	67	7.80	0.20	2.6	7.8	6.6 - 9.0	67	2.12	0.08	3.7	2.1	1.8 - 2.5
Abbott Cell-Dyn 1700	6	8.30	0.14	1.7	8.3	7.0 - 9.6	7	2.14	0.08	3.7	2.2	1.8 - 2.5
Abbott Cell-Dyn 1800	17	7.54	0.42	5.6	7.5	6.4 - 8.7	17	1.97	0.11	5.6	2.0	1.6 - 2.3
Abbott Cell-Dyn Emerald	58	7.71	0.28	3.6	7.7	6.5 - 8.9	58	2.11	0.12	5.8	2.1	1.7 - 2.5
Boule (CDS) Medonic M series	113	7.46	0.23	3.0	7.4	6.3 - 8.6	112	1.85	0.08	4.3	1.9	1.5 - 2.2
COULTER AcT diff/diff 2	65	7.80	0.20	2.6	7.8	6.6 - 9.0	65	2.13	0.08	3.7	2.1	1.8 - 2.5
Diatron Abacus 3 CP	5	7.63	0.32	4.2	7.5	6.4 - 8.8	5	2.00	0.01	0.0	2.0	1.7 - 2.3
Horiba ABX Micros/45/60	55	7.63	0.25	3.3	7.6	6.4 - 8.8	55	1.99	0.09	4.4	2.0	1.6 - 2.3

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

Specimen HD-5

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	325	20.34	0.73	3.6	20.4	17.2 - 23.4
All Abbott Cell-Dyn Instruments	83	19.88	0.85	4.3	19.8	16.8 - 22.9
All ABX Instruments	55	20.32	0.63	3.1	20.4	17.2 - 23.4
All Boule (CDS) Instruments	113	20.46	0.50	2.5	20.4	17.3 - 23.6
All COULTER Instruments	68	20.73	0.62	3.0	20.8	17.6 - 23.9
Abbott Cell-Dyn 1700	7	21.39	0.58	2.7	21.5	18.1 - 24.6
Abbott Cell-Dyn 1800	17	20.11	0.93	4.6	20.2	17.0 - 23.2
Abbott Cell-Dyn Emerald	59	19.64	0.63	3.2	19.6	16.6 - 22.6
Boule (CDS) Medonic M series	113	20.46	0.50	2.5	20.4	17.3 - 23.6
COULTER AcT diff/diff 2	65	20.72	0.58	2.8	20.8	17.6 - 23.9
Diatron Abacus 3 CP	5	21.07	0.67	3.2	20.9	17.9 - 24.3
Horiba ABX Micros/45/60	55	20.32	0.63	3.1	20.4	17.2 - 23.4

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

	Specimen HD-1						**Specimen HD-2**					
Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	318	5.678	0.138	2.4	5.69	5.33 - 6.02	324	2.416	0.064	2.6	2.41	2.27 - 2.57
All Abbott Cell-Dyn Instruments	83	5.598	0.153	2.7	5.61	5.26 - 5.94	84	2.458	0.083	3.4	2.45	2.31 - 2.61
All ABX Instruments	54	5.677	0.110	1.9	5.67	5.33 - 6.02	56	2.385	0.039	1.6	2.39	2.24 - 2.53
All Boule (CDS) Instruments	111	5.748	0.078	1.4	5.74	5.40 - 6.10	111	2.387	0.035	1.5	2.39	2.24 - 2.54
All COULTER Instruments	66	5.636	0.174	3.1	5.63	5.29 - 5.98	69	2.441	0.064	2.6	2.44	2.29 - 2.59
Abbott Cell-Dyn 1700	7	5.727	0.134	2.3	5.71	5.38 - 6.08	7	2.510	0.065	2.6	2.51	2.35 - 2.67
Abbott Cell-Dyn 1800	16	5.618	0.083	1.5	5.63	5.28 - 5.96	17	2.541	0.085	3.3	2.56	2.38 - 2.70
Abbott Cell-Dyn Emerald	60	5.577	0.166	3.0	5.60	5.24 - 5.92	59	2.424	0.059	2.4	2.42	2.27 - 2.57
Boule (CDS) Medonic M series	111	5.748	0.078	1.4	5.74	5.40 - 6.10	110	2.387	0.035	1.5	2.39	2.24 - 2.53
COULTER AcT diff/diff 2	63	5.637	0.178	3.2	5.63	5.29 - 5.98	66	2.442	0.064	2.6	2.45	2.29 - 2.59
Diatron Abacus 3 CP	5	5.913	0.140	2.4	5.90	5.55 - 6.27	5	2.467	0.032	1.3	2.48	2.31 - 2.62
Horiba ABX Micros/45/60	54	5.677	0.110	1.9	5.67	5.33 - 6.02	56	2.385	0.039	1.6	2.39	2.24 - 2.53

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

	Specimen HD-3						Specimen HD-4					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	323	4.580	0.105	2.3	4.59	4.30 - 4.86	324	2.409	0.065	2.7	2.40	2.26 - 2.56
All Abbott Cell-Dyn Instruments	83	4.576	0.136	3.0	4.59	4.30 - 4.86	83	2.454	0.081	3.3	2.45	2.30 - 2.61
All ABX Instruments	55	4.543	0.082	1.8	4.55	4.27 - 4.82	56	2.378	0.042	1.8	2.38	2.23 - 2.53
All Boule (CDS) Instruments	113	4.602	0.078	1.7	4.60	4.32 - 4.88	111	2.386	0.041	1.7	2.39	2.24 - 2.53
All COULTER Instruments	68	4.578	0.114	2.5	4.58	4.30 - 4.86	69	2.426	0.058	2.4	2.43	2.27 - 2.58
Abbott Cell-Dyn 1700	7	4.627	0.161	3.5	4.69	4.34 - 4.91	7	2.499	0.057	2.3	2.51	2.34 - 2.65
Abbott Cell-Dyn 1800	17	4.659	0.098	2.1	4.65	4.37 - 4.94	17	2.529	0.086	3.4	2.56	2.37 - 2.69
Abbott Cell-Dyn Emerald	59	4.546	0.132	2.9	4.55	4.27 - 4.82	59	2.427	0.066	2.7	2.43	2.28 - 2.58
Boule (CDS) Medonic M series	112	4.602	0.078	1.7	4.60	4.32 - 4.88	111	2.386	0.041	1.7	2.39	2.24 - 2.53
COULTER AcT diff/diff 2	65	4.575	0.115	2.5	4.58	4.30 - 4.85	66	2.427	0.059	2.4	2.43	2.28 - 2.58
Diatron Abacus 3 CP	5	4.713	0.191	4.0	4.64	4.43 - 5.00	5	2.407	0.074	3.1	2.38	2.26 - 2.56
Horiba ABX Micros/45/60	55	4.543	0.082	1.8	4.55	4.27 - 4.82	56	2.378	0.042	1.8	2.38	2.23 - 2.53

	Specimen HD-5					
All Method	322	5.662	0.130	2.3	5.67	5.32 - 6.01
All Abbott Cell-Dyn Instruments	82	5.588	0.141	2.5	5.58	5.25 - 5.93
All ABX Instruments	56	5.634	0.095	1.7	5.64	5.29 - 5.98
All Boule (CDS) Instruments	112	5.745	0.077	1.3	5.75	5.40 - 6.09
All COULTER Instruments	68	5.624	0.133	2.4	5.63	5.28 - 5.97
Abbott Cell-Dyn 1700	7	5.653	0.116	2.1	5.65	5.31 - 6.00
Abbott Cell-Dyn 1800	17	5.592	0.132	2.4	5.60	5.25 - 5.93
Abbott Cell-Dyn Emerald	59	5.571	0.158	2.8	5.57	5.23 - 5.91
Boule (CDS) Medonic M series	111	5.746	0.078	1.3	5.75	5.40 - 6.10
COULTER AcT diff/diff 2	65	5.622	0.135	2.4	5.63	5.28 - 5.96
Diatron Abacus 3 CP	5	5.913	0.162	2.7	5.94	5.55 - 6.27
Horiba ABX Micros/45/60	56	5.634	0.095	1.7	5.64	5.29 - 5.98

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

	Specimen HD-1						Specimen HD-2					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	324	18.02	0.39	2.2	18.0	16.7 - 19.3	326	6.00	0.17	2.8	6.0	5.5 - 6.5
All Abbott Cell-Dyn Instruments	84	17.92	0.46	2.5	17.9	16.6 - 19.2	83	6.01	0.25	4.1	6.0	5.5 - 6.5
All ABX Instruments	54	18.04	0.25	1.4	18.1	16.7 - 19.3	55	6.02	0.11	1.8	6.0	5.5 - 6.5
All Boule (CDS) Instruments	112	18.23	0.26	1.4	18.2	16.9 - 19.6	110	6.04	0.09	1.5	6.0	5.6 - 6.5
All COULTER Instruments	67	17.78	0.37	2.1	17.9	16.5 - 19.1	68	5.92	0.17	2.8	5.9	5.5 - 6.4
Abbott Cell-Dyn 1700	7	18.16	0.53	2.9	18.2	16.8 - 19.5	7	6.33	0.14	2.2	6.3	5.8 - 6.8
Abbott Cell-Dyn 1800	17	18.29	0.52	2.8	18.4	17.0 - 19.6	17	6.29	0.19	2.9	6.3	5.8 - 6.8
Abbott Cell-Dyn Emerald	60	17.79	0.36	2.0	17.8	16.5 - 19.1	59	5.89	0.15	2.6	5.9	5.4 - 6.4
Boule (CDS) Medonic M series	110	18.23	0.26	1.4	18.2	16.9 - 19.6	109	6.04	0.09	1.5	6.0	5.6 - 6.5
COULTER AcT diff/diff 2	65	17.78	0.38	2.1	17.9	16.5 - 19.1	66	5.92	0.17	2.8	5.9	5.5 - 6.4
Diatron Abacus 3 CP	5	19.10	0.61	3.2	18.8	17.7 - 20.5	5	6.30	0.01	0.0	6.3	5.8 - 6.8
HemoCue 201/+	5	17.47	0.76	4.4	17.3	16.2 - 18.7	5	6.17	0.06	0.9	6.2	5.7 - 6.6
Horiba ABX Micros/45/60	54	18.04	0.25	1.4	18.1	16.7 - 19.3	55	6.02	0.11	1.8	6.0	5.5 - 6.5

	Specimen HD-3						Specimen HD-4					
All Method	328	13.38	0.26	1.9	13.4	12.4 - 14.4	327	5.99	0.16	2.7	6.0	5.5 - 6.5
All Abbott Cell-Dyn Instruments	84	13.34	0.33	2.5	13.3	12.4 - 14.3	82	5.99	0.22	3.7	5.9	5.5 - 6.5
All ABX Instruments	56	13.40	0.20	1.5	13.4	12.4 - 14.4	54	6.04	0.09	1.5	6.0	5.6 - 6.5
All Boule (CDS) Instruments	112	13.47	0.19	1.4	13.4	12.5 - 14.5	111	6.03	0.10	1.7	6.0	5.6 - 6.5
All COULTER Instruments	68	13.26	0.22	1.6	13.3	12.3 - 14.2	69	5.89	0.15	2.5	5.9	5.4 - 6.4
Abbott Cell-Dyn 1700	7	13.57	0.21	1.6	13.5	12.6 - 14.6	7	6.29	0.17	2.7	6.2	5.8 - 6.8
Abbott Cell-Dyn 1800	17	13.68	0.28	2.1	13.7	12.7 - 14.7	17	6.28	0.18	2.9	6.3	5.8 - 6.8
Abbott Cell-Dyn Emerald	60	13.22	0.27	2.0	13.2	12.2 - 14.2	59	5.88	0.13	2.2	5.9	5.4 - 6.3
Boule (CDS) Medonic M series	110	13.47	0.18	1.3	13.4	12.5 - 14.5	109	6.04	0.10	1.6	6.1	5.6 - 6.5
COULTER AcT diff/diff 2	66	13.26	0.22	1.7	13.3	12.3 - 14.2	67	5.89	0.15	2.5	5.9	5.4 - 6.4
Diatron Abacus 3 CP	5	13.83	0.15	1.1	13.8	12.8 - 14.9	5	6.27	0.06	0.9	6.3	5.8 - 6.8
HemoCue 201/+	5	13.10	0.20	1.5	13.1	12.1 - 14.1	5	6.10	0.20	3.3	6.1	5.6 - 6.6
Horiba ABX Micros/45/60	56	13.40	0.20	1.5	13.4	12.4 - 14.4	54	6.04	0.09	1.5	6.0	5.6 - 6.5

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

Specimen HD-5

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	326	18.07	0.39	2.1	18.1	16.8 - 19.4
All Abbott Cell-Dyn Instruments	82	17.97	0.42	2.4	17.9	16.7 - 19.3
All ABX Instruments	55	18.00	0.24	1.3	18.1	16.7 - 19.3
All Boule (CDS) Instruments	111	18.28	0.24	1.3	18.3	17.0 - 19.6
All COULTER Instruments	67	17.88	0.32	1.8	17.9	16.6 - 19.2
Abbott Cell-Dyn 1700	7	18.09	0.25	1.4	18.1	16.8 - 19.4
Abbott Cell-Dyn 1800	17	18.49	0.48	2.6	18.4	17.1 - 19.8
Abbott Cell-Dyn Emerald	59	17.84	0.34	1.9	17.8	16.5 - 19.1
Boule (CDS) Medonic M series	109	18.28	0.24	1.3	18.3	17.0 - 19.6
COULTER AcT diff/diff 2	65	17.88	0.32	1.8	17.9	16.6 - 19.2
Diatron Abacus 3 CP	5	19.10	0.36	1.9	19.2	17.7 - 20.5
HemoCue 201/+	5	17.30	0.17	1.0	17.2	16.0 - 18.6
Horiba ABX Micros/45/60	55	18.00	0.24	1.3	18.1	16.7 - 19.3

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

	Specimen HD-1						Specimen HD-2					
Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	320	51.73	1.94	3.8	51.5	48.6 - 54.9	326	17.06	1.10	6.4	16.7	16.0 - 18.1
All Abbott Cell-Dyn Instruments	84	53.82	1.93	3.6	53.8	50.5 - 57.1	82	18.44	0.65	3.5	18.4	17.3 - 19.6
All ABX Instruments	55	50.57	1.36	2.7	50.3	47.5 - 53.7	56	16.30	0.36	2.2	16.3	15.3 - 17.3
All Boule (CDS) Instruments	111	51.17	1.08	2.1	51.3	48.0 - 54.3	111	16.15	0.35	2.2	16.2	15.1 - 17.2
All COULTER Instruments	67	51.13	1.61	3.1	51.2	48.0 - 54.2	68	17.55	0.45	2.6	17.6	16.4 - 18.7
Abbott Cell-Dyn 1700	7	52.24	1.59	3.0	52.0	49.1 - 55.4	7	17.76	0.43	2.4	17.9	16.6 - 18.9
Abbott Cell-Dyn 1800	17	53.49	1.93	3.6	53.6	50.2 - 56.8	17	18.45	0.84	4.5	18.5	17.3 - 19.6
Abbott Cell-Dyn Emerald	60	54.10	1.89	3.5	54.2	50.8 - 57.4	58	18.44	0.58	3.1	18.5	17.3 - 19.6
Boule (CDS) Medonic M series	110	51.18	1.07	2.1	51.3	48.1 - 54.3	110	16.14	0.35	2.2	16.2	15.1 - 17.2
COULTER AcT diff/diff 2	64	51.13	1.64	3.2	51.2	48.0 - 54.2	65	17.56	0.45	2.6	17.6	16.5 - 18.7
Diatron Abacus 3 CP	5	57.47	1.11	1.9	57.6	54.0 - 61.0	5	18.63	0.21	1.1	18.7	17.5 - 19.8
Horiba ABX Micros/45/60	55	50.57	1.36	2.7	50.3	47.5 - 53.7	56	16.30	0.36	2.2	16.3	15.3 - 17.3

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

	Specimen HD-3						Specimen HD-4					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	324	37.95	1.86	4.9	37.6	35.6 - 40.3	325	17.00	1.08	6.4	16.7	15.9 - 18.1
All Abbott Cell-Dyn Instruments	83	40.31	1.34	3.3	40.2	37.8 - 42.8	82	18.38	0.69	3.7	18.5	17.2 - 19.5
All ABX Instruments	56	37.07	0.84	2.3	37.0	34.8 - 39.3	56	16.23	0.37	2.3	16.2	15.2 - 17.2
All Boule (CDS) Instruments	112	36.48	0.89	2.4	36.6	34.2 - 38.7	111	16.12	0.37	2.3	16.1	15.1 - 17.1
All COULTER Instruments	69	38.25	1.08	2.8	38.3	35.9 - 40.6	68	17.41	0.42	2.4	17.5	16.3 - 18.5
Abbott Cell-Dyn 1700	7	38.43	2.47	6.4	39.1	36.1 - 40.8	7	18.07	0.94	5.2	17.9	16.9 - 19.2
Abbott Cell-Dyn 1800	17	40.39	0.99	2.5	40.3	37.9 - 42.9	17	18.38	0.80	4.3	18.6	17.2 - 19.5
Abbott Cell-Dyn Emerald	60	40.38	1.44	3.6	40.3	37.9 - 42.9	58	18.42	0.62	3.4	18.5	17.3 - 19.6
Boule (CDS) Medonic M series	111	36.48	0.89	2.4	36.6	34.2 - 38.7	110	16.12	0.36	2.3	16.2	15.1 - 17.1
COULTER AcT diff/diff 2	66	38.22	1.09	2.9	38.3	35.9 - 40.6	65	17.42	0.43	2.4	17.5	16.3 - 18.5
Diatron Abacus 3 CP	5	42.03	1.55	3.7	41.4	39.5 - 44.6	5	18.10	0.61	3.4	17.8	17.0 - 19.2
Horiba ABX Micros/45/60	56	37.07	0.84	2.3	37.0	34.8 - 39.3	56	16.23	0.37	2.3	16.2	15.2 - 17.2

	Specimen HD-5					
All Method	319	51.65	1.78	3.4	51.4	48.5 - 54.8
All Abbott Cell-Dyn Instruments	83	53.57	1.79	3.3	53.6	50.3 - 56.8
All ABX Instruments	56	50.16	1.09	2.2	50.2	47.1 - 53.2
All Boule (CDS) Instruments	110	51.29	1.09	2.1	51.2	48.2 - 54.4
All COULTER Instruments	68	51.14	1.30	2.5	51.2	48.0 - 54.3
Abbott Cell-Dyn 1700	7	51.69	0.85	1.7	51.7	48.5 - 54.8
Abbott Cell-Dyn 1800	17	53.19	1.35	2.5	53.1	49.9 - 56.4
Abbott Cell-Dyn Emerald	59	53.91	1.84	3.4	53.9	50.6 - 57.2
Boule (CDS) Medonic M series	109	51.29	1.10	2.1	51.2	48.2 - 54.4
COULTER AcT diff/diff 2	65	51.10	1.31	2.6	51.1	48.0 - 54.2
Diatron Abacus 3 CP	5	57.30	1.08	1.9	57.6	53.8 - 60.8
Horiba ABX Micros/45/60	56	50.16	1.09	2.2	50.2	47.1 - 53.2

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

	Specimen HD-1						Specimen HD-2					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	321	524.5	31.5	6.0	526	393 - 656	321	67.0	7.0	10.5	66	50 - 84
All Abbott Cell-Dyn Instruments	83	521.3	41.2	7.9	519	390 - 652	83	68.2	9.7	14.3	67	51 - 86
All ABX Instruments	54	514.8	26.4	5.1	519	386 - 644	55	71.3	6.3	8.8	72	53 - 90
All Boule (CDS) Instruments	112	519.5	18.4	3.5	522	389 - 650	111	63.1	4.1	6.5	63	47 - 79
All COULTER Instruments	67	549.0	29.5	5.4	552	411 - 687	68	68.9	6.6	9.5	69	51 - 87
Abbott Cell-Dyn 1700	7	564.7	32.1	5.7	564	423 - 706	7	65.0	5.2	8.0	62	48 - 82
Abbott Cell-Dyn 1800	17	568.5	32.4	5.7	561	426 - 711	17	64.6	3.9	6.1	65	48 - 81
Abbott Cell-Dyn Emerald	59	502.6	27.7	5.5	504	376 - 629	59	69.6	10.9	15.7	70	52 - 88
Boule (CDS) Medonic M series	111	519.7	18.4	3.5	522	389 - 650	110	63.2	4.1	6.5	63	47 - 79
COULTER AcT diff/diff 2	64	551.2	27.1	4.9	552	413 - 690	65	69.3	6.1	8.9	69	51 - 87
Diatron Abacus 3 CP	3	493.7	24.6	5.0	502	370 - 618	3	70.7	0.6	0.8	71	53 - 89
Horiba ABX Micros/45/60	54	514.8	26.4	5.1	519	386 - 644	55	71.3	6.3	8.8	72	53 - 90

	Specimen HD-3						Specimen HD-4					
All Method	323	250.1	15.5	6.2	250	187 - 313	322	66.4	7.2	10.8	66	49 - 84
All Abbott Cell-Dyn Instruments	82	253.7	18.2	7.2	256	190 - 318	82	68.2	12.1	17.8	66	51 - 86
All ABX Instruments	56	251.4	13.8	5.5	253	188 - 315	56	72.0	6.5	9.0	72	54 - 91
All Boule (CDS) Instruments	112	241.3	9.8	4.1	241	181 - 302	114	62.9	4.5	7.1	63	47 - 79
All COULTER Instruments	68	261.4	12.8	4.9	263	196 - 327	68	67.4	4.8	7.2	67	50 - 85
Abbott Cell-Dyn 1700	7	282.1	55.5	19.7	261	211 - 353	7	70.7	19.3	27.3	63	53 - 89
Abbott Cell-Dyn 1800	17	258.2	15.8	6.1	258	193 - 323	17	62.1	5.2	8.4	63	46 - 78
Abbott Cell-Dyn Emerald	59	251.5	17.8	7.1	250	188 - 315	58	69.7	12.1	17.4	70	52 - 88
Boule (CDS) Medonic M series	111	241.4	9.8	4.1	241	181 - 302	113	62.9	4.5	7.1	63	47 - 79
COULTER AcT diff/diff 2	66	261.7	12.6	4.8	263	196 - 328	65	67.8	4.6	6.8	67	50 - 85
Diatron Abacus 3 CP	5	224.0	4.6	2.0	223	168 - 280	5	62.0	1.0	1.6	62	46 - 78
Horiba ABX Micros/45/60	56	251.4	13.8	5.5	253	188 - 315	56	72.0	6.5	9.0	72	54 - 91

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

Specimen HD-5

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	323	522.7	30.7	5.9	520	392 - 654
All Abbott Cell-Dyn Instruments	82	519.9	39.3	7.6	515	389 - 650
All ABX Instruments	55	511.9	23.0	4.5	518	383 - 640
All Boule (CDS) Instruments	112	518.0	18.5	3.6	519	388 - 648
All COULTER Instruments	69	547.0	28.8	5.3	548	410 - 684
Abbott Cell-Dyn 1700	7	554.0	39.3	7.1	557	415 - 693
Abbott Cell-Dyn 1800	17	562.8	30.7	5.5	560	422 - 704
Abbott Cell-Dyn Emerald	58	503.2	28.0	5.6	502	377 - 629
Boule (CDS) Medonic M series	111	517.9	18.6	3.6	518	388 - 648
COULTER AcT diff/diff 2	66	549.1	26.7	4.9	549	411 - 687
Diatron Abacus 3 CP	5	477.7	16.2	3.4	475	358 - 598
Horiba ABX Micros/45/60	55	511.9	23.0	4.5	518	383 - 640

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

	Specimen HD-1						**Specimen HD-2**					
Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	309	13.67	1.62	11.9	14.2	8.8 - 18.6	312	57.71	7.14	12.4	61.0	36.2 - 79.2
All Abbott Cell-Dyn Instruments	80	12.63	1.37	10.9	12.7	8.5 - 16.8	81	53.17	3.62	6.8	53.8	42.3 - 64.1
All ABX Instruments	54	11.44	1.32	11.5	11.4	7.4 - 15.4	54	46.19	7.67	16.6	44.4	23.1 - 69.3
All Boule (CDS) Instruments	108	14.91	0.45	3.0	14.9	13.5 - 16.3	110	62.74	2.31	3.7	62.8	55.7 - 69.7
All COULTER Instruments	62	14.40	0.38	2.6	14.4	13.2 - 15.6	63	62.77	1.18	1.9	62.7	59.2 - 66.4
Abbott Cell-Dyn 1700	7	12.29	0.73	6.0	12.4	10.0 - 14.5	7	54.16	3.00	5.5	54.6	45.1 - 63.2
Abbott Cell-Dyn 1800	17	10.60	0.56	5.3	10.6	8.9 - 12.3	17	47.80	3.25	6.8	48.2	38.0 - 57.6
Abbott Cell-Dyn Emerald	55	13.22	0.80	6.0	13.1	10.8 - 15.7	56	54.11	2.02	3.7	54.1	48.0 - 60.2
Boule (CDS) Medonic M series	108	14.91	0.45	3.0	14.9	13.5 - 16.3	110	62.74	2.31	3.7	62.8	55.7 - 69.7
COULTER AcT diff/diff 2	61	14.40	0.38	2.6	14.4	13.2 - 15.6	62	62.73	1.15	1.8	62.7	59.2 - 66.2
Diatron Abacus 3 CP	5	17.50	1.31	7.5	16.9	13.5 - 21.5	5	65.43	2.42	3.7	65.1	58.1 - 72.7
Horiba ABX Micros/45/60	54	11.44	1.32	11.5	11.4	7.4 - 15.4	54	46.19	7.67	16.6	44.4	23.1 - 69.3

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

	Specimen HD-3						Specimen HD-4					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	312	29.49	3.40	11.5	30.6	19.2 - 39.7	311	57.82	7.09	12.3	61.0	36.5 - 79.2
All Abbott Cell-Dyn Instruments	79	27.81	2.09	7.5	28.2	21.5 - 34.1	81	53.58	3.27	6.1	54.0	43.7 - 63.4
All ABX Instruments	53	23.83	2.85	11.9	23.7	15.2 - 32.4	53	45.65	7.04	15.4	43.7	24.5 - 66.8
All Boule (CDS) Instruments	109	31.31	1.04	3.3	31.3	28.1 - 34.5	110	62.78	1.99	3.2	62.7	56.7 - 68.8
All COULTER Instruments	64	32.12	0.81	2.5	32.3	29.6 - 34.6	64	63.15	1.56	2.5	63.3	58.4 - 67.9
Abbott Cell-Dyn 1700	7	29.19	4.28	14.7	28.1	16.3 - 42.1	7	55.39	2.60	4.7	55.0	47.5 - 63.2
Abbott Cell-Dyn 1800	17	24.10	1.65	6.9	23.8	19.1 - 29.1	17	48.18	2.38	4.9	48.1	41.0 - 55.4
Abbott Cell-Dyn Emerald	56	28.70	0.98	3.4	28.5	25.7 - 31.7	57	54.62	1.74	3.2	54.7	49.3 - 59.9
Boule (CDS) Medonic M series	109	31.31	1.04	3.3	31.3	28.1 - 34.5	110	62.78	1.99	3.2	62.7	56.7 - 68.8
COULTER AcT diff/diff 2	63	32.12	0.81	2.5	32.3	29.6 - 34.6	63	63.11	1.53	2.4	63.3	58.5 - 67.7
Diatron Abacus 3 CP	5	34.77	3.99	11.5	33.2	22.8 - 46.8	5	61.37	3.76	6.1	59.4	50.0 - 72.7
Horiba ABX Micros/45/60	53	23.83	2.85	11.9	23.7	15.2 - 32.4	53	45.65	7.04	15.4	43.7	24.5 - 66.8

	Specimen HD-5					
All Method	314	13.66	1.66	12.2	14.3	8.6 - 18.7
All Abbott Cell-Dyn Instruments	80	12.61	1.41	11.2	12.7	8.3 - 16.9
All ABX Instruments	52	11.26	1.13	10.0	11.2	7.8 - 14.7
All Boule (CDS) Instruments	111	14.81	0.43	2.9	14.8	13.5 - 16.2
All COULTER Instruments	63	14.59	0.37	2.5	14.6	13.4 - 15.7
Abbott Cell-Dyn 1700	7	12.19	0.52	4.3	12.0	10.6 - 13.8
Abbott Cell-Dyn 1800	17	10.52	0.63	6.0	10.7	8.6 - 12.5
Abbott Cell-Dyn Emerald	54	13.17	0.72	5.4	13.0	11.0 - 15.4
Boule (CDS) Medonic M series	111	14.81	0.43	2.9	14.8	13.5 - 16.2
COULTER AcT diff/diff 2	62	14.58	0.37	2.5	14.6	13.4 - 15.7
Diatron Abacus 3 CP	5	16.37	0.25	1.5	16.4	15.6 - 17.2
Horiba ABX Micros/45/60	52	11.26	1.13	10.0	11.2	7.8 - 14.7

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

	Specimen HD-1						Specimen HD-2					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	315	4.24	1.07	25.2	4.2	1.0 - 7.5	310	10.61	5.67	53.4	8.7	0.0 - 27.7
All Abbott Cell-Dyn Instruments	82	3.68	1.52	41.4	2.8	0.0 - 8.3	82	13.10	3.44	26.2	11.7	2.7 - 23.5
All ABX Instruments	52	4.08	0.43	10.6	4.1	2.7 - 5.4	52	21.19	5.00	23.6	22.1	6.1 - 36.3
All Boule (CDS) Instruments	110	4.90	0.56	11.5	4.9	3.2 - 6.6	109	7.42	1.52	20.5	7.4	2.8 - 12.0
All COULTER Instruments	63	3.84	0.48	12.5	3.8	2.4 - 5.3	64	5.84	1.24	21.3	5.8	2.1 - 9.6
Abbott Cell-Dyn 1700	7	5.17	0.30	5.9	5.1	4.2 - 6.1	7	12.33	1.57	12.8	12.4	7.6 - 17.1
Abbott Cell-Dyn 1800	17	6.25	0.28	4.5	6.3	5.4 - 7.1	17	18.65	2.25	12.0	18.4	11.9 - 25.4
Abbott Cell-Dyn Emerald	57	2.72	0.33	12.0	2.7	1.7 - 3.8	56	11.36	1.53	13.4	11.0	6.7 - 16.0
Boule (CDS) Medonic M series	110	4.90	0.56	11.5	4.9	3.2 - 6.6	109	7.42	1.52	20.5	7.4	2.8 - 12.0
COULTER AcT diff/diff 2	62	3.84	0.48	12.5	3.8	2.3 - 5.3	63	5.87	1.23	20.9	5.8	2.1 - 9.6
Diatron Abacus 3 CP	5	6.50	0.10	1.5	6.5	6.2 - 6.8	5	5.30	1.31	24.7	4.7	1.3 - 9.3
Horiba ABX Micros/45/60	52	4.08	0.43	10.6	4.1	2.7 - 5.4	52	21.19	5.00	23.6	22.1	6.1 - 36.3

	Specimen HD-3						Specimen HD-4					
All Method	312	7.06	2.07	29.3	6.5	0.8 - 13.3	311	10.63	5.94	55.9	8.7	0.0 - 28.5
All Abbott Cell-Dyn Instruments	82	7.40	2.33	31.5	6.4	0.4 - 14.4	81	13.04	3.11	23.9	12.0	3.7 - 22.4
All ABX Instruments	52	9.95	1.51	15.1	9.9	5.4 - 14.5	53	21.46	4.92	22.9	22.0	6.7 - 36.3
All Boule (CDS) Instruments	110	6.62	1.10	16.6	6.6	3.3 - 10.0	109	7.12	1.85	25.9	7.1	1.5 - 12.7
All COULTER Instruments	63	5.22	0.73	14.0	5.3	3.0 - 7.5	64	5.60	1.00	17.9	5.5	2.5 - 8.7
Abbott Cell-Dyn 1700	7	8.74	0.55	6.3	8.8	7.0 - 10.4	7	12.19	0.89	7.3	12.3	9.5 - 14.9
Abbott Cell-Dyn 1800	17	11.49	0.80	6.9	11.7	9.0 - 13.9	17	18.71	2.23	11.9	19.1	12.0 - 25.5
Abbott Cell-Dyn Emerald	58	6.05	0.66	10.9	6.0	4.0 - 8.1	57	11.56	1.35	11.7	11.6	7.5 - 15.7
Boule (CDS) Medonic M series	110	6.62	1.10	16.6	6.6	3.3 - 10.0	109	7.12	1.85	25.9	7.1	1.5 - 12.7
COULTER AcT diff/diff 2	62	5.24	0.72	13.8	5.3	3.0 - 7.5	63	5.61	1.00	17.8	5.5	2.6 - 8.7
Diatron Abacus 3 CP	5	7.17	3.18	14.3	9.0	0.0 - 16.7	5	8.23	1.21	14.6	8.1	4.6 - 11.9
Horiba ABX Micros/45/60	52	9.95	1.51	15.1	9.9	5.4 - 14.5	53	21.46	4.92	22.9	22.0	6.7 - 36.3

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

Specimen HD-5

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	315	4.19	1.05	25.1	4.2	1.0 - 7.4
All Abbott Cell-Dyn Instruments	81	3.63	1.48	40.7	2.9	0.0 - 8.1
All ABX Instruments	51	4.06	0.48	11.8	4.1	2.6 - 5.5
All Boule (CDS) Instruments	111	4.85	0.57	11.8	4.8	3.1 - 6.6
All COULTER Instruments	62	3.74	0.38	10.3	3.8	2.5 - 4.9
Abbott Cell-Dyn 1700	6	4.87	0.12	2.5	4.9	4.5 - 5.3
Abbott Cell-Dyn 1800	17	6.18	0.30	4.8	6.2	5.2 - 7.1
Abbott Cell-Dyn Emerald	57	2.73	0.34	12.4	2.7	1.7 - 3.8
Boule (CDS) Medonic M series	111	4.85	0.57	11.8	4.8	3.1 - 6.6
COULTER AcT diff/diff 2	61	3.75	0.38	10.2	3.8	2.6 - 4.9
Diatron Abacus 3 CP	5	6.37	0.31	4.8	6.3	5.4 - 7.3
Horiba ABX Micros/45/60	51	4.06	0.48	11.8	4.1	2.6 - 5.5

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

	Specimen HD-1						**Specimen HD-2**					
Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	310	82.13	2.04	2.5	82.0	76.0 - 88.3	309	31.75	2.74	8.6	31.8	23.5 - 40.0
All Abbott Cell-Dyn Instruments	79	83.76	1.00	1.2	83.9	80.7 - 86.8	79	34.06	1.81	5.3	34.3	28.6 - 39.5
All ABX Instruments	52	84.46	0.87	1.0	84.4	81.8 - 87.1	53	32.80	2.87	8.8	32.9	24.1 - 41.5
All Boule (CDS) Instruments	107	80.16	0.73	0.9	80.1	77.9 - 82.4	104	29.79	2.09	7.0	29.8	23.5 - 36.1
All COULTER Instruments	62	81.80	0.58	0.7	81.7	80.0 - 83.6	63	31.55	1.23	3.9	31.5	27.8 - 35.3
Abbott Cell-Dyn 1700	7	82.56	0.88	1.1	82.2	79.9 - 85.2	7	33.57	2.40	7.1	32.9	26.3 - 40.8
Abbott Cell-Dyn 1800	17	83.15	0.45	0.5	83.2	81.7 - 84.6	17	33.55	1.84	5.5	33.5	28.0 - 39.1
Abbott Cell-Dyn Emerald	55	84.10	0.94	1.1	84.3	81.2 - 87.0	54	34.39	1.51	4.4	34.6	29.8 - 39.0
Boule (CDS) Medonic M series	107	80.16	0.73	0.9	80.1	77.9 - 82.4	104	29.79	2.09	7.0	29.8	23.5 - 36.1
COULTER AcT diff/diff 2	61	81.80	0.59	0.7	81.7	80.0 - 83.6	62	31.56	1.24	3.9	31.5	27.8 - 35.3
Diatron Abacus 3 CP	5	76.00	1.39	1.8	76.7	71.8 - 80.2	5	29.27	1.45	4.9	30.0	24.9 - 33.7
Horiba ABX Micros/45/60	52	84.46	0.87	1.0	84.4	81.8 - 87.1	53	32.80	2.87	8.8	32.9	24.1 - 41.5

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

	Specimen HD-3						Specimen HD-4					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	310	63.60	2.22	3.5	63.6	56.9 - 70.3	310	31.69	2.45	7.7	31.8	24.3 - 39.1
All Abbott Cell-Dyn Instruments	79	64.99	1.20	1.8	65.0	61.3 - 68.6	81	33.47	1.34	4.0	33.6	29.4 - 37.5
All ABX Instruments	53	66.12	1.59	2.4	66.5	61.3 - 70.9	53	32.92	2.59	7.9	33.3	25.1 - 40.7
All Boule (CDS) Instruments	108	62.09	1.63	2.6	62.1	57.2 - 67.0	107	30.15	2.42	8.0	30.0	22.8 - 37.5
All COULTER Instruments	63	62.63	0.98	1.6	62.4	59.7 - 65.6	62	31.18	1.30	4.2	31.2	27.2 - 35.1
Abbott Cell-Dyn 1700	7	62.06	4.70	7.6	63.5	47.9 - 76.2	7	32.46	1.97	6.1	33.1	26.5 - 38.4
Abbott Cell-Dyn 1800	17	64.41	1.26	2.0	64.3	60.6 - 68.3	17	33.11	1.21	3.7	33.2	29.4 - 36.8
Abbott Cell-Dyn Emerald	56	65.30	1.06	1.6	65.5	62.1 - 68.5	57	33.70	1.23	3.7	33.7	29.9 - 37.5
Boule (CDS) Medonic M series	108	62.09	1.63	2.6	62.1	57.2 - 67.0	107	30.15	2.42	8.0	30.0	22.8 - 37.5
COULTER AcT diff/diff 2	62	62.62	0.98	1.6	62.4	59.6 - 65.6	61	31.21	1.29	4.1	31.2	27.3 - 35.1
Diatron Abacus 3 CP	5	58.07	1.03	1.8	57.8	54.9 - 61.2	5	30.40	2.91	9.6	31.1	21.6 - 39.2
Horiba ABX Micros/45/60	53	66.12	1.59	2.4	66.5	61.3 - 70.9	53	32.92	2.59	7.9	33.3	25.1 - 40.7

	Specimen HD-5					
All Method	310	82.20	1.96	2.4	81.9	76.3 - 88.1
All Abbott Cell-Dyn Instruments	79	83.79	1.02	1.2	83.9	80.7 - 86.9
All ABX Instruments	52	84.61	0.74	0.9	84.5	82.3 - 86.9
All Boule (CDS) Instruments	107	80.36	0.72	0.9	80.3	78.1 - 82.6
All COULTER Instruments	63	81.68	0.61	0.7	81.7	79.8 - 83.6
Abbott Cell-Dyn 1700	7	82.89	0.60	0.7	83.0	81.0 - 84.7
Abbott Cell-Dyn 1800	17	83.29	0.69	0.8	83.1	81.2 - 85.4
Abbott Cell-Dyn Emerald	55	84.06	1.03	1.2	84.4	80.9 - 87.2
Boule (CDS) Medonic M series	107	80.36	0.72	0.9	80.3	78.1 - 82.6
COULTER AcT diff/diff 2	62	81.68	0.62	0.8	81.7	79.8 - 83.6
Diatron Abacus 3 CP	5	76.93	0.85	1.1	76.9	74.3 - 79.5
Horiba ABX Micros/45/60	52	84.61	0.74	0.9	84.5	82.3 - 86.9

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

	Specimen DIF-1						Specimen DIF-2					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	16	20.88	0.53	2.5	20.8	17.7 - 24.1	16	3.91	0.19	4.9	3.8	3.3 - 4.5
All COULTER Instruments	16	20.88	0.53	2.5	20.8	17.7 - 24.1	16	3.91	0.19	4.9	3.8	3.3 - 4.5
Coulter DxH 520	8	20.73	0.39	1.9	20.8	17.6 - 23.9	8	3.82	0.15	3.9	3.8	3.2 - 4.4
COULTER UniCel DxH 600	6	20.97	0.58	2.8	21.3	17.8 - 24.2	6	4.10	0.10	2.4	4.1	3.4 - 4.8
	Specimen DIF-3						**Specimen DIF-4**					
All Method	16	9.13	0.53	5.8	8.9	7.7 - 10.5	16	3.95	0.20	5.1	3.9	3.3 - 4.6
All COULTER Instruments	16	9.13	0.53	5.8	8.9	7.7 - 10.5	16	3.95	0.20	5.1	3.9	3.3 - 4.6
Coulter DxH 520	8	8.82	0.29	3.3	8.9	7.4 - 10.2	8	3.83	0.08	2.1	3.9	3.2 - 4.5
COULTER UniCel DxH 600	6	9.73	0.15	1.6	9.7	8.2 - 11.2	6	4.17	0.12	2.8	4.1	3.5 - 4.8
	Specimen DIF-5											
All Method	16	21.08	0.35	1.7	21.1	17.9 - 24.3						
All COULTER Instruments	16	21.08	0.35	1.7	21.1	17.9 - 24.3						
Coulter DxH 520	8	21.02	0.37	1.7	21.1	17.8 - 24.2						
COULTER UniCel DxH 600	6	21.10	0.36	1.7	21.2	17.9 - 24.3						

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

	Specimen DIF-1						Specimen DIF-2					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	16	5.495	0.137	2.5	5.50	5.16 - 5.83	16	2.515	0.043	1.7	2.51	2.36 - 2.67
All COULTER Instruments	16	5.495	0.137	2.5	5.50	5.16 - 5.83	16	2.515	0.043	1.7	2.51	2.36 - 2.67
Coulter DxH 520	8	5.560	0.099	1.8	5.59	5.22 - 5.90	8	2.528	0.042	1.7	2.52	2.37 - 2.69
COULTER UniCel DxH 600	6	5.357	0.155	2.9	5.42	5.03 - 5.68	6	2.497	0.032	1.3	2.51	2.34 - 2.65
	Specimen DIF-3						**Specimen DIF-4**					
All Method	16	4.165	0.077	1.8	4.18	3.91 - 4.42	16	2.507	0.042	1.7	2.50	2.35 - 2.66
All COULTER Instruments	16	4.165	0.077	1.8	4.18	3.91 - 4.42	16	2.507	0.042	1.7	2.50	2.35 - 2.66
Coulter DxH 520	8	4.167	0.068	1.6	4.18	3.91 - 4.42	8	2.522	0.047	1.9	2.52	2.37 - 2.68
COULTER UniCel DxH 600	6	4.200	0.092	2.2	4.22	3.94 - 4.46	6	2.480	0.035	1.4	2.46	2.33 - 2.63
	Specimen DIF-5											
All Method	16	5.512	0.147	2.7	5.50	5.18 - 5.85						
All COULTER Instruments	16	5.512	0.147	2.7	5.50	5.18 - 5.85						
Coulter DxH 520	8	5.578	0.123	2.2	5.55	5.24 - 5.92						
COULTER UniCel DxH 600	6	5.373	0.132	2.5	5.40	5.05 - 5.70						

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

	Specimen DIF-1						Specimen DIF-2					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	16	17.72	0.21	1.2	17.7	16.4 - 19.0	16	5.82	0.22	3.8	5.8	5.4 - 6.3
All COULTER Instruments	16	17.72	0.21	1.2	17.7	16.4 - 19.0	16	5.82	0.22	3.8	5.8	5.4 - 6.3
Coulter DxH 520	8	17.78	0.12	0.7	17.8	16.5 - 19.1	8	5.65	0.08	1.5	5.6	5.2 - 6.1
COULTER UniCel DxH 600	6	17.50	0.17	1.0	17.6	16.2 - 18.8	6	6.07	0.06	1.0	6.1	5.6 - 6.5
	Specimen DIF-3						**Specimen DIF-4**					
All Method	16	11.82	0.31	2.6	11.8	10.9 - 12.7	16	5.85	0.16	2.8	5.8	5.4 - 6.3
All COULTER Instruments	16	11.82	0.31	2.6	11.8	10.9 - 12.7	16	5.85	0.16	2.8	5.8	5.4 - 6.3
Coulter DxH 520	8	11.62	0.17	1.5	11.6	10.8 - 12.5	8	5.73	0.10	1.8	5.7	5.3 - 6.2
COULTER UniCel DxH 600	6	12.17	0.06	0.5	12.2	11.3 - 13.1	6	6.00	0.01	0.0	6.0	5.5 - 6.5
	Specimen DIF-5											
All Method	16	17.68	0.26	1.4	17.7	16.4 - 19.0						
All COULTER Instruments	16	17.68	0.26	1.4	17.7	16.4 - 19.0						
Coulter DxH 520	8	17.72	0.24	1.4	17.8	16.4 - 19.0						
COULTER UniCel DxH 600	6	17.53	0.21	1.2	17.6	16.3 - 18.8						

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

	Specimen DIF-1						Specimen DIF-2					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	16	56.37	1.42	2.5	56.7	52.9 - 59.8	16	19.59	0.59	3.0	19.5	18.4 - 20.8
All COULTER Instruments	16	56.37	1.42	2.5	56.7	52.9 - 59.8	16	19.59	0.59	3.0	19.5	18.4 - 20.8
Coulter DxH 520	8	56.83	1.46	2.6	57.2	53.4 - 60.3	8	19.47	0.55	2.8	19.5	18.2 - 20.7
COULTER UniCel DxH 600	6	55.47	1.64	3.0	56.1	52.1 - 58.8	6	19.87	0.32	1.6	20.0	18.6 - 21.1
	Specimen DIF-3						**Specimen DIF-4**					
All Method	16	37.65	1.28	3.4	37.9	35.3 - 40.0	16	19.54	0.49	2.5	19.5	18.3 - 20.8
All COULTER Instruments	16	37.65	1.28	3.4	37.9	35.3 - 40.0	16	19.54	0.49	2.5	19.5	18.3 - 20.8
Coulter DxH 520	8	37.17	0.94	2.5	37.4	34.9 - 39.4	8	19.45	0.50	2.6	19.5	18.2 - 20.7
COULTER UniCel DxH 600	6	38.73	0.85	2.2	38.7	36.4 - 41.1	6	19.67	0.38	1.9	19.5	18.4 - 20.9
	Specimen DIF-5											
All Method	16	56.57	1.22	2.2	56.7	53.1 - 60.0						
All COULTER Instruments	16	56.57	1.22	2.2	56.7	53.1 - 60.0						
Coulter DxH 520	8	57.00	1.25	2.2	57.3	53.5 - 60.5						
COULTER UniCel DxH 600	6	55.60	1.23	2.2	56.1	52.2 - 59.0						

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

Instrument	Specimen DIF-1 Labs	Mean	SD	CV	Median	Range	Specimen DIF-2 Labs	Mean	SD	CV	Median	Range
All Method	16	477.4	21.0	4.4	470	358 - 597	16	79.4	5.7	7.1	79	59 - 100
All COULTER Instruments	16	477.4	21.0	4.4	470	358 - 597	16	79.4	5.7	7.1	79	59 - 100
Coulter DxH 520	8	485.0	25.5	5.3	483	363 - 607	8	79.2	7.4	9.3	77	59 - 99
COULTER UniCel DxH 600	6	474.0	8.7	1.8	470	355 - 593	6	78.7	2.3	2.9	80	59 - 99

Instrument	Specimen DIF-3 Labs	Mean	SD	CV	Median	Range	Specimen DIF-4 Labs	Mean	SD	CV	Median	Range
All Method	16	281.9	19.0	6.7	282	211 - 353	16	80.2	4.5	5.6	80	60 - 101
All COULTER Instruments	16	281.9	19.0	6.7	282	211 - 353	16	80.2	4.5	5.6	80	60 - 101
Coulter DxH 520	8	293.3	16.7	5.7	296	219 - 367	8	81.3	5.1	6.3	81	60 - 102
COULTER UniCel DxH 600	6	269.7	10.7	4.0	264	202 - 338	6	78.3	3.8	4.8	80	58 - 98

Instrument	Specimen DIF-5 Labs	Mean	SD	CV	Median	Range
All Method	16	490.5	40.1	8.2	476	367 - 614
All COULTER Instruments	16	490.5	40.1	8.2	476	367 - 614
Coulter DxH 520	8	504.7	46.8	9.3	498	378 - 631
COULTER UniCel DxH 600	6	482.7	29.8	6.2	467	362 - 604

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

Instrument	Specimen DIF-1 Labs	Mean	SD	CV	Median	Range	Specimen DIF-2 Labs	Mean	SD	CV	Median	Range
All Method	16	41.30	22.88	55.4	28.5	0.0 - 110.0	16	40.40	10.06	24.9	36.3	10.2 - 70.6
All COULTER DxH 500/520	9	23.77	4.45	18.7	23.1	10.4 - 37.2	9	32.83	3.17	9.6	32.6	23.3 - 42.4
All COULTER Instruments	7	67.60	0.37	0.6	67.6	66.4 - 68.8	7	51.75	0.71	1.4	51.7	49.6 - 53.9
Coulter DxH 520	8	23.08	4.61	20.0	20.2	9.2 - 36.9	8	32.94	3.53	10.7	32.8	22.3 - 43.6
COULTER UniCel DxH 600	6	67.73	0.32	0.5	67.6	66.7 - 68.7	6	51.83	0.85	1.6	51.8	49.2 - 54.4

Instrument	Specimen DIF-3 Labs	Mean	SD	CV	Median	Range	Specimen DIF-4 Labs	Mean	SD	CV	Median	Range
All Method	16	38.98	16.48	42.3	29.6	0.0 - 88.5	16	42.06	9.03	21.5	38.1	14.9 - 69.2
All COULTER DxH 500/520	9	26.37	3.35	12.7	26.4	16.3 - 36.5	9	35.23	2.63	7.5	35.4	27.3 - 43.2
All COULTER Instruments	7	57.90	0.51	0.9	58.0	56.3 - 59.5	7	52.30	0.39	0.7	52.4	51.1 - 53.5
Coulter DxH 520	8	25.80	3.41	13.2	23.8	15.5 - 36.1	8	35.32	2.93	8.3	36.0	26.5 - 44.2
COULTER UniCel DxH 600	6	57.83	0.60	1.0	57.9	56.0 - 59.7	6	52.17	0.35	0.7	52.2	51.1 - 53.3

Instrument	Specimen DIF-5 Labs	Mean	SD	CV	Median	Range
All Method	16	40.66	23.37	57.5	27.5	0.0 - 110.8
All COULTER DxH 500/520	9	22.70	3.82	16.8	21.1	11.2 - 34.2
All COULTER Instruments	7	67.60	0.80	1.2	67.7	65.1 - 70.1
Coulter DxH 520	8	23.40	3.82	16.3	21.9	11.9 - 34.9
COULTER UniCel DxH 600	6	67.50	0.95	1.4	67.4	64.6 - 70.4

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

Specimen DIF-1

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	16	10.98	8.16	74.3	8.5	0.0 - 35.5
All COULTER DxH 500/520	9	5.03	3.66	72.8	5.1	0.0 - 16.1
All COULTER Instruments	7	19.90	0.63	3.2	20.0	18.0 - 21.8
Coulter DxH 520	8	5.68	3.69	65.0	8.1	0.0 - 16.8
COULTER UniCel DxH 600	6	19.93	0.76	3.8	20.1	17.6 - 22.3

Specimen DIF-2

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	16	17.37	20.07	115.6	0.5	0.0 - 77.6
All COULTER DxH 500/520	9	0.46	0.09	19.4	0.5	0.1 - 0.8
All COULTER Instruments	7	38.50	1.63	4.2	38.8	33.6 - 43.4
Coulter DxH 520	8	0.45	0.10	22.2	0.5	0.1 - 0.8
COULTER UniCel DxH 600	6	38.33	1.96	5.1	38.5	32.4 - 44.2

Specimen DIF-3

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	16	16.78	13.58	80.9	9.3	0.0 - 57.6
All COULTER DxH 500/520	9	5.62	4.23	75.3	8.4	0.0 - 18.4
All COULTER Instruments	7	30.73	1.03	3.4	31.0	27.6 - 33.9
Coulter DxH 520	8	6.78	3.87	57.2	8.4	0.0 - 18.4
	6	31.20	0.50	1.6	31.2	29.7 - 32.7

Specimen DIF-4

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	16	15.74	19.43	123.4	0.9	0.0 - 74.1
All COULTER DxH 500/520	9	0.70	0.21	30.0	0.8	0.0 - 1.4
All COULTER Instruments	7	38.30	1.21	3.2	38.8	34.6 - 42.0
Coulter DxH 520	8	0.70	0.23	33.5	0.8	0.0 - 1.5
	6	38.17	1.45	3.8	38.9	33.8 - 42.6

Specimen DIF-5

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	16	11.86	7.59	64.0	9.1	0.0 - 34.7
All COULTER DxH 500/520	9	6.37	3.61	56.6	8.3	0.0 - 17.2
All COULTER Instruments	7	20.10	0.67	3.3	19.8	18.0 - 22.2
Coulter DxH 520	8	5.92	3.84	64.9	8.1	0.0 - 17.5
	6	20.23	0.75	3.7	19.8	17.9 - 22.5

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

	Specimen DIF-1						Specimen DIF-2					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	16	3.96	4.31	109.0	0.5	0.0 - 16.9	16	0.99	1.11	112.4	0.4	0.0 - 4.4
All COULTER DxH 500/520	9	0.34	0.15	44.6	0.4	0.0 - 0.8	9	0.18	0.22	121.6	0.2	0.0 - 0.9
All COULTER Instruments	7	8.48	0.74	8.7	8.5	6.2 - 10.7	7	2.20	0.62	28.0	2.0	0.3 - 4.1
Coulter DxH 520	8	0.30	0.14	47.1	0.4	0.0 - 0.8	8	0.20	0.24	122.5	0.2	0.0 - 1.0
COULTER UniCel DxH 600	6	8.37	0.86	10.3	8.2	5.7 - 11.0	6	2.33	0.68	29.2	2.1	0.2 - 4.4

	Specimen DIF-3						Specimen DIF-4					
All Method	16	2.31	2.81	121.6	0.3	0.0 - 10.8	16	0.86	0.99	115.0	0.4	0.0 - 3.9
All COULTER DxH 500/520	9	0.17	0.08	49.0	0.2	0.0 - 0.5	9	0.20	0.18	89.4	0.2	0.0 - 0.8
All COULTER Instruments	7	5.53	0.84	15.2	5.4	2.9 - 8.1	7	1.85	0.84	45.3	1.5	0.0 - 4.4
Coulter DxH 520	8	0.18	0.08	46.5	0.2	0.0 - 0.5	8	0.22	0.19	87.4	0.2	0.0 - 0.8
COULTER UniCel DxH 600	6	5.13	0.38	7.4	5.3	3.9 - 6.3	6	2.03	0.92	45.4	1.5	0.0 - 4.9

	Specimen DIF-5					
All Method	16	3.50	4.03	115.2	0.5	0.0 - 15.6
All COULTER DxH 500/520	9	0.38	0.10	25.6	0.4	0.0 - 0.7
All COULTER Instruments	7	8.18	0.43	5.3	8.3	6.8 - 9.5
Coulter DxH 520	8	0.38	0.11	28.8	0.4	0.0 - 0.8
COULTER UniCel DxH 600	6	8.20	0.53	6.5	8.4	6.6 - 9.8

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

	Specimen DIF-1						Specimen DIF-2					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	16	43.66	34.20	78.3	68.2	0.0 - 146.3	16	42.05	29.86	71.0	62.5	0.0 - 131.7
All COULTER DxH 500/520	9	70.13	1.73	2.5	70.5	64.9 - 75.4	9	65.13	2.49	3.8	65.3	57.6 - 72.7
All COULTER Instruments	7	3.95	0.26	6.7	4.0	3.1 - 4.8	7	7.43	0.43	5.9	7.6	6.1 - 8.8
Coulter DxH 520	8	70.10	1.93	2.7	70.7	64.3 - 75.9	8	64.74	2.57	4.0	63.8	57.0 - 72.5
COULTER UniCel DxH 600	6	3.90	0.30	7.7	3.9	3.0 - 4.8	6	7.37	0.51	7.0	7.5	5.8 - 9.0
	Specimen DIF-3						**Specimen DIF-4**					
All Method	16	43.44	32.45	74.7	67.3	0.0 - 140.8	16	41.28	29.19	70.7	60.8	0.0 - 128.9
All COULTER DxH 500/520	9	68.57	1.16	1.7	68.7	65.1 - 72.1	9	63.83	2.82	4.4	63.7	55.3 - 72.3
All COULTER Instruments	7	5.75	0.26	4.6	5.7	4.9 - 6.6	7	7.45	0.26	3.6	7.4	6.6 - 8.3
Coulter DxH 520	8	68.34	1.13	1.7	68.3	64.9 - 71.8	8	63.72	3.13	4.9	63.0	54.3 - 73.2
COULTER UniCel DxH 600	6	5.73	0.32	5.6	5.6	4.7 - 6.7	6	7.53	0.25	3.3	7.5	6.7 - 8.3
	Specimen DIF-5											
All Method	16	43.79	34.26	78.2	68.6	0.0 - 146.6						
All COULTER DxH 500/520	9	70.32	1.47	2.1	70.8	65.9 - 74.8						
All COULTER Instruments	7	4.00	0.18	4.6	4.0	3.4 - 4.6						
Coulter DxH 520	8	70.04	1.45	2.1	70.4	65.6 - 74.5						
COULTER UniCel DxH 600	6	3.93	0.15	3.9	3.9	3.4 - 4.4						

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

	Specimen DIF-1						Specimen DIF-2					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	16	0.19	0.23	122.7	0.1	0.0 - 0.9	16	0.05	0.07	141.4	0.0	0.0 - 0.3
All COULTER DxH 500/520	9	0.27	0.28	105.2	0.2	0.0 - 1.2	9	0.00	0.01	0.0	0.0	0.0 - 0.1
All COULTER Instruments	7	0.08	0.05	66.7	0.1	0.0 - 0.3	7	0.13	0.05	40.0	0.1	0.0 - 0.3
Coulter DxH 520	8	0.28	0.31	111.2	0.2	0.0 - 1.3	8	0.00	0.01	0.0	0.0	0.0 - 0.1
COULTER UniCel DxH 600	6	0.07	0.06	86.6	0.1	0.0 - 0.3	6	0.13	0.06	43.3	0.1	0.0 - 0.4
	Specimen DIF-3						**Specimen DIF-4**					
All Method	16	0.08	0.06	79.1	0.1	0.0 - 0.3	16	0.04	0.05	129.1	0.0	0.0 - 0.2
All COULTER DxH 500/520	9	0.07	0.08	122.5	0.1	0.0 - 0.4	9	0.00	0.01	0.0	0.0	0.0 - 0.1
All COULTER Instruments	7	0.10	0.01	0.0	0.1	0.0 - 0.2	7	0.10	0.01	0.0	0.1	0.0 - 0.2
Coulter DxH 520	8	0.08	0.08	104.6	0.1	0.0 - 0.4	8	0.00	0.01	0.0	0.0	0.0 - 0.1
COULTER UniCel DxH 600	6	0.10	0.01	0.0	0.1	0.0 - 0.2	6	0.10	0.01	0.0	0.1	0.0 - 0.2
	Specimen DIF-5											
All Method	16	0.15	0.05	35.1	0.2	0.0 - 0.4						
All COULTER DxH 500/520	9	0.17	0.05	31.0	0.2	0.0 - 0.4						
All COULTER Instruments	7	0.13	0.05	40.0	0.1	0.0 - 0.3						
Coulter DxH 520	8	0.18	0.04	24.8	0.2	0.0 - 0.4						
COULTER UniCel DxH 600	6	0.13	0.06	43.3	0.1	0.0 - 0.4						

RETICULOCYTE COUNT (percent)

	Specimen RT-1						Specimen RT-2					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	20	0.96	0.15	15.3	1.0	0.6 - 1.3	22	2.81	0.93	33.3	2.5	0.9 - 4.7
All Automated Methods	17	0.92	0.12	13.0	0.9	0.6 - 1.3	17	2.43	0.23	9.5	2.5	1.7 - 3.2
All Manual Methods	5	1.58	0.61	38.6	1.3	0.3 - 2.8	5	4.10	1.30	31.6	4.0	1.5 - 6.7
Sysmex XN-1000	14	0.96	0.09	9.8	1.0	0.6 - 1.3	14	2.43	0.23	9.3	2.5	1.7 - 3.2

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

	Specimen BCX-1						Specimen BCX-2					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	87	24.38	0.54	2.2	24.3	20.7 - 28.1	87	3.97	0.10	2.4	4.0	3.3 - 4.6
All ABX Instruments	84	24.38	0.53	2.2	24.3	20.7 - 28.1	84	3.97	0.10	2.5	4.0	3.3 - 4.6
All COULTER Instruments	6	24.47	0.68	2.8	24.7	20.7 - 28.2	6	4.00	0.01	0.0	4.0	3.4 - 4.6
ABX Pentra 60C+	75	24.42	0.53	2.2	24.4	20.7 - 28.1	75	3.97	0.10	2.5	4.0	3.3 - 4.6
ABX Pentra 80 / XL 80	9	24.01	0.41	1.7	23.9	20.4 - 27.7	9	4.04	0.07	1.8	4.0	3.4 - 4.7
COULTER AcT 5diff	6	24.47	0.68	2.8	24.7	20.7 - 28.2	6	4.00	0.01	0.0	4.0	3.4 - 4.6

	Specimen BCX-3						Specimen BCX-4					
All Method	87	2.39	0.07	3.1	2.4	2.0 - 2.8	87	7.18	0.19	2.7	7.2	6.1 - 8.3
All ABX Instruments	84	2.38	0.07	3.1	2.4	2.0 - 2.8	84	7.17	0.19	2.7	7.2	6.0 - 8.3
All COULTER Instruments	6	2.47	0.06	2.3	2.5	2.0 - 2.9	6	7.33	0.06	0.8	7.3	6.2 - 8.5
ABX Pentra 60C+	75	2.38	0.07	3.0	2.4	2.0 - 2.8	75	7.16	0.20	2.7	7.2	6.0 - 8.3
ABX Pentra 80 / XL 80	9	2.44	0.07	3.0	2.5	2.0 - 2.9	9	7.24	0.17	2.3	7.2	6.1 - 8.4
COULTER AcT 5diff	6	2.47	0.06	2.3	2.5	2.0 - 2.9	6	7.33	0.06	0.8	7.3	6.2 - 8.5

	Specimen BCX-5					
All Method	87	17.37	0.52	3.0	17.4	14.7 - 20.0
All ABX Instruments	84	17.38	0.49	2.8	17.4	14.7 - 20.0
All COULTER Instruments	6	17.07	1.05	6.2	17.1	14.5 - 19.7
ABX Pentra 60C+	75	17.42	0.48	2.8	17.5	14.8 - 20.1
ABX Pentra 80 / XL 80	9	16.30	2.34	14.3	17.0	13.8 - 18.8
COULTER AcT 5diff	6	17.07	1.05	6.2	17.1	14.5 - 19.7

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

	Specimen BCX-1						Specimen BCX-2					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	87	4.713	0.085	1.8	4.71	4.42 - 5.00	87	3.735	0.068	1.8	3.73	3.51 - 3.96
All ABX Instruments	84	4.705	0.075	1.6	4.71	4.42 - 4.99	84	3.729	0.061	1.6	3.72	3.50 - 3.96
All COULTER Instruments	6	4.847	0.127	2.6	4.87	4.55 - 5.14	6	3.857	0.103	2.7	3.83	3.62 - 4.09
ABX Pentra 60C+	75	4.702	0.076	1.6	4.71	4.41 - 4.99	75	3.736	0.069	1.8	3.73	3.51 - 3.97
ABX Pentra 80 / XL 80	9	4.733	0.063	1.3	4.71	4.44 - 5.02	9	3.709	0.058	1.6	3.70	3.48 - 3.94
COULTER AcT 5diff	6	4.847	0.127	2.6	4.87	4.55 - 5.14	6	3.857	0.103	2.7	3.83	3.62 - 4.09

	Specimen BCX-3						Specimen BCX-4					
All Method	87	2.007	0.045	2.2	2.01	1.88 - 2.13	87	4.627	0.081	1.7	4.63	4.34 - 4.91
All ABX Instruments	84	2.008	0.044	2.2	2.01	1.88 - 2.13	84	4.623	0.078	1.7	4.62	4.34 - 4.91
All COULTER Instruments	6	1.980	0.070	3.5	1.98	1.86 - 2.10	6	4.723	0.105	2.2	4.72	4.43 - 5.01
ABX Pentra 60C+	75	2.016	0.038	1.9	2.01	1.89 - 2.14	75	4.625	0.080	1.7	4.63	4.34 - 4.91
ABX Pentra 80 / XL 80	9	1.948	0.045	2.3	1.95	1.83 - 2.07	9	4.609	0.060	1.3	4.59	4.33 - 4.89
COULTER AcT 5diff	6	1.980	0.070	3.5	1.98	1.86 - 2.10	6	4.723	0.105	2.2	4.72	4.43 - 5.01

	Specimen BCX-5					
All Method	87	5.538	0.087	1.6	5.53	5.20 - 5.88
All ABX Instruments	84	5.535	0.086	1.6	5.53	5.20 - 5.87
All COULTER Instruments	6	5.603	0.106	1.9	5.62	5.26 - 5.94
ABX Pentra 60C+	75	5.533	0.089	1.6	5.53	5.20 - 5.87
ABX Pentra 80 / XL 80	9	5.557	0.056	1.0	5.54	5.22 - 5.90
COULTER AcT 5diff	6	5.603	0.106	1.9	5.62	5.26 - 5.94

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

	Specimen BCX-1						Specimen BCX-2					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	87	13.63	0.15	1.1	13.6	12.6 - 14.6	87	9.53	0.11	1.1	9.5	8.8 - 10.2
All ABX Instruments	84	13.63	0.15	1.1	13.6	12.6 - 14.6	84	9.52	0.11	1.1	9.5	8.8 - 10.2
All COULTER Instruments	6	13.63	0.15	1.1	13.6	12.6 - 14.6	6	9.70	0.10	1.0	9.7	9.0 - 10.4
ABX Pentra 60C+	75	13.63	0.16	1.1	13.6	12.6 - 14.6	75	9.53	0.10	1.1	9.5	8.8 - 10.2
ABX Pentra 80 / XL 80	9	13.64	0.14	1.0	13.6	12.6 - 14.6	9	9.48	0.12	1.3	9.5	8.8 - 10.2
COULTER AcT 5diff	6	13.63	0.15	1.1	13.6	12.6 - 14.6	6	9.70	0.10	1.0	9.7	9.0 - 10.4

	Specimen BCX-3						Specimen BCX-4					
All Method	87	6.66	0.10	1.5	6.7	6.1 - 7.2	87	13.41	0.15	1.1	13.4	12.4 - 14.4
All ABX Instruments	84	6.66	0.09	1.4	6.7	6.1 - 7.2	84	13.41	0.15	1.1	13.4	12.4 - 14.4
All COULTER Instruments	6	6.73	0.21	3.1	6.8	6.2 - 7.3	6	13.37	0.25	1.9	13.4	12.4 - 14.4
ABX Pentra 60C+	75	6.67	0.09	1.4	6.7	6.2 - 7.2	75	13.41	0.15	1.1	13.4	12.4 - 14.4
ABX Pentra 80 / XL 80	9	6.59	0.08	1.2	6.6	6.1 - 7.1	9	13.36	0.12	0.9	13.3	12.4 - 14.3
COULTER AcT 5diff	6	6.73	0.21	3.1	6.8	6.2 - 7.3	6	13.37	0.25	1.9	13.4	12.4 - 14.4

	Specimen BCX-5					
All Method	87	16.17	0.16	1.0	16.2	15.0 - 17.4
All ABX Instruments	84	16.18	0.16	1.0	16.2	15.0 - 17.4
All COULTER Instruments	6	16.07	0.15	1.0	16.1	14.9 - 17.2
ABX Pentra 60C+	75	16.18	0.17	1.0	16.2	15.0 - 17.4
ABX Pentra 80 / XL 80	9	16.16	0.12	0.8	16.1	15.0 - 17.3
COULTER AcT 5diff	6	16.07	0.15	1.0	16.1	14.9 - 17.2

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

	Specimen BCX-1						Specimen BCX-2					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	87	39.44	0.66	1.7	39.5	37.0 - 41.9	87	28.16	0.52	1.9	28.1	26.4 - 29.9
All ABX Instruments	84	39.42	0.66	1.7	39.4	37.0 - 41.8	84	28.12	0.50	1.8	28.1	26.4 - 29.9
All COULTER Instruments	6	39.77	0.86	2.2	39.6	37.3 - 42.2	6	29.10	0.17	0.6	29.0	27.3 - 30.9
ABX Pentra 60C+	75	39.39	0.67	1.7	39.4	37.0 - 41.8	75	28.08	0.49	1.7	28.0	26.3 - 29.8
ABX Pentra 80 / XL 80	9	39.69	0.42	1.1	39.5	37.3 - 42.1	9	28.50	0.49	1.7	28.6	26.7 - 30.3
COULTER AcT 5diff	6	39.77	0.86	2.2	39.6	37.3 - 42.2	6	29.10	0.17	0.6	29.0	27.3 - 30.9

	Specimen BCX-3						Specimen BCX-4					
All Method	87	18.97	0.38	2.0	18.9	17.8 - 20.2	87	38.59	0.63	1.6	38.6	36.2 - 41.0
All ABX Instruments	84	18.96	0.38	2.0	18.9	17.8 - 20.1	84	38.56	0.62	1.6	38.6	36.2 - 40.9
All COULTER Instruments	6	19.30	0.26	1.4	19.4	18.1 - 20.5	6	39.20	0.56	1.4	39.1	36.8 - 41.6
ABX Pentra 60C+	75	18.93	0.37	1.9	18.9	17.7 - 20.1	75	38.55	0.64	1.7	38.6	36.2 - 40.9
ABX Pentra 80 / XL 80	9	19.20	0.39	2.1	19.2	18.0 - 20.4	9	38.69	0.40	1.0	38.7	36.3 - 41.1
COULTER AcT 5diff	6	19.30	0.26	1.4	19.4	18.1 - 20.5	6	39.20	0.56	1.4	39.1	36.8 - 41.6

	Specimen BCX-5					
All Method	87	46.57	0.83	1.8	46.5	43.7 - 49.4
All ABX Instruments	84	46.57	0.84	1.8	46.5	43.7 - 49.4
All COULTER Instruments	6	46.53	0.31	0.7	46.6	43.7 - 49.4
ABX Pentra 60C+	75	46.57	0.87	1.9	46.5	43.7 - 49.4
ABX Pentra 80 / XL 80	9	46.53	0.63	1.4	46.6	43.7 - 49.4
COULTER AcT 5diff	6	46.53	0.31	0.7	46.6	43.7 - 49.4

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

	Specimen BCX-1						Specimen BCX-2					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	87	474.8	15.1	3.2	474	356 - 594	87	111.9	5.3	4.7	111	83 - 140
All ABX Instruments	84	474.7	15.2	3.2	474	356 - 594	84	111.9	5.3	4.8	111	83 - 140
All COULTER Instruments	6	455.0	41.2	9.1	464	341 - 569	6	105.3	14.4	13.6	111	78 - 132
ABX Pentra 60C+	75	473.6	15.1	3.2	472	355 - 592	75	112.1	5.2	4.6	112	84 - 141
ABX Pentra 80 / XL 80	9	484.2	13.4	2.8	489	363 - 606	9	109.7	6.4	5.8	108	82 - 138
COULTER AcT 5diff	6	455.0	41.2	9.1	464	341 - 569	6	105.3	14.4	13.6	111	78 - 132
	Specimen BCX-3						**Specimen BCX-4**					
All Method	87	67.3	4.4	6.6	67	50 - 85	87	231.7	9.3	4.0	232	173 - 290
All ABX Instruments	84	67.4	4.4	6.5	67	50 - 85	84	232.1	8.1	3.5	232	174 - 291
All COULTER Instruments	6	59.3	8.5	14.3	59	44 - 75	6	221.0	27.5	12.4	220	165 - 277
ABX Pentra 60C+	75	67.6	4.5	6.7	68	50 - 85	75	232.0	8.1	3.5	232	174 - 291
ABX Pentra 80 / XL 80	9	65.9	2.9	4.5	65	49 - 83	9	232.6	8.6	3.7	234	174 - 291
COULTER AcT 5diff	6	59.3	8.5	14.3	59	44 - 75	6	221.0	27.5	12.4	220	165 - 277
	Specimen BCX-5											
All Method	87	291.0	10.9	3.8	291	218 - 364						
All ABX Instruments	84	291.2	10.5	3.6	291	218 - 364						
All COULTER Instruments	6	287.7	24.1	8.4	294	215 - 360						
ABX Pentra 60C+	75	290.9	10.2	3.5	291	218 - 364						
ABX Pentra 80 / XL 80	9	293.3	12.6	4.3	293	219 - 367						
COULTER AcT 5diff	6	287.7	24.1	8.4	294	215 - 360						

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

	Specimen BCX-1						Specimen BCX-2					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	87	49.50	3.01	6.1	49.9	40.4 - 58.6	87	62.46	4.09	6.6	62.9	50.1 - 74.8
All ABX Instruments	84	49.55	3.03	6.1	50.1	40.4 - 58.7	84	62.76	3.79	6.0	63.6	51.3 - 74.2
All COULTER Instruments	6	44.70	5.00	11.2	46.3	29.7 - 59.7	6	53.80	3.10	5.8	53.6	44.4 - 63.2
ABX Pentra 60C+	75	50.21	2.26	4.5	50.4	43.4 - 57.0	75	63.33	3.30	5.2	63.9	53.4 - 73.3
ABX Pentra 80 / XL 80	9	42.70	2.27	5.3	42.8	35.9 - 49.5	9	57.96	4.45	7.7	56.4	44.6 - 71.4
COULTER AcT 5diff	6	44.70	5.00	11.2	46.3	29.7 - 59.7	6	53.80	3.10	5.8	53.6	44.4 - 63.2

	Specimen BCX-3						Specimen BCX-4					
All Method	87	69.44	3.76	5.4	69.8	58.1 - 80.8	87	68.65	2.02	2.9	69.0	62.5 - 74.8
All ABX Instruments	84	69.54	3.66	5.3	69.8	58.5 - 80.6	84	68.75	1.83	2.7	69.1	63.2 - 74.3
All COULTER Instruments	6	57.77	2.73	4.7	57.0	49.5 - 66.0	6	53.10	1.97	3.7	53.4	47.1 - 59.1
ABX Pentra 60C+	75	70.15	3.20	4.6	70.1	60.5 - 79.8	75	68.89	1.82	2.6	69.2	63.4 - 74.4
ABX Pentra 80 / XL 80	9	65.66	3.43	5.2	64.6	55.3 - 76.0	9	65.56	3.50	5.3	66.8	55.0 - 76.1
COULTER AcT 5diff	6	57.77	2.73	4.7	57.0	49.5 - 66.0	6	53.10	1.97	3.7	53.4	47.1 - 59.1

	Specimen BCX-5					
All Method	87	45.46	3.69	8.1	46.1	34.3 - 56.6
All ABX Instruments	84	45.55	3.67	8.0	46.1	34.5 - 56.6
All COULTER Instruments	6	43.03	4.32	10.0	41.0	30.0 - 56.1
ABX Pentra 60C+	75	46.18	3.11	6.7	46.4	36.8 - 55.6
ABX Pentra 80 / XL 80	9	40.27	3.81	9.5	40.9	28.8 - 51.8
COULTER AcT 5diff	6	43.03	4.32	10.0	41.0	30.0 - 56.1

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

	Specimen BCX-1						Specimen BCX-2					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	87	44.77	3.33	7.4	44.5	34.7 - 54.8	87	29.10	4.47	15.4	28.3	15.6 - 42.6
All ABX Instruments	84	44.91	3.15	7.0	44.6	35.4 - 54.4	84	29.11	4.51	15.5	28.6	15.5 - 42.7
All COULTER Instruments	6	40.87	6.29	15.4	40.1	22.0 - 59.8	6	28.77	3.63	12.6	27.3	17.8 - 39.7
ABX Pentra 60C+	75	44.31	2.48	5.6	44.3	36.8 - 51.8	75	28.45	3.99	14.0	27.8	16.4 - 40.5
ABX Pentra 80 / XL 80	9	52.57	2.83	5.4	52.2	44.0 - 61.1	9	34.67	5.08	14.7	37.1	19.4 - 50.0
COULTER AcT 5diff	6	40.87	6.29	15.4	40.1	22.0 - 59.8	6	28.77	3.63	12.6	27.3	17.8 - 39.7
	Specimen BCX-3						**Specimen BCX-4**					
All Method	87	19.66	2.86	14.6	19.8	11.0 - 28.3	87	25.48	2.01	7.9	25.6	19.4 - 31.6
All ABX Instruments	84	19.70	2.84	14.4	19.8	11.1 - 28.3	84	25.64	1.82	7.1	25.6	20.1 - 31.1
All COULTER Instruments	6	18.37	3.72	20.3	16.9	7.1 - 29.6	6	21.13	2.40	11.4	21.2	13.9 - 28.4
ABX Pentra 60C+	75	19.37	2.33	12.0	19.7	12.3 - 26.4	75	25.46	1.76	6.9	25.4	20.1 - 30.8
ABX Pentra 80 / XL 80	9	23.41	3.10	13.3	23.9	14.1 - 32.8	9	29.36	3.76	12.8	27.9	18.0 - 40.7
COULTER AcT 5diff	6	18.37	3.72	20.3	16.9	7.1 - 29.6	6	21.13	2.40	11.4	21.2	13.9 - 28.4
	Specimen BCX-5											
All Method	87	47.84	4.45	9.3	47.5	34.4 - 61.2						
All ABX Instruments	84	47.95	4.41	9.2	47.6	34.7 - 61.2						
All COULTER Instruments	6	44.70	5.34	11.9	42.4	28.6 - 60.8						
ABX Pentra 60C+	75	47.15	3.76	8.0	47.3	35.8 - 58.5						
ABX Pentra 80 / XL 80	9	54.69	3.78	6.9	55.0	43.3 - 66.1						
COULTER AcT 5diff	6	44.70	5.34	11.9	42.4	28.6 - 60.8						

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

	Specimen BCX-1						Specimen BCX-2					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	87	1.97	0.53	27.1	1.9	0.3 - 3.6	87	0.86	0.48	55.6	0.8	0.0 - 2.4
All ABX Instruments	84	1.96	0.53	26.9	1.9	0.3 - 3.6	84	0.85	0.48	56.6	0.8	0.0 - 2.3
All COULTER Instruments	6	2.13	0.81	37.9	2.0	0.0 - 4.6	6	1.20	0.35	28.9	1.4	0.1 - 2.3
ABX Pentra 60C+	75	2.01	0.51	25.2	2.0	0.4 - 3.6	75	0.87	0.48	56.0	0.8	0.0 - 2.4
ABX Pentra 80 / XL 80	9	1.54	0.53	34.4	1.4	0.0 - 3.2	9	0.73	0.47	63.6	0.7	0.0 - 2.2
COULTER AcT 5diff	6	2.13	0.81	37.9	2.0	0.0 - 4.6	6	1.20	0.35	28.9	1.4	0.1 - 2.3
	Specimen BCX-3						**Specimen BCX-4**					
All Method	87	0.75	0.44	59.2	0.7	0.0 - 2.1	87	1.09	0.38	35.0	1.1	0.0 - 2.3
All ABX Instruments	84	0.74	0.45	60.1	0.7	0.0 - 2.1	84	1.10	0.39	35.1	1.1	0.0 - 2.3
All COULTER Instruments	6	0.83	0.31	36.7	0.9	0.0 - 1.8	6	0.87	0.12	13.3	0.8	0.5 - 1.3
ABX Pentra 60C+	75	0.77	0.45	58.4	0.7	0.0 - 2.2	75	1.15	0.37	32.5	1.1	0.0 - 2.3
ABX Pentra 80 / XL 80	9	0.50	0.34	67.8	0.3	0.0 - 1.6	9	0.68	0.18	26.4	0.6	0.1 - 1.3
COULTER AcT 5diff	6	0.83	0.31	36.7	0.9	0.0 - 1.8	6	0.87	0.12	13.3	0.8	0.5 - 1.3
	Specimen BCX-5											
All Method	87	1.64	0.64	39.2	1.6	0.0 - 3.6						
All ABX Instruments	84	1.62	0.62	38.4	1.6	0.0 - 3.5						
All COULTER Instruments	6	2.23	1.07	47.9	2.8	0.0 - 5.5						
ABX Pentra 60C+	75	1.68	0.62	37.1	1.6	0.0 - 3.6						
ABX Pentra 80 / XL 80	9	1.16	0.42	36.5	1.1	0.0 - 2.5						
COULTER AcT 5diff	6	2.23	1.07	47.9	2.8	0.0 - 5.5						

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

	Specimen BCX-1						Specimen BCX-2					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	87	2.93	0.58	19.7	2.8	1.1 - 4.7	87	6.35	1.60	25.1	6.2	1.5 - 11.2
All ABX Instruments	84	2.91	0.57	19.4	2.8	1.2 - 4.7	84	6.37	1.61	25.2	6.2	1.5 - 11.2
All COULTER Instruments	6	4.33	0.87	20.2	4.1	1.7 - 7.0	6	5.97	1.51	25.4	5.3	1.4 - 10.6
ABX Pentra 60C+	75	2.96	0.54	18.3	2.8	1.3 - 4.6	75	6.46	1.58	24.5	6.3	1.7 - 11.3
ABX Pentra 80 / XL 80	9	2.46	0.63	25.4	2.6	0.5 - 4.4	9	5.41	1.68	31.0	4.8	0.3 - 10.5
COULTER AcT 5diff	6	4.33	0.87	20.2	4.1	1.7 - 7.0	6	5.97	1.51	25.4	5.3	1.4 - 10.6
	Specimen BCX-3						**Specimen BCX-4**					
All Method	87	8.82	2.36	26.7	8.6	1.7 - 15.9	87	3.44	0.76	22.2	3.5	1.1 - 5.8
All ABX Instruments	84	8.88	2.37	26.7	8.6	1.7 - 16.0	84	3.39	0.60	17.6	3.5	1.5 - 5.2
All COULTER Instruments	6	7.03	0.87	12.4	6.8	4.4 - 9.7	6	5.70	0.53	9.3	5.9	4.1 - 7.3
ABX Pentra 60C+	75	8.77	2.42	27.6	8.6	1.5 - 16.1	75	3.41	0.66	19.4	3.5	1.4 - 5.4
ABX Pentra 80 / XL 80	9	9.82	1.75	17.9	10.2	4.5 - 15.1	9	3.44	0.55	16.0	3.4	1.7 - 5.1
COULTER AcT 5diff	6	7.03	0.87	12.4	6.8	4.4 - 9.7	6	5.70	0.53	9.3	5.9	4.1 - 7.3
	Specimen BCX-5											
All Method	87	4.29	0.97	22.6	4.4	1.3 - 7.3						
All ABX Instruments	84	4.33	0.96	22.2	4.4	1.4 - 7.3						
All COULTER Instruments	6	3.30	0.70	21.2	3.0	1.2 - 5.4						
ABX Pentra 60C+	75	4.45	0.91	20.5	4.5	1.7 - 7.2						
ABX Pentra 80 / XL 80	9	3.21	0.66	20.7	3.1	1.2 - 5.3						
COULTER AcT 5diff	6	3.30	0.70	21.2	3.0	1.2 - 5.4						

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

	Specimen BCX-1						Specimen BCX-2					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	87	0.40	0.01	0.0	0.4	0.3 - 0.5	87	0.40	0.01	0.0	0.4	0.3 - 0.5
All ABX Instruments	84	0.40	0.01	0.0	0.4	0.3 - 0.5	84	0.40	0.01	0.0	0.4	0.3 - 0.5
All COULTER Instruments	6	7.97	0.06	0.7	8.0	7.7 - 8.2	6	7.93	0.23	2.9	7.8	7.2 - 8.7
ABX Pentra 60C+	75	0.40	0.01	0.0	0.4	0.3 - 0.5	75	0.40	0.01	0.0	0.4	0.3 - 0.5
ABX Pentra 80 / XL 80	9	0.39	0.03	8.6	0.4	0.2 - 0.5	9	0.39	0.03	8.6	0.4	0.2 - 0.5
COULTER AcT 5diff	6	7.97	0.06	0.7	8.0	7.7 - 8.2	6	7.93	0.23	2.9	7.8	7.2 - 8.7

	Specimen BCX-3						Specimen BCX-4					
All Method	87	0.62	0.04	6.4	0.6	0.4 - 0.8	87	0.97	0.05	4.9	1.0	0.8 - 1.2
All ABX Instruments	84	0.62	0.04	6.4	0.6	0.4 - 0.8	84	0.97	0.05	4.9	1.0	0.8 - 1.2
All COULTER Instruments	6	12.67	1.53	12.1	12.1	8.0 - 17.3	6	19.20	0.56	2.9	19.3	17.5 - 20.9
ABX Pentra 60C+	75	0.62	0.04	6.6	0.6	0.4 - 0.8	75	0.97	0.05	4.9	1.0	0.8 - 1.2
ABX Pentra 80 / XL 80	9	0.61	0.03	5.5	0.6	0.5 - 0.8	9	0.97	0.05	5.2	1.0	0.8 - 1.2
COULTER AcT 5diff	6	12.67	1.53	12.1	12.1	8.0 - 17.3	6	19.20	0.56	2.9	19.3	17.5 - 20.9

	Specimen BCX-5					
All Method	87	0.30	0.02	7.3	0.3	0.2 - 0.4
All ABX Instruments	84	0.30	0.02	7.3	0.3	0.2 - 0.4
All COULTER Instruments	6	5.40	0.17	3.2	5.3	4.8 - 6.0
ABX Pentra 60C+	75	0.30	0.01	0.0	0.3	0.2 - 0.4
ABX Pentra 80 / XL 80	9	0.40	0.38	94.4	0.3	0.0 - 1.6
COULTER AcT 5diff	6	5.40	0.17	3.2	5.3	4.8 - 6.0

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

Specimen MX-1

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	121	20.78	0.54	2.6	20.7	17.6 - 23.9
All Sysmex XN/XS Instruments	121	20.78	0.54	2.6	20.7	17.6 - 23.9
Sysmex XN-1000	19	21.20	0.37	1.7	21.2	18.0 - 24.4
Sysmex XN-330	7	20.91	0.56	2.7	20.7	17.7 - 24.1
Sysmex XN-430	36	20.74	0.57	2.8	20.7	17.6 - 23.9
Sysmex XN-450	11	20.90	0.98	4.7	20.8	17.7 - 24.1
Sysmex XN-530	5	21.40	1.04	4.9	22.0	18.1 - 24.7
Sysmex XN-550	22	20.55	0.49	2.4	20.5	17.4 - 23.7
Sysmex XS-1000i	23	20.67	0.42	2.0	20.6	17.5 - 23.8

Specimen MX-2

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	123	3.75	0.37	9.7	3.5	3.1 - 4.4
All Sysmex XN/XS Instruments	123	3.75	0.37	9.7	3.5	3.1 - 4.4
Sysmex XN-1000	19	4.20	0.08	1.9	4.2	3.5 - 4.9
Sysmex XN-330	7	3.74	0.37	10.0	3.5	3.1 - 4.4
Sysmex XN-430	36	3.57	0.22	6.3	3.5	3.0 - 4.2
Sysmex XN-450	11	3.56	0.29	8.2	3.5	3.0 - 4.1
Sysmex XN-530	5	3.97	0.42	10.5	4.1	3.3 - 4.6
Sysmex XN-550	20	3.47	0.09	2.7	3.5	2.9 - 4.0
Sysmex XS-1000i	24	3.95	0.38	9.7	4.2	3.3 - 4.6

Specimen MX-3

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	123	6.83	0.48	7.1	6.6	5.8 - 7.9
All Sysmex XN/XS Instruments	123	6.83	0.48	7.1	6.6	5.8 - 7.9
Sysmex XN-1000	19	7.54	0.13	1.7	7.5	6.4 - 8.7
Sysmex XN-330	7	6.83	0.46	6.7	6.6	5.8 - 7.9
Sysmex XN-430	34	6.59	0.26	4.0	6.6	5.5 - 7.6
Sysmex XN-450	11	6.71	0.44	6.6	6.6	5.7 - 7.8
Sysmex XN-530	5	7.17	0.49	6.9	7.4	6.0 - 8.3
Sysmex XN-550	20	6.51	0.13	2.0	6.5	5.5 - 7.5
Sysmex XS-1000i	24	6.77	0.48	7.0	6.5	5.7 - 7.8

Specimen MX-4

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	122	3.72	0.36	9.8	3.5	3.1 - 4.3
All Sysmex XN/XS Instruments	122	3.72	0.36	9.8	3.5	3.1 - 4.3
Sysmex XN-1000	19	4.18	0.12	2.8	4.2	3.5 - 4.9
Sysmex XN-330	7	3.64	0.40	11.1	3.4	3.0 - 4.2
Sysmex XN-430	34	3.55	0.21	5.9	3.5	3.0 - 4.1
Sysmex XN-450	11	3.51	0.27	7.8	3.4	2.9 - 4.1
Sysmex XN-530	5	3.93	0.46	11.7	4.2	3.3 - 4.6
Sysmex XN-550	20	3.49	0.09	2.7	3.5	2.9 - 4.1
Sysmex XS-1000i	24	3.85	0.41	10.8	3.6	3.2 - 4.5

Specimen MX-5

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	120	20.82	0.53	2.5	20.8	17.6 - 24.0
All Sysmex XN/XS Instruments	120	20.82	0.53	2.5	20.8	17.6 - 24.0
Sysmex XN-1000	19	21.14	0.33	1.6	21.1	17.9 - 24.4
Sysmex XN-330	7	20.83	0.51	2.5	21.1	17.7 - 24.0
Sysmex XN-430	35	20.81	0.57	2.8	20.7	17.6 - 24.0
Sysmex XN-450	11	21.06	0.90	4.3	20.8	17.9 - 24.3
Sysmex XN-530	5	21.43	0.90	4.2	21.9	18.2 - 24.7
Sysmex XN-550	22	20.56	0.47	2.3	20.5	17.4 - 23.7
Sysmex XS-1000i	23	20.75	0.52	2.5	20.8	17.6 - 23.9

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

Specimen MX-1

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	123	5.754	0.057	1.0	5.75	5.40 - 6.10
All Sysmex XN/XS Instruments	123	5.754	0.057	1.0	5.75	5.40 - 6.10
Sysmex XN-1000	19	5.763	0.061	1.1	5.75	5.41 - 6.11
Sysmex XN-330	7	5.766	0.057	1.0	5.75	5.41 - 6.12
Sysmex XN-430	36	5.770	0.064	1.1	5.78	5.42 - 6.12
Sysmex XN-450	11	5.731	0.031	0.5	5.73	5.38 - 6.08
Sysmex XN-530	5	5.800	0.072	1.2	5.78	5.45 - 6.15
Sysmex XN-550	22	5.760	0.052	0.9	5.77	5.41 - 6.11
Sysmex XS-1000i	25	5.727	0.060	1.0	5.71	5.38 - 6.08

Specimen MX-2

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	121	2.491	0.031	1.2	2.49	2.34 - 2.65
All Sysmex XN/XS Instruments	121	2.491	0.031	1.2	2.49	2.34 - 2.65
Sysmex XN-1000	19	2.515	0.037	1.5	2.51	2.36 - 2.67
Sysmex XN-330	7	2.477	0.027	1.1	2.48	2.32 - 2.63
Sysmex XN-430	35	2.483	0.028	1.1	2.49	2.33 - 2.64
Sysmex XN-450	11	2.464	0.037	1.5	2.47	2.31 - 2.62
Sysmex XN-530	5	2.510	0.026	1.1	2.50	2.35 - 2.67
Sysmex XN-550	22	2.481	0.023	0.9	2.49	2.33 - 2.64
Sysmex XS-1000i	25	2.515	0.025	1.0	2.52	2.36 - 2.67

Specimen MX-3

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	123	4.758	0.048	1.0	4.76	4.47 - 5.05
All Sysmex XN/XS Instruments	123	4.758	0.048	1.0	4.76	4.47 - 5.05
Sysmex XN-1000	19	4.797	0.044	0.9	4.79	4.50 - 5.09
Sysmex XN-330	7	4.739	0.056	1.2	4.76	4.45 - 5.03
Sysmex XN-430	35	4.758	0.047	1.0	4.75	4.47 - 5.05
Sysmex XN-450	11	4.726	0.040	0.8	4.74	4.44 - 5.01
Sysmex XN-530	5	4.760	0.053	1.1	4.74	4.47 - 5.05
Sysmex XN-550	22	4.761	0.048	1.0	4.77	4.47 - 5.05
Sysmex XS-1000i	25	4.745	0.036	0.8	4.75	4.46 - 5.03

Specimen MX-4

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	123	2.495	0.035	1.4	2.49	2.34 - 2.65
All Sysmex XN/XS Instruments	123	2.495	0.035	1.4	2.49	2.34 - 2.65
Sysmex XN-1000	19	2.516	0.032	1.3	2.51	2.36 - 2.67
Sysmex XN-330	7	2.476	0.033	1.3	2.48	2.32 - 2.63
Sysmex XN-430	35	2.491	0.034	1.4	2.49	2.34 - 2.65
Sysmex XN-450	11	2.486	0.023	0.9	2.49	2.33 - 2.64
Sysmex XN-530	5	2.487	0.031	1.2	2.48	2.33 - 2.64
Sysmex XN-550	22	2.469	0.029	1.2	2.47	2.32 - 2.62
Sysmex XS-1000i	25	2.520	0.028	1.1	2.52	2.36 - 2.68

Specimen MX-5

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	123	5.758	0.054	0.9	5.76	5.41 - 6.11
All Sysmex XN/XS Instruments	123	5.758	0.054	0.9	5.76	5.41 - 6.11
Sysmex XN-1000	19	5.766	0.056	1.0	5.76	5.41 - 6.12
Sysmex XN-330	7	5.780	0.062	1.1	5.79	5.43 - 6.13
Sysmex XN-430	36	5.773	0.060	1.0	5.77	5.42 - 6.12
Sysmex XN-450	11	5.738	0.065	1.1	5.74	5.39 - 6.09
Sysmex XN-530	5	5.810	0.078	1.3	5.77	5.46 - 6.16
Sysmex XN-550	22	5.760	0.038	0.7	5.76	5.41 - 6.11
Sysmex XS-1000i	25	5.732	0.049	0.9	5.73	5.38 - 6.08

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

Specimen MX-1

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	123	17.81	0.15	0.8	17.8	16.5 - 19.1
All Sysmex XN/XS Instruments	123	17.81	0.15	0.8	17.8	16.5 - 19.1
Sysmex XN-1000	19	17.85	0.15	0.8	17.9	16.5 - 19.1
Sysmex XN-330	7	17.83	0.16	0.9	17.9	16.5 - 19.1
Sysmex XN-430	36	17.81	0.13	0.7	17.8	16.5 - 19.1
Sysmex XN-450	11	17.70	0.17	0.9	17.7	16.4 - 19.0
Sysmex XN-530	5	17.83	0.06	0.3	17.8	16.5 - 19.1
Sysmex XN-550	22	17.83	0.12	0.7	17.8	16.5 - 19.1
Sysmex XS-1000i	25	17.85	0.21	1.2	17.8	16.6 - 19.2

Specimen MX-2

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	120	6.04	0.07	1.2	6.0	5.6 - 6.5
All Sysmex XN/XS Instruments	120	6.04	0.07	1.2	6.0	5.6 - 6.5
Sysmex XN-1000	19	6.11	0.09	1.5	6.1	5.6 - 6.6
Sysmex XN-330	7	6.01	0.04	0.6	6.0	5.5 - 6.5
Sysmex XN-430	35	6.05	0.07	1.1	6.1	5.6 - 6.5
Sysmex XN-450	11	6.03	0.05	0.8	6.0	5.6 - 6.5
Sysmex XN-530	5	6.03	0.06	1.0	6.0	5.6 - 6.5
Sysmex XN-550	22	6.06	0.05	0.8	6.1	5.6 - 6.5
Sysmex XS-1000i	24	5.99	0.08	1.4	6.0	5.5 - 6.5

Specimen MX-3

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	124	13.39	0.13	1.0	13.4	12.4 - 14.4
All Sysmex XN/XS Instruments	124	13.39	0.13	1.0	13.4	12.4 - 14.4
Sysmex XN-1000	19	13.51	0.12	0.9	13.5	12.5 - 14.5
Sysmex XN-330	7	13.30	0.13	1.0	13.4	12.3 - 14.3
Sysmex XN-430	36	13.39	0.12	0.9	13.4	12.4 - 14.4
Sysmex XN-450	11	13.30	0.11	0.8	13.3	12.3 - 14.3
Sysmex XN-530	5	13.37	0.06	0.4	13.4	12.4 - 14.4
Sysmex XN-550	22	13.43	0.08	0.6	13.5	12.4 - 14.4
Sysmex XS-1000i	25	13.35	0.15	1.1	13.4	12.4 - 14.3

Specimen MX-4

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	123	6.05	0.09	1.4	6.0	5.6 - 6.5
All Sysmex XN/XS Instruments	123	6.05	0.09	1.4	6.0	5.6 - 6.5
Sysmex XN-1000	19	6.11	0.07	1.1	6.1	5.6 - 6.6
Sysmex XN-330	7	5.99	0.07	1.2	6.0	5.5 - 6.5
Sysmex XN-430	35	6.07	0.08	1.3	6.1	5.6 - 6.5
Sysmex XN-450	11	6.02	0.06	1.0	6.0	5.5 - 6.5
Sysmex XN-530	5	6.00	0.01	0.0	6.0	5.5 - 6.5
Sysmex XN-550	22	6.07	0.08	1.3	6.1	5.6 - 6.5
Sysmex XS-1000i	25	5.98	0.09	1.5	6.0	5.5 - 6.5

Specimen MX-5

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	122	17.82	0.15	0.8	17.8	16.5 - 19.1
All Sysmex XN/XS Instruments	122	17.82	0.15	0.8	17.8	16.5 - 19.1
Sysmex XN-1000	19	17.88	0.18	1.0	17.9	16.6 - 19.2
Sysmex XN-330	7	17.81	0.17	0.9	17.9	16.5 - 19.1
Sysmex XN-430	36	17.79	0.11	0.6	17.8	16.5 - 19.1
Sysmex XN-450	11	17.68	0.15	0.8	17.6	16.4 - 19.0
Sysmex XN-530	5	17.80	0.10	0.6	17.8	16.5 - 19.1
Sysmex XN-550	22	17.84	0.10	0.5	17.9	16.5 - 19.1
Sysmex XS-1000i	25	17.86	0.22	1.3	17.9	16.6 - 19.2

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

Specimen MX-1

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	123	53.43	0.77	1.4	53.5	50.2 - 56.7
All Sysmex XN/XS Instruments	123	53.43	0.77	1.4	53.5	50.2 - 56.7
Sysmex XN-1000	19	53.09	0.67	1.3	53.1	49.9 - 56.3
Sysmex XN-330	7	52.96	0.70	1.3	53.4	49.7 - 56.2
Sysmex XN-430	36	53.32	0.85	1.6	53.5	50.1 - 56.6
Sysmex XN-450	11	53.27	0.60	1.1	53.2	50.0 - 56.5
Sysmex XN-530	5	53.27	0.32	0.6	53.4	50.0 - 56.5
Sysmex XN-550	21	53.43	0.55	1.0	53.3	50.2 - 56.7
Sysmex XS-1000i	25	54.05	0.72	1.3	54.1	50.8 - 57.3

Specimen MX-2

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	124	18.59	0.35	1.9	18.6	17.4 - 19.8
All Sysmex XN/XS Instruments	124	18.59	0.35	1.9	18.6	17.4 - 19.8
Sysmex XN-1000	19	18.54	0.28	1.5	18.6	17.4 - 19.7
Sysmex XN-330	7	18.27	0.24	1.3	18.4	17.1 - 19.4
Sysmex XN-430	36	18.53	0.34	1.9	18.6	17.4 - 19.7
Sysmex XN-450	11	18.44	0.33	1.8	18.5	17.3 - 19.6
Sysmex XN-530	5	18.60	0.10	0.5	18.6	17.4 - 19.8
Sysmex XN-550	22	18.45	0.29	1.6	18.5	17.3 - 19.6
Sysmex XS-1000i	25	18.98	0.18	0.9	19.0	17.8 - 20.2

Specimen MX-3

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	123	40.35	0.56	1.4	40.4	37.9 - 42.8
All Sysmex XN/XS Instruments	123	40.35	0.56	1.4	40.4	37.9 - 42.8
Sysmex XN-1000	19	40.42	0.39	1.0	40.4	37.9 - 42.9
Sysmex XN-330	7	39.76	0.62	1.6	39.9	37.3 - 42.2
Sysmex XN-430	36	40.33	0.61	1.5	40.4	37.9 - 42.8
Sysmex XN-450	11	40.17	0.56	1.4	40.3	37.7 - 42.6
Sysmex XN-530	5	40.17	0.15	0.4	40.2	37.7 - 42.6
Sysmex XN-550	22	40.31	0.76	1.9	40.5	37.8 - 42.8
Sysmex XS-1000i	24	40.61	0.37	0.9	40.6	38.1 - 43.1

Specimen MX-4

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	122	18.61	0.35	1.9	18.6	17.4 - 19.8
All Sysmex XN/XS Instruments	122	18.61	0.35	1.9	18.6	17.4 - 19.8
Sysmex XN-1000	19	18.56	0.20	1.1	18.6	17.4 - 19.7
Sysmex XN-330	7	18.33	0.19	1.0	18.3	17.2 - 19.5
Sysmex XN-430	35	18.55	0.37	2.0	18.6	17.4 - 19.7
Sysmex XN-450	11	18.56	0.28	1.5	18.6	17.4 - 19.7
Sysmex XN-530	5	18.47	0.15	0.8	18.5	17.3 - 19.6
Sysmex XN-550	22	18.38	0.38	2.1	18.4	17.2 - 19.5
Sysmex XS-1000i	25	18.98	0.28	1.5	19.0	17.8 - 20.2

Specimen MX-5

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	123	53.44	0.79	1.5	53.5	50.2 - 56.7
All Sysmex XN/XS Instruments	123	53.44	0.79	1.5	53.5	50.2 - 56.7
Sysmex XN-1000	19	53.22	0.60	1.1	53.2	50.0 - 56.5
Sysmex XN-330	7	53.04	0.56	1.1	53.4	49.8 - 56.3
Sysmex XN-430	36	53.34	0.90	1.7	53.4	50.1 - 56.6
Sysmex XN-450	11	53.21	0.78	1.5	53.0	50.0 - 56.5
Sysmex XN-530	5	53.40	0.17	0.3	53.3	50.1 - 56.7
Sysmex XN-550	21	53.38	0.58	1.1	53.2	50.1 - 56.6
Sysmex XS-1000i	24	54.13	0.58	1.1	54.1	50.8 - 57.4

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

Specimen MX-1

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	121	405.2	13.1	3.2	405	303 - 507
All Sysmex XN/XS Instruments	121	405.2	13.1	3.2	405	303 - 507
Sysmex XN-1000	19	412.8	12.2	3.0	411	309 - 517
Sysmex XN-330	7	404.4	16.3	4.0	404	303 - 506
Sysmex XN-430	36	407.7	9.1	2.2	408	305 - 510
Sysmex XN-450	11	391.9	50.3	12.8	410	293 - 490
Sysmex XN-530	5	414.3	5.5	1.3	414	310 - 518
Sysmex XN-550	21	409.0	9.7	2.4	405	306 - 512
Sysmex XS-1000i	25	389.2	9.6	2.5	388	291 - 487

Specimen MX-2

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	124	50.6	3.1	6.1	50	37 - 64
All Sysmex XN/XS Instruments	124	50.6	3.1	6.1	50	37 - 64
Sysmex XN-1000	19	49.2	2.4	5.0	49	36 - 62
Sysmex XN-330	7	48.9	2.1	4.3	49	36 - 62
Sysmex XN-430	36	50.7	3.4	6.7	50	38 - 64
Sysmex XN-450	11	49.7	3.2	6.5	50	37 - 63
Sysmex XN-530	5	47.3	2.5	5.3	47	35 - 60
Sysmex XN-550	22	50.4	2.7	5.3	51	37 - 64
Sysmex XS-1000i	25	52.8	2.2	4.2	53	39 - 67

Specimen MX-3

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	119	199.5	6.2	3.1	200	149 - 250
All Sysmex XN/XS Instruments	119	199.5	6.2	3.1	200	149 - 250
Sysmex XN-1000	19	201.2	6.5	3.2	200	150 - 252
Sysmex XN-330	6	201.2	5.1	2.5	201	150 - 252
Sysmex XN-430	36	200.4	6.5	3.2	200	150 - 251
Sysmex XN-450	11	191.4	20.1	10.5	199	143 - 240
Sysmex XN-530	5	205.7	2.5	1.2	206	154 - 258
Sysmex XN-550	21	198.6	7.7	3.9	199	148 - 249
Sysmex XS-1000i	25	195.6	5.7	2.9	195	146 - 245

Specimen MX-4

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	123	50.4	3.4	6.7	50	37 - 63
All Sysmex XN/XS Instruments	123	50.4	3.4	6.7	50	37 - 63
Sysmex XN-1000	19	49.2	2.1	4.3	49	36 - 62
Sysmex XN-330	7	50.0	2.4	4.8	51	37 - 63
Sysmex XN-430	35	50.4	3.2	6.4	50	37 - 63
Sysmex XN-450	11	49.8	5.2	10.3	52	37 - 63
Sysmex XN-530	5	48.0	2.6	5.5	49	36 - 60
Sysmex XN-550	22	49.5	3.1	6.3	50	37 - 62
Sysmex XS-1000i	25	52.7	3.1	5.9	52	39 - 66

Specimen MX-5

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	121	403.2	14.1	3.5	403	302 - 504
All Sysmex XN/XS Instruments	121	403.2	14.1	3.5	403	302 - 504
Sysmex XN-1000	19	413.1	9.7	2.4	414	309 - 517
Sysmex XN-330	7	403.3	16.7	4.1	411	302 - 505
Sysmex XN-430	36	404.3	11.2	2.8	406	303 - 506
Sysmex XN-450	11	387.9	53.9	13.9	408	290 - 485
Sysmex XN-530	5	403.0	6.6	1.6	402	302 - 504
Sysmex XN-550	21	407.3	14.2	3.5	408	305 - 510
Sysmex XS-1000i	25	387.7	10.3	2.7	388	290 - 485

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

Specimen MX-1

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	111	56.61	1.75	3.1	56.3	51.3 - 61.9
All Sysmex XN/XS Instruments	111	56.61	1.75	3.1	56.3	51.3 - 61.9
Sysmex XN-1000	18	59.19	0.96	1.6	59.3	56.3 - 62.1
Sysmex XN-330	5	56.38	0.25	0.4	56.4	55.6 - 57.2
Sysmex XN-430	33	56.18	1.52	2.7	56.1	51.6 - 60.8
Sysmex XN-450	10	55.84	0.86	1.5	55.8	53.2 - 58.5
Sysmex XN-550	20	55.49	1.14	2.1	55.3	52.0 - 59.0
Sysmex XS-1000i	23	56.42	1.39	2.5	56.4	52.2 - 60.6

Specimen MX-2

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	113	61.40	2.06	3.4	61.1	55.2 - 67.6
All Sysmex XN/XS Instruments	113	61.40	2.06	3.4	61.1	55.2 - 67.6
Sysmex XN-1000	18	64.31	1.06	1.6	64.5	61.1 - 67.5
Sysmex XN-330	5	60.70	1.10	1.8	60.9	57.4 - 64.0
Sysmex XN-430	33	60.46	1.51	2.5	60.5	55.9 - 65.0
Sysmex XN-450	10	60.94	1.73	2.8	60.9	55.7 - 66.2
Sysmex XN-550	21	60.72	1.70	2.8	60.7	55.6 - 65.9
Sysmex XS-1000i	25	61.51	2.02	3.3	61.5	55.4 - 67.6

Specimen MX-3

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	113	47.65	1.92	4.0	47.2	41.8 - 53.5
All Sysmex XN/XS Instruments	113	47.65	1.92	4.0	47.2	41.8 - 53.5
Sysmex XN-1000	18	50.28	0.67	1.3	50.2	48.2 - 52.4
Sysmex XN-330	5	47.83	0.29	0.6	48.0	46.9 - 48.7
Sysmex XN-430	31	47.01	0.83	1.8	46.9	44.5 - 49.5
Sysmex XN-450	10	47.01	1.09	2.3	47.3	43.7 - 50.3
Sysmex XN-550	20	47.00	0.84	1.8	47.0	44.4 - 49.6
Sysmex XS-1000i	25	46.81	2.08	4.4	46.2	40.5 - 53.1

Specimen MX-4

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	113	61.46	1.98	3.2	61.4	55.5 - 67.5
All Sysmex XN/XS Instruments	113	61.46	1.98	3.2	61.4	55.5 - 67.5
Sysmex XN-1000	18	64.13	1.38	2.2	64.5	59.9 - 68.3
Sysmex XN-330	5	60.00	1.88	3.1	59.8	54.3 - 65.7
Sysmex XN-430	33	61.07	1.71	2.8	61.3	55.9 - 66.2
Sysmex XN-450	10	61.14	0.84	1.4	61.2	58.6 - 63.7
Sysmex XN-550	21	60.88	1.35	2.2	61.0	56.8 - 65.0
Sysmex XS-1000i	25	61.07	2.04	3.3	60.8	54.9 - 67.2

Specimen MX-5

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	111	56.68	1.83	3.2	56.1	51.1 - 62.2
All Sysmex XN/XS Instruments	111	56.68	1.83	3.2	56.1	51.1 - 62.2
Sysmex XN-1000	18	59.78	0.67	1.1	59.8	57.7 - 61.9
Sysmex XN-330	5	56.65	1.07	1.9	56.3	53.4 - 59.9
Sysmex XN-430	33	55.89	1.43	2.6	55.5	51.5 - 60.2
Sysmex XN-450	10	55.63	0.87	1.6	55.6	53.0 - 58.3
Sysmex XN-550	21	55.73	1.14	2.0	55.6	52.3 - 59.2
Sysmex XS-1000i	23	56.80	1.24	2.2	57.0	53.0 - 60.6

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

	Specimen MX-1						Specimen MX-2					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	108	19.36	1.06	5.5	19.6	16.1 - 22.6	114	12.70	1.66	13.1	12.7	7.7 - 17.7
All Sysmex XN/XS Instruments	108	19.36	1.06	5.5	19.6	16.1 - 22.6	114	12.70	1.66	13.1	12.7	7.7 - 17.7
Sysmex XN-1000	17	18.39	0.46	2.5	18.3	17.0 - 19.8	18	13.63	1.39	10.2	13.5	9.4 - 17.8
Sysmex XN-330	5	19.68	0.22	1.1	19.7	19.0 - 20.4	5	13.30	0.70	5.3	13.3	11.1 - 15.5
Sysmex XN-430	31	19.79	0.86	4.3	20.0	17.2 - 22.4	34	12.69	1.63	12.8	12.5	7.7 - 17.6
Sysmex XN-450	10	19.61	0.49	2.5	19.8	18.1 - 21.1	10	12.37	1.21	9.8	12.3	8.7 - 16.1
Sysmex XN-550	20	19.93	0.49	2.5	20.0	18.4 - 21.5	21	12.67	1.42	11.2	13.0	8.4 - 17.0
Sysmex XS-1000i	25	18.32	1.66	9.1	18.6	13.3 - 23.4	25	12.14	2.13	17.5	12.6	5.7 - 18.6

	Specimen MX-3						Specimen MX-4					
All Method	108	30.54	1.56	5.1	30.8	25.8 - 35.3	114	12.74	1.67	13.1	12.8	7.7 - 17.8
All Sysmex XN/XS Instruments	108	30.54	1.56	5.1	30.8	25.8 - 35.3	114	12.74	1.67	13.1	12.8	7.7 - 17.8
Sysmex XN-1000	18	27.97	0.63	2.3	28.0	26.0 - 29.9	18	13.82	1.49	10.8	13.7	9.3 - 18.3
Sysmex XN-330	5	30.98	0.69	2.2	30.7	28.8 - 33.1	5	12.58	0.84	6.7	12.8	10.0 - 15.2
Sysmex XN-430	31	30.77	0.73	2.4	30.7	28.5 - 33.0	34	12.45	1.63	13.1	12.8	7.5 - 17.4
Sysmex XN-450	10	31.14	0.88	2.8	31.1	28.5 - 33.8	10	12.52	1.03	8.2	12.5	9.4 - 15.6
Sysmex XN-550	20	30.77	0.92	3.0	30.8	28.0 - 33.6	21	12.66	1.37	10.8	12.6	8.5 - 16.8
Sysmex XS-1000i	23	31.63	1.61	5.1	32.2	26.8 - 36.5	25	12.48	2.17	17.4	12.8	5.9 - 19.0

	Specimen MX-5					
All Method	107	19.18	1.07	5.6	19.6	15.9 - 22.4
All Sysmex XN/XS Instruments	107	19.18	1.07	5.6	19.6	15.9 - 22.4
Sysmex XN-1000	18	18.23	0.35	1.9	18.2	17.1 - 19.3
Sysmex XN-330	5	18.75	1.38	7.3	19.1	14.6 - 22.9
Sysmex XN-430	31	19.73	0.93	4.7	19.9	16.9 - 22.6
Sysmex XN-450	10	19.84	0.39	1.9	19.9	18.6 - 21.0
Sysmex XN-550	20	19.89	0.52	2.6	20.0	18.3 - 21.5
Sysmex XS-1000i	25	17.74	1.65	9.3	18.3	12.7 - 22.7

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

	Specimen MX-1						Specimen MX-2					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	110	1.34	0.61	45.3	1.1	0.0 - 3.2	110	1.07	0.51	47.3	1.0	0.0 - 2.6
All Sysmex XN/XS Instruments	110	1.34	0.61	45.3	1.1	0.0 - 3.2	110	1.07	0.51	47.3	1.0	0.0 - 2.6
Sysmex XN-1000	16	2.51	0.22	8.7	2.5	1.8 - 3.2	18	1.88	0.37	19.5	1.9	0.7 - 3.0
Sysmex XN-330	5	0.88	0.15	17.1	0.8	0.4 - 1.4	5	1.08	0.19	17.6	1.2	0.5 - 1.7
Sysmex XN-350	5	1.10	0.01	0.0	1.1	1.0 - 1.2	5	0.85	0.49	58.2	0.9	0.0 - 2.4
Sysmex XN-430	31	1.11	0.45	40.9	1.0	0.0 - 2.5	31	0.91	0.22	24.0	0.9	0.2 - 1.6
Sysmex XN-450	10	0.93	0.18	19.7	0.9	0.3 - 1.5	10	0.82	0.28	33.9	0.7	0.0 - 1.7
Sysmex XN-550	20	1.06	0.22	20.7	1.1	0.3 - 1.8	20	1.02	0.19	18.4	0.9	0.4 - 1.6
Sysmex XS-1000i	23	1.26	0.19	14.9	1.3	0.6 - 1.9	25	0.98	0.81	82.6	1.1	0.0 - 3.5

	Specimen MX-3						Specimen MX-4					
All Method	111	2.53	0.81	32.1	2.3	0.0 - 5.0	110	1.09	0.51	47.1	0.9	0.0 - 2.7
All Sysmex XN/XS Instruments	111	2.53	0.81	32.1	2.3	0.0 - 5.0	110	1.09	0.51	47.1	0.9	0.0 - 2.7
Sysmex XN-1000	18	4.07	0.41	10.1	4.2	2.8 - 5.4	18	1.82	0.54	29.6	1.7	0.2 - 3.5
Sysmex XN-330	5	2.05	0.34	16.7	2.0	1.0 - 3.1	5	1.05	0.30	28.6	1.2	0.1 - 2.0
Sysmex XN-350	5	2.25	0.07	3.1	2.3	2.0 - 2.5	5	0.85	0.07	8.3	0.9	0.6 - 1.1
Sysmex XN-430	31	2.19	0.41	18.5	2.2	0.9 - 3.5	31	1.02	0.42	40.9	0.9	0.0 - 2.3
Sysmex XN-450	10	2.09	0.40	19.2	2.1	0.8 - 3.3	10	0.84	0.24	28.7	0.9	0.1 - 1.6
Sysmex XN-550	21	2.17	0.43	20.0	2.1	0.8 - 3.5	20	0.96	0.24	24.7	0.9	0.2 - 1.7
Sysmex XS-1000i	23	2.31	0.30	12.9	2.4	1.4 - 3.3	23	0.83	0.43	51.5	0.9	0.0 - 2.2

	Specimen MX-5					
All Method	111	1.39	0.67	47.9	1.1	0.0 - 3.4
All Sysmex XN/XS Instruments	111	1.39	0.67	47.9	1.1	0.0 - 3.4
Sysmex XN-1000	18	2.62	0.37	14.3	2.6	1.4 - 3.8
Sysmex XN-330	5	0.98	0.25	25.6	1.0	0.2 - 1.8
Sysmex XN-350	5	1.00	0.01	0.0	1.0	0.9 - 1.1
Sysmex XN-430	32	1.21	0.51	41.9	1.0	0.0 - 2.8
Sysmex XN-450	10	1.02	0.17	16.5	1.1	0.5 - 1.6
Sysmex XN-550	20	1.03	0.23	22.7	1.1	0.3 - 1.8
Sysmex XS-1000i	23	1.21	0.16	13.6	1.2	0.7 - 1.8

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

	Specimen MX-1						Specimen MX-2					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	111	14.76	0.62	4.2	14.8	12.9 - 16.7	111	15.89	0.83	5.2	15.9	13.4 - 18.4
All Sysmex XN/XS Instruments	111	14.76	0.62	4.2	14.8	12.9 - 16.7	111	15.89	0.83	5.2	15.9	13.4 - 18.4
Sysmex XN-1000	18	14.93	0.64	4.3	15.0	13.0 - 16.9	18	15.44	0.84	5.4	15.3	12.9 - 18.0
Sysmex XN-330	5	14.58	0.49	3.4	14.4	13.0 - 16.1	5	15.93	0.90	5.6	16.3	13.2 - 18.7
Sysmex XN-430	33	14.84	0.63	4.2	14.9	12.9 - 16.8	33	16.18	0.84	5.2	16.2	13.6 - 18.7
Sysmex XN-450	10	14.66	0.58	4.0	14.8	12.9 - 16.5	10	16.02	0.75	4.7	16.1	13.7 - 18.3
Sysmex XN-550	21	14.73	0.71	4.8	14.8	12.6 - 16.9	21	15.96	0.74	4.6	16.0	13.7 - 18.2
Sysmex XS-1000i	23	14.59	0.55	3.7	14.6	12.9 - 16.3	23	15.68	0.82	5.2	15.9	13.2 - 18.2

	Specimen MX-3						Specimen MX-4					
All Method	109	12.52	0.68	5.4	12.5	10.4 - 14.6	111	15.93	0.87	5.5	16.0	13.3 - 18.6
All Sysmex XN/XS Instruments	109	12.52	0.68	5.4	12.5	10.4 - 14.6	111	15.93	0.87	5.5	16.0	13.3 - 18.6
Sysmex XN-1000	18	12.84	0.51	4.0	13.0	11.3 - 14.4	18	15.50	0.62	4.0	15.6	13.6 - 17.4
Sysmex XN-330	5	11.93	0.34	2.9	12.0	10.9 - 13.0	5	16.30	0.65	4.0	16.2	14.3 - 18.3
Sysmex XN-430	33	12.70	0.85	6.7	12.8	10.1 - 15.3	33	16.11	0.82	5.1	16.0	13.6 - 18.6
Sysmex XN-450	10	12.48	0.45	3.6	12.5	11.1 - 13.9	10	16.30	0.98	6.0	16.6	13.3 - 19.3
Sysmex XN-550	20	12.66	0.50	3.9	12.8	11.1 - 14.2	21	16.18	0.65	4.0	16.3	14.2 - 18.2
Sysmex XS-1000i	23	12.10	0.75	6.2	11.8	9.8 - 14.4	23	15.51	1.04	6.7	15.8	12.4 - 18.7

	Specimen MX-5					
All Method	111	14.84	0.69	4.6	14.9	12.7 - 17.0
All Sysmex XN/XS Instruments	111	14.84	0.69	4.6	14.9	12.7 - 17.0
Sysmex XN-1000	18	14.62	0.63	4.3	14.6	12.7 - 16.5
Sysmex XN-330	5	15.35	1.02	6.7	15.6	12.2 - 18.5
Sysmex XN-430	33	14.96	0.69	4.6	15.0	12.9 - 17.1
Sysmex XN-450	10	14.91	0.81	5.4	15.0	12.4 - 17.4
Sysmex XN-550	21	14.97	0.58	3.9	14.9	13.2 - 16.7
Sysmex XS-1000i	25	14.26	1.35	9.5	14.5	10.2 - 18.4

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

Specimen MX-1

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	111	8.59	0.69	8.0	8.5	6.5 - 10.7
All Sysmex XN/XS Instruments	111	8.07	1.61	20.0	8.6	3.2 - 13.0
Sysmex XN-1000	18	4.73	0.15	3.1	4.7	4.2 - 5.2
Sysmex XN-330	5	8.50	0.59	6.9	8.6	6.7 - 10.3
Sysmex XN-430	33	8.48	0.60	7.1	8.5	6.6 - 10.3
Sysmex XN-450	10	8.91	0.64	7.1	9.0	6.9 - 10.9
Sysmex XN-550	21	8.73	0.80	9.2	8.9	6.3 - 11.2
Sysmex XS-1000i	23	9.07	0.70	7.8	9.1	6.9 - 11.2

Specimen MX-2

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	111	9.62	0.70	7.3	9.4	7.5 - 11.8
All Sysmex XN/XS Instruments	111	8.88	1.98	22.3	9.4	2.9 - 14.9
Sysmex XN-1000	18	4.73	0.22	4.7	4.8	4.0 - 5.4
Sysmex XN-330	5	9.00	0.91	10.1	8.8	6.2 - 11.8
Sysmex XN-430	33	9.67	0.61	6.3	9.7	7.8 - 11.6
Sysmex XN-450	10	9.75	0.84	8.7	10.0	7.2 - 12.3
Sysmex XN-550	21	9.57	0.73	7.6	9.4	7.3 - 11.8
Sysmex XS-1000i	23	9.89	1.05	10.6	9.9	6.7 - 13.1

Specimen MX-3

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	111	7.44	0.64	8.6	7.3	5.5 - 9.4
All Sysmex XN/XS Instruments	111	7.05	1.15	16.3	7.3	3.6 - 10.5
Sysmex XN-1000	18	4.83	0.13	2.7	4.9	4.4 - 5.3
Sysmex XN-330	5	7.23	0.45	6.2	7.4	5.8 - 8.6
Sysmex XN-430	33	7.48	0.65	8.7	7.4	5.5 - 9.5
Sysmex XN-450	10	7.28	0.72	9.9	7.4	5.1 - 9.5
Sysmex XN-550	21	7.49	0.67	8.9	7.5	5.4 - 9.5
Sysmex XS-1000i	23	7.61	0.69	9.0	7.8	5.5 - 9.7

Specimen MX-4

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	111	9.37	0.83	8.9	9.2	6.8 - 11.9
All Sysmex XN/XS Instruments	111	8.79	2.00	22.7	9.2	2.7 - 14.8
Sysmex XN-1000	18	4.73	0.19	4.1	4.8	4.1 - 5.4
Sysmex XN-330	5	10.08	1.02	10.1	10.4	7.0 - 13.2
Sysmex XN-430	33	9.40	0.78	8.3	9.3	7.0 - 11.8
Sysmex XN-450	10	9.20	0.94	10.3	9.1	6.3 - 12.1
Sysmex XN-550	21	9.26	0.85	9.2	9.3	6.7 - 11.9
Sysmex XS-1000i	23	10.20	1.09	10.7	10.2	6.9 - 13.5

Specimen MX-5

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	111	8.60	0.66	7.7	8.5	6.6 - 10.6
All Sysmex XN/XS Instruments	111	8.12	1.65	20.3	8.5	3.1 - 13.1
Sysmex XN-1000	18	4.75	0.13	2.8	4.8	4.3 - 5.2
Sysmex XN-330	5	8.28	0.44	5.3	8.3	6.9 - 9.7
Sysmex XN-430	33	8.68	0.57	6.6	8.7	6.9 - 10.5
Sysmex XN-450	10	8.60	0.80	9.4	8.6	6.1 - 11.1
Sysmex XN-550	21	8.55	0.72	8.4	8.7	6.3 - 10.8
Sysmex XS-1000i	23	9.27	0.88	9.5	9.3	6.6 - 12.0

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

	Specimen MX-1						Specimen MX-2					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	85	15.02	0.74	4.9	15.0	12.7 - 17.3	85	16.51	1.00	6.1	16.5	13.5 - 19.6
All Sysmex XN/XS Instruments	85	15.02	0.74	4.9	15.0	12.7 - 17.3	85	16.51	1.00	6.1	16.5	13.5 - 19.6
Sysmex XN-1000	17	14.72	0.64	4.4	14.7	12.7 - 16.7	17	16.11	0.68	4.2	16.0	14.0 - 18.2
Sysmex XN-330	5	15.00	0.48	3.2	15.2	13.5 - 16.5	5	16.80	0.96	5.7	16.6	13.9 - 19.7
Sysmex XN-430	33	14.93	0.77	5.1	14.8	12.6 - 17.3	33	16.61	1.06	6.4	16.9	13.4 - 19.8
Sysmex XN-450	10	15.32	0.78	5.1	15.4	12.9 - 17.7	10	16.25	1.42	8.8	16.1	11.9 - 20.6
Sysmex XN-550	19	15.27	0.76	5.0	15.3	12.9 - 17.6	19	16.88	0.79	4.7	16.8	14.5 - 19.3

	Specimen MX-3						Specimen MX-4					
All Method	85	12.92	0.65	5.0	12.9	10.9 - 14.9	85	16.50	1.05	6.4	16.3	13.3 - 19.7
All Sysmex XN/XS Instruments	85	12.92	0.65	5.0	12.9	10.9 - 14.9	85	16.50	1.05	6.4	16.3	13.3 - 19.7
Sysmex XN-1000	17	12.75	0.47	3.7	12.6	11.3 - 14.2	17	15.99	0.81	5.1	16.2	13.5 - 18.5
Sysmex XN-330	5	12.98	0.24	1.8	12.9	12.2 - 13.7	5	16.13	0.85	5.3	15.7	13.5 - 18.7
Sysmex XN-430	33	13.05	0.69	5.3	13.0	10.9 - 15.2	33	16.59	1.09	6.6	16.5	13.3 - 19.9
Sysmex XN-450	10	12.82	0.78	6.1	12.8	10.4 - 15.2	10	17.50	0.98	5.6	17.6	14.5 - 20.5
Sysmex XN-550	19	12.93	0.71	5.5	13.0	10.8 - 15.1	19	16.34	0.97	5.9	16.1	13.4 - 19.3

	Specimen MX-5					
All Method	84	14.87	0.65	4.4	14.8	12.9 - 16.9
All Sysmex XN/XS Instruments	84	14.87	0.65	4.4	14.8	12.9 - 16.9
Sysmex XN-1000	17	14.75	0.63	4.3	14.6	12.8 - 16.7
Sysmex XN-330	5	14.95	0.48	3.2	15.0	13.5 - 16.4
Sysmex XN-430	33	15.00	0.67	4.5	15.0	12.9 - 17.1
Sysmex XN-450	10	14.98	0.79	5.3	15.0	12.6 - 17.4
Sysmex XN-550	19	14.77	0.77	5.2	14.7	12.4 - 17.1

2021 M1
BLOOD CELL IDENTIFICATION
Specimens BC-1 through BC-6

CASE HISTORY:

A 19-year-old male college student presented to the campus infirmary with a complaint of severe diarrhea and chronic blood in his stool. He appeared pale, thin, and fatigued. Upon examination, the patient had mild abdominal tenderness and normal perianal tissue. He was a non-smoker, and admitted to having bloody bowel movements for nearly a year. The patient was embarrassed to go to a doctor until the frequent diarrhea and excessive need for sleep started to interfere with his studies, causing much distress. A CBC was ordered, and results appear below.

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Test	Results	Reference Range
WBC	7.3 x 10^9/L	4.5 - 15.0 x 10^9/L
RBC	4.5 x 10^{12}/L	4.6 - 6.0 x 10^{12}/L
HGB	9.2 g/dL	14.0 - 18.0 g/dL
HCT	30.5 %	40 - 54 %
MCV	68 fL	80 - 94 fL
MCH	21 pg	26 - 32 pg
MCHC	30 g/dL	32 - 36 g/dL
RDW	18 %	11.5 - 14.5 %
PLT	399 x 10^9/L	150 - 450 x 10^9/L

This patient was diagnosed with ulcerative colitis.

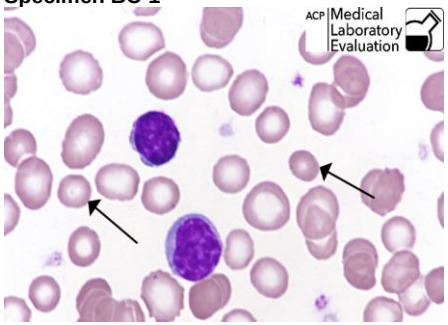
The two most common types of inflammatory bowel diseases are ulcerative colitis (UC) and Crohn Disease. Both UC and Crohn's typically present with chronic bloody diarrhea and abdominal pain, but they affect different areas of the gastrointestinal tract. Diagnosing the type of IBD requires endoscopy to locate the site of inflammation. Ulcerative colitis inflames the colon (large intestine) and rectum, where ulcers may form on the surface of the innermost mucosal layer. These chronic inflammatory bowel diseases (IBD) are very different from irritable bowel syndrome (IBS), which affects the muscle contractions of the bowel and is neither inflammatory nor chronic.

Anemia is often associated with chronic inflammatory conditions including arthritis, malignancies, and infections such as tuberculosis. Inflammatory cellular products impair the mobilization of iron into developing red cells and also impair the production and action of erythropoietin. The most common symptoms of anemia include excessive tiredness, pallor, dizziness, and headaches.

Patients with severe ulcerative colitis may have anemia, elevated erythrocyte sedimentation rate, low albumin, and electrolyte abnormalities due to diarrhea and dehydration. Anemia can be secondary to iron deficiency from blood loss, anemia of chronic inflammation (aka, anemia of chronic disease), autoimmune hemolytic anemia, or a combination of these processes. The diagnosis of ulcerative colitis is based on the presence of chronic diarrhea for more than four weeks and evidence of chronic colitis on endoscopy and biopsy. Recurring episodes of inflammation may flare up sporadically after a remission period of months or years. The severity of symptoms can be highly variable, but the disease is progressive over time. Besides diarrhea and abdominal pain, symptoms of UC include fever, fatigue, weight loss, and reduced appetite. UC patients can also develop extraintestinal manifestations affecting many other parts of the body including eyes, joints, and skin.

BLOOD CELL IDENTIFICATION

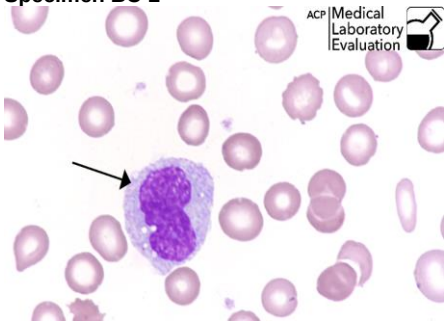
Specimen BC-1



Identification	Labs	Percent	Performance
Microcyte	138	95.83%	Acceptable
Erythrocyte, normal	4	2.78%	

The arrows in this photograph point to microcytes. They have the same color, morphology, and central pallor as the normal RBCs in the surrounding field but they are simply smaller in size. The nucleus of a small, mature lymphocyte, such as the one in this photo, is a good reference to use for estimating the size of red blood cells. A normal RBC will be approximately the same size or slightly smaller than the lymph's nucleus. The arrowed cells are significantly smaller, about half the size of the lymph's nucleus. To view another photo of microcytes, see 2019 M3 Specimen BC-15. To view a photo of normocytic erythrocytes, see 2019 M2 Specimen BC-10.

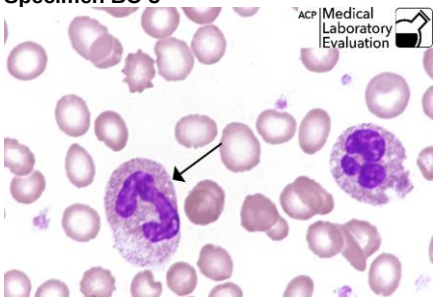
Specimen BC-2



Identification	Labs	Percent	Performance
Monocyte	136	94.44%	Acceptable
Metamyelocyte	3	2.08%	
Immature/abnormal cell – refer	3	2.08%	

The arrow in this photograph points to a monocyte. The nucleus is convoluted, with nuclear chromatin appearing lacy with small clumps. The cytoplasm is abundant, pale gray-blue, and filled with swirls of tiny granules that produce a cloudy or turbid appearance described as ground glass. The cytoplasmic membrane is irregular and often has pseudopods that appear to push away adjacent red blood cells. Cytoplasmic vacuoles are often present, indicating recent phagocytosis. To view another photo of a monocyte, see 2019 M1 Specimen BC-1.

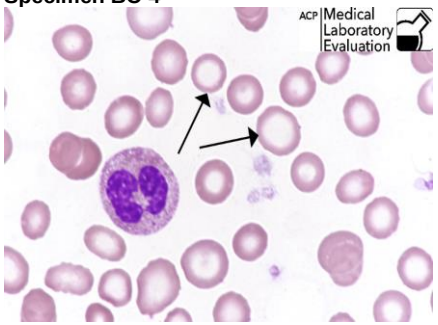
Specimen BC-3



Identification	Labs	Percent	Performance
Neutrophil – segmented or band	135	93.75%	Acceptable
Neutrophil – seg/band w/toxic granulation	8	5.56%	

The arrow in this photograph points to a band neutrophil. The band neutrophil is a less mature stage of development than the segmented neutrophil. The nucleus is indented greater than 50% of its width, resulting in a S, C, or U-shaped nucleus. The sides of the nuclear band are parallel and have visible chromatin in between. The cytoplasm of this cell is pink and filled with fine, smooth, violet and pink granules. The granules are not toxic. Toxic granules are larger and darker than the small blue-violet granules seen in the typical neutrophil. A cell with toxic granulation will have many larger dark blue-black granules in its cytoplasm. This cell contains a few small purple granules in the cytoplasm, but not enough to be considered toxic. To view another photo of another normal band neutrophil, see 2020 M3 Specimen BC-17. To view neutrophils having toxic granulation, see 2019 M2 BC-9 and 2017 M3 BC-15.

Specimen BC-4

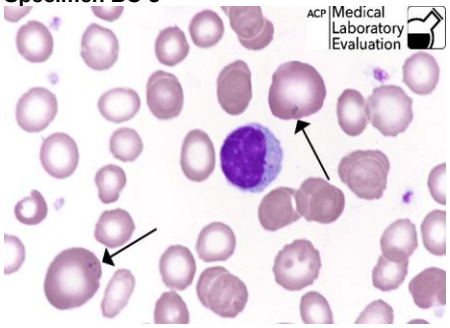


Identification	Labs	Percent	Performance
Hypochromic red cell	141	97.92%	Acceptable

The arrows in this photograph point to hypochromic red cells. A red blood cell is considered hypochromic when the zone of central pallor covers greater than one-third of the diameter of the cell. In normal RBCs, the zone of central pallor comprises only one-third or less of the total diameter/width of the cell. In normal sized (normocytic) cells, as pictured here, this pale appearance is due to a lower concentration of hemoglobin in the cell. Marked hypochromia is associated with a decreased MCHC value. To view another photo of hypochromic RBCs, see 2019 M3 Specimen BC-13.

BLOOD CELL IDENTIFICATION

Specimen BC-5

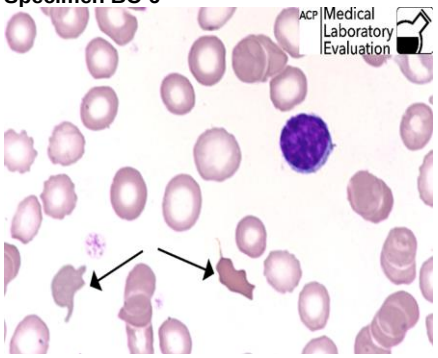


Identification	Labs	Percent	Performance
Pappenheimer body	89	61.81%	Acceptable
Immature/abnormal cell – refer	41	28.47%	Acceptable
Howell-Jolly body	6	4.17%	
Basophilic stippling	4	2.78%	
Macrocyte	2	1.39%	

The arrows in this photograph point to erythrocytes containing Pappenheimer bodies. These red cell inclusions contain iron, and they can be found in any condition that disturbs hemoglobin synthesis including hemolytic anemia, thalassemia, sideroblastic anemia, sickle cell disease, and occasionally B12 or folate deficiency. Patients with Ulcerative Colitis, Celiac Disease, and other gastrointestinal disorders often develop splenic hypofunction. In post splenectomy patients or patients with splenic hypofunction, more red cell inclusions and abnormally shaped cells are observed because the ability of the spleen to clear these abnormalities from circulation is absent or reduced. Pappenheimer bodies are small, blue, angular, irregular in size and shape, and tend to aggregate in small clusters near the edge of the cell. These cells would be called siderocytes if viewed with Prussian Blue staining, which would confirm that these particles contain iron. In contrast, Howell-Jolly bodies are spherical and larger than Pappenheimer bodies. To view another photo of Pappenheimer bodies, see 2017 M1 Specimen BC-6. To view a photo of Howell-Jolly bodies, see 2018 M1 BC-6.

BLOOD CELL IDENTIFICATION

Specimen BC-6



Identification	Labs	Percent	Performance
Acanthocyte	37	25.69%	Not graded – Educational challenge
Fragmented cell	104	72.22%	
Immature/abnormal cell – refer	2	1.39%	

The arrows in this ungraded educational challenge point to acanthocytes, also called spur cells. Acanthocytes are intact whole red blood cells that are contracted and dense. They have irregularly spaced projections of varying length, width, and surface distribution. In general, the formation of acanthocytes depends on alteration of the lipid composition and fluidity of the red cell membrane. Acanthocytes are associated with various underlying conditions including inflammation and fluid imbalance. They are also a common finding in hypothyroidism. Some participants incorrectly identified these cells as fragmented cells/schistocytes. Although fragmented cells also have irregular shapes and pointed ends, fragments usually do not have a mixture of rounded and pointed projections as seen here. Also, acanthocytes do not have a central pallor, while schistocytes can. To view another photo of acanthocytes, see 2017 M1 BC-5. To view a photo of fragmented cells, see 2014 M3 Specimen BC-17.

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BLOOD BANK

ABO GROUP

Specimen	Results	Labs	Percent	Performance
BB-1	Group O	7	100%	Acceptable
BB-2	Group A	7	100%	Acceptable
BB-3	Group B	7	100%	Acceptable
BB-4	Group B	7	100%	Acceptable
BB-5	Group O	7	100%	Acceptable

RH FACTOR (D TYPE)

Specimen	Results	Labs	Percent	Performance
BB-1	Rh Negative	17	100%	Acceptable
BB-2	Rh Negative	17	100%	Acceptable
BB-3	Rh Positive	17	100%	Acceptable
BB-4	Rh Positive	17	100%	Acceptable
BB-5	Rh Positive	17	100%	Acceptable

UNEXPECTED ANTIBODY DETECTION

Specimen	Results	Labs	Percent	Performance
AB-1	Unexpected antibody detected	7	100%	Acceptable
AB-2	No unexpected antibody detected	7	100%	Acceptable
AB-3	No unexpected antibody detected	7	100%	Acceptable
AB-4	Unexpected antibody detected	7	100%	Acceptable
AB-5	No unexpected antibody detected	7	100%	Acceptable

BLOOD BANK

ANTIBODY IDENTIFICATION

Specimen	Results	Labs	Percent	Performance
AB-1	Anti-D	1	100%	Acceptable
AB-2	No antibody detected	1	100%	Acceptable
AB-3	No antibody detected	1	100%	Acceptable
AB-4	Anti-E	1	100%	Acceptable
AB-5	No antibody detected	1	100%	Acceptable

COMPATIBILITY TESTING

Specimen	Results	Labs	Percent	Performance
AB-1	Not Compatible	7	100%	Acceptable
AB-2	Compatible	7	100%	Acceptable
AB-3	Compatible	7	100%	Acceptable
AB-4	Compatible	7	100%	Acceptable
AB-5	Compatible	7	100%	Acceptable

PROTHROMBIN TIME (seconds)

Reagent/Instrument	Specimen CG-1 Labs	Mean	SD	CV	Median	Range	Specimen CG-2 Labs	Mean	SD	CV	Median	Range
All Method	19	10.74	0.64	6.0	10.7	9.1 - 12.4	19	18.55	1.42	7.6	18.2	15.7 - 21.4
Dade Innovin												
Dade Behring BFT II	5	9.75	0.07	0.7	9.8	8.2 - 11.3	5	18.15	0.92	5.1	18.2	15.4 - 20.9
Sysmex CA-500/600 series	11	10.75	0.52	4.8	10.7	9.1 - 12.4	11	18.25	0.38	2.1	18.2	15.5 - 21.0
All Coagulation Instruments	16	10.59	0.58	5.5	10.6	8.9 - 12.2	16	18.21	0.44	2.4	18.2	15.4 - 21.0

Reagent/Instrument	Specimen CG-3 Labs	Mean	SD	CV	Median	Range	Specimen CG-4 Labs	Mean	SD	CV	Median	Range
All Method	19	13.41	0.93	6.9	13.0	11.3 - 15.5	19	30.48	2.91	9.5	29.4	25.9 - 35.1
Dade Innovin												
Dade Behring BFT II	5	13.35	1.34	10.1	13.4	11.3 - 15.4	5	32.60	4.53	13.9	32.6	27.7 - 37.5
Sysmex CA-500/600 series	11	13.02	0.31	2.4	13.0	11.0 - 15.0	11	29.10	0.85	2.9	29.0	24.7 - 33.5
All Coagulation Instruments	16	13.04	0.49	3.7	13.0	11.0 - 15.0	16	29.19	0.81	2.8	29.1	24.8 - 33.6

Reagent/Instrument	Specimen CG-5 Labs	Mean	SD	CV	Median	Range
All Method	19	10.49	0.68	6.5	10.4	8.9 - 12.1
Dade Innovin						
Dade Behring BFT II	5	9.80	0.01	0.0	9.8	8.3 - 11.3
Sysmex CA-500/600 series	11	10.30	0.33	3.2	10.4	8.7 - 11.9
All Coagulation Instruments	16	10.22	0.34	3.3	10.3	8.6 - 11.8

PROTHROMBIN TIME–INTERNATIONAL NORMALIZED RATIO (INR)

	Specimen CG-1						Specimen CG-2					
Reagent/Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	19	1.05	0.07	6.9	1.0	0.8 - 1.3	19	1.84	0.10	5.4	1.8	1.5 - 2.2
Dade Innovin												
Dade Behring BFT II	5	1.05	0.07	6.7	1.1	0.8 - 1.3	5	1.80	0.14	7.9	1.8	1.5 - 2.1
Sysmex CA-500/600 series	11	1.07	0.06	6.0	1.1	0.9 - 1.3	11	1.81	0.07	3.9	1.8	1.5 - 2.1
All Coagulation Instruments	16	1.06	0.06	6.0	1.1	0.9 - 1.3	16	1.81	0.07	4.0	1.8	1.5 - 2.1

	Specimen CG-3						Specimen CG-4					
All Method	19	1.34	0.09	6.5	1.3	1.1 - 1.6	19	3.05	0.25	8.0	3.0	2.5 - 3.6
Dade Innovin												
Dade Behring BFT II	5	1.40	0.14	10.1	1.4	1.1 - 1.7	5	3.00	0.42	14.1	3.0	2.5 - 3.5
Sysmex CA-500/600 series	11	1.30	0.04	3.4	1.3	1.1 - 1.5	11	2.95	0.10	3.5	3.0	2.5 - 3.4
All Coagulation Instruments	16	1.31	0.07	5.0	1.3	1.1 - 1.6	16	2.96	0.15	5.1	3.0	2.5 - 3.5

	Specimen CG-5					
All Method	19	1.01	0.06	5.5	1.0	0.8 - 1.2
Dade Innovin						
Dade Behring BFT II	5	1.05	0.07	6.7	1.1	0.8 - 1.3
Sysmex CA-500/600 series	11	1.00	0.04	4.5	1.0	0.8 - 1.2
All Coagulation Instruments	16	1.01	0.05	4.7	1.0	0.8 - 1.2

ACTIVATED PARTIAL THROMBOPLASTIN (seconds)

	Specimen CG-1						Specimen CG-2					
Reagent/Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	10	25.8	1.9	7.5	26	21 - 30	10	32.8	4.1	12.5	31	27 - 38
Dade Actin FSL												
Sysmex CA-500/600 series	7	25.2	1.3	5.2	25	21 - 29	7	31.2	1.1	3.5	31	26 - 36
	Specimen CG-3						**Specimen CG-4**					
All Method	10	28.7	2.9	10.0	28	24 - 33	10	50.7	7.0	13.9	49	43 - 59
Dade Actin FSL												
Sysmex CA-500/600 series	7	27.6	1.3	4.9	27	23 - 32	7	48.0	2.9	6.1	47	40 - 56
	Specimen CG-5											
All Method	10	25.2	1.8	7.3	25	21 - 29						
Dade Actin FSL												
Sysmex CA-500/600 series	7	24.6	1.3	5.5	24	20 - 29						

Fibrinogen (mg/dL)

One participant reported Fibrinogen. The vendor assay values on a Sysmex CA-540 for specimens CG-1 through CG-5 are: 394 mg/dL, 196 mg/dL, 132 mg/dL, 208 mg/dL, and 201 mg/dL, respectively.

COAGUCHEK XS PLUS PROTHROMBIN TIME (seconds)

	Specimen XS-1						Specimen XS-2					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	13	33.79	0.75	2.2	33.9	28.7 - 38.9	13	13.96	0.19	1.3	13.9	11.8 - 16.1
All Roche CoaguChek XS Plus Instruments	13	33.79	0.75	2.2	33.9	28.7 - 38.9	13	13.96	0.19	1.3	13.9	11.8 - 16.1
Roche CoaguChek XS Plus - Waived	8	33.55	0.73	2.2	33.8	28.5 - 38.6	8	13.98	0.16	1.1	14.0	11.8 - 16.1
Roche CoaguChek XS Plus	5	34.28	0.61	1.8	34.4	29.1 - 39.5	5	13.93	0.26	1.9	13.9	11.8 - 16.1

	Specimen XS-3						Specimen XS-4					
All Method	8	23.20	0.29	1.3	23.3	19.7 - 26.7	8	15.08	0.10	0.6	15.1	12.8 - 17.4
All Roche CoaguChek XS Plus Instruments	8	23.20	0.29	1.3	23.3	19.7 - 26.7	8	15.08	0.10	0.6	15.1	12.8 - 17.4
Roche CoaguChek XS Plus - Waived	4	-	-	-	23.2	19.7 - 26.7	4	-	-	-	15.1	12.8 - 17.4
Roche CoaguChek XS Plus	4	-	-	-	23.3	19.7 - 26.7	4	-	-	-	15.1	12.8 - 17.4

	Specimen XS-5					
All Method	8	33.85	0.71	2.1	34.1	28.7 - 39.0
All Roche CoaguChek XS Plus Instruments	8	33.85	0.71	2.1	34.1	28.7 - 39.0
Roche CoaguChek XS Plus - Waived	4	-	-	-	33.5	28.7 - 39.0
Roche CoaguChek XS Plus	4	-	-	-	34.3	28.7 - 39.0

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

	Specimen XS-1						Specimen XS-2					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	26	2.82	0.07	2.5	2.8	2.3 - 3.3	28	1.16	0.05	4.2	1.2	0.9 - 1.4
All Roche CoaguChek XS Plus Instruments	26	2.82	0.07	2.5	2.8	2.3 - 3.3	28	1.16	0.05	4.2	1.2	0.9 - 1.4
Roche CoaguChek XS Plus - Waived	20	2.82	0.07	2.6	2.8	2.3 - 3.3	22	1.16	0.05	4.2	1.2	0.9 - 1.4
Roche CoaguChek XS Plus	6	2.83	0.05	1.8	2.8	2.4 - 3.3	6	1.17	0.05	4.4	1.2	0.9 - 1.4

	Specimen XS-3						Specimen XS-4					
All Method	12	1.93	0.05	2.7	1.9	1.6 - 2.3	12	1.27	0.05	4.1	1.3	1.0 - 1.5
All Roche CoaguChek XS Plus Instruments	12	1.93	0.05	2.7	1.9	1.6 - 2.3	12	1.27	0.05	4.1	1.3	1.0 - 1.5
Roche CoaguChek XS Plus - Waived	8	1.95	0.06	3.0	2.0	1.6 - 2.3	8	1.28	0.05	3.9	1.3	1.0 - 1.5
Roche CoaguChek XS Plus	4	-	-	-	1.9	1.6 - 2.3	4	-	-	-	1.3	1.0 - 1.5

	Specimen XS-5					
All Method	12	2.82	0.08	2.7	2.8	2.3 - 3.3
All Roche CoaguChek XS Plus Instruments	12	2.82	0.08	2.7	2.8	2.3 - 3.3
Roche CoaguChek XS Plus - Waived	8	2.80	0.08	2.9	2.8	2.3 - 3.3
Roche CoaguChek XS Plus	4	-	-	-	2.9	2.3 - 3.3

COAGUCHECK XS - INTERNATIONAL NORMALIZED RATIO (INR)

	Specimen INX-1						Specimen INX-2					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
Roche CoaguChek XS	90	2.84	0.09	3.0	2.8	2.4 - 3.3	90	1.28	0.04	3.4	1.3	1.0 - 1.5

i-Stat PROTHROMBIN TIME (seconds)

	Specimen PTI-1						Specimen PTI-2					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
i-Stat Prothrombin Time	5	27.57	1.69	6.1	26.8	23.4 - 31.8	5	24.77	1.88	7.6	25.8	21.0 - 28.5

	Specimen PTI-3						Specimen PTI-4					
i-Stat Prothrombin Time	5	14.63	0.31	2.1	14.7	12.4 - 16.9	5	15.17	0.72	4.8	14.8	12.8 - 17.5

	Specimen PTI-5					
i-Stat Prothrombin Time	5	26.80	1.59	5.9	27.4	22.7 - 30.9

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

	Specimen PTI-1						Specimen PTI-2					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
i-Stat Prothrombin Time	5	2.40	0.17	7.2	2.3	2.0 - 2.8	5	2.10	0.17	8.2	2.2	1.7 - 2.5

	Specimen PTI-3						Specimen PTI-4					
i-Stat Prothrombin Time	5	1.23	0.06	4.7	1.2	1.0 - 1.5	5	1.27	0.12	9.1	1.2	1.0 - 1.5

	Specimen PTI-5					
i-Stat Prothrombin Time	5	2.33	0.12	4.9	2.4	1.9 - 2.7

FLUID CELL COUNT – WHITE BLOOD CELL COUNT (µL)

	Specimen BF-1						Specimen BF-2					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	5	4.0	1.4	35.4	4	1 - 7	5	242.0	45.3	18.7	242	151 - 333

FLUID CELL COUNT – RED BLOOD CELL COUNT (µL)

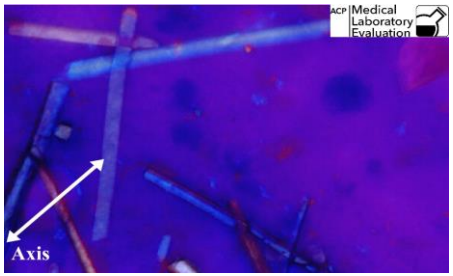
	Specimen BF-1						Specimen BF-2					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	5	3.0	2.8	94.3	3	0 - 9	5	964.5	87.0	9.0	965	790 - 1139

2021 M1
FLUID CRYSTAL IDENTIFICATION
Specimens FC-1 and FC-2

Microscopic examination of synovial fluid for crystals is an important diagnostic test in the evaluation of arthritis. Some crystals can be identified by their unique shape or morphology alone. Others need specialized techniques for identification. Using compensated polarized light helps us to identify crystals based on their optical differences. The compensator 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. The color produced when a crystal is 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 light to pass through unchanged, or impedes and causes the light to take a different path.

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, the way anisotropic crystals interact with light 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, resulting in different colors. A light beam hitting the anisotropic crystal from one direction or angle will react differently than a light beam hitting the same crystal at a different angle. This property of splitting light is called **birefringence** or double refraction.

Specimen FC-1

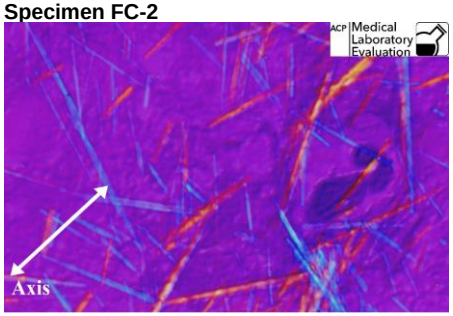


Identification	Labs	Percent	Performance
Steroid crystals	2	40.00%	Not graded
CPPD crystals	3	60.00%	

The large rectangular objects in this photograph are **steroid crystals**. Corticosteroids (aka. steroids) are drugs that are used to treat joint pain by reducing inflammation. These drugs are often injected directly into the joints to treat conditions such as rheumatoid arthritis and gout. Examples of steroid drugs include cortisone, triamcinolone, and prednisone. The morphology and birefringent properties of steroid crystals vary with the specific preparation. Some steroids form rod shapes like the ones pictured here, and other steroids form clumps of tiny, pleomorphic fragments. Having the patient's clinical history is helpful in these cases, as steroid crystals may be seen in synovial fluid weeks after injection. Some participants incorrectly identified these crystals as CPPD. Note that the magnification is 1000x. Steroid crystals can be confused with other rod-shaped or needle-shaped crystals, but steroids tend to be significantly larger and will generally appear in greater numbers. To view another photo of steroid crystals, see 2020 M2 Specimen FC-4. To view a photo of CPPD crystals, see 2020 M1 FC-1 and 2020 M3 FC-6.
This is an ungraded challenge due to less than 80% participant consensus.

2021 M1
FLUID CRYSTAL IDENTIFICATION

Specimen FC-2



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 either intracellular or extracellular. MSU crystals are associated with gout, which is a common crystal-induced inflammatory arthritis. The crystals form in joints and tissues when the uric acid level is elevated. They cause inflammation and soft tissue damage, resulting in painful swelling, usually in one joint. The base of the big toe is often affected. Gout is caused by either 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 and the metabolic syndrome, and dehydration or use of diuretic agents. Since there are other needle-shaped crystals, examination with a red plate compensator can help with identification. MSU crystals are **negatively birefringent**, meaning the crystals lying parallel (aligned with) the axis are yellow, and the crystals lying perpendicular to the axis are blue. To view another photo of MSU, see 2020 M3 Specimen FC-5.

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MICROALBUMIN, DIPSTICK

Specimen UM-1

		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	23	-	-	-	-	-	17	-	6	-	-
McKesson 120 Urine Analyzer	4	-	-	-	-	-	2	-	2	-	-
Roche Micral - 1 minute	1	-	-	-	-	-	1	-	-	-	-
Siemens Clinitek Microalbumin	17	-	-	-	-	-	13	-	4	-	-
Uriscan Optima	1	-	-	-	-	-	1	-	-	-	-

CREATININE, DIPSTICK

Specimen UM-1

		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	23	-	-	-	6	13	3	1
McKesson 120 Urine Analyzer	4	-	-	-	2	2	-	-
Siemens Clinitek Microalbumin	17	-	-	-	4	11	1	1
Siemens Multistix Pro	2	-	-	-	-	-	2	-

MICROALBUMIN, QUANTITATIVE (mg/L)

Specimen UM-1

Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	42	144.55	18.34	12.7	142.1	101.1 - 188.0
All Alere Afinion Analyzers	7	166.10	9.57	5.8	162.7	116.2 - 216.0
Alere Afinion AS100	6	167.60	9.54	5.7	163.1	117.3 - 217.9
Beckman AU	12	138.60	5.87	4.2	140.4	97.0 - 180.2
Siemens DCA Vantage	5	146.52	8.58	5.9	142.1	102.5 - 190.5
Siemens Dimension	10	144.58	15.14	10.5	141.8	101.2 - 188.0

CREATININE, URINE (mg/dL)

Specimen UM-1

Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	33	70.24	5.38	7.7	69.4	58.3 - 82.2
All Alere Afinion Analyzers	6	70.18	1.93	2.7	69.5	58.2 - 82.2
Alere Afinion AS100	5	70.36	2.10	3.0	69.5	58.3 - 82.4
Beckman AU	11	71.31	22.33	31.3	65.0	59.1 - 83.5
Siemens DCA Vantage	5	77.52	6.29	8.1	78.0	64.3 - 90.7
Siemens Dimension	7	70.44	1.77	2.5	71.2	58.4 - 82.5

WAIVED HEMATOLOGY–HEMOGLOBIN (g/dL)

	Specimen HD-1						Specimen HD-2					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	74	17.22	0.65	3.8	17.3	15.9 - 18.6	75	6.17	0.17	2.8	6.2	5.7 - 6.7
All Stanbio Methods	12	17.40	1.18	6.8	17.8	15.0 - 19.8	12	6.24	0.17	2.8	6.2	5.8 - 6.7
Alere (Stanbio) HemoPoint H2	12	17.40	1.18	6.8	17.8	15.0 - 19.8	12	6.24	0.17	2.8	6.2	5.8 - 6.7
HemoCue 201/+	62	17.17	0.59	3.4	17.2	15.9 - 18.4	63	6.16	0.17	2.8	6.2	5.7 - 6.6

WAIVED HEMATOLOGY–HEMATOCRIT (percent)

	Specimen HD-1						Specimen HD-2					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	10	46.12	11.33	24.6	50.4	23.4 - 68.8	10	15.35	4.81	31.3	18.0	5.7 - 25.0

KOH SKIN PREPARATION

Specimen	***Identification***	***Labs***	***Percent***	***Performance***
K-1	Yeast/fungal elements absent	70	89.74%	Acceptable
	Yeast/fungal elements present	8	10.26%	

Organism present in specimen K-1: *Actinomyces odontolyticus*

K-2	Yeast/fungal elements present	75	96.15%	Acceptable
	Yeast/fungal elements absent	3	3.85%	

Organism present in specimen K-2: *Trichophyton rubrum*

URINALYSIS DIPSTICK–SPECIFIC GRAVITY

Specimen UA-1

Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	590	1.0253	0.0048	0.5	1.025	1.015 - 1.036
All Refractive Index Methods	5	1.0274	0.0018	0.2	1.027	1.017 - 1.038
All Roche Methods	10	1.0135	0.0024	0.2	1.015	1.003 - 1.024
All Siemens Methods	452	1.0270	0.0034	0.3	1.030	1.016 - 1.037
Consult Diagnostics Urine Analyzer	8	1.0225	0.0037	0.4	1.025	1.012 - 1.033
Diagnostic Test Group Clarity Urocheck 120	8	1.0244	0.0016	0.2	1.025	1.014 - 1.035
Henry Schein Urispec / Urispec Plus	17	1.0203	0.0021	0.2	1.020	1.010 - 1.031
McKesson 10SG Reagent Strips	8	1.0213	0.0036	0.3	1.020	1.011 - 1.032
McKesson 120 Urine Analyzer	25	1.0244	0.0015	0.2	1.025	1.014 - 1.035
Roche Chemstrips	26	1.0154	0.0024	0.2	1.015	1.005 - 1.026
Roche Urisys	8	1.0131	0.0027	0.3	1.015	1.003 - 1.024
Siemens Clinitek 50	5	1.0260	0.0022	0.2	1.025	1.016 - 1.036
Siemens Clinitek Advantus	12	1.0250	0.0001	0.0	1.025	1.015 - 1.035
Siemens Clinitek Status / Status+	348	1.0281	0.0024	0.2	1.030	1.018 - 1.039
Siemens Multistix Pro	12	1.0242	0.0056	0.5	1.025	1.014 - 1.035
Siemens Reagent Strips	80	1.0214	0.0039	0.4	1.020	1.011 - 1.032

URINALYSIS DIPSTICK–pH

Specimen UA-1

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	610	-	-	-	4	-	68	104	429	2	3	-	-
Consult Diagnostics Reagent Strips	3	-	-	-	1	-	-	2	-	-	-	-	-
Consult Diagnostics Urine Analyzer	8	-	-	-	-	-	3	5	-	-	-	-	-
CTMI CT-120 Urine Analyzer	2	-	-	-	-	-	1	1	-	-	-	-	-
Diagnostic Test Group Clarity Urocheck	3	-	-	-	-	-	1	2	-	-	-	-	-
Diagnostic Test Group Clarity Urocheck 120	9	-	-	-	-	-	5	4	-	-	-	-	-
Germaine Labs AimStrip Urine Analyzer	1	-	-	-	-	-	-	1	-	-	-	-	-
Henry Schein One Step Plus	1	-	-	-	-	-	-	1	-	-	-	-	-
Henry Schein Urispec / Urispec Plus	19	-	-	-	-	-	-	18	1	-	-	-	-
Immunostics Detector Urine Strips	1	-	-	-	1	-	-	-	-	-	-	-	-
McKesson 10SG Reagent Strips	9	-	-	-	1	-	5	3	-	-	-	-	-
McKesson 120 Urine Analyzer	25	-	-	-	-	-	16	9	-	-	-	-	-
Medline 120 Urine Analyzer	3	-	-	-	-	-	-	3	-	-	-	-	-
Medline Urinalysis Reagent Strips	1	-	-	-	-	-	-	1	-	-	-	-	-
NDC Pro Advantage	1	-	-	-	-	-	1	-	-	-	-	-	-
Other Dipstick Method	3	-	-	-	-	-	-	1	2	-	-	-	-
Roche Chemstrips	29	-	-	-	-	-	27	-	2	-	-	-	-
Roche Criterion Analyzer	1	-	-	-	-	-	-	1	-	-	-	-	-
Roche SuperUA/ChemstripUA	1	-	-	-	-	-	1	-	-	-	-	-	-
Roche Urisys	8	-	-	-	-	-	-	5	3	-	-	-	-
Siemens Clinitek 10 / 100	2	-	-	-	-	-	-	1	1	-	-	-	-
Siemens Clinitek 50	5	-	-	-	-	-	-	3	2	-	-	-	-
Siemens Clinitek 500	2	-	-	-	-	-	-	-	2	-	-	-	-
Siemens Clinitek Advantus	13	-	-	-	-	-	-	-	13	-	-	-	-
Siemens Clinitek Status / Status+	356	-	-	-	-	-	3	9	344	-	-	-	-
Siemens Multistix Pro	11	-	-	-	-	-	-	2	8	-	1	-	-
Siemens Reagent Strips	90	-	-	-	1	-	4	30	51	2	2	-	-
Teco Diagnostics URS	1	-	-	-	-	-	-	1	-	-	-	-	-
Uriscan Optima	1	-	-	-	-	-	-	1	-	-	-	-	-
UriScan Reagent Strips	1	-	-	-	-	-	1	-	-	-	-	-	-

URINALYSIS DIPSTICK–PROTEIN QUALITATIVE

Specimen UA-1

		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	615	4	-	6	161	74	4	1	7	-	176	182	-
Consult Diagnostics Reagent Strips	3	-	-	-	2	-	1	-	-	-	-	-	-
Consult Diagnostics Urine Analyzer	8	-	-	-	7	-	-	-	-	-	1	-	-
CTMI CT-120 Urine Analyzer	2	-	-	-	2	-	-	-	-	-	-	-	-
Diagnostic Test Group Clarity Urocheck	3	-	-	-	3	-	-	-	-	-	-	-	-
Diagnostic Test Group Clarity Urocheck 120	9	-	-	2	6	1	-	-	-	-	-	-	-
Germaine Labs AimStrip Urine Analyzer	1	-	-	-	1	-	-	-	-	-	-	-	-
Henry Schein One Step Plus	2	-	-	-	-	-	-	-	-	-	1	1	-
Henry Schein Urispec / Urispec Plus	19	-	-	-	1	-	-	-	2	-	15	1	-
Immunostics Detector Urine Strips	1	-	-	-	-	-	-	-	-	-	-	1	-
McKesson 10SG Reagent Strips	9	-	-	1	5	-	1	1	-	-	1	-	-
McKesson 120 Urine Analyzer	25	-	-	1	22	1	-	-	1	-	-	-	-
Medline 120 Urine Analyzer	3	-	-	-	2	1	-	-	-	-	-	-	-
Medline Urinalysis Reagent Strips	1	-	-	-	1	-	-	-	-	-	-	-	-
NDC Pro Advantage	1	-	-	-	1	-	-	-	-	-	-	-	-
Other Dipstick Method	3	-	-	-	1	1	-	-	-	-	1	-	-
Roche Chemstrips	33	-	-	-	21	4	-	-	-	-	7	1	-
Roche Criterion Analyzer	1	-	-	-	-	-	-	-	-	-	1	-	-
Roche SuperUA/ChemstripUA	1	-	-	-	-	-	-	-	1	-	-	-	-
Roche Urisys	8	-	-	-	1	-	-	-	3	-	4	-	-
Siemens Clinitek 10 / 100	2	-	-	-	-	-	-	-	-	-	1	1	-
Siemens Clinitek 50	5	-	-	-	-	-	-	-	-	-	-	5	-
Siemens Clinitek 500	2	-	-	-	1	-	-	-	-	-	1	-	-
Siemens Clinitek Advantus	12	-	-	-	6	-	-	-	-	-	6	-	-
Siemens Clinitek Atlas	2	-	-	-	-	-	-	-	-	-	1	1	-
Siemens Clinitek Status / Status+	352	3	-	-	49	37	-	-	-	-	111	152	-
Siemens Multistix Pro	11	-	-	-	1	4	-	-	-	-	4	2	-
Siemens Reagent Strips	92	1	-	-	26	25	2	-	-	-	21	17	-
Sulfosalicylic Acid	1	-	-	-	1	-	-	-	-	-	-	-	-
Teco Diagnostics URS	1	-	-	1	-	-	-	-	-	-	-	-	-
Uriscan Optima	1	-	-	1	-	-	-	-	-	-	-	-	-
UriScan Reagent Strips	1	-	-	-	1	-	-	-	-	-	-	-	-

URINALYSIS DIPSTICK–GLUCOSE

Specimen UA-1

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	615	10	-	5	103	63	14	1	4	228	187
Consult Diagnostics Reagent Strips	3	-	-	-	2	-	1	-	-	-	-
Consult Diagnostics Urine Analyzer	8	-	-	-	1	5	-	-	-	1	1
CTMI CT-120 Urine Analyzer	2	-	-	-	1	-	-	-	-	1	-
Diagnostic Test Group Clarity Urocheck	4	-	-	-	-	3	-	-	1	-	-
Diagnostic Test Group Clarity Urocheck 120	8	-	-	-	3	5	-	-	-	-	-
Germaine Labs AimStrip Urine Analyzer	1	-	-	1	-	-	-	-	-	-	-
Henry Schein One Step Plus	1	-	-	-	-	-	-	-	-	-	1
Henry Schein Urispec / Urispec Plus	19	-	-	-	1	-	-	-	-	2	16
Immunostics Detector Urine Strips	1	-	-	-	-	-	-	-	-	-	1
McKesson 10SG Reagent Strips	9	-	-	-	3	3	1	-	-	2	-
McKesson 120 Urine Analyzer	24	1	-	1	9	12	-	-	1	-	-
Medline 120 Urine Analyzer	4	1	-	-	-	3	-	-	-	-	-
Medline Urinalysis Reagent Strips	1	-	-	-	-	-	-	-	-	-	1
NDC Pro Advantage	1	-	-	-	-	1	-	-	-	-	-
Other Dipstick Method	3	-	-	1	-	-	1	-	-	-	1
Roche Chemstrips	32	-	-	-	-	2	2	-	-	2	26
Roche Criterion Analyzer	1	-	-	-	-	-	-	-	-	-	1
Roche SuperUA/ChemstripUA	1	-	-	-	-	-	-	-	-	-	1
Roche Urisys	8	-	-	-	-	1	-	-	-	-	7
Siemens Clinitek 10 / 100	2	-	-	-	-	-	-	-	-	-	2
Siemens Clinitek 50	5	1	-	-	-	-	-	-	-	-	4
Siemens Clinitek 500	2	-	-	-	-	1	-	-	-	-	1
Siemens Clinitek Advantus	13	-	-	-	-	7	-	-	-	-	6
Siemens Clinitek Status / Status+	357	4	-	1	67	17	-	1	2	204	61
Siemens Multistix Pro	10	-	-	-	2	-	3	-	-	2	3
Siemens Reagent Strips	92	3	-	1	14	-	6	-	-	14	54
Teco Diagnostics URS	1	-	-	-	-	1	-	-	-	-	-
Uriscan Optima	1	-	-	-	-	1	-	-	-	-	-
UriScan Reagent Strips	1	-	-	-	-	1	-	-	-	-	-

URINALYSIS DIPSTICK–KETONES

Specimen UA-1

		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	608	603	2	-	-	1	-	-	1	-	-	1	-	-	-
Consult Diagnostics Reagent Strips	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Consult Diagnostics Urine Analyzer	8	8	-	-	-	-	-	-	-	-	-	-	-	-	-
CTMI CT-120 Urine Analyzer	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-
Diagnostic Test Group Clarity Urocheck	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Diagnostic Test Group Clarity Urocheck 120	8	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Germaine Labs AimStrip Urine Analyzer	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Henry Schein One Step Plus	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Henry Schein Urispec / Urispec Plus	19	19	-	-	-	-	-	-	-	-	-	-	-	-	-
Immunostics Detector Urine Strips	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
McKesson 10SG Reagent Strips	9	9	-	-	-	-	-	-	-	-	-	-	-	-	-
McKesson 120 Urine Analyzer	24	24	-	-	-	-	-	-	-	-	-	-	-	-	-
Medline 120 Urine Analyzer	4	3	-	-	-	-	-	-	1	-	-	-	-	-	-
Medline Urinalysis Reagent Strips	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
NDC Pro Advantage	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Dipstick Method	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Roche Chemstrips	29	29	-	-	-	-	-	-	-	-	-	-	-	-	-
Roche Criterion Analyzer	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Roche SuperUA/ChemstripUA	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Roche Urisys	8	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek 10 / 100	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek 50	5	5	-	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek 500	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek Advantus	13	13	-	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek Status / Status+	357	355	-	-	-	1	-	-	-	-	-	1	-	-	-
Siemens Multistix Pro	10	10	-	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Reagent Strips	90	89	1	-	-	-	-	-	-	-	-	-	-	-	-
Uriscan Optima	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-

URINALYSIS DIPSTICK–BILIRUBIN

Specimen UA-1

			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	595	594	-	-	1	-	-	-	-	-	-	-	-	-	-
Consult Diagnostics Reagent Strips	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Consult Diagnostics Urine Analyzer	8	8	-	-	-	-	-	-	-	-	-	-	-	-	-
CTMI CT-120 Urine Analyzer	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-
Diagnostic Test Group Clarity Urocheck	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Diagnostic Test Group Clarity Urocheck 120	8	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Germaine Labs AimStrip Urine Analyzer	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Henry Schein One Step Plus	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-
Henry Schein Urispec / Urispec Plus	19	19	-	-	-	-	-	-	-	-	-	-	-	-	-
Immunostics Detector Urine Strips	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
McKesson 10SG Reagent Strips	9	9	-	-	-	-	-	-	-	-	-	-	-	-	-
McKesson 120 Urine Analyzer	24	24	-	-	-	-	-	-	-	-	-	-	-	-	-
Medline 120 Urine Analyzer	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-
NDC Pro Advantage	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Dipstick Method	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Roche Chemstrips	29	29	-	-	-	-	-	-	-	-	-	-	-	-	-
Roche Criterion Analyzer	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Roche SuperUA/ChemstripUA	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Roche Urisys	8	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek 10 / 100	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek 50	5	5	-	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek 500	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek Advantus	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek Status / Status+	354	354	-	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Multistix Pro	11	11	-	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Reagent Strips	82	82	-	-	-	-	-	-	-	-	-	-	-	-	-
Uriscan Optima	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-

URINALYSIS DIPSTICK–UROBILINOGEN

Specimen UA-1

		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	592	587	1	3	1	-
Consult Diagnostics Reagent Strips	3	3	-	-	-	-
Consult Diagnostics Urine Analyzer	8	8	-	-	-	-
CTMI CT-120 Urine Analyzer	2	2	-	-	-	-
Diagnostic Test Group Clarity Urocheck	3	3	-	-	-	-
Diagnostic Test Group Clarity Urocheck 120	9	9	-	-	-	-
Germaine Labs AimStrip Urine Analyzer	1	1	-	-	-	-
Henry Schein One Step Plus	2	2	-	-	-	-
Henry Schein Urispec / Urispec Plus	19	19	-	-	-	-
Immunostics Detector Urine Strips	1	1	-	-	-	-
McKesson 10SG Reagent Strips	9	9	-	-	-	-
McKesson 120 Urine Analyzer	25	25	-	-	-	-
Medline 120 Urine Analyzer	3	1	-	2	-	-
NDC Pro Advantage	1	1	-	-	-	-
Other Dipstick Method	1	1	-	-	-	-
Roche Chemstrips	29	29	-	-	-	-
Roche Criterion Analyzer	1	1	-	-	-	-
Roche SuperUA/ChemstripUA	1	1	-	-	-	-
Roche Urisys	8	8	-	-	-	-
Siemens Clinitek 10 / 100	2	2	-	-	-	-
Siemens Clinitek 50	5	5	-	-	-	-
Siemens Clinitek 500	2	2	-	-	-	-
Siemens Clinitek Advantus	11	11	-	-	-	-
Siemens Clinitek Status / Status+	351	348	1	1	1	-
Siemens Multistix Pro	9	9	-	-	-	-
Siemens Reagent Strips	85	85	-	-	-	-
Uriscan Optima	1	1	-	-	-	-

URINALYSIS DIPSTICK–BLOOD/HEMOGLOBIN

Specimen UA-1

		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	611	3	3	-	11	350	-	5	186	1	-	1	-	51	-	-	-	-
Consult Diagnostics Reagent Strips	3	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-
Consult Diagnostics Urine Analyzer	8	-	-	-	-	-	-	1	6	-	-	-	-	1	-	-	-	-
CTMI CT-120 Urine Analyzer	2	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-
Diagnostic Test Group Clarity Urocheck	4	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-
Diagnostic Test Group Clarity Urocheck 120	8	-	-	-	-	-	-	1	7	-	-	-	-	-	-	-	-	-
Germaine Labs AimStrip Urine Analyzer	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
Henry Schein One Step Plus	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
Henry Schein Urispec / Urispec Plus	19	1	-	-	-	-	-	-	1	-	-	-	-	17	-	-	-	-
Immunostics Detector Urine Strips	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
McKesson 10SG Reagent Strips	8	-	-	-	-	1	-	-	7	-	-	-	-	-	-	-	-	-
McKesson 120 Urine Analyzer	24	-	-	-	-	-	-	-	23	-	-	-	-	1	-	-	-	-
Medline 120 Urine Analyzer	4	-	-	-	-	-	-	-	3	-	-	1	-	-	-	-	-	-
Medline Urinalysis Reagent Strips	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
NDC Pro Advantage	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
Other Dipstick Method	3	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-
Roche Chemstrips	32	1	-	-	-	2	-	1	6	-	-	-	-	22	-	-	-	-
Roche Criterion Analyzer	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
Roche SuperUA/ChemstripUA	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
Roche Urisys	8	-	-	-	-	-	-	1	-	-	-	-	-	7	-	-	-	-
Siemens Clinitek 10 / 100	2	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek 50	5	-	-	-	-	4	-	-	1	-	-	-	-	-	-	-	-	-
Siemens Clinitek 500	2	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	-
Siemens Clinitek Advantus	13	-	-	-	-	6	-	-	7	-	-	-	-	-	-	-	-	-
Siemens Clinitek Atlas	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek Status / Status+	355	1	1	-	7	263	-	1	82	-	-	-	-	-	-	-	-	-
Siemens Multistix Pro	10	-	-	-	-	8	-	-	1	1	-	-	-	-	-	-	-	-
Siemens Reagent Strips	91	-	2	-	4	58	-	-	27	-	-	-	-	-	-	-	-	-
Uriscan Optima	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
UriScan Reagent Strips	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-

URINALYSIS DIPSTICK–LEUKOCYTE ESTERASE

Specimen UA-1

		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	612	608	2	1	-	-	-	1	-	-	-	-	-
Consult Diagnostics Reagent Strips	3	3	-	-	-	-	-	-	-	-	-	-	-
Consult Diagnostics Urine Analyzer	8	8	-	-	-	-	-	-	-	-	-	-	-
CTMI CT-120 Urine Analyzer	2	2	-	-	-	-	-	-	-	-	-	-	-
Diagnostic Test Group Clarity Urocheck	3	3	-	-	-	-	-	-	-	-	-	-	-
Diagnostic Test Group Clarity Urocheck 120	9	9	-	-	-	-	-	-	-	-	-	-	-
Germaine Labs AimStrip Urine Analyzer	1	1	-	-	-	-	-	-	-	-	-	-	-
Henry Schein One Step Plus	2	2	-	-	-	-	-	-	-	-	-	-	-
Henry Schein Urispec / Urispec Plus	19	19	-	-	-	-	-	-	-	-	-	-	-
Immunostics Detector Urine Strips	1	1	-	-	-	-	-	-	-	-	-	-	-
McKesson 10SG Reagent Strips	9	9	-	-	-	-	-	-	-	-	-	-	-
McKesson 120 Urine Analyzer	25	25	-	-	-	-	-	-	-	-	-	-	-
Medline 120 Urine Analyzer	3	2	-	-	-	-	-	1	-	-	-	-	-
Medline Urinalysis Reagent Strips	1	1	-	-	-	-	-	-	-	-	-	-	-
NDC Pro Advantage	1	1	-	-	-	-	-	-	-	-	-	-	-
Other Dipstick Method	3	2	-	1	-	-	-	-	-	-	-	-	-
Roche Chemstrips	32	32	-	-	-	-	-	-	-	-	-	-	-
Roche Criterion Analyzer	1	1	-	-	-	-	-	-	-	-	-	-	-
Roche SuperUA/ChemstripUA	1	1	-	-	-	-	-	-	-	-	-	-	-
Roche Urisys	8	8	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek 10 / 100	2	2	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek 50	5	5	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek 500	2	2	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek Advantus	13	13	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek Status / Status+	355	354	1	-	-	-	-	-	-	-	-	-	-
Siemens Multistix Pro	10	10	-	-	-	-	-	-	-	-	-	-	-
Siemens Reagent Strips	91	90	1	-	-	-	-	-	-	-	-	-	-
Uriscan Optima	1	1	-	-	-	-	-	-	-	-	-	-	-
UriScan Reagent Strips	1	1	-	-	-	-	-	-	-	-	-	-	-

URINALYSIS DIPSTICK–NITRITE

Specimen UA-1

		Participant Results	
Method	***Labs***	***Negative***	***Positive***
ALL METHODS	612	610	2
Consult Diagnostics Reagent Strips	3	3	-
Consult Diagnostics Urine Analyzer	8	8	-
CTMI CT-120 Urine Analyzer	2	2	-
Diagnostic Test Group Clarity Urocheck	4	4	-
Diagnostic Test Group Clarity Urocheck 120	8	8	-
Germaine Labs AimStrip Urine Analyzer	1	1	-
Henry Schein One Step Plus	3	3	-
Henry Schein Urispec / Urispec Plus	18	18	-
Immunostics Detector Urine Strips	1	1	-
McKesson 10SG Reagent Strips	9	9	-
McKesson 120 Urine Analyzer	24	24	-
Medline 120 Urine Analyzer	4	3	1
Medline Urinalysis Reagent Strips	1	1	-
NDC Pro Advantage	1	1	-
Other Dipstick Method	3	3	-
Roche Chemstrips	32	32	-
Roche Criterion Analyzer	1	1	-
Roche SuperUA/ChemstripUA	1	1	-
Roche Urisys	8	8	-
Siemens Clinitek 10 / 100	2	2	-
Siemens Clinitek 50	5	5	-
Siemens Clinitek 500	2	2	-
Siemens Clinitek Advantus	13	13	-
Siemens Clinitek Status / Status+	354	354	-
Siemens Multistix Pro	10	10	-
Siemens Reagent Strips	92	91	1
Uriscan Optima	1	1	-
UriScan Reagent Strips	1	1	-

URINALYSIS –MICROALBUMIN (dipstick only)

Specimen UA-1

		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	45	-	-	-	-	1	2	1	41	-	-
Roche Micral - 1 minute	2	-	-	-	-	-	1	1	-	-	-
Siemens Clinitek Microalbumin	42	-	-	-	-	-	1	-	41	-	-

URINALYSIS –URINE hCG

Specimen UA-1

		Participant Results	
Method	***Labs***	***Positive***	***Negative***
ALL METHODS	361	3	358
Alere Acceava hCG-Urine	1	-	1
Alere Clearview hCG Cassette	5	-	5
Alere hCG Combo Cassette	5	-	5
Alfa Scientific Instant View	5	-	5
Beckman Coulter ICON 20 hCG	4	-	4
Beckman Coulter ICON 25 hCG	20	-	20
Beckman Coulter ICON II	1	-	1
BioSign hCG	1	-	1
BTNX Rapid Response hCG	1	-	1
Cardinal Health SP Brand combo	21	1	20
Cardinal Hlth SPBrand-cassette	5	-	5
Clarity Diagnostics hCG strip/cassette	10	-	10
CONSULT diagnostics hCG Cassette	52	-	52
CONSULT diagnostics hCG Combo	8	-	8
CONSULT diagnostics hCG Dipstick	26	-	26
Henry Schein One Step	41	-	41
Henry Schein One Step Plus	18	1	17
Jant Pharmacal Accutest	2	-	2
LifeSign Status hCG	1	-	1
McKesson hCG Combo Cassette	6	-	6
McKesson hCG Urine Cassette	12	-	12
McKesson urine hCG-all 20 mIU kits	1	-	1
Medline hCG Combo Test Cassette	4	-	4
Medline hCG Test Cassette	5	-	5
NDC Pro Advantage	1	-	1
PEP (Lab Supply) HCG	1	-	1
Quidel QuickVue One-Step Combo	12	-	12
Quidel QuickVue One-Step Urine	17	-	17
Quidel QuickVue+ One-Step Combo	32	1	31
Quidel Sofia hCG	2	-	2
Sekisui OSOM - Urine Test	1	-	1
Sekisui OSOM Card Pregnancy	9	-	9
Sekisui OSOM hCG Combo Test	2	-	2
Siemens Clinitek Status / Status+	10	-	10
Stanbio QuPID	6	-	6
Stanbio QuPID Plus	2	-	2
Stanbio TRUE hCG	6	-	6
Sure-Vue hCG - 25mIU	1	-	1
Sure-Vue hCG-STAT	3	-	3

FECAL OCCULT BLOOD

	Specimen OC-1			Specimen OC-2		
Method	***Labs***	***Positive***	***Negative***	***Labs***	***Positive***	***Negative***
ALL METHODS	247	11	236	247	240	7
Alere Clearview iFOBT Complete	1	-	1	1	1	-
Beckman Coulter Hemoccult ICT	43	2	41	43	43	-
Guaiac (slide) Test	136	7	129	136	131	5
Hemosure IFOB	29	-	29	29	29	-
Other Immunochemical FOB kit	31	2	29	31	29	2
Polymedco OC Auto Micro 80	3	-	3	3	3	-
Polymedco OC-Light iFOB	2	-	2	2	2	-
Quidel QuickVue iFOB	2	-	2	2	2	-

2021 M1
Urine Sediment Identification
SPECIMENS US-1 AND US-2

CASE HISTORY:

A 52-year-old female presented to her gynecologist for an annual routine wellness exam. A random urine specimen was collected and sent to a reference laboratory for urinalysis. The results appear below.

Color = Yellow
Appearance = Hazy

DIPSTICK RESULTS:

Specific gravity = 1.020
pH = 7.5
Protein = Negative
Glucose = Negative
Ketones = Trace
Bilirubin = Negative
Urobilinogen = Normal/0.2 mg/dL
Blood = Negative
Leukocyte Esterase = Negative
Nitrite = Negative

This patient's results are normal.

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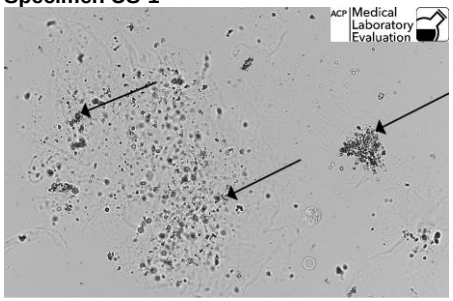
Urine Sediment Identification

Specimen US-1

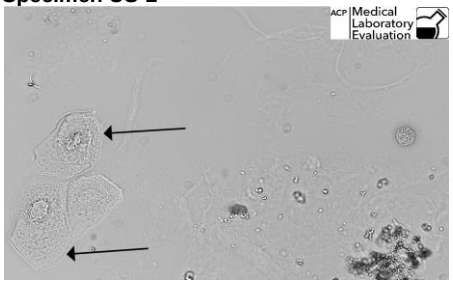


Identification	Labs	Percent	Performance
Amorphus urate/phosphate crystals	309	88.54%	Acceptable
Bacteria	12	3.44%	
Identification unknown – referred	6	1.72%	
Starch (Talc) granules	4	1.15%	
Fiber/fecal contamination	3	0.86%	
Yeast/fungi	3	0.86%	

The arrows in this photo point to **amorphous phosphate crystals**. Amorphous means without shape or form. There are two types of amorphous urinary crystals: phosphates and urates. They can be differentiated from each other by the color of the sediment in the urine cup and the urine pH. Amorphous phosphates form a white or colorless precipitate in alkaline urine samples. Amorphous urates produce a characteristic pink precipitate described as brick dust in acidic urine. In this case we know the crystals are phosphates because of the alkaline pH result from the dipstick. Amorphous phosphates and urates are fairly common, normal findings in specimens that have been refrigerated. Sometimes these crystals are so numerous that they obstruct the microscopic field of view and it may be necessary to dissolve them or dilute the urine sediment in order to see the other elements. Amorphous phosphates can be dissolved with dilute acetic acid, and urates can be dissolved with heat. To view another photo of amorphous crystals, see 2018 M2 Specimen US-4.

Urine Sediment Identification

Specimen US-2



Identification	Labs	Percent	Performance
Squamous epithelial cell	326	93.41%	Acceptable
Transitional epithelial cell	15	4.30%	
Renal tubular epithelial (RTE)	7	2.01%	

The arrows in this photograph point to squamous epithelial cells. Squamous epithelial cells line the lower urinary tract, vaginal mucosa, and external skin surfaces. Squamous cells are large, flat, and irregularly shaped, often appearing folded or rolled, with a single small nucleus and plentiful cytoplasm. Urine specimens from female patients usually contain small numbers of squamous cells. A large number of squamous cells can indicate contamination of the urine from contact with external skin or vaginal secretions during specimen collection. Use of the proper midstream collection technique minimizes contamination. To view another photo of squamous epithelial cells, see 2019 M2 Specimen US-2.

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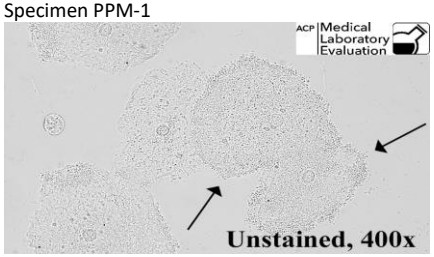
2021 M1
PROVIDER-PERFORMED MICROSCOPY (PPM)
Specimens PPM-1 through PPM-6

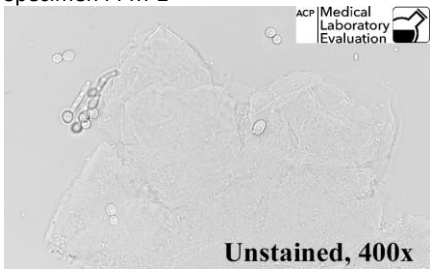
Wet Mount Preparation
Specimen PPM-1



Identification	Labs	Percent	Performance
Clue cell	381	95.73%	Acceptable
Squamous epithelial cell	13	3.27%	
Bacteria	2	0.50%	
Yeast/fungi	2	0.50%	

The arrows in this photograph of a vaginal wet mount point to clue cells. Clue cells are epithelial cells that are so covered with tiny coccobacilli that the cells appear speckled or glittery. Note that the outer edges of these cells are obscured by the bacteria and appear torn or ragged, as opposed to the cleanly defined edges of the cells in the next photo below, PPM-2. It is important for testing personnel to differentiate between normal squamous epithelial cells and clue cells because clue cells are indicative of bacterial vaginosis (BV) while squamous epithelial cells are a normal finding. To view another clue cell, see 2019 M2 Specimen PPM-7.

KOH PREPARATION
Specimen PPM-2



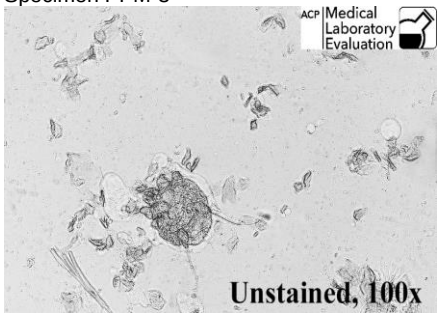
Identification	Labs	Percent	Performance
Yeast/fungal elements present	347	96.66%	Acceptable
Yeast/fungal elements absent	12	3.34%	

Yeast and fungal elements are present in this photograph of a vaginal KOH preparation. Budding and hyphal forms are both displayed here. To view another positive KOH prep, see 2019 M1 Specimen PPM-2.

PROVIDER-PERFORMED MICROSCOPY (PPM)

SCABIES DETECTION

Specimen PPM-3

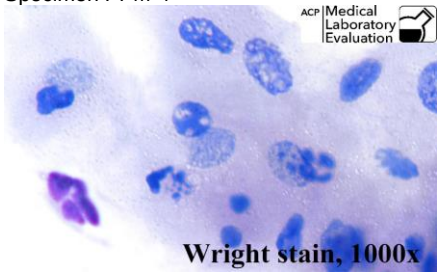


Identification	Labs	Percent	Performance
Scabies present	135	98.54%	Acceptable
Scabies absent	2	1.46%	

A scabies mite is present in this photograph of a skin scrapings preparation. The scabies mite, or human itch mite (Sarcoptes scabiei), is usually spread by prolonged direct personal contact with an infested person. It can also be spread indirectly by prolonged contact with infested clothing or bedding. The mite burrows into the skin and produces an itchy pimple-like (papular) rash. Scabies can be difficult to diagnose by laboratory testing because there may be only 10-15 mites on the entire body of an infested person who is otherwise healthy. The diagnosis of scabies is often based only on the patient history and examination of the skin. Visual identification of the mite, its burrows, eggs, or feces (called scybala) confirms the clinical suspicion of scabies, but a negative test does not rule out the diagnosis. To view another photo of a scabies mite, see 2019 M2 Specimen PPM-8.

NASAL SMEAR

Specimen PPM-4



Identification	Labs	Percent	Performance
Eosinophils absent	42	71.19%	Acceptable
Eosinophils present	17	28.81%	

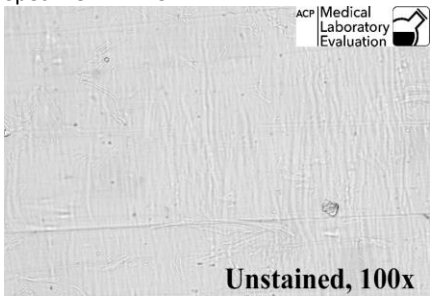
Eosinophils are absent in this photograph of Wright-stained nasal mucus. The purpose of examining respiratory secretions for leukocytes (white blood cells) is to differentiate allergic conditions from infections. The eosinophil is a specific type of leukocyte that is associated with allergic conditions. “Eos” take on a unique red-orange color that makes them easy to spot and identify. The orange color of the eosinophil comes from the dye eosin, which is a component of Wright stain. There are many leukocytes present in this photo, but no orange eosinophilic cells. The cytoplasm of an eosinophil will be full of large, round, orange-staining granules. To view a photo of eosinophils in a nasal smear, see 2020 M1 Specimen PPM-4. This challenge was graded by 91% referee consensus.

.

PROVIDER-PERFORMED MICROSCOPY (PPM)

PINWORM PREPARATION

Specimen PPM-5

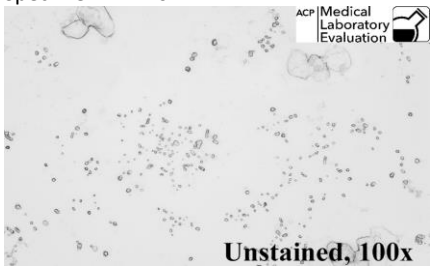


Identification	Labs	Percent	Performance
Pinworms/eggs absent	141	98.60%	Acceptable
Pinworms/eggs present	2	1.40%	

Pinworm eggs are absent in this photograph of a perianal pinworm preparation. To view a photo of pinworm eggs, see 2019 M1 Specimen PPM-5.

FERN TEST

Specimen PPM-6



Identification	Labs	Percent	Performance
Ferning absent	108	99.08%	Acceptable
Ferning present	1	0.92%	

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

REFERENCES:

Ferron, M., & Bilodeau, R. (1963). Amniotic Fluid Crystallization Test for Ruptured Membranes. *Canadian Medical Association Journal*, *89*(21), 1064–1067.

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

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