MEDICAL LABORATORY EVALUATION

PARTICIPANT SUMMARY

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Hematology, Coagulation,
Blood Bank, Urinalysis, PPM
2019 MLE-M3

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
Blood Lead	± 4 µg/dL or ± 10%*
Body Fluid - Red Cell Count	± 2 SD
Body Fluid - White Cell Count	± 2 SD
Creatinine, Urine (Quantitative)	± 17%
Fibrinogen	± 20%
Glucose, Whole Blood – HemoCue	± 12 mg/dL or ± 20%*
Hematocrit	± 6%
Hematocrit, Waived	± 6% or ± 2 SD*
Hemoglobin	± 7%
Hemoglobin, Waived	± 7% or ± 2 SD*
International Normalized Ratio (INR)	± 20%
Microalbumin (Quantitative)	± 30%
Platelet Count	± 25%
Prothrombin Time	± 15%
Red Blood Cell Count	± 6%
Reticulocyte Count	± 30% or ± 2 SD*
Sedimentation Rate	± 2 SD
Specific Gravity	± 0.010
White Blood Cell Count	± 15%

*Whichever is greater

HEMOCUE HEMATOLOGY–HEMOGLOBIN (g/dL)

	Specimen HQ-5						Specimen HQ-6					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	34	15.56	0.29	1.9	15.5	14.4 - 16.7	33	12.72	0.39	3.1	12.8	11.8 - 13.7
HemoCue 201/+	31	15.55	0.30	1.9	15.5	14.4 - 16.7	30	12.68	0.39	3.1	12.8	11.7 - 13.6

HEMOCUE HEMATOLOGY–GLUCOSE (mg/dL)

	Specimen HQ-5						Specimen HQ-6					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	29	330.1	7.8	2.4	332	264 - 397	28	111.4	8.5	7.6	112	89 - 134
All HemoCue Methods	29	330.1	7.8	2.4	332	264 - 397	28	111.4	8.5	7.6	112	89 - 134
HemoCue Glucose 201/+	29	330.1	7.8	2.4	332	264 - 397	28	111.4	8.5	7.6	112	89 - 134

SEDIMENTATION RATE (MM/HR)

	Specimen ES-5						Specimen ES-6					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	94	52.3	12.3	23.4	50	27 - 77	93	10.4	3.2	30.5	10	4 - 17
All Automated Methods	23	66.7	9.0	13.5	64	48 - 85	23	12.4	3.4	27.8	12	5 - 20
All Manual Methods	69	47.4	8.2	17.2	47	31 - 64	67	10.1	2.3	22.9	10	5 - 15
All Vital Diagnostics Methods	15	66.3	8.9	13.4	64	48 - 85	15	11.8	3.3	28.3	11	5 - 19
Westergren - diluted	59	47.7	8.4	17.6	47	30 - 65	57	9.9	2.3	23.2	10	5 - 15

SEDIMAT SEDIMENTATION RATE (MM/HR)

	Specimen MAT-5						Specimen MAT-6					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
Polymedco Sedimat 15	11	59.1	7.5	12.8	57	44 - 75	11	2.0	0.6	31.6	2	0 - 4

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

	Specimen CL-11						Specimen CL-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	13	7.41	0.57	7.7	7.5	6.3 - 8.6	13	2.93	0.11	3.8	2.9	2.4 - 3.4
All Abbott Cell-Dyn Instruments	11	7.55	0.21	2.7	7.5	6.4 - 8.7	11	2.90	0.09	3.1	2.9	2.4 - 3.4
Abbott Cell-Dyn Ruby	10	7.55	0.21	2.7	7.5	6.4 - 8.7	10	2.90	0.09	3.1	2.9	2.4 - 3.4
	Specimen CL-13						**Specimen CL-14**					
All Method	13	7.49	0.20	2.6	7.4	6.3 - 8.7	13	19.61	1.30	6.6	19.7	16.6 - 22.6
All Abbott Cell-Dyn Instruments	11	7.42	0.08	1.0	7.4	6.3 - 8.6	11	19.58	0.49	2.5	19.7	16.6 - 22.6
Abbott Cell-Dyn Ruby	10	7.42	0.08	1.0	7.4	6.3 - 8.6	10	19.58	0.49	2.5	19.7	16.6 - 22.6
	Specimen CL-15											
All Method	13	2.97	0.15	5.0	3.0	2.5 - 3.5						
All Abbott Cell-Dyn Instruments	11	2.97	0.16	5.5	3.0	2.5 - 3.5						
Abbott Cell-Dyn Ruby	10	2.97	0.16	5.5	3.0	2.5 - 3.5						

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

	Specimen CL-11						Specimen CL-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	13	4.688	0.162	3.5	4.74	4.40 - 4.97	13	2.353	0.058	2.5	2.35	2.21 - 2.50
All Abbott Cell-Dyn Instruments	11	4.750	0.131	2.7	4.80	4.46 - 5.04	11	2.368	0.053	2.2	2.37	2.22 - 2.52
Abbott Cell-Dyn Ruby	10	4.750	0.131	2.7	4.80	4.46 - 5.04	10	2.368	0.053	2.2	2.37	2.22 - 2.52
	Specimen CL-13						**Specimen CL-14**					
All Method	13	4.693	0.098	2.1	4.71	4.41 - 4.98	13	5.158	0.121	2.3	5.20	4.84 - 5.47
All Abbott Cell-Dyn Instruments	11	4.730	0.073	1.5	4.74	4.44 - 5.02	11	5.195	0.107	2.1	5.21	4.88 - 5.51
Abbott Cell-Dyn Ruby	10	4.730	0.073	1.5	4.74	4.44 - 5.02	10	5.195	0.107	2.1	5.21	4.88 - 5.51
	Specimen CL-15											
All Method	13	2.356	0.067	2.8	2.35	2.21 - 2.50						
All Abbott Cell-Dyn Instruments	11	2.367	0.066	2.8	2.37	2.22 - 2.51						
Abbott Cell-Dyn Ruby	10	2.367	0.066	2.8	2.37	2.22 - 2.51						

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

Instrument	Specimen CL-11 Labs	Mean	SD	CV	Median	Range	Specimen CL-12 Labs	Mean	SD	CV	Median	Range
All Method	13	13.30	0.71	5.3	13.4	12.3 - 14.3	13	5.73	0.18	3.1	5.7	5.3 - 6.2
All Abbott Cell-Dyn Instruments	11	13.58	0.31	2.3	13.5	12.6 - 14.6	11	5.73	0.20	3.4	5.7	5.3 - 6.2
Abbott Cell-Dyn Ruby	10	13.58	0.31	2.3	13.5	12.6 - 14.6	10	5.73	0.20	3.4	5.7	5.3 - 6.2

Instrument	Specimen CL-13 Labs	Mean	SD	CV	Median	Range	Specimen CL-14 Labs	Mean	SD	CV	Median	Range
All Method	13	13.19	0.63	4.8	13.4	12.2 - 14.2	13	16.29	0.60	3.7	16.4	15.1 - 17.5
All Abbott Cell-Dyn Instruments	11	13.40	0.34	2.5	13.4	12.4 - 14.4	11	16.47	0.42	2.5	16.4	15.3 - 17.7
Abbott Cell-Dyn Ruby	10	13.40	0.34	2.5	13.4	12.4 - 14.4	10	16.47	0.42	2.5	16.4	15.3 - 17.7

Instrument	Specimen CL-15 Labs	Mean	SD	CV	Median	Range
All Method	13	5.71	0.19	3.3	5.6	5.3 - 6.2
All Abbott Cell-Dyn Instruments	11	5.73	0.20	3.4	5.7	5.3 - 6.2
Abbott Cell-Dyn Ruby	10	5.73	0.20	3.4	5.7	5.3 - 6.2

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

Instrument	Specimen CL-11 Labs	Mean	SD	CV	Median	Range	Specimen CL-12 Labs	Mean	SD	CV	Median	Range
All Method	13	38.18	1.22	3.2	38.5	35.8 - 40.5	13	16.24	0.72	4.4	16.1	15.2 - 17.3
All Abbott Cell-Dyn Instruments	11	37.75	1.05	2.8	38.1	35.4 - 40.1	11	15.93	0.32	2.0	16.0	14.9 - 16.9
Abbott Cell-Dyn Ruby	10	37.75	1.05	2.8	38.1	35.4 - 40.1	10	15.93	0.32	2.0	16.0	14.9 - 16.9

Instrument	Specimen CL-13 Labs	Mean	SD	CV	Median	Range	Specimen CL-14 Labs	Mean	SD	CV	Median	Range
All Method	13	38.21	1.41	3.7	37.9	35.9 - 40.6	13	44.94	2.16	4.8	44.3	42.2 - 47.7
All Abbott Cell-Dyn Instruments	11	37.57	0.78	2.1	37.5	35.3 - 39.9	11	43.87	0.78	1.8	43.8	41.2 - 46.5
Abbott Cell-Dyn Ruby	10	37.57	0.78	2.1	37.5	35.3 - 39.9	10	43.87	0.78	1.8	43.8	41.2 - 46.5

Instrument	Specimen CL-15 Labs	Mean	SD	CV	Median	Range
All Method	13	16.16	0.65	4.0	16.2	15.1 - 17.2
All Abbott Cell-Dyn Instruments	11	15.95	0.38	2.4	16.1	14.9 - 17.0
Abbott Cell-Dyn Ruby	10	15.95	0.38	2.4	16.1	14.9 - 17.0

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

	Specimen CL-11						Specimen CL-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	13	253.9	20.2	7.9	261	190 - 318	13	83.1	9.8	11.8	82	62 - 104
All Abbott Cell-Dyn Instruments	11	260.2	8.1	3.1	261	195 - 326	11	80.8	2.5	3.1	82	60 - 102
Abbott Cell-Dyn Ruby	10	260.2	8.1	3.1	261	195 - 326	10	80.8	2.5	3.1	82	60 - 102
	Specimen CL-13						**Specimen CL-14**					
All Method	13	253.6	17.8	7.0	260	190 - 318	13	478.5	39.5	8.3	487	358 - 599
All Abbott Cell-Dyn Instruments	11	257.0	9.4	3.6	260	192 - 322	11	497.7	16.2	3.3	494	373 - 623
Abbott Cell-Dyn Ruby	10	257.0	9.4	3.6	260	192 - 322	10	497.7	16.2	3.3	494	373 - 623
	Specimen CL-15											
All Method	13	80.7	5.6	7.0	81	60 - 101						
All Abbott Cell-Dyn Instruments	11	81.8	5.3	6.4	82	61 - 103						
Abbott Cell-Dyn Ruby	10	81.8	5.3	6.4	82	61 - 103						

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

	Specimen CL-11						Specimen CL-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	13	62.06	1.53	2.5	61.7	57.4 - 66.7	13	51.26	0.57	1.1	51.4	49.5 - 53.0
All Abbott Cell-Dyn Instruments	11	61.55	0.81	1.3	61.6	59.1 - 64.0	11	51.23	0.62	1.2	51.4	49.3 - 53.1
Abbott Cell-Dyn Ruby	10	61.55	0.81	1.3	61.6	59.1 - 64.0	10	51.23	0.62	1.2	51.4	49.3 - 53.1
	Specimen CL-13						**Specimen CL-14**					
All Method	13	62.33	1.11	1.8	61.9	59.0 - 65.7	13	75.10	1.75	2.3	74.8	69.8 - 80.4
All Abbott Cell-Dyn Instruments	11	61.93	0.39	0.6	61.9	60.7 - 63.2	11	74.48	0.69	0.9	74.6	72.4 - 76.6
Abbott Cell-Dyn Ruby	10	61.93	0.39	0.6	61.9	60.7 - 63.2	10	74.48	0.69	0.9	74.6	72.4 - 76.6
	Specimen CL-15											
All Method	13	50.56	1.49	2.9	50.3	46.0 - 55.1						
All Abbott Cell-Dyn Instruments	11	50.48	1.62	3.2	50.1	45.6 - 55.4						
Abbott Cell-Dyn Ruby	10	50.48	1.62	3.2	50.1	45.6 - 55.4						

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

	Specimen CL-11						Specimen CL-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	13	25.93	1.23	4.8	26.3	22.2 - 29.7	13	36.84	1.93	5.2	36.4	31.0 - 42.7
All Abbott Cell-Dyn Instruments	11	25.95	1.35	5.2	26.3	21.9 - 30.0	11	36.83	2.11	5.7	36.4	30.4 - 43.2
Abbott Cell-Dyn Ruby	10	25.95	1.35	5.2	26.3	21.9 - 30.0	10	36.83	2.11	5.7	36.4	30.4 - 43.2
	Specimen CL-13						**Specimen CL-14**					
All Method	13	26.37	0.67	2.6	26.2	24.3 - 28.4	13	14.94	0.77	5.2	15.0	12.6 - 17.3
All Abbott Cell-Dyn Instruments	11	26.42	0.73	2.7	26.6	24.2 - 28.6	11	14.98	0.84	5.6	15.0	12.4 - 17.5
Abbott Cell-Dyn Ruby	10	26.42	0.73	2.7	26.6	24.2 - 28.6	10	14.98	0.84	5.6	15.0	12.4 - 17.5
	Specimen CL-15											
All Method	13	37.39	1.82	4.9	36.9	31.9 - 42.9						
All Abbott Cell-Dyn Instruments	11	37.47	1.98	5.3	36.9	31.5 - 43.5						
Abbott Cell-Dyn Ruby	10	37.47	1.98	5.3	36.9	31.5 - 43.5						

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

	Specimen CL-11						Specimen CL-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	13	7.64	1.52	19.8	7.1	3.0 - 12.2	13	8.96	1.90	21.3	8.7	3.2 - 14.7
All Abbott Cell-Dyn Instruments	11	7.87	1.53	19.4	7.2	3.2 - 12.5	11	9.00	2.08	23.1	9.0	2.7 - 15.3
Abbott Cell-Dyn Ruby	10	7.87	1.53	19.4	7.2	3.2 - 12.5	10	9.00	2.08	23.1	9.0	2.7 - 15.3
	Specimen CL-13						**Specimen CL-14**					
All Method	13	6.97	0.43	6.1	6.9	5.6 - 8.3	13	3.76	0.55	14.6	3.8	2.1 - 5.5
All Abbott Cell-Dyn Instruments	11	7.05	0.41	5.8	7.1	5.8 - 8.3	11	3.88	0.48	12.3	3.9	2.4 - 5.4
Abbott Cell-Dyn Ruby	10	7.05	0.41	5.8	7.1	5.8 - 8.3	10	3.88	0.48	12.3	3.9	2.4 - 5.4
	Specimen CL-15											
All Method	13	8.99	0.93	10.4	8.6	6.1 - 11.8						
All Abbott Cell-Dyn Instruments	11	9.07	1.00	11.0	8.7	6.0 - 12.1						
Abbott Cell-Dyn Ruby	10	9.07	1.00	11.0	8.7	6.0 - 12.1						

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

Instrument	Specimen CL-11 Labs	Mean	SD	CV	Median	Range	Specimen CL-12 Labs	Mean	SD	CV	Median	Range
All Method	13	3.94	0.94	23.7	4.2	1.1 - 6.8	13	2.41	0.59	24.4	2.5	0.6 - 4.2
All Abbott Cell-Dyn Instruments	11	4.28	0.28	6.5	4.3	3.4 - 5.2	11	2.57	0.47	18.4	2.5	1.1 - 4.0
Abbott Cell-Dyn Ruby	10	4.28	0.28	6.5	4.3	3.4 - 5.2	10	2.57	0.47	18.4	2.5	1.1 - 4.0

Instrument	Specimen CL-13 Labs	Mean	SD	CV	Median	Range	Specimen CL-14 Labs	Mean	SD	CV	Median	Range
All Method	13	3.99	0.90	22.6	4.2	1.2 - 6.7	13	5.81	1.21	20.8	6.3	2.1 - 9.5
All Abbott Cell-Dyn Instruments	11	4.32	0.22	5.2	4.3	3.6 - 5.0	11	6.27	0.19	3.0	6.3	5.7 - 6.9
Abbott Cell-Dyn Ruby	10	4.32	0.22	5.2	4.3	3.6 - 5.0	10	6.27	0.19	3.0	6.3	5.7 - 6.9

Instrument	Specimen CL-15 Labs	Mean	SD	CV	Median	Range
All Method	13	2.63	0.42	15.8	2.4	1.3 - 3.9
All Abbott Cell-Dyn Instruments	11	2.70	0.40	15.0	2.7	1.4 - 4.0
Abbott Cell-Dyn Ruby	10	2.70	0.40	15.0	2.7	1.4 - 4.0

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

Instrument	Specimen CL-11 Labs	Mean	SD	CV	Median	Range	Specimen CL-12 Labs	Mean	SD	CV	Median	Range
All Method	13	0.41	0.43	104.7	0.2	0.0 - 1.8	13	0.53	0.62	117.0	0.2	0.0 - 2.4
All Abbott Cell-Dyn Instruments	11	0.33	0.41	123.9	0.2	0.0 - 1.6	11	0.37	0.49	133.2	0.2	0.0 - 1.9
Abbott Cell-Dyn Ruby	10	0.33	0.41	123.9	0.2	0.0 - 1.6	10	0.37	0.49	133.2	0.2	0.0 - 1.9

Instrument	Specimen CL-13 Labs	Mean	SD	CV	Median	Range	Specimen CL-14 Labs	Mean	SD	CV	Median	Range
All Method	13	0.31	0.20	62.1	0.3	0.0 - 0.9	13	0.39	0.19	48.3	0.4	0.0 - 1.0
All Abbott Cell-Dyn Instruments	11	0.25	0.10	42.0	0.3	0.0 - 0.6	11	0.38	0.20	53.2	0.4	0.0 - 1.0
Abbott Cell-Dyn Ruby	10	0.25	0.10	42.0	0.3	0.0 - 0.6	10	0.38	0.20	53.2	0.4	0.0 - 1.0

Instrument	Specimen CL-15 Labs	Mean	SD	CV	Median	Range
All Method	13	0.46	0.50	108.5	0.3	0.0 - 2.0
All Abbott Cell-Dyn Instruments	11	0.30	0.30	98.9	0.3	0.0 - 1.2
Abbott Cell-Dyn Ruby	10	0.30	0.30	98.9	0.3	0.0 - 1.2

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

	Specimen SYX-11						Specimen SYX-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	80	8.40	0.28	3.3	8.4	7.1 - 9.7	78	2.84	0.11	3.7	2.8	2.4 - 3.3
All Sysmex Instruments	78	8.39	0.27	3.3	8.4	7.1 - 9.7	76	2.83	0.10	3.6	2.8	2.4 - 3.3
Sysmex KX-21N & K-800, 1000, 4500	28	8.20	0.22	2.7	8.2	6.9 - 9.5	28	2.78	0.08	2.9	2.8	2.3 - 3.2
Sysmex pocH-100i	10	8.27	0.27	3.2	8.2	7.0 - 9.6	10	2.77	0.12	4.2	2.8	2.3 - 3.2
Sysmex XP-300	39	8.58	0.16	1.9	8.6	7.2 - 9.9	38	2.89	0.08	2.9	2.9	2.4 - 3.4
	Specimen SYX-13						**Specimen SYX-14**					
All Method	80	8.40	0.29	3.5	8.4	7.1 - 9.7	80	21.05	0.76	3.6	21.1	17.8 - 24.3
All Sysmex Instruments	78	8.40	0.29	3.5	8.4	7.1 - 9.7	78	21.05	0.76	3.6	21.1	17.8 - 24.3
Sysmex KX-21N & K-800, 1000, 4500	27	8.16	0.15	1.9	8.2	6.9 - 9.4	28	20.56	0.60	2.9	20.7	17.4 - 23.7
Sysmex pocH-100i	10	8.22	0.29	3.5	8.3	6.9 - 9.5	10	20.51	0.77	3.8	20.3	17.4 - 23.6
Sysmex XP-300	39	8.62	0.17	1.9	8.6	7.3 - 10.0	39	21.58	0.43	2.0	21.6	18.3 - 24.9
	Specimen SYX-15											
All Method	78	2.84	0.09	3.3	2.8	2.4 - 3.3						
All Sysmex Instruments	76	2.84	0.09	3.3	2.8	2.4 - 3.3						
Sysmex KX-21N & K-800, 1000, 4500	28	2.80	0.08	2.9	2.8	2.3 - 3.3						
Sysmex pocH-100i	10	2.82	0.15	5.5	2.8	2.3 - 3.3						
Sysmex XP-300	39	2.89	0.08	2.7	2.9	2.4 - 3.4						

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

	Specimen SYX-11						Specimen SYX-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	78	3.995	0.048	1.2	4.00	3.75 - 4.24	78	2.451	0.030	1.2	2.45	2.30 - 2.60
All Sysmex Instruments	76	3.994	0.048	1.2	4.00	3.75 - 4.24	76	2.451	0.031	1.2	2.45	2.30 - 2.60
Sysmex KX-21N & K-800, 1000, 4500	28	3.999	0.045	1.1	4.00	3.75 - 4.24	28	2.454	0.033	1.4	2.46	2.30 - 2.61
Sysmex pocH-100i	10	4.058	0.146	3.6	4.03	3.81 - 4.31	10	2.437	0.096	4.0	2.45	2.29 - 2.59
Sysmex XP-300	40	3.989	0.045	1.1	3.99	3.74 - 4.23	40	2.450	0.029	1.2	2.45	2.30 - 2.60
	Specimen SYX-13						**Specimen SYX-14**					
All Method	79	3.993	0.050	1.2	3.99	3.75 - 4.24	78	5.633	0.063	1.1	5.63	5.29 - 5.98
All Sysmex Instruments	77	3.992	0.050	1.3	3.99	3.75 - 4.24	76	5.633	0.064	1.1	5.63	5.29 - 5.98
Sysmex KX-21N & K-800, 1000, 4500	28	3.990	0.050	1.3	3.99	3.75 - 4.23	28	5.640	0.065	1.1	5.65	5.30 - 5.98
Sysmex pocH-100i	10	4.047	0.126	3.1	4.02	3.80 - 4.29	10	5.723	0.190	3.3	5.66	5.37 - 6.07
Sysmex XP-300	40	3.989	0.046	1.1	3.99	3.74 - 4.23	40	5.626	0.063	1.1	5.61	5.28 - 5.97
	Specimen SYX-15											
All Method	79	2.446	0.030	1.2	2.44	2.29 - 2.60						
All Sysmex Instruments	77	2.446	0.030	1.2	2.44	2.29 - 2.60						
Sysmex KX-21N & K-800, 1000, 4500	28	2.447	0.030	1.2	2.44	2.30 - 2.60						
Sysmex pocH-100i	10	2.464	0.078	3.2	2.44	2.31 - 2.62						
Sysmex XP-300	40	2.446	0.030	1.2	2.45	2.29 - 2.60						

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

	Specimen SYX-11						Specimen SYX-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	79	11.99	0.15	1.3	12.0	11.1 - 12.9	80	6.10	0.14	2.3	6.1	5.6 - 6.6
All Sysmex Instruments	77	11.99	0.15	1.2	12.0	11.1 - 12.9	78	6.10	0.14	2.3	6.1	5.6 - 6.6
Sysmex KX-21N & K-800, 1000, 4500	28	11.95	0.16	1.3	12.0	11.1 - 12.8	28	6.10	0.13	2.1	6.1	5.6 - 6.6
Sysmex pocH-100i	10	12.20	0.20	1.6	12.2	11.3 - 13.1	10	6.14	0.16	2.7	6.2	5.7 - 6.6
Sysmex XP-300	40	11.98	0.12	1.0	12.0	11.1 - 12.9	40	6.10	0.14	2.3	6.1	5.6 - 6.6
	Specimen SYX-13						**Specimen SYX-14**					
All Method	79	12.02	0.16	1.3	12.0	11.1 - 12.9	79	17.92	0.20	1.1	17.9	16.6 - 19.2
All Sysmex Instruments	77	12.02	0.16	1.3	12.0	11.1 - 12.9	77	17.92	0.20	1.1	17.9	16.6 - 19.2
Sysmex KX-21N & K-800, 1000, 4500	28	12.01	0.16	1.4	12.0	11.1 - 12.9	28	17.92	0.19	1.1	17.9	16.6 - 19.2
Sysmex pocH-100i	10	12.08	0.20	1.6	12.1	11.2 - 13.0	10	18.11	0.38	2.1	18.1	16.8 - 19.4
Sysmex XP-300	39	12.01	0.14	1.1	12.0	11.1 - 12.9	40	17.89	0.18	1.0	17.9	16.6 - 19.2
	Specimen SYX-15											
All Method	80	6.12	0.13	2.2	6.1	5.6 - 6.6						
All Sysmex Instruments	78	6.12	0.13	2.2	6.1	5.6 - 6.6						
Sysmex KX-21N & K-800, 1000, 4500	28	6.12	0.13	2.1	6.2	5.6 - 6.6						
Sysmex pocH-100i	10	6.19	0.11	1.8	6.2	5.7 - 6.7						
Sysmex XP-300	40	6.10	0.14	2.3	6.1	5.6 - 6.6						

SYSMEX HEMATOLOGY W/ AUTOMATED DIFFERENTIAL–HEMATOCRIT (percent)

	Specimen SYX-11						Specimen SYX-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	78	31.95	0.75	2.3	31.8	30.0 - 33.9	78	17.04	0.34	2.0	17.0	16.0 - 18.1
All Sysmex Instruments	76	31.93	0.73	2.3	31.8	30.0 - 33.9	76	17.03	0.33	2.0	17.0	16.0 - 18.1
Sysmex KX-21N & K-800, 1000, 4500	27	31.61	0.40	1.3	31.5	29.7 - 33.6	28	16.89	0.35	2.0	16.8	15.8 - 17.9
Sysmex pocH-100i	10	33.53	1.45	4.3	33.3	31.5 - 35.6	10	17.48	0.79	4.5	17.6	16.4 - 18.6
Sysmex XP-300	39	31.82	0.43	1.4	31.9	29.9 - 33.8	40	17.02	0.23	1.3	17.0	16.0 - 18.1
	Specimen SYX-13						**Specimen SYX-14**					
All Method	79	31.86	0.74	2.3	31.7	29.9 - 33.8	78	47.20	0.95	2.0	47.0	44.3 - 50.1
All Sysmex Instruments	77	31.83	0.72	2.3	31.7	29.9 - 33.8	75	47.13	0.88	1.9	47.0	44.3 - 50.0
Sysmex KX-21N & K-800, 1000, 4500	27	31.46	0.43	1.4	31.5	29.5 - 33.4	28	46.90	0.79	1.7	46.8	44.0 - 49.8
Sysmex pocH-100i	10	33.45	1.25	3.7	33.6	31.4 - 35.5	10	49.64	1.96	4.0	49.2	46.6 - 52.7
Sysmex XP-300	40	31.75	0.44	1.4	31.9	29.8 - 33.7	40	47.03	0.65	1.4	47.0	44.2 - 49.9
	Specimen SYX-15											
All Method	79	17.01	0.36	2.1	16.9	15.9 - 18.1						
All Sysmex Instruments	77	16.99	0.35	2.1	16.9	15.9 - 18.1						
Sysmex KX-21N & K-800, 1000, 4500	27	16.80	0.26	1.5	16.8	15.7 - 17.9						
Sysmex pocH-100i	10	17.67	0.74	4.2	17.6	16.6 - 18.8						
Sysmex XP-300	40	16.99	0.26	1.5	17.0	15.9 - 18.1						

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

	Specimen SYX-11						Specimen SYX-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	79	201.6	9.3	4.6	202	151 - 252	77	62.8	4.2	6.6	63	47 - 79
All Sysmex Instruments	76	202.0	8.6	4.3	202	151 - 253	75	62.7	4.1	6.5	63	47 - 79
Sysmex KX-21N & K-800, 1000, 4500	28	202.5	9.4	4.6	202	151 - 254	28	62.9	4.9	7.7	62	47 - 79
Sysmex pocH-100i	10	193.5	10.7	5.5	192	145 - 242	10	61.2	4.2	6.8	61	45 - 77
Sysmex XP-300	39	203.1	7.6	3.7	203	152 - 254	38	63.4	4.0	6.3	63	47 - 80
	Specimen SYX-13						**Specimen SYX-14**					
All Method	80	199.3	10.4	5.2	200	149 - 250	78	386.9	15.4	4.0	390	290 - 484
All Sysmex Instruments	78	199.4	10.3	5.2	200	149 - 250	77	386.7	15.4	4.0	389	290 - 484
Sysmex KX-21N & K-800, 1000, 4500	28	203.1	10.2	5.0	204	152 - 254	28	386.5	16.4	4.2	385	289 - 484
Sysmex pocH-100i	10	187.5	8.4	4.5	188	140 - 235	10	365.5	20.3	5.6	368	274 - 457
Sysmex XP-300	39	200.5	7.6	3.8	201	150 - 251	40	390.7	11.8	3.0	392	293 - 489
	Specimen SYX-15											
All Method	79	63.0	4.2	6.6	63	47 - 79						
All Sysmex Instruments	77	63.0	4.2	6.7	63	47 - 79						
Sysmex KX-21N & K-800, 1000, 4500	28	64.3	5.4	8.3	63	48 - 81						
Sysmex pocH-100i	10	59.3	2.8	4.7	60	44 - 75						
Sysmex XP-300	40	63.5	3.9	6.2	64	47 - 80						

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

	Specimen SYX-11						Specimen SYX-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	74	31.72	1.14	3.6	31.8	28.2 - 35.2	73	11.69	1.24	10.6	11.7	7.9 - 15.5
All Sysmex Instruments	72	31.70	1.14	3.6	31.8	28.2 - 35.2	71	11.63	1.18	10.2	11.6	8.0 - 15.2
Sysmex KX-21N & K-800, 1000, 4500	26	31.96	0.71	2.2	32.1	29.8 - 34.1	26	11.76	1.03	8.8	12.0	8.6 - 14.9
Sysmex XP-300	37	31.94	1.07	3.3	32.2	28.7 - 35.2	37	11.97	1.31	10.9	11.7	8.0 - 15.9
	Specimen SYX-13						**Specimen SYX-14**					
All Method	73	31.60	1.15	3.7	31.6	28.1 - 35.1	71	63.72	0.73	1.1	63.7	61.5 - 65.9
All Sysmex Instruments	72	31.61	1.16	3.7	31.6	28.1 - 35.1	69	63.74	0.72	1.1	63.7	61.5 - 65.9
Sysmex KX-21N & K-800, 1000, 4500	26	31.91	0.82	2.6	31.9	29.4 - 34.4	25	63.67	0.94	1.5	63.6	60.8 - 66.5
Sysmex XP-300	37	31.71	1.22	3.8	32.0	28.0 - 35.4	36	63.70	0.72	1.1	63.7	61.5 - 65.9
	Specimen SYX-15											
All Method	71	11.77	1.09	9.3	11.8	8.4 - 15.1						
All Sysmex Instruments	69	11.71	1.05	9.0	11.8	8.5 - 14.9						
Sysmex KX-21N & K-800, 1000, 4500	25	11.81	0.93	7.8	11.8	9.0 - 14.6						
Sysmex XP-300	35	11.71	1.14	9.7	11.8	8.2 - 15.2						

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

	Specimen SYX-11						Specimen SYX-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	74	17.05	1.16	6.8	17.1	13.5 - 20.6	73	17.90	1.52	8.5	17.8	13.3 - 22.5
All Sysmex Instruments	72	17.09	1.15	6.7	17.1	13.6 - 20.6	71	17.90	1.53	8.6	17.8	13.3 - 22.6
Sysmex KX-21N & K-800, 1000, 4500	26	17.22	0.90	5.2	17.2	14.5 - 20.0	26	18.30	1.46	8.0	18.4	13.9 - 22.7
Sysmex XP-300	37	17.35	1.14	6.6	17.4	13.9 - 20.8	37	18.18	1.66	9.1	18.0	13.1 - 23.2

	Specimen SYX-13						Specimen SYX-14					
All Method	72	17.01	1.08	6.4	17.1	13.7 - 20.3	74	12.67	0.80	6.3	12.8	10.2 - 15.1
All Sysmex Instruments	69	17.08	1.00	5.9	17.1	14.0 - 20.1	72	12.66	0.81	6.4	12.8	10.2 - 15.1
Sysmex KX-21N & K-800, 1000, 4500	26	17.26	0.70	4.1	17.4	15.1 - 19.4	26	12.72	0.63	5.0	12.9	10.8 - 14.7
Sysmex XP-300	36	17.12	1.18	6.9	17.1	13.5 - 20.7	37	12.87	0.81	6.3	12.9	10.4 - 15.4

	Specimen SYX-15					
All Method	74	17.82	2.13	11.9	18.0	11.4 - 24.2
All Sysmex Instruments	72	17.84	2.15	12.1	18.1	11.3 - 24.3
Sysmex KX-21N & K-800, 1000, 4500	26	18.13	1.72	9.5	18.1	12.9 - 23.3
Sysmex XP-300	36	18.48	1.87	10.1	18.8	12.8 - 24.1

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

	Specimen SYX-11						Specimen SYX-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	73	51.26	1.64	3.2	51.2	46.3 - 56.2	72	70.40	1.99	2.8	70.3	64.4 - 76.4
All Sysmex Instruments	71	51.20	1.60	3.1	51.2	46.4 - 56.0	70	70.46	1.99	2.8	70.4	64.4 - 76.5
Sysmex KX-21N & K-800, 1000, 4500	26	50.80	1.04	2.1	51.0	47.6 - 54.0	26	69.95	1.44	2.1	70.3	65.6 - 74.3
Sysmex XP-300	36	50.69	1.08	2.1	50.9	47.4 - 54.0	35	70.05	1.82	2.6	69.8	64.5 - 75.6
	Specimen SYX-13						**Specimen SYX-14**					
All Method	72	51.40	1.36	2.6	51.3	47.3 - 55.5	73	23.73	0.78	3.3	23.6	21.3 - 26.1
All Sysmex Instruments	70	51.34	1.30	2.5	51.3	47.4 - 55.3	71	23.71	0.77	3.2	23.6	21.4 - 26.1
Sysmex KX-21N & K-800, 1000, 4500	26	50.82	0.95	1.9	50.9	47.9 - 53.7	26	23.67	0.67	2.8	23.6	21.6 - 25.7
Sysmex XP-300	36	51.16	0.93	1.8	51.0	48.3 - 54.0	37	23.50	0.62	2.6	23.5	21.6 - 25.4
	Specimen SYX-15											
All Method	73	70.22	2.00	2.9	70.0	64.2 - 76.3						
All Sysmex Instruments	71	70.24	2.03	2.9	70.0	64.1 - 76.4						
Sysmex KX-21N & K-800, 1000, 4500	26	69.88	1.65	2.4	69.8	64.9 - 74.9						
Sysmex XP-300	36	69.69	1.73	2.5	69.9	64.5 - 74.9						

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

	Specimen HD-11						Specimen HD-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	414	7.51	0.26	3.5	7.5	6.3 - 8.7	421	2.10	0.13	6.1	2.1	1.7 - 2.5
All Abbott Cell-Dyn Instruments	103	7.63	0.36	4.8	7.6	6.4 - 8.8	103	2.17	0.13	5.8	2.2	1.8 - 2.5
All ABX Instruments	63	7.46	0.22	2.9	7.5	6.3 - 8.6	60	2.05	0.06	3.0	2.1	1.7 - 2.4
All Boule (CDS) Instruments	128	7.38	0.22	3.0	7.4	6.2 - 8.5	126	2.00	0.08	4.1	2.0	1.6 - 2.3
All COULTER Instruments	117	7.63	0.26	3.5	7.6	6.4 - 8.8	115	2.18	0.09	4.2	2.2	1.8 - 2.6
Abbott Cell-Dyn 1700	11	8.36	0.43	5.1	8.3	7.1 - 9.7	11	2.32	0.12	5.0	2.3	1.9 - 2.7
Abbott Cell-Dyn 1800	21	7.58	0.38	5.1	7.5	6.4 - 8.8	21	2.09	0.13	6.2	2.1	1.7 - 2.5
Abbott Cell-Dyn Emerald	70	7.54	0.23	3.0	7.5	6.4 - 8.7	71	2.16	0.11	4.9	2.1	1.8 - 2.5
Boule (CDS) Medonic M series	126	7.37	0.22	2.9	7.4	6.2 - 8.5	124	2.00	0.08	4.1	2.0	1.6 - 2.3
COULTER AcT diff/diff 2	113	7.62	0.26	3.4	7.6	6.4 - 8.8	110	2.18	0.09	4.1	2.2	1.8 - 2.6
Horiba ABX Micros/45/60	63	7.46	0.22	2.9	7.5	6.3 - 8.6	60	2.05	0.06	3.0	2.1	1.7 - 2.4

	Specimen HD-13						Specimen HD-14					
All Method	418	7.51	0.27	3.6	7.5	6.3 - 8.7	420	20.07	0.72	3.6	20.1	17.0 - 23.1
All Abbott Cell-Dyn Instruments	104	7.62	0.35	4.7	7.6	6.4 - 8.8	103	19.69	0.96	4.9	19.5	16.7 - 22.7
All ABX Instruments	62	7.43	0.17	2.3	7.4	6.3 - 8.6	63	19.79	0.49	2.5	19.8	16.8 - 22.8
All Boule (CDS) Instruments	127	7.34	0.22	3.0	7.4	6.2 - 8.5	124	20.21	0.47	2.3	20.3	17.1 - 23.3
All COULTER Instruments	119	7.68	0.23	3.0	7.7	6.5 - 8.9	116	20.39	0.57	2.8	20.4	17.3 - 23.5
Abbott Cell-Dyn 1700	11	8.24	0.42	5.0	8.3	7.0 - 9.5	11	21.29	0.97	4.6	21.0	18.0 - 24.5
Abbott Cell-Dyn 1800	21	7.60	0.41	5.4	7.6	6.4 - 8.8	21	20.32	1.01	4.9	20.2	17.2 - 23.4
Abbott Cell-Dyn Emerald	71	7.56	0.24	3.2	7.6	6.4 - 8.7	70	19.25	0.54	2.8	19.2	16.3 - 22.2
Boule (CDS) Medonic M series	124	7.33	0.21	2.9	7.4	6.2 - 8.5	122	20.20	0.47	2.3	20.2	17.1 - 23.3
COULTER AcT diff/diff 2	114	7.67	0.23	3.0	7.7	6.5 - 8.9	110	20.33	0.51	2.5	20.4	17.2 - 23.4
Horiba ABX Micros/45/60	62	7.43	0.17	2.3	7.4	6.3 - 8.6	63	19.79	0.49	2.5	19.8	16.8 - 22.8

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

Specimen HD-15

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	424	2.13	0.15	7.1	2.1	1.8 - 2.5
All Abbott Cell-Dyn Instruments	105	2.19	0.14	6.4	2.2	1.8 - 2.6
All ABX Instruments	63	2.06	0.08	3.9	2.1	1.7 - 2.4
All Boule (CDS) Instruments	127	2.02	0.09	4.3	2.0	1.7 - 2.4
All COULTER Instruments	115	2.26	0.12	5.3	2.3	1.9 - 2.7
Abbott Cell-Dyn 1700	11	2.36	0.13	5.4	2.4	2.0 - 2.8
Abbott Cell-Dyn 1800	21	2.10	0.11	5.4	2.1	1.7 - 2.5
Abbott Cell-Dyn Emerald	72	2.18	0.11	5.2	2.2	1.8 - 2.6
Boule (CDS) Medonic M series	125	2.02	0.08	4.2	2.0	1.7 - 2.4
COULTER AcT diff/diff 2	110	2.26	0.12	5.2	2.3	1.9 - 2.7
Horiba ABX Micros/45/60	63	2.06	0.08	3.9	2.1	1.7 - 2.4

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

	Specimen HD-11						Specimen HD-12					
Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	421	4.640	0.103	2.2	4.64	4.36 - 4.92	423	2.331	0.060	2.6	2.33	2.19 - 2.48
All Abbott Cell-Dyn Instruments	103	4.588	0.102	2.2	4.58	4.31 - 4.87	105	2.353	0.074	3.1	2.34	2.21 - 2.50
All ABX Instruments	63	4.619	0.104	2.3	4.62	4.34 - 4.90	63	2.302	0.047	2.1	2.31	2.16 - 2.45
All Boule (CDS) Instruments	126	4.677	0.071	1.5	4.68	4.39 - 4.96	126	2.310	0.043	1.9	2.31	2.17 - 2.45
All COULTER Instruments	119	4.665	0.121	2.6	4.66	4.38 - 4.95	117	2.360	0.052	2.2	2.36	2.21 - 2.51
Abbott Cell-Dyn 1700	11	4.655	0.108	2.3	4.63	4.37 - 4.94	11	2.380	0.059	2.5	2.36	2.23 - 2.53
Abbott Cell-Dyn 1800	21	4.653	0.118	2.5	4.64	4.37 - 4.94	21	2.444	0.060	2.5	2.45	2.29 - 2.60
Abbott Cell-Dyn Emerald	72	4.565	0.096	2.1	4.57	4.29 - 4.84	73	2.323	0.054	2.3	2.33	2.18 - 2.47
Boule (CDS) Medonic M series	124	4.678	0.071	1.5	4.68	4.39 - 4.96	124	2.309	0.043	1.9	2.31	2.17 - 2.45
COULTER AcT diff/diff 2	114	4.663	0.122	2.6	4.66	4.38 - 4.95	113	2.360	0.053	2.3	2.36	2.21 - 2.51
Horiba ABX Micros/45/60	63	4.619	0.104	2.3	4.62	4.34 - 4.90	63	2.302	0.047	2.1	2.31	2.16 - 2.45

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

	Specimen HD-13						Specimen HD-14					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	425	4.636	0.098	2.1	4.64	4.35 - 4.92	418	5.742	0.140	2.4	5.75	5.39 - 6.09
All Abbott Cell-Dyn Instruments	105	4.596	0.109	2.4	4.60	4.31 - 4.88	103	5.637	0.135	2.4	5.64	5.29 - 5.98
All ABX Instruments	62	4.599	0.087	1.9	4.60	4.32 - 4.88	62	5.691	0.118	2.1	5.71	5.34 - 6.04
All Boule (CDS) Instruments	127	4.656	0.070	1.5	4.66	4.37 - 4.94	126	5.842	0.094	1.6	5.85	5.49 - 6.20
All COULTER Instruments	119	4.667	0.102	2.2	4.68	4.38 - 4.95	117	5.750	0.128	2.2	5.75	5.40 - 6.10
Abbott Cell-Dyn 1700	11	4.662	0.094	2.0	4.65	4.38 - 4.95	11	5.706	0.137	2.4	5.72	5.36 - 6.05
Abbott Cell-Dyn 1800	21	4.653	0.119	2.6	4.66	4.37 - 4.94	21	5.662	0.164	2.9	5.64	5.32 - 6.01
Abbott Cell-Dyn Emerald	73	4.569	0.099	2.2	4.56	4.29 - 4.85	71	5.619	0.122	2.2	5.63	5.28 - 5.96
Boule (CDS) Medonic M series	125	4.657	0.070	1.5	4.66	4.37 - 4.94	124	5.844	0.093	1.6	5.85	5.49 - 6.20
COULTER AcT diff/diff 2	114	4.665	0.103	2.2	4.67	4.38 - 4.95	112	5.753	0.129	2.2	5.75	5.40 - 6.10
Horiba ABX Micros/45/60	62	4.599	0.087	1.9	4.60	4.32 - 4.88	62	5.691	0.118	2.1	5.71	5.34 - 6.04

	Specimen HD-15					
All Method	419	2.332	0.062	2.7	2.33	2.19 - 2.48
All Abbott Cell-Dyn Instruments	101	2.352	0.080	3.4	2.35	2.21 - 2.50
All ABX Instruments	61	2.302	0.041	1.8	2.31	2.16 - 2.44
All Boule (CDS) Instruments	126	2.311	0.035	1.5	2.31	2.17 - 2.45
All COULTER Instruments	116	2.356	0.060	2.6	2.36	2.21 - 2.50
Abbott Cell-Dyn 1700	11	2.371	0.104	4.4	2.41	2.22 - 2.52
Abbott Cell-Dyn 1800	19	2.445	0.054	2.2	2.46	2.29 - 2.60
Abbott Cell-Dyn Emerald	71	2.324	0.060	2.6	2.33	2.18 - 2.47
Boule (CDS) Medonic M series	125	2.309	0.036	1.6	2.31	2.17 - 2.45
COULTER AcT diff/diff 2	111	2.358	0.059	2.5	2.36	2.21 - 2.50
Horiba ABX Micros/45/60	61	2.302	0.041	1.8	2.31	2.16 - 2.44

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

	Specimen HD-11						Specimen HD-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	424	13.39	0.28	2.1	13.4	12.4 - 14.4	426	5.90	0.16	2.7	5.9	5.4 - 6.4
All Abbott Cell-Dyn Instruments	104	13.35	0.33	2.4	13.3	12.4 - 14.3	105	5.90	0.21	3.5	5.9	5.4 - 6.4
All ABX Instruments	62	13.48	0.22	1.6	13.5	12.5 - 14.5	62	5.93	0.10	1.6	6.0	5.5 - 6.4
All Boule (CDS) Instruments	127	13.49	0.21	1.6	13.5	12.5 - 14.5	125	5.96	0.10	1.8	6.0	5.5 - 6.4
All COULTER Instruments	117	13.29	0.28	2.1	13.3	12.3 - 14.3	117	5.83	0.14	2.4	5.8	5.4 - 6.3
Abbott Cell-Dyn 1700	11	13.49	0.27	2.0	13.5	12.5 - 14.5	11	6.15	0.16	2.7	6.2	5.7 - 6.6
Abbott Cell-Dyn 1800	21	13.46	0.49	3.6	13.5	12.5 - 14.4	21	6.08	0.21	3.4	6.1	5.6 - 6.6
Abbott Cell-Dyn Emerald	72	13.30	0.26	2.0	13.3	12.3 - 14.3	73	5.80	0.13	2.3	5.8	5.3 - 6.3
Boule (CDS) Medonic M series	125	13.49	0.21	1.5	13.5	12.5 - 14.5	123	5.96	0.10	1.8	6.0	5.5 - 6.4
COULTER AcT diff/diff 2	113	13.28	0.30	2.2	13.3	12.3 - 14.3	112	5.83	0.14	2.4	5.8	5.4 - 6.3
Horiba ABX Micros/45/60	62	13.48	0.22	1.6	13.5	12.5 - 14.5	62	5.93	0.10	1.6	6.0	5.5 - 6.4

	Specimen HD-13						Specimen HD-14					
All Method	424	13.42	0.24	1.8	13.4	12.4 - 14.4	423	18.18	0.37	2.1	18.2	16.9 - 19.5
All Abbott Cell-Dyn Instruments	103	13.36	0.28	2.1	13.4	12.4 - 14.3	103	18.11	0.42	2.3	18.1	16.8 - 19.4
All ABX Instruments	63	13.46	0.19	1.4	13.5	12.5 - 14.5	59	18.13	0.24	1.3	18.1	16.8 - 19.4
All Boule (CDS) Instruments	126	13.48	0.21	1.5	13.5	12.5 - 14.5	125	18.37	0.29	1.6	18.4	17.0 - 19.7
All COULTER Instruments	118	13.37	0.23	1.7	13.4	12.4 - 14.4	118	18.09	0.33	1.8	18.1	16.8 - 19.4
Abbott Cell-Dyn 1700	11	13.58	0.20	1.5	13.7	12.6 - 14.6	11	18.16	0.25	1.4	18.2	16.8 - 19.5
Abbott Cell-Dyn 1800	21	13.52	0.44	3.3	13.5	12.5 - 14.5	21	18.32	0.64	3.5	18.2	17.0 - 19.7
Abbott Cell-Dyn Emerald	73	13.31	0.26	1.9	13.3	12.3 - 14.3	71	18.04	0.33	1.8	18.1	16.7 - 19.3
Boule (CDS) Medonic M series	124	13.49	0.21	1.5	13.5	12.5 - 14.5	123	18.38	0.28	1.5	18.4	17.0 - 19.7
COULTER AcT diff/diff 2	113	13.37	0.23	1.7	13.4	12.4 - 14.4	113	18.09	0.34	1.9	18.1	16.8 - 19.4
Horiba ABX Micros/45/60	63	13.46	0.19	1.4	13.5	12.5 - 14.5	59	18.13	0.24	1.3	18.1	16.8 - 19.4

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

Specimen HD-15

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	425	5.91	0.16	2.7	5.9	5.4 - 6.4
All Abbott Cell-Dyn Instruments	104	5.90	0.21	3.6	5.9	5.4 - 6.4
All ABX Instruments	61	5.94	0.10	1.6	5.9	5.5 - 6.4
All Boule (CDS) Instruments	128	5.97	0.10	1.6	6.0	5.5 - 6.4
All COULTER Instruments	116	5.84	0.15	2.5	5.8	5.4 - 6.3
Abbott Cell-Dyn 1700	11	6.12	0.28	4.5	6.2	5.6 - 6.6
Abbott Cell-Dyn 1800	21	6.11	0.20	3.2	6.1	5.6 - 6.6
Abbott Cell-Dyn Emerald	73	5.82	0.15	2.6	5.8	5.4 - 6.3
Boule (CDS) Medonic M series	126	5.97	0.10	1.6	6.0	5.5 - 6.4
COULTER AcT diff/diff 2	111	5.85	0.14	2.4	5.8	5.4 - 6.3
Horiba ABX Micros/45/60	61	5.94	0.10	1.6	5.9	5.5 - 6.4

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

	Specimen HD-11						Specimen HD-12					
Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	424	37.97	1.59	4.2	37.9	35.6 - 40.3	426	16.90	0.97	5.7	16.9	15.8 - 18.0
All Abbott Cell-Dyn Instruments	103	39.63	1.09	2.8	39.8	37.2 - 42.1	105	18.00	0.62	3.4	18.0	16.9 - 19.1
All ABX Instruments	62	36.43	0.84	2.3	36.5	34.2 - 38.7	63	15.90	0.32	2.0	15.9	14.9 - 16.9
All Boule (CDS) Instruments	127	36.95	0.96	2.6	36.9	34.7 - 39.2	126	16.09	0.44	2.7	16.1	15.1 - 17.1
All COULTER Instruments	118	38.37	1.09	2.8	38.2	36.0 - 40.7	119	17.24	0.46	2.7	17.3	16.2 - 18.3
Abbott Cell-Dyn 1700	11	38.16	1.23	3.2	38.2	35.8 - 40.5	11	17.05	0.44	2.6	17.2	16.0 - 18.1
Abbott Cell-Dyn 1800	21	39.96	1.27	3.2	40.2	37.5 - 42.4	20	18.31	0.46	2.5	18.3	17.2 - 19.5
Abbott Cell-Dyn Emerald	72	39.71	0.94	2.4	39.9	37.3 - 42.1	73	18.08	0.51	2.8	18.0	16.9 - 19.2
Boule (CDS) Medonic M series	125	36.97	0.96	2.6	36.9	34.7 - 39.2	124	16.10	0.44	2.7	16.1	15.1 - 17.1
COULTER AcT diff/diff 2	113	38.37	1.11	2.9	38.2	36.0 - 40.7	114	17.25	0.46	2.6	17.3	16.2 - 18.3
Horiba ABX Micros/45/60	62	36.43	0.84	2.3	36.5	34.2 - 38.7	63	15.90	0.32	2.0	15.9	14.9 - 16.9

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

	Specimen HD-13						Specimen HD-14					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	425	37.91	1.59	4.2	37.8	35.6 - 40.2	421	52.21	1.72	3.3	52.2	49.0 - 55.4
All Abbott Cell-Dyn Instruments	105	39.58	1.10	2.8	39.7	37.2 - 42.0	101	53.58	1.27	2.4	53.7	50.3 - 56.8
All ABX Instruments	62	36.34	0.79	2.2	36.4	34.1 - 38.6	61	50.00	1.05	2.1	50.1	47.0 - 53.0
All Boule (CDS) Instruments	125	36.77	0.95	2.6	36.7	34.5 - 39.0	127	52.37	1.43	2.7	52.5	49.2 - 55.6
All COULTER Instruments	119	38.34	0.88	2.3	38.2	36.0 - 40.7	119	52.01	1.34	2.6	52.0	48.8 - 55.2
Abbott Cell-Dyn 1700	11	38.29	0.95	2.5	38.4	35.9 - 40.6	11	51.65	1.57	3.0	51.8	48.5 - 54.8
Abbott Cell-Dyn 1800	21	39.84	1.36	3.4	40.0	37.4 - 42.3	21	53.67	1.38	2.6	53.7	50.4 - 56.9
Abbott Cell-Dyn Emerald	72	39.66	0.85	2.1	39.8	37.2 - 42.1	70	53.78	1.07	2.0	53.9	50.5 - 57.1
Boule (CDS) Medonic M series	123	36.80	0.94	2.5	36.7	34.5 - 39.1	125	52.42	1.38	2.6	52.5	49.2 - 55.6
COULTER AcT diff/diff 2	114	38.33	0.89	2.3	38.2	36.0 - 40.7	114	52.06	1.34	2.6	52.1	48.9 - 55.2
Horiba ABX Micros/45/60	62	36.34	0.79	2.2	36.4	34.1 - 38.6	61	50.00	1.05	2.1	50.1	47.0 - 53.0

	Specimen HD-15					
All Method	423	16.86	0.99	5.8	16.8	15.8 - 17.9
All Abbott Cell-Dyn Instruments	102	18.02	0.61	3.4	18.1	16.9 - 19.1
All ABX Instruments	63	15.88	0.36	2.3	15.9	14.9 - 16.9
All Boule (CDS) Instruments	127	16.08	0.38	2.4	16.1	15.1 - 17.1
All COULTER Instruments	115	17.23	0.50	2.9	17.1	16.1 - 18.3
Abbott Cell-Dyn 1700	11	17.00	0.72	4.2	17.1	15.9 - 18.1
Abbott Cell-Dyn 1800	20	18.19	0.66	3.6	18.3	17.0 - 19.3
Abbott Cell-Dyn Emerald	72	18.09	0.50	2.8	18.2	17.0 - 19.2
Boule (CDS) Medonic M series	125	16.08	0.38	2.4	16.1	15.1 - 17.1
COULTER AcT diff/diff 2	110	17.25	0.48	2.8	17.2	16.2 - 18.3
Horiba ABX Micros/45/60	63	15.88	0.36	2.3	15.9	14.9 - 16.9

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

	Specimen HD-11						Specimen HD-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	427	267.1	18.0	6.7	266	200 - 334	420	73.6	8.3	11.2	73	55 - 92
All Abbott Cell-Dyn Instruments	104	269.3	18.5	6.9	269	202 - 337	100	74.4	9.5	12.8	73	55 - 93
All ABX Instruments	63	275.7	14.2	5.1	276	206 - 345	61	80.2	6.4	8.0	80	60 - 101
All Boule (CDS) Instruments	127	251.4	11.3	4.5	253	188 - 315	126	67.7	5.0	7.4	68	50 - 85
All COULTER Instruments	120	277.0	14.0	5.1	276	207 - 347	118	75.3	6.4	8.5	75	56 - 95
Abbott Cell-Dyn 1700	11	273.5	17.2	6.3	278	205 - 342	11	71.1	5.4	7.5	72	53 - 89
Abbott Cell-Dyn 1800	21	273.1	18.5	6.8	270	204 - 342	20	74.2	4.1	5.5	74	55 - 93
Abbott Cell-Dyn Emerald	72	267.6	18.7	7.0	267	200 - 335	69	75.7	11.4	15.0	73	56 - 95
Boule (CDS) Medonic M series	126	251.2	11.2	4.5	253	188 - 315	124	67.6	5.0	7.3	68	50 - 85
COULTER AcT diff/diff 2	115	277.4	13.7	4.9	276	208 - 347	113	75.5	6.3	8.4	75	56 - 95
Horiba ABX Micros/45/60	63	275.7	14.2	5.1	276	206 - 345	61	80.2	6.4	8.0	80	60 - 101

	Specimen HD-13						Specimen HD-14					
All Method	424	265.5	16.8	6.3	265	199 - 332	423	530.8	35.0	6.6	528	398 - 664
All Abbott Cell-Dyn Instruments	103	268.1	16.4	6.1	267	201 - 336	103	530.3	43.1	8.1	522	397 - 663
All ABX Instruments	60	271.0	9.9	3.7	270	203 - 339	62	531.3	22.7	4.3	532	398 - 665
All Boule (CDS) Instruments	128	250.3	11.8	4.7	251	187 - 313	128	505.1	21.2	4.2	505	378 - 632
All COULTER Instruments	119	276.7	12.1	4.4	278	207 - 346	118	559.5	21.3	3.8	561	419 - 700
Abbott Cell-Dyn 1700	11	273.9	17.0	6.2	273	205 - 343	11	575.9	34.8	6.0	577	431 - 720
Abbott Cell-Dyn 1800	21	270.0	15.3	5.7	272	202 - 338	21	581.4	32.2	5.5	580	436 - 727
Abbott Cell-Dyn Emerald	72	267.3	17.6	6.6	264	200 - 335	71	508.2	25.2	5.0	508	381 - 636
Boule (CDS) Medonic M series	126	250.0	11.7	4.7	251	187 - 313	126	504.6	20.7	4.1	505	378 - 631
COULTER AcT diff/diff 2	114	277.0	11.6	4.2	278	207 - 347	114	559.7	21.3	3.8	561	419 - 700
Horiba ABX Micros/45/60	60	271.0	9.9	3.7	270	203 - 339	62	531.3	22.7	4.3	532	398 - 665

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

Specimen HD-15

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	423	75.3	9.2	12.2	75	56 - 95
All Abbott Cell-Dyn Instruments	102	78.3	9.3	11.9	78	58 - 98
All ABX Instruments	62	83.0	6.7	8.1	83	62 - 104
All Boule (CDS) Instruments	127	68.0	4.7	6.9	68	51 - 85
All COULTER Instruments	115	76.3	7.3	9.6	76	57 - 96
Abbott Cell-Dyn 1700	11	70.6	4.1	5.8	71	52 - 89
Abbott Cell-Dyn 1800	21	76.7	4.6	6.0	78	57 - 96
Abbott Cell-Dyn Emerald	70	80.0	10.3	12.8	79	59 - 100
Boule (CDS) Medonic M series	125	67.9	4.7	6.9	68	50 - 85
COULTER AcT diff/diff 2	110	76.5	7.1	9.3	76	57 - 96
Horiba ABX Micros/45/60	62	83.0	6.7	8.1	83	62 - 104

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

	Specimen HD-11						**Specimen HD-12**					
Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	412	28.27	2.13	7.5	28.2	21.8 - 34.7	408	55.22	8.10	14.7	59.1	30.9 - 79.6
All Abbott Cell-Dyn Instruments	102	27.81	1.81	6.5	27.8	22.3 - 33.3	102	50.25	3.46	6.9	50.7	39.8 - 60.7
All ABX Instruments	59	25.57	2.14	8.4	25.4	19.1 - 32.0	59	39.78	5.90	14.8	38.2	22.0 - 57.5
All Boule (CDS) Instruments	122	27.78	1.09	3.9	27.7	24.5 - 31.1	121	60.79	2.03	3.3	60.9	54.7 - 66.9
All COULTER Instruments	113	30.40	0.86	2.8	30.4	27.8 - 33.0	111	61.00	1.71	2.8	61.0	55.8 - 66.2
Abbott Cell-Dyn 1700	12	27.22	0.87	3.2	27.0	24.6 - 29.9	12	52.42	2.67	5.1	51.7	44.4 - 60.5
Abbott Cell-Dyn 1800	21	25.54	1.30	5.1	25.4	21.6 - 29.5	21	45.48	2.16	4.8	45.4	38.9 - 52.0
Abbott Cell-Dyn Emerald	69	28.61	1.40	4.9	28.3	24.4 - 32.9	69	51.32	2.51	4.9	51.2	43.7 - 58.9
Boule (CDS) Medonic M series	122	27.78	1.09	3.9	27.7	24.5 - 31.1	121	60.79	2.03	3.3	60.9	54.7 - 66.9
COULTER AcT diff/diff 2	111	30.38	0.86	2.8	30.3	27.7 - 33.0	109	60.97	1.69	2.8	60.9	55.9 - 66.1
Horiba ABX Micros/45/60	59	25.57	2.14	8.4	25.4	19.1 - 32.0	59	39.78	5.90	14.8	38.2	22.0 - 57.5

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

	Specimen HD-13						Specimen HD-14					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	411	28.17	2.16	7.7	28.3	21.6 - 34.7	408	13.44	1.29	9.6	13.4	9.5 - 17.3
All Abbott Cell-Dyn Instruments	102	27.77	1.65	5.9	28.1	22.8 - 32.8	101	13.78	1.82	13.2	13.8	8.3 - 19.3
All ABX Instruments	59	25.45	2.39	9.4	25.0	18.2 - 32.7	58	12.44	1.10	8.8	12.3	9.1 - 15.8
All Boule (CDS) Instruments	123	27.64	1.23	4.5	27.7	23.9 - 31.4	121	12.71	0.54	4.3	12.7	11.0 - 14.4
All COULTER Instruments	112	30.35	0.96	3.2	30.4	27.4 - 33.3	113	14.44	0.45	3.1	14.5	13.1 - 15.8
Abbott Cell-Dyn 1700	12	27.40	0.98	3.6	27.2	24.4 - 30.4	12	12.39	0.56	4.5	12.4	10.7 - 14.1
Abbott Cell-Dyn 1800	21	25.53	1.54	6.0	25.2	20.9 - 30.2	21	11.49	0.34	2.9	11.6	10.4 - 12.6
Abbott Cell-Dyn Emerald	68	28.46	0.96	3.4	28.6	25.5 - 31.4	68	14.74	1.38	9.4	14.3	10.5 - 18.9
Boule (CDS) Medonic M series	123	27.64	1.23	4.5	27.7	23.9 - 31.4	121	12.71	0.54	4.3	12.7	11.0 - 14.4
COULTER AcT diff/diff 2	110	30.36	0.97	3.2	30.4	27.4 - 33.3	111	14.45	0.45	3.1	14.5	13.1 - 15.8
Horiba ABX Micros/45/60	59	25.45	2.39	9.4	25.0	18.2 - 32.7	58	12.44	1.10	8.8	12.3	9.1 - 15.8

	Specimen HD-15					
All Method	409	54.61	8.12	14.9	58.4	30.2 - 79.0
All Abbott Cell-Dyn Instruments	102	50.00	3.15	6.3	50.5	40.5 - 59.5
All ABX Instruments	59	39.21	5.92	15.1	37.9	21.4 - 57.0
All Boule (CDS) Instruments	120	60.05	1.80	3.0	60.1	54.6 - 65.5
All COULTER Instruments	111	60.42	1.97	3.3	60.5	54.4 - 66.4
Abbott Cell-Dyn 1700	12	52.03	2.12	4.1	51.9	45.6 - 58.4
Abbott Cell-Dyn 1800	21	46.15	2.70	5.9	45.1	38.0 - 54.3
Abbott Cell-Dyn Emerald	69	50.82	2.42	4.8	50.7	43.5 - 58.1
Boule (CDS) Medonic M series	120	60.05	1.80	3.0	60.1	54.6 - 65.5
COULTER AcT diff/diff 2	109	60.38	1.90	3.1	60.5	54.6 - 66.1
Horiba ABX Micros/45/60	59	39.21	5.92	15.1	37.9	21.4 - 57.0

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

	Specimen HD-11						Specimen HD-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	412	6.61	1.69	25.6	6.3	1.5 - 11.7	410	12.12	6.23	51.4	10.3	0.0 - 30.9
All Abbott Cell-Dyn Instruments	102	6.68	1.83	27.4	5.8	1.1 - 12.2	102	14.61	3.23	22.1	13.7	4.9 - 24.4
All ABX Instruments	59	7.61	0.92	12.1	7.7	4.8 - 10.4	59	24.02	4.18	17.4	25.4	11.4 - 36.6
All Boule (CDS) Instruments	122	7.48	1.36	18.1	7.6	3.4 - 11.6	120	9.50	2.09	22.0	9.7	3.2 - 15.8
All COULTER Instruments	113	5.11	0.92	17.9	5.2	2.3 - 7.9	111	6.65	1.37	20.5	6.7	2.5 - 10.8
Abbott Cell-Dyn 1700	12	7.83	0.64	8.1	8.0	5.9 - 9.8	12	13.03	1.83	14.0	13.4	7.5 - 18.6
Abbott Cell-Dyn 1800	21	9.79	0.57	5.8	9.8	8.0 - 11.5	21	19.51	1.79	9.2	19.5	14.1 - 24.9
Abbott Cell-Dyn Emerald	68	5.51	0.50	9.1	5.5	4.0 - 7.1	68	13.30	2.02	15.2	12.9	7.2 - 19.4
Boule (CDS) Medonic M series	122	7.48	1.36	18.1	7.6	3.4 - 11.6	120	9.50	2.09	22.0	9.7	3.2 - 15.8
COULTER AcT diff/diff 2	110	5.15	0.89	17.4	5.3	2.4 - 7.9	107	6.71	1.30	19.4	6.8	2.8 - 10.7
Horiba ABX Micros/45/60	59	7.61	0.92	12.1	7.7	4.8 - 10.4	59	24.02	4.18	17.4	25.4	11.4 - 36.6

	Specimen HD-13						Specimen HD-14					
All Method	410	6.60	1.62	24.6	6.2	1.7 - 11.5	411	3.98	1.18	29.7	3.7	0.4 - 7.6
All Abbott Cell-Dyn Instruments	102	6.71	1.77	26.3	6.0	1.4 - 12.1	102	3.39	1.23	36.2	2.7	0.0 - 7.1
All ABX Instruments	59	7.68	0.99	12.9	7.7	4.7 - 10.7	59	3.31	0.37	11.2	3.3	2.1 - 4.5
All Boule (CDS) Instruments	122	7.26	1.34	18.4	7.3	3.2 - 11.3	122	5.18	0.81	15.7	5.2	2.7 - 7.7
All COULTER Instruments	112	5.16	0.89	17.2	5.2	2.4 - 7.9	110	3.54	0.38	10.7	3.6	2.3 - 4.7
Abbott Cell-Dyn 1700	12	7.94	0.62	7.8	8.2	6.0 - 9.8	12	4.49	0.40	9.0	4.4	3.2 - 5.8
Abbott Cell-Dyn 1800	21	9.67	0.46	4.7	9.6	8.2 - 11.1	21	5.40	0.37	6.9	5.5	4.2 - 6.6
Abbott Cell-Dyn Emerald	68	5.57	0.48	8.7	5.5	4.1 - 7.1	68	2.57	0.21	8.3	2.6	1.9 - 3.3
Boule (CDS) Medonic M series	122	7.26	1.34	18.4	7.3	3.2 - 11.3	122	5.18	0.81	15.7	5.2	2.7 - 7.7
COULTER AcT diff/diff 2	109	5.16	0.86	16.7	5.2	2.5 - 7.8	107	3.55	0.37	10.5	3.6	2.4 - 4.7
Horiba ABX Micros/45/60	59	7.68	0.99	12.9	7.7	4.7 - 10.7	59	3.31	0.37	11.2	3.3	2.1 - 4.5

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

Specimen HD-15

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	409	12.17	6.32	51.9	10.4	0.0 - 31.2
All Abbott Cell-Dyn Instruments	102	14.53	3.18	21.9	13.7	4.9 - 24.1
All ABX Instruments	59	24.41	4.18	17.1	25.1	11.8 - 37.0
All Boule (CDS) Instruments	119	9.58	1.97	20.6	9.5	3.6 - 15.5
All COULTER Instruments	114	6.86	1.66	24.1	6.9	1.8 - 11.9
Abbott Cell-Dyn 1700	12	13.03	2.09	16.0	12.9	6.7 - 19.3
Abbott Cell-Dyn 1800	21	18.66	2.26	12.1	19.3	11.8 - 25.5
Abbott Cell-Dyn Emerald	69	13.53	2.47	18.2	13.0	6.1 - 21.0
Boule (CDS) Medonic M series	119	9.58	1.97	20.6	9.5	3.6 - 15.5
COULTER AcT diff/diff 2	111	6.88	1.64	23.8	6.9	1.9 - 11.8
Horiba ABX Micros/45/60	59	24.41	4.18	17.1	25.1	11.8 - 37.0

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

	Specimen HD-11						**Specimen HD-12**					
Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	411	65.17	1.80	2.8	65.0	59.7 - 70.6	411	32.79	3.26	9.9	32.9	23.0 - 42.6
All Abbott Cell-Dyn Instruments	101	65.54	1.47	2.2	65.6	61.1 - 70.0	100	35.25	1.49	4.2	35.3	30.7 - 39.8
All ABX Instruments	59	66.83	1.55	2.3	67.1	62.1 - 71.5	58	36.31	2.10	5.8	36.9	30.0 - 42.7
All Boule (CDS) Instruments	122	64.77	1.89	2.9	64.6	59.0 - 70.5	121	29.60	2.72	9.2	29.4	21.4 - 37.8
All COULTER Instruments	115	64.52	1.39	2.2	64.5	60.3 - 68.7	114	32.24	1.47	4.5	32.3	27.8 - 36.7
Abbott Cell-Dyn 1700	12	64.84	0.78	1.2	65.1	62.4 - 67.2	12	34.41	1.43	4.2	34.4	30.1 - 38.7
Abbott Cell-Dyn 1800	21	64.67	1.35	2.1	64.9	60.6 - 68.8	20	35.29	1.24	3.5	35.5	31.5 - 39.1
Abbott Cell-Dyn Emerald	68	65.93	1.44	2.2	66.4	61.6 - 70.3	68	35.39	1.53	4.3	35.4	30.7 - 40.0
Boule (CDS) Medonic M series	122	64.77	1.89	2.9	64.6	59.0 - 70.5	121	29.60	2.72	9.2	29.4	21.4 - 37.8
COULTER AcT diff/diff 2	112	64.50	1.40	2.2	64.3	60.3 - 68.7	111	32.24	1.48	4.6	32.3	27.7 - 36.7
Horiba ABX Micros/45/60	59	66.83	1.55	2.3	67.1	62.1 - 71.5	58	36.31	2.10	5.8	36.9	30.0 - 42.7

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

	Specimen HD-13						Specimen HD-14					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	410	65.28	1.86	2.9	65.2	59.6 - 70.9	406	82.60	1.28	1.5	82.4	78.7 - 86.5
All Abbott Cell-Dyn Instruments	99	65.66	1.13	1.7	65.8	62.2 - 69.1	100	82.86	1.21	1.5	83.1	79.2 - 86.5
All ABX Instruments	59	66.88	1.85	2.8	67.3	61.3 - 72.5	58	84.25	1.01	1.2	84.4	81.2 - 87.3
All Boule (CDS) Instruments	123	65.10	2.07	3.2	64.8	58.8 - 71.4	121	82.12	1.06	1.3	82.1	78.9 - 85.4
All COULTER Instruments	113	64.53	1.40	2.2	64.4	60.3 - 68.8	114	82.01	0.62	0.8	82.0	80.1 - 83.9
Abbott Cell-Dyn 1700	12	64.71	1.20	1.9	64.7	61.0 - 68.4	12	83.08	0.52	0.6	83.2	81.5 - 84.7
Abbott Cell-Dyn 1800	21	64.80	1.71	2.6	65.0	59.6 - 70.0	21	83.11	0.49	0.6	83.1	81.6 - 84.6
Abbott Cell-Dyn Emerald	68	65.95	1.02	1.5	66.1	62.8 - 69.1	68	82.67	1.52	1.8	83.1	78.1 - 87.3
Boule (CDS) Medonic M series	123	65.10	2.07	3.2	64.8	58.8 - 71.4	121	82.12	1.06	1.3	82.1	78.9 - 85.4
COULTER AcT diff/diff 2	110	64.50	1.39	2.2	64.4	60.3 - 68.7	111	81.99	0.61	0.7	82.0	80.1 - 83.9
Horiba ABX Micros/45/60	59	66.88	1.85	2.8	67.3	61.3 - 72.5	58	84.25	1.01	1.2	84.4	81.2 - 87.3

	Specimen HD-15					
All Method	410	33.30	3.22	9.7	33.5	23.6 - 43.0
All Abbott Cell-Dyn Instruments	102	35.49	1.69	4.8	35.7	30.4 - 40.6
All ABX Instruments	59	36.39	2.29	6.3	37.0	29.5 - 43.3
All Boule (CDS) Instruments	122	30.38	3.06	10.1	30.0	21.1 - 39.6
All COULTER Instruments	112	32.64	1.41	4.3	32.6	28.4 - 36.9
Abbott Cell-Dyn 1700	12	34.98	1.83	5.2	35.5	29.5 - 40.5
Abbott Cell-Dyn 1800	21	35.19	1.83	5.2	35.1	29.7 - 40.7
Abbott Cell-Dyn Emerald	69	35.67	1.61	4.5	35.7	30.8 - 40.6
Boule (CDS) Medonic M series	122	30.38	3.06	10.1	30.0	21.1 - 39.6
COULTER AcT diff/diff 2	109	32.67	1.39	4.3	32.7	28.4 - 36.9
Horiba ABX Micros/45/60	59	36.39	2.29	6.3	37.0	29.5 - 43.3

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

	Specimen DIF-11						Specimen DIF-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	14	9.24	0.27	2.9	9.2	7.8 - 10.7	14	3.94	0.16	4.0	3.9	3.3 - 4.6
All COULTER Instruments	14	9.24	0.27	2.9	9.2	7.8 - 10.7	14	3.94	0.16	4.0	3.9	3.3 - 4.6
COULTER UniCel DxH 600	10	9.30	0.20	2.2	9.2	7.9 - 10.7	10	3.87	0.08	2.1	3.9	3.2 - 4.5
	Specimen DIF-13						**Specimen DIF-14**					
All Method	14	9.27	0.21	2.3	9.3	7.8 - 10.7	14	20.75	0.42	2.0	20.8	17.6 - 23.9
All COULTER Instruments	14	9.27	0.21	2.3	9.3	7.8 - 10.7	14	20.75	0.42	2.0	20.8	17.6 - 23.9
COULTER UniCel DxH 600	10	9.30	0.11	1.2	9.3	7.9 - 10.7	10	20.68	0.44	2.1	20.9	17.5 - 23.8
	Specimen DIF-15											
All Method	14	3.96	0.19	4.8	3.9	3.3 - 4.6						
All COULTER Instruments	14	3.96	0.19	4.8	3.9	3.3 - 4.6						
COULTER UniCel DxH 600	10	3.90	0.01	0.0	3.9	3.3 - 4.5						

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

	Specimen DIF-11						Specimen DIF-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	14	4.044	0.040	1.0	4.05	3.80 - 4.29	14	2.595	0.036	1.4	2.61	2.43 - 2.76
All COULTER Instruments	14	4.044	0.040	1.0	4.05	3.80 - 4.29	14	2.595	0.036	1.4	2.61	2.43 - 2.76
COULTER UniCel DxH 600	10	4.040	0.033	0.8	4.04	3.79 - 4.29	10	2.583	0.041	1.6	2.58	2.42 - 2.74
	Specimen DIF-13						**Specimen DIF-14**					
All Method	14	4.007	0.087	2.2	4.01	3.76 - 4.25	14	5.223	0.105	2.0	5.21	4.90 - 5.54
All COULTER Instruments	14	4.007	0.087	2.2	4.01	3.76 - 4.25	14	5.223	0.105	2.0	5.21	4.90 - 5.54
COULTER UniCel DxH 600	10	4.012	0.031	0.8	4.00	3.77 - 4.26	10	5.187	0.096	1.8	5.16	4.87 - 5.50
	Specimen DIF-15											
All Method	14	2.585	0.054	2.1	2.59	2.42 - 2.74						
All COULTER Instruments	14	2.585	0.054	2.1	2.59	2.42 - 2.74						
COULTER UniCel DxH 600	10	2.578	0.040	1.5	2.57	2.42 - 2.74						

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

	Specimen DIF-11						Specimen DIF-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	14	11.83	0.29	2.4	11.9	10.9 - 12.7	14	6.66	0.19	2.8	6.7	6.1 - 7.2
All COULTER Instruments	14	11.83	0.29	2.4	11.9	10.9 - 12.7	14	6.66	0.19	2.8	6.7	6.1 - 7.2
COULTER UniCel DxH 600	10	11.88	0.12	1.0	11.9	11.0 - 12.8	10	6.68	0.12	1.7	6.7	6.2 - 7.2
	Specimen DIF-13						**Specimen DIF-14**					
All Method	14	11.83	0.24	2.0	11.9	10.9 - 12.7	14	16.81	0.25	1.5	16.8	15.6 - 18.0
All COULTER Instruments	14	11.83	0.24	2.0	11.9	10.9 - 12.7	14	16.81	0.25	1.5	16.8	15.6 - 18.0
COULTER UniCel DxH 600	10	11.92	0.08	0.6	11.9	11.0 - 12.8	10	16.80	0.18	1.1	16.8	15.6 - 18.0
	Specimen DIF-15											
All Method	14	6.65	0.20	3.0	6.7	6.1 - 7.2						
All COULTER Instruments	14	6.65	0.20	3.0	6.7	6.1 - 7.2						
COULTER UniCel DxH 600	10	6.70	0.06	0.9	6.7	6.2 - 7.2						

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

	Specimen DIF-11						Specimen DIF-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	14	36.37	0.84	2.3	36.6	34.1 - 38.6	14	20.92	0.46	2.2	21.0	19.6 - 22.2
All COULTER Instruments	14	36.37	0.84	2.3	36.6	34.1 - 38.6	14	20.92	0.46	2.2	21.0	19.6 - 22.2
COULTER UniCel DxH 600	10	36.83	0.47	1.3	36.8	34.6 - 39.1	10	21.12	0.33	1.5	21.2	19.8 - 22.4
	Specimen DIF-13						**Specimen DIF-14**					
All Method	14	36.15	1.18	3.3	36.6	33.9 - 38.4	14	53.05	1.31	2.5	53.2	49.8 - 56.3
All COULTER Instruments	14	36.15	1.18	3.3	36.6	33.9 - 38.4	14	53.05	1.31	2.5	53.2	49.8 - 56.3
COULTER UniCel DxH 600	10	36.63	0.23	0.6	36.7	34.4 - 38.9	10	53.50	0.78	1.5	53.2	50.2 - 56.8
	Specimen DIF-15											
All Method	14	20.84	0.59	2.8	20.9	19.5 - 22.1						
All COULTER Instruments	14	20.84	0.59	2.8	20.9	19.5 - 22.1						
COULTER UniCel DxH 600	10	21.08	0.25	1.2	21.1	19.8 - 22.4						

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

	Specimen DIF-11						Specimen DIF-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	14	269.3	18.1	6.7	265	201 - 337	14	89.5	7.2	8.1	86	67 - 112
All COULTER Instruments	14	269.3	18.1	6.7	265	201 - 337	14	89.5	7.2	8.1	86	67 - 112
COULTER UniCel DxH 600	10	269.0	6.9	2.6	267	201 - 337	10	87.8	4.5	5.1	85	65 - 110
	Specimen DIF-13						**Specimen DIF-14**					
All Method	14	271.1	14.1	5.2	270	203 - 339	14	459.4	19.7	4.3	458	344 - 575
All COULTER Instruments	14	271.1	14.1	5.2	270	203 - 339	14	459.4	19.7	4.3	458	344 - 575
COULTER UniCel DxH 600	10	272.8	8.5	3.1	272	204 - 342	10	457.2	11.1	2.4	457	342 - 572
	Specimen DIF-15											
All Method	14	91.8	6.2	6.8	90	68 - 115						
All COULTER Instruments	14	91.8	6.2	6.8	90	68 - 115						
COULTER UniCel DxH 600	10	90.7	3.7	4.1	90	68 - 114						

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

	Specimen DIF-11						Specimen DIF-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	14	59.06	0.64	1.1	59.0	57.1 - 61.0	14	50.95	0.99	1.9	51.0	47.9 - 54.0
All COULTER Instruments	14	59.06	0.64	1.1	59.0	57.1 - 61.0	14	50.95	0.99	1.9	51.0	47.9 - 54.0
COULTER UniCel DxH 600	10	59.30	0.63	1.1	59.2	57.4 - 61.2	10	51.03	1.17	2.3	51.1	47.5 - 54.6
	Specimen DIF-13						**Specimen DIF-14**					
All Method	14	58.34	1.32	2.3	58.5	54.3 - 62.3	14	66.17	0.64	1.0	66.2	64.2 - 68.1
All COULTER Instruments	14	58.34	1.32	2.3	58.5	54.3 - 62.3	14	66.17	0.64	1.0	66.2	64.2 - 68.1
COULTER UniCel DxH 600	10	57.93	1.55	2.7	58.1	53.2 - 62.6	10	66.38	0.41	0.6	66.4	65.1 - 67.7
	Specimen DIF-15											
All Method	14	51.19	1.21	2.4	51.2	47.5 - 54.9						
All COULTER Instruments	14	51.19	1.21	2.4	51.2	47.5 - 54.9						
COULTER UniCel DxH 600	10	50.98	1.30	2.6	50.8	47.0 - 54.9						

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

	Specimen DIF-11						Specimen DIF-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	14	31.12	0.74	2.4	31.1	28.9 - 33.4	14	39.67	0.75	1.9	39.7	37.4 - 42.0
All COULTER Instruments	14	31.12	0.74	2.4	31.1	28.9 - 33.4	14	39.67	0.75	1.9	39.7	37.4 - 42.0
COULTER UniCel DxH 600	10	30.83	0.34	1.1	30.9	29.7 - 31.9	10	39.73	0.92	2.3	39.7	36.9 - 42.5
	Specimen DIF-13						**Specimen DIF-14**					
All Method	14	31.49	0.73	2.3	31.6	29.3 - 33.7	14	23.38	1.25	5.3	22.9	19.6 - 27.2
All COULTER Instruments	14	31.49	0.73	2.3	31.6	29.3 - 33.7	14	23.38	1.25	5.3	22.9	19.6 - 27.2
COULTER UniCel DxH 600	10	31.55	0.83	2.6	31.6	29.0 - 34.1	10	23.47	1.19	5.1	23.1	19.8 - 27.1
	Specimen DIF-15											
All Method	14	39.49	0.86	2.2	39.5	36.9 - 42.1						
All COULTER Instruments	14	39.49	0.86	2.2	39.5	36.9 - 42.1						
COULTER UniCel DxH 600	10	39.52	0.81	2.1	39.5	37.0 - 42.0						

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

	Specimen DIF-11						Specimen DIF-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	14	4.07	0.42	10.4	4.1	2.8 - 5.4	14	0.65	0.16	24.3	0.6	0.1 - 1.2
All COULTER Instruments	14	4.07	0.42	10.4	4.1	2.8 - 5.4	14	0.65	0.16	24.3	0.6	0.1 - 1.2
COULTER UniCel DxH 600	10	4.08	0.32	7.8	4.1	3.1 - 5.1	10	0.68	0.19	28.4	0.7	0.1 - 1.3
	Specimen DIF-13						**Specimen DIF-14**					
All Method	14	3.94	0.27	6.8	3.9	3.1 - 4.8	14	6.11	0.94	15.4	6.5	3.2 - 9.0
All COULTER Instruments	14	3.94	0.27	6.8	3.9	3.1 - 4.8	14	6.11	0.94	15.4	6.5	3.2 - 9.0
COULTER UniCel DxH 600	10	3.92	0.29	7.3	3.9	3.0 - 4.8	10	6.00	0.99	16.6	6.5	3.0 - 9.0
	Specimen DIF-15											
All Method	14	0.73	0.27	37.3	0.7	0.0 - 1.6						
All COULTER Instruments	14	0.73	0.27	37.3	0.7	0.0 - 1.6						
COULTER UniCel DxH 600	10	0.84	0.32	38.2	1.0	0.0 - 1.9						

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

Instrument	Labs	Mean	SD	CV	Median	Range
Specimen DIF-11						
All Method	14	5.70	0.30	5.3	5.7	4.7 - 6.7
All COULTER Instruments	14	5.70	0.30	5.3	5.7	4.7 - 6.7
COULTER UniCel DxH 600	10	5.78	0.35	6.1	6.0	4.7 - 6.9
Specimen DIF-12						
All Method	14	8.71	0.52	5.9	8.9	7.1 - 10.3
All COULTER Instruments	14	8.71	0.52	5.9	8.9	7.1 - 10.3
COULTER UniCel DxH 600	10	8.53	0.51	6.0	8.5	6.9 - 10.1
Specimen DIF-13						
All Method	14	6.00	0.73	12.2	6.0	3.8 - 8.2
All COULTER Instruments	14	6.00	0.73	12.2	6.0	3.8 - 8.2
COULTER UniCel DxH 600	10	6.28	0.79	12.6	6.0	3.9 - 8.7
Specimen DIF-14						
All Method	14	4.21	0.37	8.8	4.1	3.0 - 5.4
All COULTER Instruments	14	4.21	0.37	8.8	4.1	3.0 - 5.4
COULTER UniCel DxH 600	10	4.13	0.19	4.5	4.1	3.5 - 4.7
Specimen DIF-15						
All Method	14	8.40	0.67	8.0	8.7	6.3 - 10.5
All COULTER Instruments	14	8.40	0.67	8.0	8.7	6.3 - 10.5
COULTER UniCel DxH 600	10	8.33	0.84	10.1	8.7	5.8 - 10.9

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

Instrument	Labs	Mean	SD	CV	Median	Range
Specimen DIF-11						
All Method	14	0.05	0.11	216.0	0.0	0.0 - 0.4
All COULTER Instruments	14	0.05	0.11	216.0	0.0	0.0 - 0.4
COULTER UniCel DxH 600	10	0.00	0.01	0.0	0.0	0.0 - 0.1
Specimen DIF-12						
All Method	14	0.02	0.04	210.8	0.0	0.0 - 0.2
All COULTER Instruments	14	0.02	0.04	210.8	0.0	0.0 - 0.2
COULTER UniCel DxH 600	10	0.02	0.04	245.0	0.0	0.0 - 0.2
Specimen DIF-13						
All Method	14	0.04	0.08	210.8	0.0	0.0 - 0.3
All COULTER Instruments	14	0.04	0.08	210.8	0.0	0.0 - 0.3
COULTER UniCel DxH 600	10	0.00	0.01	0.0	0.0	0.0 - 0.1
Specimen DIF-14						
All Method	14	0.13	0.23	174.1	0.0	0.0 - 0.9
All COULTER Instruments	14	0.13	0.23	174.1	0.0	0.0 - 0.9
COULTER UniCel DxH 600	10	0.02	0.04	245.0	0.0	0.0 - 0.2
Specimen DIF-15						
All Method	14	0.00	0.01	0.0	0.0	0.0 - 0.1
All COULTER Instruments	14	0.00	0.01	0.0	0.0	0.0 - 0.1
COULTER UniCel DxH 600	10	0.00	0.01	0.0	0.0	0.0 - 0.1

BLOOD LEAD (µg/dL)

	Specimen LED-11						Specimen LED-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	19	40.62	3.34	8.2	42.1	36.5 - 44.7	19	5.65	0.73	12.9	5.5	1.6 - 9.7
All Magellan Diagnostics Methods	19	40.62	3.34	8.2	42.1	36.5 - 44.7	19	5.65	0.73	12.9	5.5	1.6 - 9.7
Magellan Diagnostics LeadCare II	19	40.62	3.34	8.2	42.1	36.5 - 44.7	19	5.65	0.73	12.9	5.5	1.6 - 9.7

	Specimen LED-13						Specimen LED-14					
	Labs	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	5	22.05	1.91	8.7	22.1	18.0 - 26.1	5	39.10	0.71	0.2	39.1	35.1 - 43.1
All Magellan Diagnostics Methods	5	22.05	1.91	8.7	22.1	18.0 - 26.1	5	39.10	0.71	0.2	39.1	35.1 - 43.1

	Specimen LED-15					
All Method	5	5.90	0.00	0.0	5.9	1.9 - 9.9
All Magellan Diagnostics Methods	5	5.90	0.00	0.0	5.9	1.9 - 9.9

RETICULOCYTE COUNT (percent)

	Specimen RT-5						Specimen RT-6					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	27	6.92	1.52	22.0	6.4	3.8 - 10.0	26	3.14	0.68	21.6	3.0	1.7 - 4.5
All Automated Methods	16	6.18	0.70	11.4	6.1	4.3 - 8.1	16	2.91	0.35	12.2	2.9	2.0 - 3.8
All Manual Methods	11	8.00	1.76	22.0	7.9	4.4 - 11.6	11	3.76	1.20	31.9	3.6	1.3 - 6.2
Sysmex XN-1000	11	6.12	0.64	10.4	6.1	4.2 - 8.0	11	2.94	0.35	11.9	2.9	2.0 - 3.9

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

	Specimen BCX-11						Specimen BCX-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	93	6.85	0.18	2.7	6.8	5.8 - 7.9	93	2.49	0.09	3.5	2.5	2.1 - 2.9
All ABX Instruments	85	6.85	0.18	2.6	6.8	5.8 - 7.9	85	2.49	0.08	3.4	2.5	2.1 - 2.9
All COULTER Instruments	10	6.85	0.23	3.4	6.9	5.8 - 7.9	10	2.46	0.13	5.3	2.5	2.0 - 2.9
ABX Pentra 60C+	74	6.84	0.17	2.5	6.8	5.8 - 7.9	74	2.49	0.08	3.3	2.5	2.1 - 2.9
ABX Pentra 80 / XL 80	10	6.89	0.20	2.9	6.9	5.8 - 8.0	10	2.54	0.10	3.8	2.6	2.1 - 3.0
COULTER AcT 5diff	10	6.85	0.23	3.4	6.9	5.8 - 7.9	10	2.46	0.13	5.3	2.5	2.0 - 2.9
	Specimen BCX-13						**Specimen BCX-14**					
All Method	93	15.99	0.35	2.2	16.0	13.5 - 18.4	93	25.39	0.68	2.7	25.4	21.5 - 29.2
All ABX Instruments	85	16.00	0.34	2.1	16.0	13.5 - 18.4	85	25.40	0.68	2.7	25.4	21.5 - 29.3
All COULTER Instruments	10	15.91	0.39	2.5	15.9	13.5 - 18.3	10	25.29	0.70	2.8	25.5	21.4 - 29.1
ABX Pentra 60C+	74	15.99	0.34	2.1	16.0	13.5 - 18.4	74	25.40	0.59	2.3	25.5	21.5 - 29.3
ABX Pentra 80 / XL 80	10	15.82	0.52	3.3	15.9	13.4 - 18.2	10	23.98	3.28	13.7	25.1	20.3 - 27.6
COULTER AcT 5diff	10	15.91	0.39	2.5	15.9	13.5 - 18.3	10	25.29	0.70	2.8	25.5	21.4 - 29.1
	Specimen BCX-15											
All Method	93	4.82	0.13	2.7	4.8	4.1 - 5.6						
All ABX Instruments	85	4.83	0.13	2.8	4.8	4.1 - 5.6						
All COULTER Instruments	10	4.79	0.10	2.1	4.8	4.0 - 5.6						
ABX Pentra 60C+	74	4.82	0.14	2.8	4.8	4.0 - 5.6						
ABX Pentra 80 / XL 80	10	4.86	0.12	2.4	4.9	4.1 - 5.6						
COULTER AcT 5diff	10	4.79	0.10	2.1	4.8	4.0 - 5.6						

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

	Specimen BCX-11						Specimen BCX-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	93	4.570	0.076	1.7	4.57	4.29 - 4.85	93	2.011	0.037	1.9	2.01	1.88 - 2.14
All ABX Instruments	85	4.569	0.078	1.7	4.57	4.29 - 4.85	85	2.013	0.037	1.8	2.01	1.89 - 2.14
All COULTER Instruments	10	4.580	0.059	1.3	4.60	4.30 - 4.86	10	1.991	0.038	1.9	2.00	1.87 - 2.12
ABX Pentra 60C+	74	4.567	0.078	1.7	4.56	4.29 - 4.85	74	2.018	0.035	1.7	2.02	1.89 - 2.14
ABX Pentra 80 / XL 80	10	4.584	0.082	1.8	4.58	4.30 - 4.86	10	1.968	0.022	1.1	1.96	1.84 - 2.09
COULTER AcT 5diff	10	4.580	0.059	1.3	4.60	4.30 - 4.86	10	1.991	0.038	1.9	2.00	1.87 - 2.12
	Specimen BCX-13						**Specimen BCX-14**					
All Method	93	5.482	0.093	1.7	5.47	5.15 - 5.82	93	3.076	0.052	1.7	3.08	2.89 - 3.27
All ABX Instruments	85	5.481	0.092	1.7	5.47	5.15 - 5.82	85	3.078	0.052	1.7	3.08	2.89 - 3.27
All COULTER Instruments	10	5.487	0.110	2.0	5.44	5.15 - 5.82	10	3.063	0.053	1.7	3.07	2.87 - 3.25
ABX Pentra 60C+	74	5.475	0.092	1.7	5.47	5.14 - 5.81	74	3.078	0.054	1.8	3.08	2.89 - 3.27
ABX Pentra 80 / XL 80	10	5.532	0.089	1.6	5.54	5.20 - 5.87	10	3.066	0.028	0.9	3.06	2.88 - 3.25
COULTER AcT 5diff	10	5.487	0.110	2.0	5.44	5.15 - 5.82	10	3.063	0.053	1.7	3.07	2.87 - 3.25
	Specimen BCX-15											
All Method	93	4.243	0.065	1.5	4.24	3.98 - 4.50						
All ABX Instruments	85	4.243	0.066	1.6	4.24	3.98 - 4.50						
All COULTER Instruments	10	4.242	0.062	1.5	4.23	3.98 - 4.50						
ABX Pentra 60C+	74	4.242	0.069	1.6	4.24	3.98 - 4.50						
ABX Pentra 80 / XL 80	10	4.244	0.037	0.9	4.25	3.98 - 4.50						
COULTER AcT 5diff	10	4.242	0.062	1.5	4.23	3.98 - 4.50						

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

	Specimen BCX-11						Specimen BCX-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	93	13.44	0.17	1.2	13.4	12.4 - 14.4	93	6.56	0.09	1.3	6.6	6.0 - 7.1
All ABX Instruments	85	13.45	0.17	1.3	13.4	12.5 - 14.4	85	6.55	0.08	1.3	6.5	6.0 - 7.1
All COULTER Instruments	10	13.36	0.10	0.8	13.3	12.4 - 14.3	10	6.63	0.07	1.1	6.6	6.1 - 7.1
ABX Pentra 60C+	74	13.45	0.17	1.3	13.4	12.5 - 14.4	74	6.56	0.09	1.3	6.5	6.0 - 7.1
ABX Pentra 80 / XL 80	10	13.45	0.17	1.3	13.5	12.5 - 14.4	10	6.51	0.07	1.1	6.5	6.0 - 7.0
COULTER AcT 5diff	10	13.36	0.10	0.8	13.3	12.4 - 14.3	10	6.63	0.07	1.1	6.6	6.1 - 7.1
	Specimen BCX-13						**Specimen BCX-14**					
All Method	93	16.88	0.22	1.3	16.9	15.6 - 18.1	93	8.04	0.10	1.3	8.0	7.4 - 8.7
All ABX Instruments	85	16.90	0.21	1.3	16.9	15.7 - 18.1	85	8.03	0.10	1.2	8.0	7.4 - 8.6
All COULTER Instruments	10	16.70	0.20	1.2	16.6	15.5 - 17.9	10	8.10	0.12	1.5	8.1	7.5 - 8.7
ABX Pentra 60C+	74	16.89	0.21	1.3	16.9	15.7 - 18.1	74	8.03	0.10	1.2	8.0	7.4 - 8.6
ABX Pentra 80 / XL 80	10	16.97	0.22	1.3	17.0	15.7 - 18.2	10	8.02	0.09	1.1	8.0	7.4 - 8.6
COULTER AcT 5diff	10	16.70	0.20	1.2	16.6	15.5 - 17.9	10	8.10	0.12	1.5	8.1	7.5 - 8.7
	Specimen BCX-15											
All Method	93	12.22	0.15	1.2	12.2	11.3 - 13.1						
All ABX Instruments	85	12.23	0.16	1.3	12.2	11.3 - 13.1						
All COULTER Instruments	10	12.19	0.13	1.0	12.2	11.3 - 13.1						
ABX Pentra 60C+	74	12.23	0.16	1.3	12.2	11.3 - 13.1						
ABX Pentra 80 / XL 80	10	12.22	0.16	1.3	12.3	11.3 - 13.1						
COULTER AcT 5diff	10	12.19	0.13	1.0	12.2	11.3 - 13.1						

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

	Specimen BCX-11						Specimen BCX-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	93	38.30	0.62	1.6	38.3	36.0 - 40.7	93	18.41	0.36	2.0	18.4	17.3 - 19.6
All ABX Instruments	85	38.34	0.62	1.6	38.4	36.0 - 40.7	85	18.44	0.36	2.0	18.5	17.3 - 19.6
All COULTER Instruments	10	37.93	0.47	1.2	38.0	35.6 - 40.3	10	18.13	0.28	1.6	18.2	17.0 - 19.3
ABX Pentra 60C+	74	38.30	0.62	1.6	38.3	36.0 - 40.6	74	18.39	0.35	1.9	18.4	17.2 - 19.5
ABX Pentra 80 / XL 80	10	38.71	0.48	1.3	38.6	36.3 - 41.1	10	18.78	0.23	1.2	18.8	17.6 - 20.0
COULTER AcT 5diff	10	37.93	0.47	1.2	38.0	35.6 - 40.3	10	18.13	0.28	1.6	18.2	17.0 - 19.3

	Specimen BCX-13						Specimen BCX-14					
All Method	93	48.06	0.79	1.6	48.1	45.1 - 51.0	93	23.78	0.44	1.8	23.8	22.3 - 25.3
All ABX Instruments	85	48.13	0.75	1.6	48.1	45.2 - 51.1	85	23.80	0.44	1.8	23.9	22.3 - 25.3
All COULTER Instruments	10	47.36	0.90	1.9	47.1	44.5 - 50.3	10	23.59	0.41	1.7	23.7	22.1 - 25.1
ABX Pentra 60C+	74	48.10	0.76	1.6	48.1	45.2 - 51.0	74	23.73	0.41	1.7	23.8	22.3 - 25.2
ABX Pentra 80 / XL 80	10	48.37	0.67	1.4	48.7	45.4 - 51.3	10	24.32	0.28	1.1	24.4	22.8 - 25.8
COULTER AcT 5diff	10	47.36	0.90	1.9	47.1	44.5 - 50.3	10	23.59	0.41	1.7	23.7	22.1 - 25.1

	Specimen BCX-15					
All Method	93	34.88	0.58	1.7	34.9	32.7 - 37.0
All ABX Instruments	85	34.93	0.53	1.5	34.9	32.8 - 37.1
All COULTER Instruments	10	34.58	0.73	2.1	34.4	32.5 - 36.7
ABX Pentra 60C+	74	34.86	0.56	1.6	34.9	32.7 - 37.0
ABX Pentra 80 / XL 80	10	35.29	0.46	1.3	35.3	33.1 - 37.5
COULTER AcT 5diff	10	34.58	0.73	2.1	34.4	32.5 - 36.7

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

Instrument	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
	Specimen BCX-11						Specimen BCX-12					
All Method	93	247.4	9.4	3.8	246	185 - 310	93	68.7	4.1	5.9	69	51 - 86
All ABX Instruments	85	247.6	9.5	3.8	246	185 - 310	85	68.8	4.2	6.0	69	51 - 86
All COULTER Instruments	10	245.0	9.0	3.7	244	183 - 307	10	69.9	6.3	9.0	68	52 - 88
ABX Pentra 60C+	74	247.0	9.5	3.9	246	185 - 309	74	69.1	4.1	6.0	69	51 - 87
ABX Pentra 80 / XL 80	10	251.9	8.5	3.4	251	188 - 315	10	66.1	3.6	5.5	66	49 - 83
COULTER AcT 5diff	10	245.0	9.0	3.7	244	183 - 307	10	69.9	6.3	9.0	68	52 - 88
	Specimen BCX-13						Specimen BCX-14					
All Method	93	295.0	11.4	3.9	296	221 - 369	93	394.5	14.4	3.6	394	295 - 494
All ABX Instruments	85	295.2	11.1	3.8	296	221 - 369	85	395.4	13.8	3.5	396	296 - 495
All COULTER Instruments	10	293.2	15.0	5.1	288	219 - 367	10	385.6	17.4	4.5	390	289 - 482
ABX Pentra 60C+	74	294.9	11.5	3.9	296	221 - 369	74	395.3	14.4	3.6	394	296 - 495
ABX Pentra 80 / XL 80	10	297.2	8.1	2.7	299	222 - 372	10	395.8	9.6	2.4	397	296 - 495
COULTER AcT 5diff	10	293.2	15.0	5.1	288	219 - 367	10	385.6	17.4	4.5	390	289 - 482
	Specimen BCX-15											
All Method	93	232.2	8.6	3.7	233	174 - 291						
All ABX Instruments	85	232.2	8.8	3.8	233	174 - 291						
All COULTER Instruments	10	232.7	6.4	2.8	234	174 - 291						
ABX Pentra 60C+	74	232.5	9.1	3.9	233	174 - 291						
ABX Pentra 80 / XL 80	10	228.7	5.7	2.5	228	171 - 286						
COULTER AcT 5diff	10	232.7	6.4	2.8	234	174 - 291						

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

	Specimen BCX-11						Specimen BCX-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	93	62.49	5.38	8.6	62.6	46.3 - 78.7	93	64.61	4.43	6.9	65.0	51.3 - 77.9
All ABX Instruments	85	62.88	5.15	8.2	62.7	47.4 - 78.4	85	65.34	3.83	5.9	65.6	53.8 - 76.9
All COULTER Instruments	10	58.26	6.43	11.0	59.3	38.9 - 77.6	10	58.28	3.31	5.7	58.4	48.3 - 68.2
ABX Pentra 60C+	74	63.58	4.80	7.5	63.1	49.1 - 78.0	74	65.87	3.50	5.3	65.7	55.3 - 76.4
ABX Pentra 80 / XL 80	10	57.45	4.93	8.6	57.0	42.6 - 72.3	10	61.00	3.58	5.9	60.8	50.2 - 71.8
COULTER AcT 5diff	10	58.26	6.43	11.0	59.3	38.9 - 77.6	10	58.28	3.31	5.7	58.4	48.3 - 68.2
	Specimen BCX-13						**Specimen BCX-14**					
All Method	93	53.03	3.74	7.0	53.4	41.8 - 64.3	93	67.92	4.68	6.9	69.4	53.8 - 82.0
All ABX Instruments	85	53.08	3.61	6.8	53.4	42.2 - 64.0	85	69.06	3.33	4.8	69.7	59.0 - 79.1
All COULTER Instruments	10	52.50	5.19	9.9	52.5	36.9 - 68.1	10	60.80	4.06	6.7	62.2	48.6 - 73.0
ABX Pentra 60C+	74	53.58	3.28	6.1	53.8	43.7 - 63.5	74	69.79	2.32	3.3	70.2	62.8 - 76.8
ABX Pentra 80 / XL 80	10	48.94	3.38	6.9	49.0	38.8 - 59.1	10	61.11	4.04	6.6	61.2	48.9 - 73.3
COULTER AcT 5diff	10	52.50	5.19	9.9	52.5	36.9 - 68.1	10	60.80	4.06	6.7	62.2	48.6 - 73.0
	Specimen BCX-15											
All Method	93	60.75	3.57	5.9	61.1	50.0 - 71.5						
All ABX Instruments	85	61.39	2.96	4.8	61.5	52.5 - 70.3						
All COULTER Instruments	10	56.49	3.49	6.2	56.2	46.0 - 67.0						
ABX Pentra 60C+	74	61.58	2.90	4.7	61.7	52.8 - 70.3						
ABX Pentra 80 / XL 80	10	58.38	4.69	8.0	59.9	44.3 - 72.5						
COULTER AcT 5diff	10	56.49	3.49	6.2	56.2	46.0 - 67.0						

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

	Specimen BCX-11						Specimen BCX-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	93	29.85	4.78	16.0	29.9	15.5 - 44.3	93	24.51	3.62	14.8	24.5	13.6 - 35.4
All ABX Instruments	85	29.72	4.39	14.8	30.0	16.5 - 42.9	85	24.71	3.47	14.1	24.6	14.2 - 35.2
All COULTER Instruments	10	29.60	6.71	22.7	27.3	9.4 - 49.8	10	22.43	4.70	21.0	22.7	8.3 - 36.6
ABX Pentra 60C+	74	29.31	4.20	14.3	29.9	16.7 - 42.0	74	24.56	3.27	13.3	24.5	14.7 - 34.4
ABX Pentra 80 / XL 80	10	32.82	5.00	15.2	31.5	17.8 - 47.9	10	26.03	4.83	18.6	25.8	11.5 - 40.6
COULTER AcT 5diff	10	29.60	6.71	22.7	27.3	9.4 - 49.8	10	22.43	4.70	21.0	22.7	8.3 - 36.6

	Specimen BCX-13						Specimen BCX-14					
All Method	93	40.72	3.94	9.7	40.3	28.9 - 52.6	93	25.96	3.46	13.3	25.1	15.5 - 36.4
All ABX Instruments	85	40.93	3.65	8.9	40.4	29.9 - 51.9	85	26.18	3.29	12.6	25.3	16.3 - 36.1
All COULTER Instruments	10	38.48	6.16	16.0	39.1	20.0 - 57.0	10	23.66	4.59	19.4	22.8	9.8 - 37.5
ABX Pentra 60C+	74	40.53	3.45	8.5	40.3	30.1 - 50.9	74	25.42	2.45	9.6	25.0	18.0 - 32.8
ABX Pentra 80 / XL 80	10	44.36	3.36	7.6	44.3	34.2 - 54.5	10	31.54	2.57	8.1	31.4	23.8 - 39.3
COULTER AcT 5diff	10	38.48	6.16	16.0	39.1	20.0 - 57.0	10	23.66	4.59	19.4	22.8	9.8 - 37.5

	Specimen BCX-15					
All Method	93	29.95	3.04	10.2	29.6	20.8 - 39.1
All ABX Instruments	85	30.17	2.90	9.6	29.7	21.4 - 38.9
All COULTER Instruments	10	27.66	3.82	13.8	27.5	16.2 - 39.2
ABX Pentra 60C+	74	30.07	2.67	8.9	29.9	22.0 - 38.1
ABX Pentra 80 / XL 80	10	31.15	4.32	13.9	29.9	18.1 - 44.2
COULTER AcT 5diff	10	27.66	3.82	13.8	27.5	16.2 - 39.2

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

	Specimen BCX-11						Specimen BCX-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	93	0.97	0.53	54.4	0.9	0.0 - 2.6	93	0.43	0.35	82.0	0.3	0.0 - 1.5
All ABX Instruments	85	0.92	0.47	50.7	0.9	0.0 - 2.4	85	0.41	0.33	82.1	0.3	0.0 - 1.5
All COULTER Instruments	10	1.21	0.74	61.3	1.2	0.0 - 3.5	10	0.65	0.52	79.3	0.6	0.0 - 2.2
ABX Pentra 60C+	74	0.93	0.48	51.5	0.9	0.0 - 2.4	74	0.40	0.34	83.7	0.3	0.0 - 1.5
ABX Pentra 80 / XL 80	10	1.05	0.65	61.6	1.0	0.0 - 3.0	10	0.64	0.67	104.2	0.4	0.0 - 2.7
COULTER AcT 5diff	10	1.21	0.74	61.3	1.2	0.0 - 3.5	10	0.65	0.52	79.3	0.6	0.0 - 2.2
	Specimen BCX-13						**Specimen BCX-14**					
All Method	93	0.85	0.50	58.7	0.8	0.0 - 2.4	93	1.17	0.35	29.4	1.1	0.1 - 2.3
All ABX Instruments	85	0.85	0.50	58.9	0.8	0.0 - 2.4	85	1.17	0.35	29.8	1.1	0.1 - 2.3
All COULTER Instruments	10	0.89	0.54	61.0	0.8	0.0 - 2.6	10	1.26	0.32	25.7	1.2	0.2 - 2.3
ABX Pentra 60C+	74	0.85	0.49	58.0	0.8	0.0 - 2.4	74	1.22	0.37	30.1	1.2	0.1 - 2.4
ABX Pentra 80 / XL 80	10	0.86	0.55	64.0	0.7	0.0 - 2.6	10	0.91	0.22	24.5	1.0	0.2 - 1.6
COULTER AcT 5diff	10	0.89	0.54	61.0	0.8	0.0 - 2.6	10	1.26	0.32	25.7	1.2	0.2 - 2.3
	Specimen BCX-15											
All Method	93	0.61	0.39	64.1	0.6	0.0 - 1.8						
All ABX Instruments	85	0.60	0.37	62.4	0.6	0.0 - 1.8						
All COULTER Instruments	10	0.70	0.55	79.0	0.6	0.0 - 2.4						
ABX Pentra 60C+	74	0.59	0.37	63.3	0.6	0.0 - 1.8						
ABX Pentra 80 / XL 80	10	0.67	0.36	54.1	0.6	0.0 - 1.8						
COULTER AcT 5diff	10	0.70	0.55	79.0	0.6	0.0 - 2.4						

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

	Specimen BCX-11						Specimen BCX-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	93	5.55	1.26	22.7	5.6	1.7 - 9.4	93	8.32	1.94	23.3	8.4	2.4 - 14.2
All ABX Instruments	85	5.56	1.26	22.7	5.7	1.7 - 9.4	85	8.52	1.82	21.3	8.6	3.0 - 14.0
All COULTER Instruments	10	5.43	1.34	24.7	5.1	1.4 - 9.5	10	6.23	2.12	34.1	6.0	0.0 - 12.6
ABX Pentra 60C+	74	5.47	1.23	22.5	5.6	1.7 - 9.2	74	8.55	1.75	20.4	8.6	3.3 - 13.8
ABX Pentra 80 / XL 80	10	6.30	1.39	22.1	6.2	2.1 - 10.5	10	8.29	2.52	30.4	9.0	0.7 - 15.9
COULTER AcT 5diff	10	5.43	1.34	24.7	5.1	1.4 - 9.5	10	6.23	2.12	34.1	6.0	0.0 - 12.6
	Specimen BCX-13						**Specimen BCX-14**					
All Method	93	4.69	1.12	23.8	4.5	1.3 - 8.1	93	3.19	0.44	13.9	3.2	1.8 - 4.6
All ABX Instruments	85	4.73	1.08	22.8	4.6	1.4 - 8.0	85	3.14	0.42	13.3	3.2	1.8 - 4.4
All COULTER Instruments	10	4.19	1.46	34.9	4.3	0.0 - 8.6	10	3.99	0.78	19.5	3.9	1.6 - 6.4
ABX Pentra 60C+	74	4.77	1.08	22.6	4.6	1.5 - 8.1	74	3.14	0.41	13.2	3.2	1.9 - 4.4
ABX Pentra 80 / XL 80	10	4.37	1.11	25.4	4.4	1.0 - 7.7	10	3.16	0.49	15.5	3.1	1.6 - 4.7
COULTER AcT 5diff	10	4.19	1.46	34.9	4.3	0.0 - 8.6	10	3.99	0.78	19.5	3.9	1.6 - 6.4
	Specimen BCX-15											
All Method	93	7.20	1.79	24.9	7.2	1.8 - 12.6						
All ABX Instruments	85	7.35	1.67	22.7	7.2	2.3 - 12.4						
All COULTER Instruments	10	5.66	2.45	43.2	6.2	0.0 - 13.1						
ABX Pentra 60C+	74	7.39	1.64	22.2	7.2	2.4 - 12.4						
ABX Pentra 80 / XL 80	10	6.91	2.03	29.4	7.0	0.8 - 13.1						
COULTER AcT 5diff	10	5.66	2.45	43.2	6.2	0.0 - 13.1						

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

	Specimen BCX-11						Specimen BCX-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	93	0.30	0.01	0.0	0.3	0.2 - 0.4	93	0.57	0.06	10.1	0.6	0.3 - 0.8
All ABX Instruments	85	0.30	0.01	0.0	0.3	0.2 - 0.4	85	0.57	0.06	10.1	0.6	0.3 - 0.8
All COULTER Instruments	10	5.93	0.35	5.9	6.0	4.8 - 7.0	10	10.70	1.00	9.3	10.3	7.7 - 13.7
ABX Pentra 60C+	74	0.30	0.01	0.0	0.3	0.2 - 0.4	74	0.57	0.05	9.5	0.6	0.4 - 0.8
ABX Pentra 80 / XL 80	10	0.29	0.04	13.2	0.3	0.1 - 0.4	10	0.50	0.06	11.5	0.5	0.3 - 0.7
COULTER AcT 5diff	10	5.93	0.35	5.9	6.0	4.8 - 7.0	10	10.70	1.00	9.3	10.3	7.7 - 13.7

	Specimen BCX-13						Specimen BCX-14					
All Method	93	0.20	0.01	0.0	0.2	0.1 - 0.3	93	0.50	0.01	0.0	0.5	0.4 - 0.6
All ABX Instruments	85	0.20	0.01	0.0	0.2	0.1 - 0.3	85	0.50	0.01	0.0	0.5	0.4 - 0.6
All COULTER Instruments	10	3.61	0.32	8.8	3.6	2.6 - 4.6	10	10.29	0.38	3.7	10.4	9.1 - 11.5
ABX Pentra 60C+	74	0.20	0.01	0.0	0.2	0.1 - 0.3	74	0.50	0.01	0.0	0.5	0.4 - 0.6
ABX Pentra 80 / XL 80	10	0.20	0.01	0.0	0.2	0.1 - 0.3	10	0.50	0.01	0.0	0.5	0.4 - 0.6
COULTER AcT 5diff	10	3.61	0.32	8.8	3.6	2.6 - 4.6	10	10.29	0.38	3.7	10.4	9.1 - 11.5

	Specimen BCX-15					
All Method	93	0.40	0.01	0.0	0.4	0.3 - 0.5
All ABX Instruments	85	0.40	0.01	0.0	0.4	0.3 - 0.5
All COULTER Instruments	10	7.63	0.42	5.5	7.5	6.3 - 8.9
ABX Pentra 60C+	74	0.40	0.01	0.0	0.4	0.3 - 0.5
ABX Pentra 80 / XL 80	10	0.36	0.05	15.0	0.4	0.1 - 0.6
COULTER AcT 5diff	10	7.63	0.42	5.5	7.5	6.3 - 8.9

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

	Specimen MX-11						Specimen MX-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	115	6.41	0.49	7.6	6.3	5.4 - 7.4	115	3.51	0.40	11.3	3.7	2.9 - 4.1
All Sysmex XE/XT Instruments	10	6.90	0.32	4.6	6.9	5.8 - 8.0	10	3.70	0.22	5.8	3.8	3.1 - 4.3
All Sysmex XN/XS Instruments	110	6.39	0.48	7.5	6.2	5.4 - 7.4	110	3.49	0.40	11.4	3.7	2.9 - 4.1
Sysmex XN-1000	15	7.11	0.13	1.8	7.1	6.0 - 8.2	15	3.75	0.08	2.2	3.7	3.1 - 4.4
Sysmex XN-430	25	6.14	0.21	3.4	6.1	5.2 - 7.1	25	3.12	0.13	4.0	3.1	2.6 - 3.6
Sysmex XN-450	10	6.34	0.40	6.3	6.2	5.3 - 7.3	10	3.06	0.13	4.4	3.0	2.6 - 3.6
Sysmex XN-550	21	6.28	0.50	8.0	6.1	5.3 - 7.3	21	3.19	0.27	8.4	3.1	2.7 - 3.7
Sysmex XS-1000i	37	6.30	0.40	6.4	6.3	5.3 - 7.3	37	3.90	0.13	3.3	3.9	3.3 - 4.5

	Specimen MX-13						Specimen MX-14					
All Method	115	6.40	0.46	7.3	6.2	5.4 - 7.4	115	19.01	0.54	2.9	18.9	16.1 - 21.9
All Sysmex XE/XT Instruments	10	6.93	0.41	5.9	7.0	5.8 - 8.0	10	18.43	0.61	3.3	18.5	15.6 - 21.2
All Sysmex XN/XS Instruments	110	6.38	0.45	7.1	6.2	5.4 - 7.4	110	19.02	0.53	2.8	19.0	16.1 - 21.9
Sysmex XN-1000	15	7.05	0.14	1.9	7.0	5.9 - 8.2	15	19.29	0.30	1.5	19.2	16.3 - 22.2
Sysmex XN-430	25	6.10	0.13	2.1	6.1	5.1 - 7.1	25	18.95	0.50	2.6	18.8	16.1 - 21.8
Sysmex XN-450	10	6.20	0.23	3.8	6.1	5.2 - 7.2	10	18.78	0.48	2.6	18.5	15.9 - 21.6
Sysmex XN-550	21	6.26	0.46	7.4	6.1	5.3 - 7.2	21	18.97	0.51	2.7	18.9	16.1 - 21.9
Sysmex XS-1000i	37	6.33	0.38	5.9	6.2	5.3 - 7.3	37	19.07	0.60	3.1	18.9	16.2 - 22.0

	Specimen MX-15					
All Method	115	3.51	0.39	11.0	3.7	2.9 - 4.1
All Sysmex XE/XT Instruments	10	3.63	0.10	2.6	3.7	3.0 - 4.2
All Sysmex XN/XS Instruments	110	3.51	0.39	11.2	3.7	2.9 - 4.1
Sysmex XN-1000	15	3.80	0.08	2.0	3.8	3.2 - 4.4
Sysmex XN-430	25	3.15	0.12	3.8	3.2	2.6 - 3.7
Sysmex XN-450	10	3.06	0.05	1.8	3.1	2.6 - 3.6
Sysmex XN-550	21	3.18	0.25	7.8	3.1	2.7 - 3.7
Sysmex XS-1000i	37	3.90	0.11	2.9	3.9	3.3 - 4.5

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

	Specimen MX-11						Specimen MX-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	115	4.560	0.050	1.1	4.56	4.28 - 4.84	115	2.238	0.036	1.6	2.23	2.10 - 2.38
All Sysmex XE/XT Instruments	10	4.580	0.048	1.1	4.60	4.30 - 4.86	10	2.308	0.010	0.4	2.31	2.16 - 2.45
All Sysmex XN/XS Instruments	110	4.559	0.050	1.1	4.56	4.28 - 4.84	110	2.235	0.034	1.5	2.23	2.10 - 2.37
Sysmex XN-1000	15	4.565	0.055	1.2	4.56	4.29 - 4.84	15	2.231	0.026	1.2	2.23	2.09 - 2.37
Sysmex XN-430	25	4.567	0.050	1.1	4.57	4.29 - 4.85	25	2.228	0.037	1.6	2.23	2.09 - 2.37
Sysmex XN-450	10	4.578	0.110	2.4	4.53	4.30 - 4.86	10	2.246	0.040	1.8	2.22	2.11 - 2.39
Sysmex XN-550	21	4.556	0.048	1.1	4.56	4.28 - 4.83	21	2.218	0.026	1.2	2.22	2.08 - 2.36
Sysmex XS-1000i	37	4.559	0.044	1.0	4.56	4.28 - 4.84	37	2.254	0.028	1.2	2.26	2.11 - 2.39

	Specimen MX-13						Specimen MX-14					
All Method	115	4.561	0.049	1.1	4.56	4.28 - 4.84	115	5.850	0.059	1.0	5.85	5.49 - 6.21
All Sysmex XE/XT Instruments	10	4.585	0.056	1.2	4.60	4.30 - 4.87	10	5.763	0.116	2.0	5.75	5.41 - 6.11
All Sysmex XN/XS Instruments	110	4.561	0.049	1.1	4.56	4.28 - 4.84	110	5.853	0.055	0.9	5.85	5.50 - 6.21
Sysmex XN-1000	15	4.561	0.050	1.1	4.55	4.28 - 4.84	15	5.854	0.047	0.8	5.85	5.50 - 6.21
Sysmex XN-430	25	4.561	0.050	1.1	4.55	4.28 - 4.84	25	5.872	0.054	0.9	5.87	5.51 - 6.23
Sysmex XN-450	10	4.610	0.080	1.7	4.57	4.33 - 4.89	10	5.924	0.119	2.0	5.88	5.56 - 6.28
Sysmex XN-550	21	4.561	0.044	1.0	4.55	4.28 - 4.84	21	5.857	0.053	0.9	5.85	5.50 - 6.21
Sysmex XS-1000i	37	4.562	0.054	1.2	4.57	4.28 - 4.84	37	5.832	0.062	1.1	5.84	5.48 - 6.19

	Specimen MX-15					
All Method	115	2.237	0.035	1.6	2.23	2.10 - 2.38
All Sysmex XE/XT Instruments	10	2.320	0.016	0.7	2.32	2.18 - 2.46
All Sysmex XN/XS Instruments	110	2.234	0.032	1.4	2.23	2.09 - 2.37
Sysmex XN-1000	15	2.235	0.026	1.2	2.23	2.10 - 2.37
Sysmex XN-430	25	2.228	0.028	1.2	2.23	2.09 - 2.37
Sysmex XN-450	10	2.240	0.028	1.3	2.23	2.10 - 2.38
Sysmex XN-550	21	2.216	0.027	1.2	2.22	2.08 - 2.35
Sysmex XS-1000i	37	2.254	0.027	1.2	2.25	2.11 - 2.39

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

Specimen MX-11

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	115	13.00	0.14	1.1	13.0	12.0 - 14.0
All Sysmex XE/XT Instruments	10	13.03	0.10	0.7	13.1	12.1 - 14.0
All Sysmex XN/XS Instruments	110	13.00	0.14	1.1	13.0	12.0 - 14.0
Sysmex XN-1000	15	12.96	0.15	1.2	13.0	12.0 - 13.9
Sysmex XN-430	25	12.98	0.11	0.9	13.0	12.0 - 13.9
Sysmex XN-450	10	13.02	0.24	1.8	13.0	12.1 - 14.0
Sysmex XN-550	21	13.01	0.11	0.8	13.0	12.0 - 14.0
Sysmex XS-1000i	37	13.05	0.15	1.1	13.0	12.1 - 14.0

Specimen MX-12

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	115	5.70	0.08	1.4	5.7	5.3 - 6.1
All Sysmex XE/XT Instruments	10	5.78	0.13	2.2	5.8	5.3 - 6.2
All Sysmex XN/XS Instruments	110	5.70	0.08	1.4	5.7	5.3 - 6.1
Sysmex XN-1000	15	5.69	0.06	1.0	5.7	5.2 - 6.1
Sysmex XN-430	25	5.72	0.07	1.3	5.7	5.3 - 6.2
Sysmex XN-450	10	5.76	0.09	1.6	5.7	5.3 - 6.2
Sysmex XN-550	21	5.71	0.06	1.1	5.7	5.3 - 6.2
Sysmex XS-1000i	37	5.68	0.09	1.6	5.7	5.2 - 6.1

Specimen MX-13

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	115	13.00	0.14	1.1	13.0	12.0 - 14.0
All Sysmex XE/XT Instruments	10	13.00	0.12	0.9	13.0	12.0 - 14.0
All Sysmex XN/XS Instruments	110	13.00	0.14	1.1	13.0	12.0 - 14.0
Sysmex XN-1000	15	12.97	0.12	1.0	13.0	12.0 - 13.9
Sysmex XN-430	25	12.98	0.12	0.9	13.0	12.0 - 13.9
Sysmex XN-450	10	13.04	0.11	0.9	13.0	12.1 - 14.0
Sysmex XN-550	21	13.00	0.11	0.8	13.0	12.0 - 14.0
Sysmex XS-1000i	37	13.04	0.15	1.1	13.0	12.1 - 14.0

Specimen MX-14

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	115	18.08	0.17	1.0	18.1	16.8 - 19.4
All Sysmex XE/XT Instruments	10	17.88	0.29	1.6	17.9	16.6 - 19.2
All Sysmex XN/XS Instruments	110	18.08	0.17	0.9	18.1	16.8 - 19.4
Sysmex XN-1000	15	18.03	0.20	1.1	18.1	16.7 - 19.3
Sysmex XN-430	25	18.02	0.12	0.7	18.0	16.7 - 19.3
Sysmex XN-450	10	18.14	0.15	0.8	18.1	16.8 - 19.5
Sysmex XN-550	21	18.06	0.14	0.8	18.1	16.7 - 19.4
Sysmex XS-1000i	37	18.18	0.17	0.9	18.2	16.9 - 19.5

Specimen MX-15

Instrument	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	115	5.72	0.08	1.4	5.7	5.3 - 6.2
All Sysmex XE/XT Instruments	10	5.75	0.06	1.0	5.8	5.3 - 6.2
All Sysmex XN/XS Instruments	110	5.72	0.08	1.4	5.7	5.3 - 6.2
Sysmex XN-1000	15	5.73	0.08	1.4	5.7	5.3 - 6.2
Sysmex XN-430	25	5.73	0.07	1.2	5.7	5.3 - 6.2
Sysmex XN-450	10	5.80	0.10	1.7	5.8	5.3 - 6.3
Sysmex XN-550	21	5.74	0.06	1.0	5.7	5.3 - 6.2
Sysmex XS-1000i	37	5.69	0.08	1.4	5.7	5.2 - 6.1

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

	Specimen MX-11						Specimen MX-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	115	38.74	0.65	1.7	38.8	36.4 - 41.1	115	17.38	0.40	2.3	17.4	16.3 - 18.5
All Sysmex XE/XT Instruments	10	38.98	0.49	1.2	38.9	36.6 - 41.4	10	17.85	0.34	1.9	17.8	16.7 - 19.0
All Sysmex XN/XS Instruments	110	38.79	0.59	1.5	38.8	36.4 - 41.2	110	17.37	0.39	2.2	17.4	16.3 - 18.5
Sysmex XN-1000	15	38.51	0.56	1.4	38.5	36.2 - 40.9	15	17.05	0.28	1.6	17.0	16.0 - 18.1
Sysmex XN-430	25	38.72	0.53	1.4	38.7	36.3 - 41.1	25	17.26	0.29	1.7	17.2	16.2 - 18.3
Sysmex XN-450	10	39.34	0.78	2.0	39.3	36.9 - 41.8	10	17.78	0.31	1.8	17.7	16.7 - 18.9
Sysmex XN-550	21	38.39	0.59	1.5	38.4	36.0 - 40.7	21	17.10	0.34	2.0	17.1	16.0 - 18.2
Sysmex XS-1000i	37	39.11	0.43	1.1	39.1	36.7 - 41.5	37	17.68	0.26	1.5	17.7	16.6 - 18.8

	Specimen MX-13						Specimen MX-14					
All Method	115	38.79	0.66	1.7	38.8	36.4 - 41.2	115	53.67	0.90	1.7	53.6	50.4 - 56.9
All Sysmex XE/XT Instruments	10	38.90	0.59	1.5	38.8	36.5 - 41.3	10	53.08	1.18	2.2	52.9	49.8 - 56.3
All Sysmex XN/XS Instruments	110	38.80	0.65	1.7	38.8	36.4 - 41.2	110	53.71	0.88	1.6	53.7	50.4 - 57.0
Sysmex XN-1000	15	38.45	0.60	1.6	38.4	36.1 - 40.8	15	53.20	0.66	1.2	53.3	50.0 - 56.4
Sysmex XN-430	25	38.65	0.47	1.2	38.6	36.3 - 41.0	25	53.54	0.69	1.3	53.5	50.3 - 56.8
Sysmex XN-450	10	39.72	0.57	1.4	39.7	37.3 - 42.2	10	54.74	0.84	1.5	54.7	51.4 - 58.1
Sysmex XN-550	21	38.49	0.69	1.8	38.7	36.1 - 40.8	21	53.32	1.00	1.9	53.5	50.1 - 56.6
Sysmex XS-1000i	37	39.12	0.51	1.3	39.2	36.7 - 41.5	37	54.11	0.78	1.4	54.2	50.8 - 57.4

	Specimen MX-15					
All Method	115	17.39	0.39	2.2	17.4	16.3 - 18.5
All Sysmex XE/XT Instruments	10	17.98	0.29	1.6	18.1	16.8 - 19.1
All Sysmex XN/XS Instruments	110	17.37	0.37	2.1	17.4	16.3 - 18.5
Sysmex XN-1000	15	17.09	0.27	1.6	17.1	16.0 - 18.2
Sysmex XN-430	25	17.25	0.26	1.5	17.2	16.2 - 18.3
Sysmex XN-450	10	17.72	0.26	1.5	17.7	16.6 - 18.8
Sysmex XN-550	21	17.10	0.28	1.7	17.1	16.0 - 18.2
Sysmex XS-1000i	37	17.71	0.23	1.3	17.8	16.6 - 18.8

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

Instrument	Labs	Mean	SD	CV	Median	Range
Specimen MX-11						
All Method	115	229.1	8.0	3.5	229	171 - 287
All Sysmex XE/XT Instruments	10	216.0	17.2	8.0	215	162 - 270
All Sysmex XN/XS Instruments	110	229.3	7.7	3.4	229	172 - 287
Sysmex XN-1000	15	226.5	7.0	3.1	229	169 - 284
Sysmex XN-430	25	232.3	8.8	3.8	232	174 - 291
Sysmex XN-450	10	230.4	21.3	9.3	234	172 - 288
Sysmex XN-550	21	230.3	8.6	3.7	230	172 - 288
Sysmex XS-1000i	37	227.8	7.4	3.3	228	170 - 285
Specimen MX-12						
All Method	115	56.4	4.7	8.4	56	42 - 71
All Sysmex XE/XT Instruments	10	53.8	6.8	12.7	55	40 - 68
All Sysmex XN/XS Instruments	110	56.5	4.6	8.2	56	42 - 71
Sysmex XN-1000	15	52.5	2.8	5.4	53	39 - 66
Sysmex XN-430	25	55.8	4.3	7.8	55	41 - 70
Sysmex XN-450	10	60.4	6.4	10.6	61	45 - 76
Sysmex XN-550	21	55.2	3.6	6.4	56	41 - 70
Sysmex XS-1000i	37	59.1	4.2	7.1	59	44 - 74
Specimen MX-13						
All Method	115	227.8	8.2	3.6	230	170 - 285
All Sysmex XE/XT Instruments	10	217.8	18.0	8.3	218	163 - 273
All Sysmex XN/XS Instruments	110	227.8	8.1	3.5	229	170 - 285
Sysmex XN-1000	15	224.7	7.4	3.3	225	168 - 281
Sysmex XN-430	25	228.3	7.3	3.2	229	171 - 286
Sysmex XN-450	10	227.4	27.5	12.1	235	170 - 285
Sysmex XN-550	21	226.4	11.1	4.9	230	169 - 283
Sysmex XS-1000i	37	228.1	7.7	3.4	230	171 - 286
Specimen MX-14						
All Method	115	438.2	21.0	4.8	440	328 - 548
All Sysmex XE/XT Instruments	10	395.8	36.0	9.1	389	296 - 495
All Sysmex XN/XS Instruments	110	438.3	20.9	4.8	440	328 - 548
Sysmex XN-1000	15	444.9	12.1	2.7	446	333 - 557
Sysmex XN-430	25	447.3	20.8	4.6	446	335 - 560
Sysmex XN-450	10	445.2	42.7	9.6	467	333 - 557
Sysmex XN-550	21	446.3	15.0	3.4	449	334 - 558
Specimen MX-15						
All Method	115	55.4	4.4	7.9	56	41 - 70
All Sysmex XE/XT Instruments	10	53.5	3.1	5.8	53	40 - 67
All Sysmex XN/XS Instruments	110	55.5	4.4	7.9	56	41 - 70
Sysmex XN-1000	15	51.5	4.0	7.8	52	38 - 65
Sysmex XN-430	25	55.8	3.9	7.0	56	41 - 70
Sysmex XN-450	10	56.4	5.9	10.5	56	42 - 71
Sysmex XN-550	21	53.9	3.9	7.2	54	40 - 68
Sysmex XS-1000i	37	57.8	3.5	6.1	58	43 - 73

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

	Specimen MX-11						Specimen MX-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	105	45.24	2.39	5.3	44.9	38.0 - 52.4	105	57.73	2.00	3.5	57.8	51.7 - 63.8
All Sysmex XE/XT Instruments	10	54.30	2.11	3.9	55.1	47.9 - 60.7	10	67.23	1.30	1.9	67.8	63.3 - 71.2
All Sysmex XN/XS Instruments	101	44.94	1.90	4.2	44.9	39.2 - 50.7	101	57.66	1.86	3.2	57.8	52.0 - 63.3
Sysmex XN-1000	14	47.47	0.91	1.9	47.5	44.7 - 50.2	14	59.99	1.03	1.7	60.1	56.8 - 63.1
Sysmex XN-430	25	45.02	0.69	1.5	45.0	42.9 - 47.1	25	56.56	1.14	2.0	56.4	53.1 - 60.0
Sysmex XN-450	10	45.18	1.43	3.2	45.5	40.8 - 49.5	10	56.00	1.91	3.4	56.2	50.2 - 61.8
Sysmex XN-550	17	45.14	0.86	1.9	45.2	42.5 - 47.8	17	56.19	1.10	2.0	56.3	52.9 - 59.5
Sysmex XS-1000i	35	43.68	2.19	5.0	43.3	37.1 - 50.3	35	58.60	1.19	2.0	58.8	55.0 - 62.2

	Specimen MX-13						Specimen MX-14					
All Method	105	45.17	2.24	4.9	44.7	38.4 - 51.9	105	55.27	1.70	3.1	55.0	50.1 - 60.4
All Sysmex XE/XT Instruments	10	55.35	0.37	0.7	55.3	54.2 - 56.5	10	57.20	2.26	3.9	57.8	50.4 - 64.0
All Sysmex XN/XS Instruments	101	45.04	2.03	4.5	44.7	38.9 - 51.2	101	55.20	1.64	3.0	55.0	50.2 - 60.2
Sysmex XN-1000	14	47.71	0.52	1.1	47.5	46.1 - 49.3	14	57.99	0.68	1.2	58.1	55.9 - 60.1
Sysmex XN-430	25	45.09	0.87	1.9	45.2	42.4 - 47.7	25	54.56	1.10	2.0	54.5	51.2 - 57.9
Sysmex XN-550	10	44.84	0.92	2.1	44.8	42.0 - 47.7	10	54.50	1.17	2.2	54.1	50.9 - 58.1
Sysmex XS-1000i	17	44.94	0.68	1.5	44.8	42.9 - 47.0	17	54.51	0.83	1.5	54.6	52.0 - 57.0
	35	44.18	2.80	6.3	43.6	35.7 - 52.6	35	54.89	1.35	2.5	54.9	50.8 - 59.0

	Specimen MX-15					
All Method	105	57.98	1.73	3.0	57.6	52.7 - 63.2
All Sysmex XE/XT Instruments	10	66.70	1.09	1.6	66.5	63.4 - 70.0
All Sysmex XN/XS Instruments	101	57.98	1.73	3.0	57.6	52.7 - 63.2
Sysmex XN-1000	14	60.55	0.77	1.3	60.6	58.2 - 62.9
Sysmex XN-430	25	56.52	0.81	1.4	56.5	54.0 - 59.0
Sysmex XN-550	10	57.58	1.42	2.5	57.0	53.3 - 61.9
Sysmex XS-1000i	17	56.61	0.85	1.5	57.0	54.0 - 59.2
	35	58.66	1.13	1.9	58.8	55.2 - 62.1

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

	Specimen MX-11						Specimen MX-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	105	34.59	1.96	5.7	34.9	28.6 - 40.5	105	17.64	1.95	11.0	17.9	11.8 - 23.5
All Sysmex XE/XT Instruments	10	30.63	2.60	8.5	29.9	22.8 - 38.5	10	16.48	0.91	5.5	16.2	13.7 - 19.3
All Sysmex XN/XS Instruments	101	34.79	1.73	5.0	34.9	29.6 - 40.0	101	17.84	1.76	9.9	18.1	12.5 - 23.2
Sysmex XN-1000	14	32.04	0.92	2.9	32.3	29.2 - 34.9	14	17.73	0.71	4.0	17.8	15.6 - 19.9
Sysmex XN-430	25	34.62	0.53	1.5	34.6	33.0 - 36.2	25	19.04	1.12	5.9	18.7	15.6 - 22.4
Sysmex XN-450	10	34.24	0.99	2.9	33.7	31.2 - 37.3	10	18.82	1.30	6.9	18.8	14.9 - 22.8
Sysmex XN-550	17	34.68	0.81	2.3	34.5	32.2 - 37.2	17	19.37	0.78	4.0	19.3	17.0 - 21.8
Sysmex XS-1000i	35	36.52	0.86	2.4	36.6	33.9 - 39.2	35	16.05	1.59	9.9	16.6	11.2 - 20.9

	Specimen MX-13						Specimen MX-14					
All Method	105	34.50	2.22	6.4	34.9	27.8 - 41.2	105	21.16	1.25	5.9	21.6	17.4 - 24.9
All Sysmex XE/XT Instruments	10	28.60	1.13	4.0	28.1	25.1 - 32.1	10	27.45	2.03	7.4	27.2	21.3 - 33.6
All Sysmex XN/XS Instruments	101	34.80	1.79	5.1	35.0	29.4 - 40.2	101	21.13	1.19	5.6	21.6	17.5 - 24.7
Sysmex XN-1000	14	31.74	0.64	2.0	31.8	29.8 - 33.7	14	20.09	0.40	2.0	20.0	18.8 - 21.3
Sysmex XN-430	25	34.67	0.66	1.9	34.6	32.6 - 36.7	25	21.59	0.35	1.6	21.6	20.5 - 22.7
Sysmex XN-450	10	33.74	1.30	3.9	33.9	29.8 - 37.7	10	21.30	0.61	2.9	21.6	19.4 - 23.2
Sysmex XN-550	17	34.83	0.75	2.2	34.9	32.5 - 37.1	17	21.85	0.41	1.9	21.8	20.6 - 23.1
Sysmex XS-1000i	35	35.10	4.30	12.3	36.7	22.2 - 48.0	35	20.65	1.81	8.8	21.4	15.2 - 26.1

	Specimen MX-15					
All Method	105	17.79	1.47	8.2	17.5	13.3 - 22.2
All Sysmex XE/XT Instruments	10	16.30	1.63	10.0	17.0	11.4 - 21.2
All Sysmex XN/XS Instruments	101	17.88	1.40	7.9	17.7	13.6 - 22.1
Sysmex XN-1000	14	17.40	0.72	4.1	17.4	15.2 - 19.6
Sysmex XN-430	25	18.87	0.82	4.3	18.9	16.4 - 21.4
Sysmex XN-450	10	18.02	0.62	3.5	18.1	16.1 - 19.9
Sysmex XN-550	17	19.25	1.16	6.0	19.6	15.7 - 22.8
Sysmex XS-1000i	35	16.66	0.57	3.4	16.6	14.9 - 18.4

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

	Specimen MX-11						Specimen MX-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	105	1.85	0.91	49.3	1.5	0.0 - 4.6	105	0.98	0.51	51.5	0.8	0.0 - 2.5
All Sysmex XE/XT Instruments	10	2.75	1.11	40.3	2.9	0.0 - 6.1	10	1.15	0.37	32.1	1.1	0.0 - 2.3
All Sysmex XN/XS Instruments	101	1.82	0.89	49.0	1.5	0.0 - 4.5	101	0.96	0.50	51.9	0.8	0.0 - 2.5
Sysmex XN-1000	14	3.53	0.43	12.2	3.5	2.2 - 4.9	14	1.91	0.40	20.7	1.9	0.7 - 3.2
Sysmex XN-430	25	1.28	0.23	17.7	1.3	0.5 - 2.0	25	0.76	0.23	29.9	0.7	0.0 - 1.5
Sysmex XN-450	10	1.76	0.52	29.7	1.7	0.1 - 3.4	10	0.92	0.28	30.2	1.0	0.0 - 1.8
Sysmex XN-550	17	1.28	0.30	23.5	1.3	0.3 - 2.2	17	0.82	0.25	29.9	0.9	0.0 - 1.6
Sysmex XS-1000i	35	1.75	0.60	34.1	1.6	0.0 - 3.6	35	0.84	0.60	71.0	0.8	0.0 - 2.7

	Specimen MX-13						Specimen MX-14					
All Method	105	1.88	0.88	47.0	1.6	0.0 - 4.6	105	1.30	0.80	61.4	0.9	0.0 - 3.7
All Sysmex XE/XT Instruments	10	2.85	1.12	39.1	2.9	0.0 - 6.2	10	2.25	0.42	18.7	2.2	0.9 - 3.6
All Sysmex XN/XS Instruments	101	1.84	0.86	46.6	1.5	0.0 - 4.5	101	1.26	0.79	62.4	0.9	0.0 - 3.7
Sysmex XN-1000	14	3.56	0.46	12.8	3.5	2.1 - 5.0	14	2.56	0.35	13.8	2.6	1.5 - 3.7
Sysmex XN-430	25	1.33	0.23	17.3	1.3	0.6 - 2.1	25	0.91	0.32	35.2	0.9	0.0 - 1.9
Sysmex XN-450	10	1.76	0.30	16.9	1.8	0.8 - 2.7	10	1.44	0.78	54.1	1.0	0.0 - 3.8
Sysmex XN-550	17	1.28	0.27	20.9	1.3	0.4 - 2.1	17	0.89	0.21	24.2	0.9	0.2 - 1.6
Sysmex XS-1000i	35	1.67	0.27	16.2	1.6	0.8 - 2.5	35	1.10	0.73	66.5	0.9	0.0 - 3.4

	Specimen MX-15					
All Method	105	1.00	0.51	51.2	0.8	0.0 - 2.6
All Sysmex XE/XT Instruments	10	1.30	0.59	45.7	1.2	0.0 - 3.1
All Sysmex XN/XS Instruments	101	0.96	0.47	49.3	0.8	0.0 - 2.4
Sysmex XN-1000	14	1.86	0.37	19.7	2.0	0.7 - 3.0
Sysmex XN-430	25	0.75	0.15	20.4	0.7	0.2 - 1.3
Sysmex XN-450	10	1.04	0.34	32.3	1.0	0.0 - 2.1
Sysmex XN-550	17	0.81	0.25	31.3	0.8	0.0 - 1.6
Sysmex XS-1000i	35	0.80	0.26	32.0	0.8	0.0 - 1.6

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

	Specimen MX-11						Specimen MX-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	105	11.93	0.66	5.5	12.0	9.9 - 13.9	105	15.22	0.54	3.6	15.3	13.5 - 16.9
All Sysmex XE/XT Instruments	10	12.33	0.99	8.0	12.6	9.3 - 15.3	10	15.15	0.72	4.8	15.2	12.9 - 17.4
All Sysmex XN/XS Instruments	101	11.91	0.64	5.4	12.0	9.9 - 13.9	101	15.22	0.54	3.5	15.3	13.6 - 16.9
Sysmex XN-1000	14	12.23	0.48	3.9	12.3	10.7 - 13.7	14	15.60	0.41	2.6	15.7	14.3 - 16.9
Sysmex XN-430	25	12.18	0.50	4.1	12.2	10.6 - 13.7	25	15.08	0.56	3.7	15.0	13.3 - 16.8
Sysmex XN-450	10	12.26	0.42	3.4	12.2	10.9 - 13.6	10	15.34	0.79	5.1	15.6	12.9 - 17.8
Sysmex XN-550	17	11.91	0.32	2.7	11.9	10.9 - 12.9	17	15.34	0.56	3.7	15.4	13.6 - 17.1
Sysmex XS-1000i	35	12.01	1.88	15.6	11.5	6.3 - 17.7	35	15.11	0.44	2.9	15.1	13.7 - 16.5

	Specimen MX-13						Specimen MX-14					
All Method	105	11.95	0.56	4.7	11.9	10.2 - 13.7	105	14.52	0.69	4.7	14.5	12.4 - 16.6
All Sysmex XE/XT Instruments	10	13.20	0.48	3.7	13.1	11.7 - 14.7	10	13.10	0.59	4.5	13.1	11.3 - 14.9
All Sysmex XN/XS Instruments	101	11.91	0.51	4.3	11.9	10.3 - 13.5	101	14.60	0.56	3.8	14.5	12.9 - 16.3
Sysmex XN-1000	14	12.21	0.48	3.9	12.1	10.7 - 13.7	14	14.55	0.51	3.5	14.5	13.0 - 16.1
Sysmex XN-430	25	11.96	0.45	3.8	12.1	10.6 - 13.4	25	14.88	0.49	3.3	14.9	13.4 - 16.4
Sysmex XN-450	10	12.48	0.29	2.3	12.5	11.6 - 13.4	10	14.54	0.70	4.8	14.2	12.4 - 16.7
Sysmex XN-550	17	12.30	0.72	5.9	12.2	10.1 - 14.5	17	14.64	0.58	3.9	14.7	12.9 - 16.4
Sysmex XS-1000i	35	11.56	0.46	3.9	11.7	10.1 - 13.0	35	14.40	0.55	3.8	14.4	12.7 - 16.1

	Specimen MX-15					
All Method	105	15.18	0.62	4.1	15.1	13.3 - 17.1
All Sysmex XE/XT Instruments	10	15.70	0.50	3.2	15.8	14.1 - 17.3
All Sysmex XN/XS Instruments	101	15.16	0.62	4.1	15.1	13.3 - 17.1
Sysmex XN-1000	14	15.50	0.48	3.1	15.6	14.0 - 17.0
Sysmex XN-430	25	15.31	0.62	4.1	15.5	13.4 - 17.2
Sysmex XN-450	10	14.76	0.93	6.3	14.9	11.9 - 17.6
Sysmex XN-550	17	15.08	0.85	5.7	15.0	12.5 - 17.7
Sysmex XS-1000i	35	15.12	0.49	3.2	15.2	13.6 - 16.6

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

	Specimen MX-11						Specimen MX-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	105	6.91	0.59	8.5	6.9	5.1 - 8.7	105	8.64	0.79	9.2	8.5	6.2 - 11.1
All Sysmex XE/XT Instruments	10	70.08	0.99	1.4	70.4	67.0 - 73.1	10	83.08	1.37	1.7	83.3	78.9 - 87.2
All Sysmex XN/XS Instruments	100	6.68	1.00	15.0	6.9	3.6 - 9.7	100	8.17	1.63	19.9	8.5	3.2 - 13.1
Sysmex XN-1000	14	4.74	0.16	3.4	4.7	4.2 - 5.3	14	4.76	0.20	4.2	4.8	4.1 - 5.4
Sysmex XN-430	25	6.91	0.61	8.8	7.1	5.0 - 8.8	25	8.57	0.64	7.4	8.4	6.6 - 10.5
Sysmex XN-450	10	6.56	0.69	10.5	6.4	4.4 - 8.7	10	9.12	0.65	7.1	9.1	7.1 - 11.1
Sysmex XN-550	18	6.97	0.55	7.9	7.2	5.3 - 8.7	18	8.46	0.94	11.1	8.6	5.6 - 11.3
Sysmex XS-1000i	33	7.19	0.65	9.0	7.3	5.2 - 9.2	33	8.99	0.79	8.7	9.2	6.6 - 11.4

	Specimen MX-13						Specimen MX-14					
All Method	105	7.01	0.61	8.7	6.7	5.1 - 8.9	105	8.18	0.60	7.3	8.1	6.3 - 10.0
All Sysmex XE/XT Instruments	10	69.50	0.42	0.6	69.5	68.2 - 70.8	10	82.60	3.48	4.2	82.5	72.1 - 93.1
All Sysmex XN/XS Instruments	100	6.58	0.95	14.4	6.7	3.7 - 9.5	100	7.85	1.43	18.3	8.1	3.5 - 12.2
Sysmex XN-1000	14	4.78	0.17	3.5	4.8	4.2 - 5.3	14	4.81	0.12	2.6	4.8	4.4 - 5.2
Sysmex XN-430	25	6.93	0.61	8.8	7.0	5.0 - 8.8	25	8.14	0.62	7.6	8.1	6.2 - 10.1
Sysmex XN-450	10	7.18	0.57	7.9	7.4	5.4 - 8.9	10	8.22	0.80	9.7	8.0	5.8 - 10.7
Sysmex XN-550	18	6.94	0.62	8.9	6.9	5.0 - 8.8	18	8.17	0.55	6.7	8.1	6.5 - 9.9
Sysmex XS-1000i	33	6.70	0.60	8.9	6.7	4.9 - 8.5	33	8.70	0.73	8.4	8.6	6.5 - 10.9

	Specimen MX-15					
All Method	105	8.48	0.76	9.0	8.3	6.2 - 10.8
All Sysmex XE/XT Instruments	10	82.45	1.18	1.4	82.3	78.9 - 86.0
All Sysmex XN/XS Instruments	100	8.04	1.58	19.7	8.3	3.2 - 12.8
Sysmex XN-1000	14	4.69	0.25	5.3	4.8	3.9 - 5.5
Sysmex XN-430	25	8.55	0.83	9.7	8.4	6.0 - 11.1
Sysmex XN-450	10	8.40	1.24	14.8	7.9	4.6 - 12.2
Sysmex XN-550	18	8.43	0.47	5.5	8.4	7.0 - 9.9
Sysmex XS-1000i	33	8.82	0.81	9.1	8.8	6.4 - 11.3

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

	Specimen MX-11						Specimen MX-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	74	12.08	0.57	4.7	11.9	10.3 - 13.8	74	15.27	0.77	5.1	15.3	12.9 - 17.6
All Sysmex XN/XS Instruments	63	12.06	0.55	4.6	11.9	10.3 - 13.8	63	15.25	0.74	4.9	15.3	13.0 - 17.5
Sysmex XN-1000	13	12.25	0.58	4.7	12.1	10.5 - 14.0	13	15.03	0.59	3.9	15.2	13.2 - 16.9
Sysmex XN-430	25	11.93	0.48	4.1	11.8	10.4 - 13.4	25	15.30	0.81	5.3	15.2	12.8 - 17.8
Sysmex XN-450	10	12.26	0.68	5.6	11.9	10.2 - 14.4	10	15.78	0.37	2.3	15.8	14.6 - 16.9
Sysmex XN-550	15	12.09	0.60	5.0	11.9	10.2 - 13.9	15	15.24	0.85	5.6	15.4	12.7 - 17.8
	Specimen MX-13						**Specimen MX-14**					
All Method	74	12.22	0.53	4.4	12.2	10.6 - 13.9	74	14.72	0.70	4.8	14.7	12.6 - 16.9
All Sysmex XN/XS Instruments	63	12.21	0.53	4.4	12.2	10.6 - 13.9	63	14.72	0.70	4.8	14.7	12.6 - 16.9
Sysmex XN-1000	13	12.17	0.34	2.8	12.2	11.1 - 13.2	13	14.64	0.70	4.8	14.5	12.5 - 16.8
Sysmex XN-430	25	12.26	0.54	4.4	12.4	10.6 - 13.9	25	14.61	0.68	4.7	14.4	12.5 - 16.7
Sysmex XN-450	10	12.02	0.49	4.1	11.8	10.5 - 13.5	10	14.72	1.09	7.4	14.9	11.4 - 18.0
Sysmex XN-550	15	12.33	0.74	6.0	12.2	10.1 - 14.6	15	14.89	0.67	4.5	14.9	12.8 - 17.0
	Specimen MX-15											
All Method	74	15.45	0.88	5.7	15.6	12.8 - 18.1						
All Sysmex XN/XS Instruments	63	15.45	0.85	5.5	15.6	12.8 - 18.1						
Sysmex XN-1000	13	14.99	0.60	4.0	14.9	13.1 - 16.9						
Sysmex XN-430	25	15.54	0.81	5.2	15.7	13.1 - 18.0						
Sysmex XN-450	10	16.08	0.84	5.2	16.5	13.5 - 18.6						
Sysmex XN-550	15	15.55	0.96	6.2	15.9	12.6 - 18.5						

2019 M3
Specimens BC-13 through BC-18

CASE HISTORY:

A 19-year-old female was seen at a community health center for a prenatal checkup. The patient was in the third trimester of her second pregnancy. She complained of constant fatigue, frequent headaches, and episodes of shortness of breath and dizziness brought on by slight exertion. Upon physical examination the patient appeared pale and tired, and her pulse and respiration were slightly elevated. Blood tests were performed, and significant results appear below:

Test	Results	Reference Range
WBC	10.8 x 10^9/L	4.5 - 11.5 x 10^9/L
RBC	3.8 x 10^{12}/L	4.2 - 5.4 x 10^{12}/L
HGB	9.0 g/dL	12 - 15 g/dL
HCT	29.0 %	35 - 49 %
PLT	375 x 10^9/L	150 - 450 x 10^9/L
MCV	76 fL	80 - 94 fL
MCH	24 pg	26 - 32 pg
MCHC	31 %	32 - 36 %
RDW	18 %	11.5 - 14.5 %

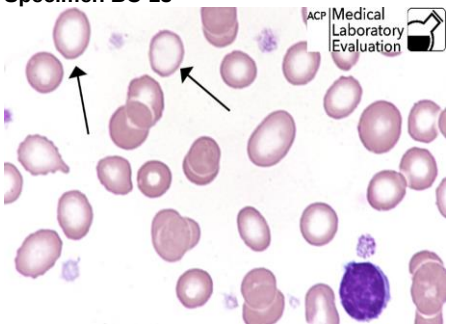
This patient was diagnosed with iron deficiency anemia (IDA). Iron is an essential nutrient that plays a role in oxygen transport and basic metabolic reactions. Most iron in the body is bound inside red blood cells in the form of hemoglobin. The reserve supply of iron is primarily stored in the liver in the form of ferritin. A pregnant woman requires twice as much dietary iron as usual for increased blood volume and fetal growth. Iron deficiency anemia is a risk factor for preterm delivery, but is easily prevented or treated with oral iron supplements. IDA in pregnancy is most common in patients who are multiparous, socioeconomically disadvantaged, or of African or Hispanic descent. Other risk factors include nutritional deprivation, adolescence, and reduced inter-pregnancy interval.

IDA is a microcytic, hypochromic anemia that develops slowly over time due to increased need for iron or impaired absorption of iron. It begins with the gradual depletion of stored iron, without adequate replacement. The serum iron level may be normal in this stage, but the ferritin level is low. Ferritin, a protein used to store iron, is considered to be the most specific test for identifying iron deficiency anemia unless infection or inflammation are present. As iron deficiency continues, all of the stored iron is used up and the body produces more transferrin to increase iron transport. As the serum iron level decreases, transferrin, TIBC, and UIBC increase. Fewer and smaller red blood cells are produced, eventually resulting in anemia. Hematologic findings may include decreased RBC count, hemoglobin, hematocrit, MCV, MCH, and MCHC. Red cell distribution width (RDW) is increased. Leukocytes are unaffected. Microscopic findings may include hypochromasia, microcytosis, anisocytosis, and poikilocytosis with target cells and teardrop cells.

Classic symptoms of IDA include tachycardia, exertional dyspnea, pallor, and palpitations. Some symptoms of mild anemia, such as easy fatigability and malaise, are also common in normal pregnancy. Pallor of the nail beds is a reliable indicator of anemia in any racial group. The most common symptoms of anemia include excessive tiredness, pallor, dizziness, and headaches. Symptoms of severe anemia include cold or numb extremities, brittle or spoon-shaped fingernails, glossitis, shortness of breath, fainting, chest pain, and fast or irregular heartbeat. Certain food and non-food cravings during pregnancy may represent pica due to the increased iron demands of pregnancy. Pica is the ingestion of various substances that have no dietary value; pagophagia (ice), geophagia (clay), and amylophagia (starch) are examples. Although not diagnostic, pagophagia, the urge to eat ice, is a highly specific symptom of IDA. The cravings usually disappear soon after iron therapy has begun. It is thought that the vigorous chewing action stimulates blood flow to the brain, increasing alertness.

BLOOD CELL IDENTIFICATION

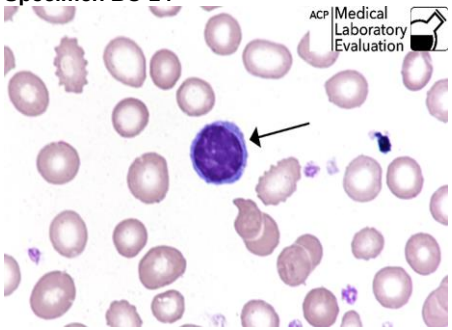
Specimen BC-13



Identification	Labs	Percent	Performance
Hypochromic red cell	157	98.13%	Acceptable
Immature/abnormal cell – refer	1	0.63%	Acceptable

The arrows in this photograph point to **hypochromic red cells**. Hypochromic cells have a larger area of central pallor than normal red blood 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 2018 M1 Specimen BC-5.

Specimen BC-14



Identification	Labs	Percent	Performance
Lymphcyte	160	100%	Acceptable

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

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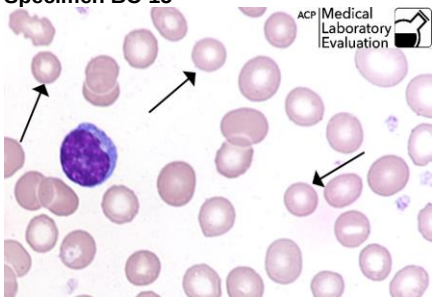
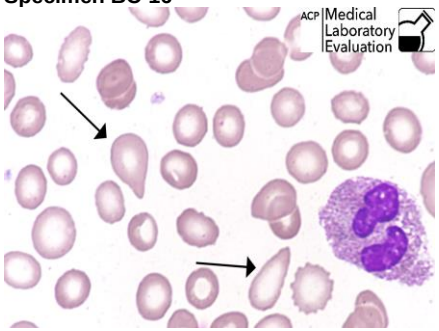
Specimen BC-15



Identification	Labs	Percent	Performance
Microcyte	141	88.13%	Acceptable
Immature/abnormal cell-refer	1	0.63%	Acceptable
Erythrocyte, normal	18	11.25%	

The arrows in this photograph point to **microcytes.** They have the same color, morphology, and central pallor as the normal RBCs in the field, but are simply smaller in size. The nucleus of a 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 as the lymph's nucleus. The arrowed cells are about half the size of the lymph's nucleus. To view another photo of microcytes, see 2017 M1 Specimen BC-2. To view a photo of normocytic erythrocytes, see 2019 M2 Specimen BC-10.

Specimen BC-16

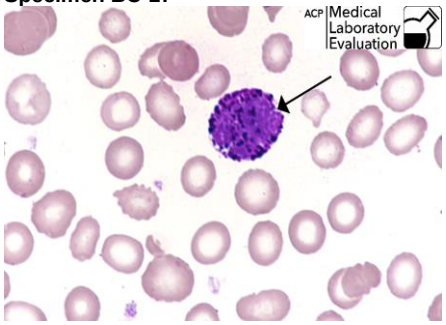


Identification	Labs	Percent	Performance
Tear-drop cell	158	98.75%	Acceptable
Immature/abnormal cell – refer	1	0.63%	Acceptable

The arrows in this photograph point to **teardrop cells**. Also called dacrocytes, these cells are associated with spleen or bone marrow abnormalities. These pear-shaped cells have a short projection on one side that narrows, terminating in a point. Beware of teardrop cells that all point in the same direction- they are probably not really teardrop cells, but an artifact of slide preparation. To view another photo of teardrop cells, see 2013 M2 Specimen BC-9.

BLOOD CELL IDENTIFICATION

Specimen BC-17



Identification	Labs	Percent	Performance
Basophil, any stage	160	100%	Acceptable

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

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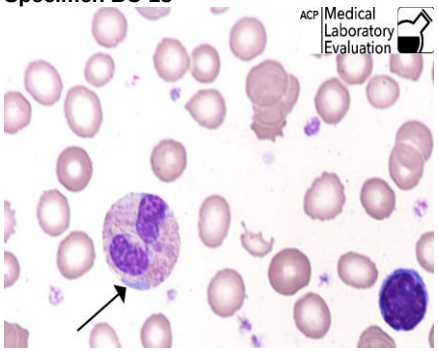
BLOOD CELL IDENTIFICATION

Specimen BC-18



Identification	Labs	Percent	Performance
Dohle body	107	66.88%	Not graded – Educational Challenge
Immature/abnormal cell – refer	48	30.00%	
Auer rod	2	1.25%	
Neutrophil-Segmented or band	2	1.25%	
Neutrophil-seg/band w/toxic gr	1	0.63%	

The arrow in this photograph points to a **Döhle body** within a segmented neutrophil. Döhle bodies appear as blue inclusions in the cytoplasm of some granulocytes. They are associated with pregnancy, infection, burns, and cytotoxic agents. They often appear with signs of toxicity such as toxic granulation, shift to the left, and elevated WBC. To view another photo of Döhle bodies, see 2011 M3 Specimen BC-13.

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BLOOD BANK

ABO GROUP

Specimen	Results	Labs	Percent	Performance
BB-11	Group O	5	100%	Acceptable
BB-12	Group A	5	100%	Acceptable
BB-13	Group AB	5	100%	Acceptable
BB-14	Group A	5	100%	Acceptable
BB-15	Group O	5	100%	Acceptable

RH FACTOR (D TYPE)

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

UNEXPECTED ANTIBODY DETECTION

Specimen	Results	Labs	Percent	Performance
AB-11	Unexpected antibody detected	5	100%	Acceptable
AB-12	No unexpected antibody detected	5	100%	Acceptable
AB-13	No unexpected antibody detected	5	100%	Acceptable
AB-14	Unexpected antibody detected	5	100%	Acceptable
AB-15	No unexpected antibody detected	5	100%	Acceptable

BLOOD BANK

ANTIBODY IDENTIFICATION

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

COMPATIBILITY TESTING

Specimen	*Results*	*Labs*	*Percent*	*Performance*
AB-11	Compatible	3	100%	Acceptable
AB-12	Compatible	3	100%	Acceptable
AB-13	Compatible	3	100%	Acceptable
AB-14	Not Compatible	3	100%	Acceptable
AB-15	Compatible	3	100%	Acceptable

PROTHROMBIN TIME (seconds)

Specimen CG-11

Reagent/Instrument	Labs	Mean	SD	CV	Median	Range
All Method	31	32.15	5.04	15.7	32.1	27.3 - 37.0
Dade Innovin						
Dade Behring BFT II	5	34.65	2.97	8.6	34.6	29.4 - 39.9
Sysmex CA-500/600 series	12	32.35	1.58	4.9	32.3	27.4 - 37.3
All Coagulation Instruments	17	32.92	2.09	6.3	32.8	27.9 - 37.9
HemosIL RecombiPlasTin 2G						
IL ACL, all models	5	42.95	4.31	10.0	43.0	36.5 - 49.4
IL TEST PT Fibrinogen						
IL ACL, all models	5	25.97	1.70	6.6	26.1	22.0 - 29.9

Specimen CG-12

Reagent/Instrument	Labs	Mean	SD	CV	Median	Range
All Method	31	11.52	0.93	8.1	11.2	9.7 - 13.3
Dade Innovin						
Dade Behring BFT II	5	10.90	0.59	5.4	10.8	9.2 - 12.6
Sysmex CA-500/600 series	12	11.10	0.24	2.2	11.0	9.4 - 12.8
All Coagulation Instruments	17	11.02	0.36	3.3	11.0	9.3 - 12.7
HemosIL RecombiPlasTin 2G						
IL ACL, all models	5	11.95	0.07	0.6	12.0	10.1 - 13.8
IL TEST PT Fibrinogen						
IL ACL, all models	5	13.00	0.62	4.8	12.8	11.0 - 15.0

Specimen CG-13

Reagent/Instrument	Labs	Mean	SD	CV	Median	Range
All Method	31	10.88	1.09	10.0	10.5	9.2 - 12.6
Dade Innovin						
Dade Behring BFT II	5	9.55	0.06	0.6	9.6	8.1 - 11.0
Sysmex CA-500/600 series	12	10.51	0.20	1.9	10.5	8.9 - 12.1
All Coagulation Instruments	17	10.27	0.45	4.4	10.4	8.7 - 11.9
HemosIL RecombiPlasTin 2G						
IL ACL, all models	5	11.85	0.07	0.6	11.9	10.0 - 13.7
IL TEST PT Fibrinogen						
IL ACL, all models	5	12.57	0.60	4.8	12.5	10.6 - 14.5

Specimen CG-14

Reagent/Instrument	Labs	Mean	SD	CV	Median	Range
All Method	31	21.68	2.04	9.4	21.5	18.4 - 25.0
Dade Innovin						
Dade Behring BFT II	5	22.68	1.79	7.9	22.2	19.2 - 26.1
Sysmex CA-500/600 series	12	21.53	0.77	3.6	21.5	18.3 - 24.8
All Coagulation Instruments	17	21.62	0.73	3.4	21.7	18.3 - 24.9
HemosIL RecombiPlasTin 2G						
IL ACL, all models	5	26.45	0.07	0.3	26.5	22.4 - 30.5
IL TEST PT Fibrinogen						
IL ACL, all models	5	19.47	0.21	1.1	19.4	16.5 - 22.4

Specimen CG-15

Reagent/Instrument	Labs	Mean	SD	CV	Median	Range
All Method	31	14.41	1.08	7.5	13.9	12.2 - 16.6
Dade Innovin						
Dade Behring BFT II	5	13.85	0.44	3.2	13.9	11.7 - 16.0
Sysmex CA-500/600 series	12	13.81	0.58	4.2	13.7	11.7 - 15.9
All Coagulation Instruments	17	13.81	0.52	3.8	13.7	11.7 - 15.9
HemosIL RecombiPlasTin 2G						
IL ACL, all models	5	16.00	0.28	1.8	16.0	13.6 - 18.4
IL TEST PT Fibrinogen						
IL ACL, all models	5	15.83	0.60	3.8	15.9	13.4 - 18.3

PROTHROMBIN TIME–INTERNATIONAL NORMALIZED RATIO (INR)

Reagent/Instrument	Specimen CG-11 Labs	Mean	SD	CV	Median	Range	Specimen CG-12 Labs	Mean	SD	CV	Median	Range
All Method	31	3.48	0.38	10.9	3.3	2.7 - 4.2	31	1.13	0.10	8.8	1.1	0.9 - 1.4
Dade Innovin												
Dade Behring BFT II	5	3.33	0.13	3.8	3.3	2.6 - 4.0	5	1.20	0.08	6.8	1.2	0.9 - 1.5
Sysmex CA-500/600 series	12	3.23	0.11	3.3	3.2	2.5 - 3.9	12	1.09	0.05	4.7	1.1	0.8 - 1.4
All Coagulation Instruments	17	3.26	0.12	3.6	3.3	2.6 - 4.0	17	1.11	0.08	7.0	1.1	0.8 - 1.4
HemosIL RecombiPlasTin 2G												
IL ACL, all models	5	3.90	0.14	3.6	3.9	3.1 - 4.7	5	1.05	0.07	6.7	1.1	0.8 - 1.3
IL TEST PT Fibrinogen												
IL ACL, all models	5	4.10	0.44	10.6	3.9	3.2 - 5.0	5	1.20	0.10	8.3	1.2	0.9 - 1.5

Reagent/Instrument	Specimen CG-13 Labs	Mean	SD	CV	Median	Range	Specimen CG-14 Labs	Mean	SD	CV	Median	Range
All Method	31	1.05	0.07	6.8	1.0	0.8 - 1.3	31	2.25	0.17	7.6	2.2	1.8 - 2.8
Dade Innovin												
Dade Behring BFT II	5	1.08	0.05	4.7	1.1	0.8 - 1.3	5	2.30	0.14	6.1	2.3	1.8 - 2.8
Sysmex CA-500/600 series	12	1.03	0.05	4.4	1.0	0.8 - 1.3	12	2.13	0.09	4.1	2.1	1.7 - 2.6
All Coagulation Instruments	17	1.04	0.05	4.8	1.0	0.8 - 1.3	17	2.18	0.13	5.8	2.2	1.7 - 2.7
HemosIL RecombiPlasTin 2G												
IL ACL, all models	5	1.05	0.07	6.7	1.1	0.8 - 1.3	5	2.40	0.14	5.9	2.4	1.9 - 2.9
IL TEST PT Fibrinogen												
IL ACL, all models	5	1.13	0.12	10.2	1.2	0.9 - 1.4	5	2.43	0.12	4.7	2.5	1.9 - 3.0

Reagent/Instrument	Specimen CG-15 Labs	Mean	SD	CV	Median	Range
All Method	31	1.47	0.18	12.2	1.4	1.1 - 1.8
Dade Innovin						
Dade Behring BFT II	5	1.48	0.05	3.4	1.5	1.1 - 1.8
Sysmex CA-500/600 series	12	1.36	0.07	4.9	1.4	1.0 - 1.7
All Coagulation Instruments	17	1.39	0.08	5.6	1.4	1.1 - 1.7
HemosIL RecombiPlasTin 2G						
IL ACL, all models	5	1.45	0.07	4.9	1.5	1.1 - 1.8
IL TEST PT Fibrinogen						
IL ACL, all models	5	1.70	0.17	10.2	1.8	1.3 - 2.1

ACTIVATED PARTIAL THROMBOPLASTIN (seconds)

Reagent/Instrument	Labs	Mean	SD	CV	Median	Range	Labs	Mean	SD	CV	Median	Range
	Specimen CG-11						**Specimen CG-12**					
All Method	18	45.3	2.8	6.2	45	38 - 53	18	29.4	6.2	21.0	26	24 - 34
Dade Actin FSL												
Sysmex CA-500/600 series	6	44.0	1.7	3.8	44	37 - 51	6	25.2	0.4	1.6	25	21 - 29
Hemoliance SynthASil												
IL ACL, all models	5	50.0	0.1	0.0	50	42 - 58	5	40.0	1.4	3.5	40	34 - 46
HemosIL APTT-SP												
IL ACL, all models	5	44.5	0.7	1.6	45	37 - 52	5	31.5	0.7	2.2	32	26 - 37
	Specimen CG-13						**Specimen CG-14**					
All Method	18	25.0	1.8	7.1	24	21 - 29	18	36.7	1.7	4.6	36	31 - 43
Dade Actin FSL												
Sysmex CA-500/600 series	6	23.7	0.5	2.2	24	20 - 28	6	36.0	1.1	3.0	36	30 - 42
Hemoliance SynthASil												
IL ACL, all models	5	27.0	0.1	0.0	27	22 - 32	5	39.5	0.7	1.8	40	33 - 46
HemosIL APTT-SP												
IL ACL, all models	5	27.0	0.1	0.0	27	22 - 32	5	36.0	0.1	0.0	36	30 - 42
	Specimen CG-15											
All Method	18	33.4	5.0	15.1	31	28 - 39						
Dade Actin FSL												
Sysmex CA-500/600 series	6	29.7	1.4	4.6	30	25 - 35						
Hemoliance SynthASil												
IL ACL, all models	5	37.5	0.7	1.9	38	31 - 44						
HemosIL APTT-SP												
IL ACL, all models	5	40.5	0.7	1.7	41	34 - 47						

Fibrinogen (mg/dL)

One participant reported Fibrinogen. The vendor assay values on a Sysmex CA-540 for specimens CG-11 through CG-15 are: 197 mg/dL, 350 mg/dL, 220 mg/dL, 194 mg/dL, and 105 mg/dL, respectively.

COAGUCHEK XS PLUS PROTHROMBIN TIME (seconds)

Instrument	Specimen XS-11 Labs	Mean	SD	CV	Median	Range	Specimen XS-12 Labs	Mean	SD	CV	Median	Range
All Method	23	25.51	1.01	4.0	25.6	21.6 - 29.4	23	13.98	0.37	2.7	14.0	11.8 - 16.1
All Roche CoaguChek XS Plus Instruments	22	25.51	1.01	4.0	25.6	21.6 - 29.4	22	13.96	0.38	2.7	14.0	11.8 - 16.1
Roche CoaguChek XS Plus - Waived	11	25.09	0.94	3.8	24.9	21.3 - 28.9	11	13.98	0.43	3.1	14.0	11.8 - 16.1
Roche CoaguChek XS Plus	10	26.16	0.78	3.0	26.4	22.2 - 30.1	10	13.93	0.30	2.2	13.9	11.8 - 16.1

Instrument	Specimen XS-13 Labs	Mean	SD	CV	Median	Range	Specimen XS-14 Labs	Mean	SD	CV	Median	Range
All Method	20	36.86	1.70	4.6	36.8	31.3 - 42.4	20	36.21	1.57	4.3	36.4	30.7 - 41.7
All Roche CoaguChek XS Plus Instruments	19	36.86	1.70	4.6	36.8	31.3 - 42.4	19	36.21	1.57	4.3	36.4	30.7 - 41.7
Roche CoaguChek XS Plus - Waived	10	36.24	1.04	2.9	36.4	30.8 - 41.7	10	35.64	1.17	3.3	35.6	30.2 - 41.0
Roche CoaguChek XS Plus	9	-	-	-	37.9	31.3 - 42.4	9	-	-	-	37.4	30.7 - 41.7

Instrument	Specimen XS-15 Labs	Mean	SD	CV	Median	Range
All Method	20	25.33	0.89	3.5	25.0	21.5 - 29.2
All Roche CoaguChek XS Plus Instruments	19	25.33	0.89	3.5	25.0	21.5 - 29.2
Roche CoaguChek XS Plus - Waived	10	25.18	0.98	3.9	24.8	21.4 - 29.0
Roche CoaguChek XS Plus	9	-	-	-	25.6	21.5 - 29.2

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

	Specimen XS-11						Specimen XS-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	37	2.13	0.06	3.0	2.1	1.7 - 2.6	37	1.17	0.05	4.1	1.2	0.9 - 1.4
All Roche CoaguChek XS Plus Instruments	35	2.13	0.06	2.8	2.1	1.7 - 2.6	35	1.17	0.05	4.1	1.2	0.9 - 1.4
Roche CoaguChek XS Plus - Waived	25	2.12	0.06	2.8	2.1	1.6 - 2.6	25	1.17	0.05	4.1	1.2	0.9 - 1.5
Roche CoaguChek XS Plus	10	2.17	0.05	2.2	2.2	1.7 - 2.7	10	1.16	0.05	4.6	1.2	0.9 - 1.4
	Specimen XS-13						**Specimen XS-14**					
All Method	22	3.04	0.12	4.1	3.0	2.4 - 3.7	22	3.01	0.12	4.1	3.0	2.4 - 3.7
All Roche CoaguChek XS Plus Instruments	21	3.04	0.12	4.1	3.0	2.4 - 3.7	21	3.01	0.12	4.1	3.0	2.4 - 3.7
Roche CoaguChek XS Plus - Waived	12	3.00	0.08	2.5	3.0	2.4 - 3.6	12	2.98	0.10	3.5	3.0	2.3 - 3.6
Roche CoaguChek XS Plus	9	-	-	-	3.2	2.4 - 3.7	9	-	-	-	3.1	2.4 - 3.7
	Specimen XS-15											
All Method	22	2.13	0.06	2.9	2.1	1.7 - 2.6						
All Roche CoaguChek XS Plus Instruments	21	2.13	0.06	2.9	2.1	1.7 - 2.6						
Roche CoaguChek XS Plus - Waived	12	2.11	0.06	3.0	2.1	1.6 - 2.6						
Roche CoaguChek XS Plus	9	-	-	-	2.2	1.7 - 2.6						

COAGUCHECK XS - INTERNATIONAL NORMALIZED RATIO (INR)

	Specimen INX-5						Specimen INX-6					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
Roche CoaguChek XS	103	2.12	0.08	3.8	2.1	1.6 - 2.6	102	3.01	0.13	4.3	3.0	2.4 - 3.7

i-Stat PROTHROMBIN TIME (seconds)

	Specimen PTI-11						Specimen PTI-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
i-Stat Prothrombin Time	11	14.25	0.98	6.9	14.3	12.1 - 16.4	11	14.93	0.57	3.8	15.0	12.6 - 17.2
	Specimen PTI-13						**Specimen PTI-14**					
i-Stat Prothrombin Time	11	22.80	0.28	1.2	22.7	19.3 - 26.3	11	22.80	0.94	4.1	23.2	19.3 - 26.3
	Specimen PTI-15											
i-Stat Prothrombin Time	11	14.65	0.45	3.1	14.5	12.4 - 16.9						

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

	Specimen PTI-11						Specimen PTI-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
i-Stat Prothrombin Time	11	1.20	0.08	6.8	1.2	0.9 - 1.5	11	1.33	0.19	14.3	1.3	1.0 - 1.6
	Specimen PTI-13						**Specimen PTI-14**					
i-Stat Prothrombin Time	11	1.95	0.06	3.0	2.0	1.5 - 2.4	11	1.95	0.10	5.1	2.0	1.5 - 2.4
	Specimen PTI-15											
i-Stat Prothrombin Time	11	1.23	0.05	4.1	1.2	0.9 - 1.5						

FLUID CELL COUNT – WHITE BLOOD CELL COUNT (µL)

	Specimen BF-5						Specimen BF-6					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	5	270.5	13.4	5.0	271	243 - 298	5	6.0	2.8	47.1	6	0 - 12

FLUID CELL COUNT – RED BLOOD CELL COUNT (µL)

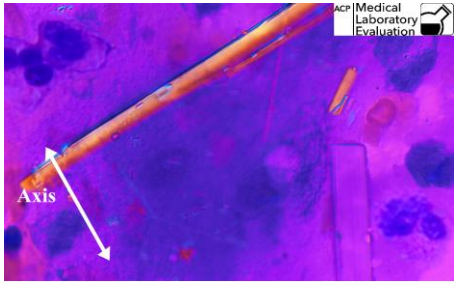
	Specimen BF-5						Specimen BF-6					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	5	1107.5	145.0	13.1	1108	817 - 1398	5	0.0	0.1	0.0	0	0 - 1

2019 M3
FLUID CRYSTAL IDENTIFICATION
Specimens FC-5 and FC-6

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

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

Specimen FC-5

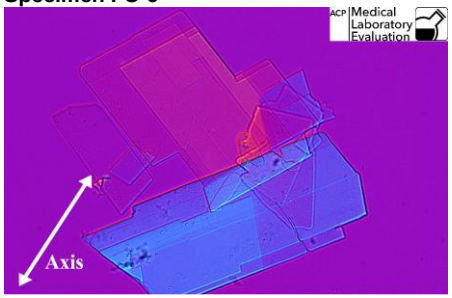


Identification	Labs	Percent	Performance
CPPD crystals	2	66.67%	Ungraded
Other, not listed	1	33.33%	

The large rectangular objects in this photograph are **steroid crystals**. Steroids are drugs that are used to treat musculoskeletal and joint pain by reducing inflammation. They are often injected directly into the joints to treat conditions such as rheumatoid arthritis and gout. Steroid crystals may be seen as an artefact in synovial fluid following intra-articular injection. Having the patient's clinical history is helpful in these cases. There are several different corticosteroid drugs, which can exhibit positive or negative birefringence depending on the chemical composition. Examples of steroid drugs include cortisone, triamcinolone, and prednisone. Steroid crystals can be confused with other rod-shaped or needle-shaped crystals, but steroids are significantly larger than MSU and CPPD, and generally appear in greater numbers. To view another photo of steroid crystals, see 2018 M3 Specimen FC-6. This is ungraded specimen due to lack of participant consensus.

2019 M6
FLUID CRYSTAL IDENTIFICATION

Specimen FC-6



Identification	Labs	Percent	Performance
Cholseterol crystals	3	100%	Acceptable

The objects in this photograph are **cholesterol crystals**. They usually appear in their characteristic form as large, flat rectangular plates with notched corners, which makes them easy to identify in any wet mount preparation. Cholesterol may be present in chronic effusions from patients with osteoarthritis or rheumatoid arthritis. They are associated with chronic inflammatory conditions, but are considered a nonspecific finding. To view a photo of cholesterol crystals under normal illumination, see 2019 M1 FC-1.

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MICROALBUMIN, DIPSTICK

Specimen UM-3

Participant Results

Method	Labs	Negative	10 mg/L	20 mg/L	30 mg/L	50 mg/L	80 mg/L	100 mg/L	150 mg/L	+ (4 - 8 mg/dL)	++ (>8 mg/dL)
ALL METHODS	28	-	1	-	-	-	17	1	9	-	-
Roche Micral - 1 minute	1	-	-	-	-	-	-	1	-	-	-
Siemens Clinitek Microalbumin	26	-	1	-	-	-	16	-	9	-	-
Uriscan Optima	1	-	-	-	-	-	1	-	-	-	-

CREATININE, DIPSTICK

Specimen UM-3

Participant Results

Method	Labs	Negative	10 mg/dL	30 mg/dL	50 mg/dL	100 mg/dL	200 mg/dL	300 mg/dL
ALL METHODS	28	-	1	-	6	17	3	1
Siemens Clinitek Microalbumin	26	-	1	-	6	15	3	1
Siemens Multistix Pro	2	-	-	-	-	2	-	-

MICROALBUMIN, QUANTITATIVE

Specimen UM-3

Method	Labs	Mean	SD	CV	Median	Range
All Method	51	141.33	6.90	4.9	142.0	98.9 - 183.8
Beckman AU	21	141.34	4.58	3.2	141.0	98.9 - 183.8

CREATININE, URINE (mg/dL)

Specimen UM-3

Method	Labs	Mean	SD	CV	Median	Range
All Method	50	64.82	5.64	8.7	64.3	53.8 - 75.9
Beckman AU	21	59.94	2.71	4.5	59.5	49.7 - 70.2

WAIVED HEMATOLOGY–HEMOGLOBIN (g/dL)

	Specimen HD-11						Specimen HD-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	92	13.23	0.45	3.4	13.2	12.3 - 14.2	93	6.05	0.16	2.7	6.1	5.6 - 6.5
All Stanbio Methods	22	13.44	0.46	3.5	13.5	12.5 - 14.4	22	6.10	0.12	2.0	6.1	5.6 - 6.6
Alere (Stanbio) HemoPoint H2	22	13.44	0.46	3.5	13.5	12.5 - 14.4	22	6.10	0.12	2.0	6.1	5.6 - 6.6
HemoCue 201/+	66	13.14	0.39	3.0	13.1	12.2 - 14.1	66	6.03	0.14	2.3	6.0	5.6 - 6.5

WAIVED HEMATOLOGY–HEMATOCRIT (percent)

	Specimen HD-11						Specimen HD-12					
Instrument	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Range***
All Method	12	37.29	4.42	11.8	39.0	28.4 - 46.2	10	16.90	3.10	18.3	18.0	10.7 - 23.1

KOH SKIN PREPARATION

Specimen	***Identification***	***Labs***	***Percent***	***Performance***
K-5	Yeast/fungal elements absent	94	88.68%	Acceptable
	Yeast/fungal elements present	12	11.32%	

Organism present in specimen K-5: C*orynebacterium pseudodiphtheriticum*

K-6	Yeast/fungal elements present	100	94.34%	Acceptable
	Yeast/fungal elements absent	6	5.66%	

Organism present in specimen K-4: M*icrosporum canis.*

URINALYSIS DIPSTICK–SPECIFIC GRAVITY

Specimen UA-3

Method	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Range*
All Method	665	1.0131	0.0039	0.4	1.015	1.003 - 1.024
All Roche Methods	15	1.0083	0.0031	0.3	1.010	0.998 - 1.019
All Siemens Methods	424	1.0151	0.0019	0.2	1.015	1.005 - 1.026
Henry Schein Urispec / Urispec Plus	21	1.0140	0.0030	0.3	1.015	1.004 - 1.025
McKesson 120 Urine Analyzer	20	1.0100	0.0001	0.0	1.010	1.000 - 1.020
Roche Chemstrips	28	1.0050	0.0030	0.3	1.005	0.995 - 1.015
Roche Urisys	10	1.0085	0.0033	0.3	1.010	0.998 - 1.019
Siemens Clinitek Advantus	15	1.0110	0.0021	0.2	1.010	1.001 - 1.021
Siemens Clinitek Status / Status+	390	1.0155	0.0014	0.1	1.015	1.005 - 1.026
Siemens Reagent Strips	103	1.0084	0.0041	0.4	1.010	0.998 - 1.019

URINALYSIS DIPSTICK–pH

Specimen UA-3

Participant Results

Method	***Labs***	***≤3.5***	***4.0***	***4.5***	***5.0***	***5.5***	***6.0***	***6.5***	***7.0***	***7.5***	***8.0***	***8.5***	***≥9.0***
ALL METHODS	698	-	-	-	1	-	3	2	2	11	216	460	3
Beckman AU	1	-	-	-	-	-	-	-	-	1	-	-	-
BTNX Rapid Response U120/U500	1	-	-	-	-	-	-	-	-	-	1	-	-
Consult Diagnostics Reagent Strips	4	-	-	-	-	-	-	-	-	1	3	-	-
Consult Diagnostics Urine Analyzer	4	-	-	-	-	-	-	-	-	1	2	1	-
CTMI CT-120 Urine Analyzer	4	-	-	-	-	-	-	-	-	-	4	-	-
Diagnostic Test Group Clarity Urocheck	3	-	-	-	-	-	-	-	-	-	2	1	-
Diagnostic Test Group Clarity Urocheck 120	9	-	-	-	-	-	-	-	-	-	7	2	-
Germaine Labs AimStrip Urine Analyzer	3	-	-	-	-	-	-	-	-	-	2	1	-
Henry Schein One Step Plus	1	-	-	-	-	-	-	-	-	-	1	-	-
Henry Schein Urispec / Urispec Plus	21	-	-	-	-	-	-	-	-	-	21	-	-
Iris Ichem VELOCITY Urine Chemistry System	1	-	-	-	-	-	-	-	-	-	1	-	-
McKesson 10SG Reagent Strips	7	-	-	-	-	-	-	-	-	1	5	1	-
McKesson 120 Urine Analyzer	24	-	-	-	-	-	-	-	-	-	17	7	-
Medline 120 Urine Analyzer	5	-	-	-	-	-	-	-	-	-	4	1	-
Medline Urinalysis Reagent Strips	3	-	-	-	-	-	-	-	1	-	1	1	-
Moore Medical Urine Reagent Strips	1	-	-	-	-	-	-	-	-	-	1	-	-
NDC Pro Advantage	1	-	-	-	-	-	-	-	-	-	-	1	-
Other Dipstick Method	8	-	-	-	-	-	-	-	1	2	4	1	-
Roche Chemstrip 101	1	-	-	-	-	-	-	-	-	-	1	-	-
Roche Chemstrips	32	-	-	-	1	-	1	-	-	-	30	-	-
Roche cobas u 411	2	-	-	-	-	-	-	-	-	-	2	-	-
Roche Criterion Analyzer	2	-	-	-	-	-	-	-	-	-	2	-	-
Roche Urisys	10	-	-	-	-	-	-	-	-	-	10	-	-
Siemens Clinitek 10 / 100	2	-	-	-	-	-	-	-	-	-	-	2	-
Siemens Clinitek 50	8	-	-	-	-	-	-	-	-	1	6	1	-
Siemens Clinitek 500	3	-	-	-	-	-	-	-	-	-	2	1	-
Siemens Clinitek Advantus	16	-	-	-	-	-	-	-	-	-	5	11	-
Siemens Clinitek Status / Status+	401	-	-	-	-	-	-	-	-	2	3	394	2
Siemens Multistix Pro	1	-	-	-	-	-	-	-	-	-	1	-	-
Siemens Reagent Strips	108	-	-	-	-	-	2	2	-	1	73	30	-
Uriscan Optima	2	-	-	-	-	-	-	-	-	1	1	-	-
UriScan Reagent Strips	2	-	-	-	-	-	-	-	-	-	2	-	-

URINALYSIS DIPSTICK–PROTEIN QUALITATIVE

Specimen UA-3

		Participant Results											
Method	***Labs***	***Negative***	***Trace***	***(1+)***	***(2+)***	***(3+)***	***(4+)***	***10 - 20 mg/dL***	***30 - 70 mg/dL***	***75 mg/dL***	***100 - 200 mg/dL***	***≥300 - 600 mg/dL***	***>600 or ≥1000 mg/dL***
ALL METHODS	708	3	2	3	149	141	1	-	4	-	175	230	-
BTNX Rapid Response U120/U500	1	-	-	-	1	-	-	-	-	-	-	-	-
Consult Diagnostics Reagent Strips	3	-	-	-	-	3	-	-	-	-	-	-	-
Consult Diagnostics Urine Analyzer	4	-	-	-	3	-	-	-	-	-	1	-	-
CTMI CT-120 Urine Analyzer	4	-	-	-	3	-	-	-	-	-	1	-	-
Diagnostic Test Group Clarity Urocheck	3	-	-	-	2	1	-	-	-	-	-	-	-
Diagnostic Test Group Clarity Urocheck 120	9	-	-	-	8	-	-	-	-	-	1	-	-
Germaine Labs AimStrip Urine Analyzer	3	-	-	-	3	-	-	-	-	-	-	-	-
Henry Schein One Step Plus	1	-	-	-	-	-	-	-	-	-	1	-	-
Henry Schein Urispec / Urispec Plus	21	-	-	-	-	-	-	-	-	-	21	-	-
Iris Ichem VELOCITY Urine Chemistry System	1	-	-	-	1	-	-	-	-	-	-	-	-
McKesson 10SG Reagent Strips	6	-	-	-	1	4	-	-	-	-	-	1	-
McKesson 120 Urine Analyzer	24	-	-	-	19	3	-	-	1	-	1	-	-
Medline 120 Urine Analyzer	5	-	-	-	3	2	-	-	-	-	-	-	-
Medline Urinalysis Reagent Strips	3	-	1	-	-	1	-	-	-	-	1	-	-
Moore Medical Urine Reagent Strips	1	-	-	-	1	-	-	-	-	-	-	-	-
NDC Pro Advantage	1	-	-	-	1	-	-	-	-	-	-	-	-
Other Dipstick Method	8	-	-	1	1	3	1	-	-	-	2	-	-
Roche Chemstrip 101	1	-	-	-	-	1	-	-	-	-	-	-	-
Roche Chemstrips	38	3	1	-	22	4	-	-	2	-	6	-	-

URINALYSIS DIPSTICK–PROTEIN QUALITATIVE (cont'd)

Specimen UA-3

		Participant Results											
Method	***Labs***	***Negative***	***Trace***	***(1+)***	***(2+)***	***(3+)***	***(4+)***	***10 - 20 mg/dL***	***30 - 70 mg/dL***	***75 mg/dL***	***100 - 200 mg/dL***	***≥300 - 600 mg/dL***	***>600 or ≥1000 mg/dL***
Roche cobas u 411	2	-	-	-	-	-	-	-	-	-	2	-	-
Roche Criterion Analyzer	2	-	-	-	1	-	-	-	-	-	1	-	-
Roche Urisys	12	-	-	1	1	-	-	-	1	-	7	2	-
Siemens Clinitek 10 / 100	2	-	-	-	-	1	-	-	-	-	-	1	-
Siemens Clinitek 50	8	-	-	-	-	2	-	-	-	-	-	6	-
Siemens Clinitek 500	3	-	-	-	1	-	-	-	-	-	2	-	-
Siemens Clinitek Advantus	15	-	-	-	9	-	-	-	-	-	6	-	-
Siemens Clinitek Status / Status+	399	-	-	-	30	81	-	-	-	-	90	198	-
Siemens Hemacombistix	1	-	-	-	-	1	-	-	-	-	-	-	-
Siemens Multistix Pro	1	-	-	-	-	-	-	-	-	-	1	-	-
Siemens Reagent Strips	110	-	-	1	32	30	-	-	-	-	28	19	-
Siemens Uristix	3	-	-	-	1	2	-	-	-	-	-	-	-
Sulfosalicylic Acid	1	-	-	-	1	-	-	-	-	-	-	-	-
Uriscan Optima	2	-	-	-	1	-	-	-	-	-	1	-	-
UriScan Reagent Strips	2	-	-	-	1	1	-	-	-	-	-	-	-

URINALYSIS DIPSTICK–GLUCOSE

Specimen UA-3

Method	Labs	Participant Results									
		Negative or Normal	Trace	(1+)	(2+)	(3+)	(4+)	30 - 100 mg/dL	150 - 300 mg/dL	500 mg/dL	>500 or ≥1000 or ≥2000 mg/dL
ALL METHODS	710	708	-	-	-	-	-	2	-	-	-
BTNX Rapid Response U120/U500	1	1	-	-	-	-	-	-	-	-	-
Consult Diagnostics Reagent Strips	4	4	-	-	-	-	-	-	-	-	-
Consult Diagnostics Urine Analyzer	4	4	-	-	-	-	-	-	-	-	-
CTMI CT-120 Urine Analyzer	4	4	-	-	-	-	-	-	-	-	-
Diagnostic Test Group Clarity Urocheck	3	3	-	-	-	-	-	-	-	-	-
Diagnostic Test Group Clarity Urocheck 120	9	9	-	-	-	-	-	-	-	-	-
Germaine Labs AimStrip Urine Analyzer	3	3	-	-	-	-	-	-	-	-	-
Henry Schein One Step Plus	1	1	-	-	-	-	-	-	-	-	-
Henry Schein Urispec / Urispec Plus	21	21	-	-	-	-	-	-	-	-	-
Iris Ichem VELOCITY Urine Chemistry System	1	1	-	-	-	-	-	-	-	-	-
McKesson 10SG Reagent Strips	7	7	-	-	-	-	-	-	-	-	-
McKesson 120 Urine Analyzer	23	23	-	-	-	-	-	-	-	-	-
Medline 120 Urine Analyzer	6	6	-	-	-	-	-	-	-	-	-
Medline Urinalysis Reagent Strips	3	3	-	-	-	-	-	-	-	-	-
Moore Medical Urine Reagent Strips	1	1	-	-	-	-	-	-	-	-	-
NDC Pro Advantage	1	1	-	-	-	-	-	-	-	-	-
Other Dipstick Method	8	8	-	-	-	-	-	-	-	-	-
Roche Chemstrip 101	1	1	-	-	-	-	-	-	-	-	-
Roche Chemstrips	38	36	-	-	-	-	-	2	-	-	-
Roche cobas u 411	2	2	-	-	-	-	-	-	-	-	-
Roche Criterion Analyzer	2	2	-	-	-	-	-	-	-	-	-
Roche Urisys	12	12	-	-	-	-	-	-	-	-	-
Siemens Clinitek 10 / 100	2	2	-	-	-	-	-	-	-	-	-
Siemens Clinitek 50	8	8	-	-	-	-	-	-	-	-	-
Siemens Clinitek 500	3	3	-	-	-	-	-	-	-	-	-
Siemens Clinitek Advantus	16	16	-	-	-	-	-	-	-	-	-
Siemens Clinitek Status / Status+	402	402	-	-	-	-	-	-	-	-	-
Siemens Hemacombistix	1	1	-	-	-	-	-	-	-	-	-
Siemens Multistix Pro	1	1	-	-	-	-	-	-	-	-	-
Siemens Reagent Strips	108	108	-	-	-	-	-	-	-	-	-
Siemens Uristix	2	2	-	-	-	-	-	-	-	-	-
Uriscan Optima	2	2	-	-	-	-	-	-	-	-	-
UriScan Reagent Strips	2	2	-	-	-	-	-	-	-	-	-

URINALYSIS DIPSTICK–KETONES

Specimen UA-3

		Participant Results													
Method	***Labs***	***Negative***	***Trace***	***Small***	***Moderate***	***Large***	***(1+)***	***(2+)***	***(3+)***	***(4+)***	***5 - 10 mg/dL***	***15 - 25 mg/dL***	***40 - 60 mg/dL***	***80 - 100 mg/dL***	***≥150 mg/dL***
ALL METHODS	697	3	-	-	-	95	1	2	95	115	-	-	3	41	342
BTNX Rapid Response U120/U500	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-
Consult Diagnostics Reagent Strips	4	-	-	-	-	-	-	-	1	1	-	-	-	-	2
Consult Diagnostics Urine Analyzer	4	-	-	-	-	-	-	-	2	-	-	-	1	1	-
CTMI CT-120 Urine Analyzer	4	-	-	-	-	-	-	-	3	-	-	-	-	1	-
Diagnostic Test Group Clarity Urocheck	3	-	-	-	-	-	-	-	3	-	-	-	-	-	-
Diagnostic Test Group Clarity Urocheck 120	9	-	-	-	-	-	-	-	8	-	-	-	-	1	-
Germaine Laboratories AimTab	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-
Germaine Labs AimStrip Urine Analyzer	3	-	-	-	-	-	-	-	3	-	-	-	-	-	-
Henry Schein One Step Plus	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Henry Schein Urispec / Urispec Plus	21	-	-	-	-	-	-	-	2	-	-	-	-	-	19
Iris Ichem VELOCITY Urine Chemistry System	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-
McKesson 10SG Reagent Strips	7	-	-	-	-	-	-	-	4	2	-	-	-	-	1
McKesson 120 Urine Analyzer	24	-	-	-	-	-	-	-	22	-	-	-	-	2	-
Medline 120 Urine Analyzer	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-
Medline Urinalysis Reagent Strips	3	-	-	-	-	1	-	-	1	1	-	-	-	-	-
Moore Medical Urine Reagent Strips	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-
NDC Pro Advantage	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-
Other Dipstick Method	8	-	-	-	-	4	-	-	-	2	-	-	-	-	2
Roche Chemstrip 101	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-
Roche Chemstrips	32	3	-	-	-	11	-	-	16	-	-	-	-	-	2
Roche cobas u 411	2	-	-	-	-	1	-	-	-	-	-	-	-	-	1
Roche Criterion Analyzer	2	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Roche Urisys	10	-	-	-	-	-	-	-	2	-	-	-	1	-	7
Siemens Clinitek 10 / 100	2	-	-	-	-	-	-	-	1	-	-	-	-	-	1
Siemens Clinitek 50	8	-	-	-	-	-	-	-	2	-	-	-	-	6	-
Siemens Clinitek 500	3	-	-	-	-	-	-	-	1	-	-	-	1	1	-
Siemens Clinitek Advantus	15	-	-	-	-	-	-	-	9	-	-	-	-	6	-
Siemens Clinitek Status / Status+	402	-	-	-	-	2	1	-	5	104	-	-	-	17	273
Siemens Multistix Pro	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-
Siemens Reagent Strips	107	-	-	-	-	73	-	-	2	2	-	-	-	4	26
Uriscan Optima	2	-	-	-	-	-	-	-	1	-	-	-	-	1	-
UriScan Reagent Strips	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-

URINALYSIS DIPSTICK–BILIRUBIN

Specimen UA-3

		Participant Results												
Method	***Labs***	***Negative***	***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	677	14	1	56	288	44	66	159	16	3	7	23	-	-
BTNX Rapid Response U120/U500	1	-	-	-	-	-	1	-	-	-	-	-	-	-
Consult Diagnostics Reagent Strips	4	-	-	-	-	-	2	1	1	-	-	-	-	-
Consult Diagnostics Urine Analyzer	4	-	-	-	-	-	2	1	-	-	1	-	-	-
CTMI CT-120 Urine Analyzer	4	-	-	-	-	-	3	-	-	-	-	1	-	-
Diagnostic Test Group Clarity Urocheck	3	-	-	-	-	-	1	2	-	-	-	-	-	-
Diagnostic Test Group Clarity Urocheck 120	9	-	-	-	-	-	3	5	-	-	-	1	-	-
Germaine Labs AimStrip Urine Analyzer	3	-	-	-	-	-	2	1	-	-	-	-	-	-
Henry Schein One Step Plus	1	-	-	-	-	-	-	-	-	-	-	1	-	-
Henry Schein Urispec / Urispec Plus	21	-	-	-	-	-	-	-	2	3	-	16	-	-
Iris Ichem VELOCITY Urine Chemistry System	1	1	-	-	-	-	-	-	-	-	-	-	-	-
McKesson 10SG Reagent Strips	7	-	-	-	-	-	6	-	-	-	1	-	-	-
McKesson 120 Urine Analyzer	23	-	-	-	-	-	15	7	-	-	1	-	-	-
Medline 120 Urine Analyzer	6	1	-	-	-	-	2	2	-	-	1	-	-	-
Medline Urinalysis Reagent Strips	3	-	1	-	-	-	2	-	-	-	-	-	-	-
Moore Medical Urine Reagent Strips	1	1	-	-	-	-	-	-	-	-	-	-	-	-
NDC Pro Advantage	1	-	-	-	-	-	1	-	-	-	-	-	-	-
Other Dipstick Method	4	1	-	-	-	2	-	-	1	-	-	-	-	-
Roche Chemstrip 101	1	-	-	-	-	-	-	1	-	-	-	-	-	-
Roche Chemstrips	29	2	-	-	-	1	1	23	2	-	-	-	-	-
Roche cobas u 411	2	-	-	-	-	-	-	1	-	-	-	1	-	-
Roche Criterion Analyzer	2	-	-	-	-	-	1	-	-	-	1	-	-	-
Roche Urisys	10	1	-	-	-	-	3	1	1	-	1	3	-	-
Siemens Clinitek 10 / 100	2	-	-	1	-	-	-	-	1	-	-	-	-	-
Siemens Clinitek 50	8	-	-	1	5	-	-	2	-	-	-	-	-	-
Siemens Clinitek 500	3	-	-	-	2	-	-	1	-	-	-	-	-	-
Siemens Clinitek Advantus	13	-	-	-	5	-	-	8	-	-	-	-	-	-
Siemens Clinitek Status / Status+	398	-	-	37	252	2	14	93	-	-	-	-	-	-
Siemens Ictotest	2	-	-	-	1	1	-	-	-	-	-	-	-	-
Siemens Multistix Pro	1	-	-	1	-	-	-	-	-	-	-	-	-	-
Siemens Reagent Strips	100	7	-	14	21	38	5	7	8	-	-	-	-	-
Uriscan Optima	2	-	-	-	-	-	1	-	-	-	1	-	-	-
UriScan Reagent Strips	1	-	-	-	-	-	-	1	-	-	-	-	-	-

URINALYSIS DIPSTICK–UROBILINOGEN

Specimen UA-3

Participant Results

Method	***Labs***	***Normal or 0.0 - 0.2 mg/dL or <3.2 µmol/L***	***1.0 or <2.0 mg/dL or 16 or 17 µmol/L***	***2.0/3.0 mg/dL or 34 or 35 µmol/L***	***4.0 or 4.0/6.0 mg/dL or 70 µmol/L***	***≥8.0 or ≥12.0 mg/dL or ≥140 or 200 µmol/L***
ALL METHODS	670	78	49	92	417	34
BTNX Rapid Response U120/U500	1	1	-	-	-	-
Consult Diagnostics Reagent Strips	3	-	1	2	-	-
Consult Diagnostics Urine Analyzer	4	2	1	-	1	-
CTMI CT-120 Urine Analyzer	4	4	-	-	-	-
Diagnostic Test Group Clarity Urocheck	3	1	1	1	-	-
Diagnostic Test Group Clarity Urocheck 120	9	5	4	-	-	-
Germaine Labs AimStrip Urine Analyzer	2	1	1	-	-	-
Henry Schein One Step Plus	1	1	-	-	-	-
Henry Schein Urispec / Urispec Plus	21	16	-	5	-	-
McKesson 10SG Reagent Strips	7	2	1	3	1	-
McKesson 120 Urine Analyzer	24	17	7	-	-	-
Medline 120 Urine Analyzer	4	3	1	-	-	-
Medline Urinalysis Reagent Strips	3	1	-	2	-	-
Moore Medical Urine Reagent Strips	1	1	-	-	-	-
NDC Pro Advantage	1	1	-	-	-	-
Other Dipstick Method	4	-	1	1	1	1
Roche Chemstrips	30	11	11	-	7	1
Roche cobas u 411	2	1	1	-	-	-
Roche Criterion Analyzer	2	1	1	-	-	-
Roche Urisys	9	-	9	-	-	-
Siemens Clinitek 10 / 100	2	-	-	1	-	1
Siemens Clinitek 50	8	-	-	7	1	-
Siemens Clinitek 500	3	-	1	2	-	-
Siemens Clinitek Advantus	14	-	1	6	7	-
Siemens Clinitek Status / Status+	394	2	-	20	358	14
Siemens Multistix Pro	1	-	-	-	1	-
Siemens Reagent Strips	104	6	6	42	34	16
Uriscan Optima	2	-	-	-	2	-
UriScan Reagent Strips	1	-	-	-	-	1

URINALYSIS DIPSTICK–BLOOD/HEMOGLOBIN

Specimen UA-3

									Participant Results									
Method	***Labs***	***Negative***	***Trace***	***Small***	***Moderate***	***Large***	***(1+)***	***(2+)***	***(3+)***	***(4+)***	***(5+)***	***5 - 25 Ery/µL***	***50 - 100 Ery/µL***	***200 - 250 Ery/µL***	***±0.03 mg/dL***	***0.06 - 0.10 mg/dL***	***0.2 - 0.5 mg/dL***	***≥ 1.0 mg/dL***
ALL METHODS	695	2	-	2	43	365	-	17	197	1	-	-	-	67	-	-	-	1
BTNX Rapid Response U120/U500	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
Consult Diagnostics Reagent Strips	3	-	-	-	-	1	-	-	2	-	-	-	-	-	-	-	-	-
Consult Diagnostics Urine Analyzer	4	-	-	-	-	-	-	-	3	-	-	-	-	1	-	-	-	-
CTMI CT-120 Urine Analyzer	4	-	-	-	-	-	-	-	3	-	-	-	-	1	-	-	-	-
Diagnostic Test Group Clarity Urocheck	3	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-
Diagnostic Test Group Clarity Urocheck 120	8	-	-	-	-	-	-	-	7	-	-	-	-	1	-	-	-	-
Germaine Labs AimStrip Urine Analyzer	3	1	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-
Henry Schein One Step Plus	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
Henry Schein Urispec / Urispec Plus	20	-	-	-	-	-	-	-	1	-	-	-	-	19	-	-	-	-
Iris Ichem VELOCITY Urine Chemistry System	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
McKesson 10SG Reagent Strips	7	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	1
McKesson 120 Urine Analyzer	24	-	-	-	-	-	-	-	22	-	-	-	-	2	-	-	-	-
Medline 120 Urine Analyzer	4	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-
Medline Urinalysis Reagent Strips	3	-	-	-	-	-	-	1	2	-	-	-	-	-	-	-	-	-
Moore Medical Urine Reagent Strips	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
NDC Pro Advantage	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
Other Dipstick Method	8	-	-	-	1	4	-	1	2	-	-	-	-	-	-	-	-	-
Roche Chemstrips	36	-	-	-	1	7	-	-	2	-	-	-	-	26	-	-	-	-
Roche cobas u 411	2	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-
Roche Criterion Analyzer	2	-	-	-	-	-	-	-	-	1	-	-	-	1	-	-	-	-
Roche Urisys	12	-	-	-	-	-	-	2	-	-	-	-	-	10	-	-	-	-
Siemens Clinitek 10 / 100	2	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	-
Siemens Clinitek 50	7	-	-	-	-	5	-	-	2	-	-	-	-	-	-	-	-	-
Siemens Clinitek 500	3	-	-	-	-	2	-	-	1	-	-	-	-	-	-	-	-	-
Siemens Clinitek Advantus	16	-	-	-	-	7	-	-	9	-	-	-	-	-	-	-	-	-
Siemens Clinitek Status / Status+	398	-	-	2	40	250	-	11	95	-	-	-	-	-	-	-	-	-
Siemens Multistix Pro	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Reagent Strips	107	1	-	-	1	82	-	-	23	-	-	-	-	-	-	-	-	-
Uriscan Optima	2	-	-	-	-	-	-	-	1	-	-	-	-	1	-	-	-	-
UriScan Reagent Strips	3	-	-	-	-	-	-	1	2	-	-	-	-	-	-	-	-	-

URINALYSIS DIPSTICK–LEUKOCYTE ESTERASE

Specimen UA-3

		Participant Results											
Method	***Labs***	***Negative***	***Trace***	***Small***	***Moderate***	***Large***	***(1+)***	***(2+)***	***(3+)***	***(4+)***	***15 or 25 µL***	***75 or 100 µL***	***250 or 500 µL***
ALL METHODS	700	694	3	-	-	-	1	1	-	-	1	-	-
BTNX Rapid Response U120/U500	1	1	-	-	-	-	-	-	-	-	-	-	-
Consult Diagnostics Reagent Strips	3	3	-	-	-	-	-	-	-	-	-	-	-
Consult Diagnostics Urine Analyzer	4	4	-	-	-	-	-	-	-	-	-	-	-
CTMI CT-120 Urine Analyzer	4	4	-	-	-	-	-	-	-	-	-	-	-
Diagnostic Test Group Clarity Urocheck	3	3	-	-	-	-	-	-	-	-	-	-	-
Diagnostic Test Group Clarity Urocheck 120	9	9	-	-	-	-	-	-	-	-	-	-	-
Germaine Labs AimStrip Urine Analyzer	3	3	-	-	-	-	-	-	-	-	-	-	-
Henry Schein One Step Plus	1	1	-	-	-	-	-	-	-	-	-	-	-
Henry Schein Urispec / Urispec Plus	21	21	-	-	-	-	-	-	-	-	-	-	-
Iris Ichem VELOCITY Urine Chemistry System	1	1	-	-	-	-	-	-	-	-	-	-	-
McKesson 10SG Reagent Strips	7	6	-	-	-	-	-	-	-	-	1	-	-
McKesson 120 Urine Analyzer	24	24	-	-	-	-	-	-	-	-	-	-	-
Medline 120 Urine Analyzer	5	5	-	-	-	-	-	-	-	-	-	-	-
Medline Urinalysis Reagent Strips	3	3	-	-	-	-	-	-	-	-	-	-	-
Moore Medical Urine Reagent Strips	1	-	-	-	-	-	-	1	-	-	-	-	-
NDC Pro Advantage	1	1	-	-	-	-	-	-	-	-	-	-	-
Other Dipstick Method	8	7	-	-	-	-	1	-	-	-	-	-	-
Roche Chemstrips	36	35	1	-	-	-	-	-	-	-	-	-	-
Roche cobas u 411	2	2	-	-	-	-	-	-	-	-	-	-	-
Roche Criterion Analyzer	2	2	-	-	-	-	-	-	-	-	-	-	-
Roche Urisys	12	12	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek 10 / 100	2	2	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek 50	7	7	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek 500	3	3	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek Advantus	16	16	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek Status / Status+	400	400	-	-	-	-	-	-	-	-	-	-	-
Siemens Multistix Pro	1	1	-	-	-	-	-	-	-	-	-	-	-
Siemens Reagent Strips	106	104	2	-	-	-	-	-	-	-	-	-	-
Siemens Uristix	1	1	-	-	-	-	-	-	-	-	-	-	-
Uriscan Optima	2	2	-	-	-	-	-	-	-	-	-	-	-
UriScan Reagent Strips	2	2	-	-	-	-	-	-	-	-	-	-	-

URINALYSIS DIPSTICK–NITRITE

Specimen UA-3

		Participant Results	
Method	***Labs***	***Negative***	***Positive***
ALL METHODS	700	697	3
BTNX Rapid Response U120/U500	1	1	-
Consult Diagnostics Reagent Strips	3	3	-
Consult Diagnostics Urine Analyzer	4	4	-
CTMI CT-120 Urine Analyzer	4	4	-
Diagnostic Test Group Clarity Urocheck	3	3	-
Diagnostic Test Group Clarity Urocheck 120	9	9	-
Germaine Labs AimStrip Urine Analyzer	3	3	-
Henry Schein One Step Plus	2	2	-
Henry Schein Urispec / Urispec Plus	20	20	-
Iris Ichem VELOCITY Urine Chemistry System	1	1	-
McKesson 10SG Reagent Strips	7	7	-
McKesson 120 Urine Analyzer	23	23	-
Medline 120 Urine Analyzer	6	6	-
Medline Urinalysis Reagent Strips	3	3	-
Moore Medical Urine Reagent Strips	1	1	-
NDC Pro Advantage	1	1	-
Other Dipstick Method	8	8	-
Roche Chemstrips	36	33	3
Roche cobas u 411	2	2	-
Roche Criterion Analyzer	2	2	-
Roche Urisys	12	12	-
Siemens Clinitek 10 / 100	2	2	-
Siemens Clinitek 50	7	7	-
Siemens Clinitek 500	3	3	-
Siemens Clinitek Advantus	16	16	-
Siemens Clinitek Status / Status+	399	399	-
Siemens Multistix Pro	1	1	-
Siemens Reagent Strips	108	108	-
Siemens Uristix	1	1	-
Uriscan Optima	2	2	-
UriScan Reagent Strips	2	2	-

URINALYSIS –MICROALBUMIN (dipstick only)

Specimen UA-3

		Participant Results									
Method	***Labs***	***Negative***	***10 mg/L***	***20 mg/L***	***30 mg/L***	***50 mg/L***	***80 mg/L***	***100 mg/L***	***150 mg/L***	***+ (4 - 8 mg/dL)***	***++ (>8 mg/dL)***
ALL METHODS	54	-	-	-	-	1	-	4	49	-	-
Roche Micral - 1 minute	5	-	-	-	-	1	-	3	1	-	-
Siemens Clinitek Microalbumin	42	-	-	-	-	-	-	1	41	-	-
Siemens Clinitek Status / Status+	5	-	-	-	-	-	-	-	5	-	-

URINALYSIS –URINE hCG

Specimen UA-3

	Participant Results		
Method	***Labs***	***Positive***	***Negative***
ALL METHODS	402	399	3
Alere Acceava hCG-Urine	1	1	-
Alere Clearview hCG Cassette	2	2	-
Alere Clearview hCG Combo II	1	1	-
Alere hCG Cassette	6	6	-
Alfa Scientific Instant View	5	5	-
Beckman Coulter ICON 20 hCG	5	5	-
Beckman Coulter ICON 25 hCG	19	19	-
Beckman Coulter ICON II	3	3	-
BioSign hCG	1	1	-
BTNX Rapid Response hCG	1	1	-
Cardinal Health SP Brand combo	25	24	1
Cardinal Hlth SPBrand-cassette	4	4	-
Clarity Diagnostics hCG Combo	1	1	-
Clarity Diagnostics hCG strip/cassette	12	12	-
CONSULT diagnostics hCG Cassette	53	52	1
CONSULT diagnostics hCG Combo	8	8	-
CONSULT diagnostics hCG Dipstick	24	24	-
Consult Diagnostics Reagent Strips	1	1	-
Henry Schein One Step	44	44	-
Henry Schein One Step Plus	17	17	-
Immunostics Detector Combi	1	1	-
Immunostics hCG Detector-urine	1	1	-
McKesson hCG Combo Cassette	6	6	-
McKesson hCG Urine Cassette	8	8	-
MediChoice hCG Combi Cassette	1	1	-
MediChoice hCG Urine Cassette	1	1	-
Medline hCG Combo Test Cassette	9	9	-
Medline hCG Test Cassette	4	3	1
Moore Medical hCG Urine	1	1	-
NDC Pro Advantage	1	1	-
Other Dipstick Method	1	1	-
PEP (Lab Supply) HCG	1	1	-
Quidel QuickVue One-Step Combo	18	18	-
Quidel QuickVue One-Step Urine	31	31	-
Quidel QuickVue+ One-Step Combo	24	24	-
Quidel RapidVue	1	1	-
Quidel Sofia hCG	1	1	-
Sekisui OSOM - Urine Test	1	1	-

URINALYSIS –URINE hCG (cont'd)

Specimen UA-3

	Participant Results		
Method	***Labs***	***Positive***	***Negative***
Sekisui OSOM Card Pregnancy	6	6	-
Sekisui OSOM hCG Combo Test	2	2	-
Siemens Clinitek Status / Status+	13	13	-
Stanbio QuPID	9	9	-
Stanbio QuPID Plus	2	2	-
Stanbio TRUE hCG	6	6	-
Sure-Vue hCG - 25mIU	1	1	-
Sure-Vue hCG-STAT	7	7	-

FECAL OCCULT BLOOD

	Specimen OC-5			**Specimen OC-6**		
Method	***Labs***	***Positive***	***Negative***	***Labs***	***Positive***	***Negative***
ALL METHODS	281	279	2	281	3	278
Alere Clearview iFOBT Complete	1	1	-	1	-	1
Beckman Coulter Hemoccult ICT	41	41	-	41	-	41
Guaiac (slide) Test	153	152	1	153	2	151
Hemosure IFOB	28	27	1	28	1	27
Other Immunochemical FOB kit	34	34	-	34	-	34
Polymedco OC Auto Micro 80	4	4	-	4	-	4
Polymedco OC-Light iFOB	8	8	-	8	-	8
Quidel QuickVue iFOB	5	5	-	5	-	5

2019 M3
Urine Sediment Identification
SPECIMENS US-5 AND US-6

CASE HISTORY:

A 53-year-old female presented to her primary care provider for a routine wellness examination. She complained of increased menstrual bleeding, night sweats, and dyspareunia (painful intercourse). A urine specimen was collected, and results appear below.

Color = Yellow
Appearance = Clear

Dipstick results:
Specific Gravity = 1.020
pH = 6.0
Protein = Negative
Glucose = Negative
Ketones = Negative
Bilirubin = Negative
Urobilinogen = Normal/0.2 mg/dL
Blood = Negative
Leukocyte Esterase = Negative
Nitrite = Negative

This patient's results are normal. The patient is experiencing symptoms of perimenopause. Perimenopause is a lay term for the menopause transition, which is a phase beginning with irregular menstrual cycles and ending a year after the final menstrual period. During this phase, declining ovarian function causes hormone fluctuations resulting in physical symptoms that can severely affect a woman's quality of life. Symptoms may include mood and sleep disturbances, menstrual changes, sexual dysfunction, and vasomotor symptoms. The average duration of perimenopause is 5 years. For most women over 45, premenopause, perimenopause, and menopause can be diagnosed by age and symptoms alone. Laboratory and imaging tests are not indicated.

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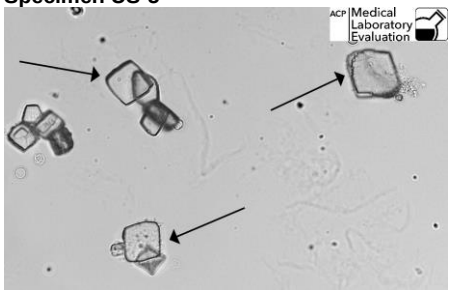
Urine Sediment Identification

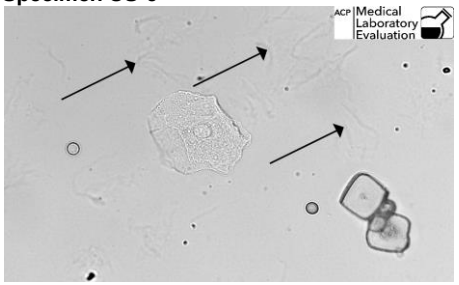
Specimen US-5



Identification	Labs	Percent	Performance
Uric acid crystal	368	90.86%	Acceptable
Calcium oxalate crystal	14	3.46%	

The arrows in this photograph point to **uric acid crystals**. Uric acid is a normal crystal found in acid urines (pH less than 6). Uric acid crystals are the most common crystals seen in urine sediment. They also are the most varied in size and shape. The most characteristic forms are the diamond or rhombic prism and the rosette. The forms of uric acid crystals can also include six-sided plates, cubes, prisms, lemon-shaped, barrel-shaped, spears, and stars. Uric acid crystals rarely have pathologic significance, unless they are seen in a freshly voided specimen. Some participants misidentified these crystals as cystine. Cystine crystals are very rare, hexagonal (six-sided) plates with pathological significance. To view another photo of uric acid crystals, see 2015 M2 Specimen US-4.

Specimen US-6



Identification	Labs	Percent	Performance
Mucus strands	382	94.32%	Acceptable
Fiber/fecal contamination	5	1.23%	
Squamous epithelial cell	5	1.23%	

The arrows in this 400x photograph point to **mucus strands**. Mucus is secreted by glands in the urethra and vagina. It is a common non-pathologic finding, especially in females. Mucus appears as long delicate strands or threads with undefined edges and pointed or frayed ends. Mucus can be mistaken for hyaline casts because of their similar low refractive index. However, hyaline casts have definite edges and smooth ends. To view a hyaline cast, see 2014 M1 Specimen US-2. To view another photo of mucus, see 2017 M2 Specimen US-3.
Technical tip: Objects with low refractive index, like mucus and hyaline casts, are hard to see if the microscope's illumination is not set correctly. Use subdued lighting to examine urine sediment, with the sub-stage condenser raised all the way up, and the condenser iris diaphragm approximately 70% closed / 30% open. Do not lower the condenser to decrease brightness. This reduces the resolution and sharpness of the image, which could cause you to miss important elements like casts.

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McNamara M, Batur P, DeSapri KT. Perimenopause. Ann Intern Med. 2015;162:ITC1. doi: 10.7326/AITC201502030
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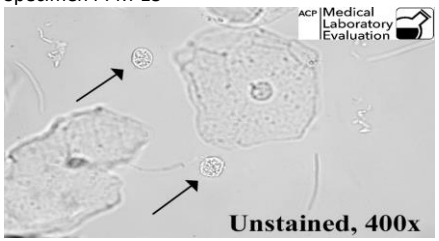
PROVIDER-PERFORMED MICROSCOPY (PPM)

Wet Mount Preparation

Specimen PPM-13

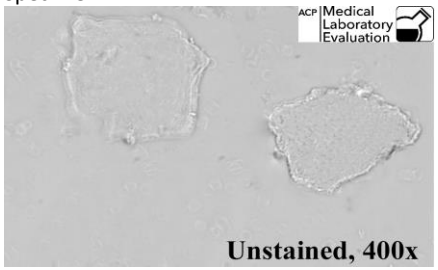


Identification	Labs	Percent	Performance
White blood cell (WBC)	427	94.47%	Acceptable
Trichomonas vaginalis	12	2.65%	
Red blood cell (RBC)	6	1.33%	

The arrows in this photograph of a vaginal wet mount point to **white blood cells.** The nuclei within the white cells give them a granular appearance. Presence of many white blood cells is associated with infections. Potential pathogens include Candida, herpes, trichomonas, gonorrhea, or chlamydia. Red blood cells are smaller in size than white blood cells, and appear hollow, sometimes resembling donuts or inner tubes. To view another photo of white blood cells, see 2017 M2 Specimen PPM-7. To view a photo of red blood cells in a wet mount, see 2016 M3 Specimen PPM-13.

Scabies Detection

Specimen PPM-14



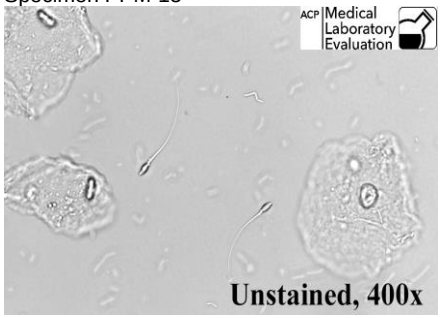
Identification	Labs	Percent	Performance
Yeast/funal elements absent	396	99.50%	Acceptable
Yeast/fungal elements present	2	0.50%	

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

PROVIDER-PERFORMED MICROSCOPY (PPM)

SPERM DETECTION

Specimen PPM-15

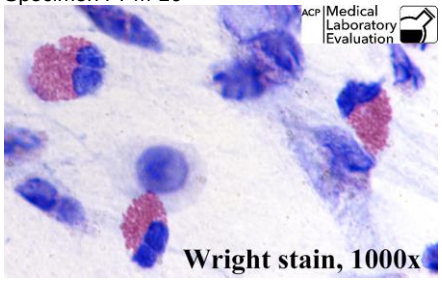


Identification	Labs	Percent	Performance
Sperm present	268	99.63%	Acceptable
Sperm absent	1	0.37%	

Two spermatozoa are present in this photograph of a vaginal wet mount preparation. To view another photo of spermatozoa, see 2018 M2 Specimen PPM-9.

KOH Preparation

Specimen PPM-16



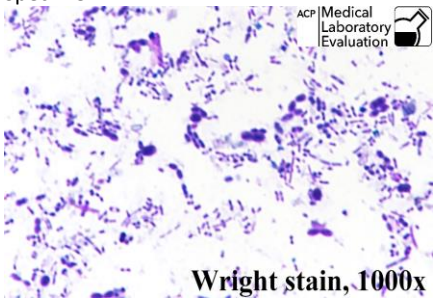
Identification	Labs	Percent	Performance
Eosinophils present	89	100%	Acceptable

Eosinophils are present in this photograph of Wright-stained nasal mucus. The orange color comes from the dye eosin, which is a component of Wright stain. This unique red-orange color makes "Eos" easy to spot and identify. To view another photo of eosinophils in a nasal smear, see 2018 M2 Specimen PPM-10.

PROVIDER-PERFORMED MICROSCOPY (PPM)

STOOL PREPARATION

Specimen PPM-17

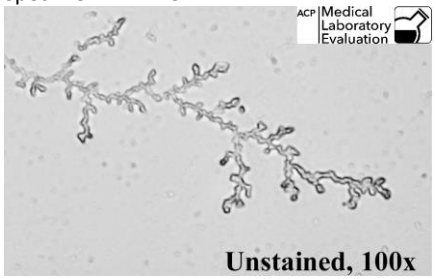


Identification	Labs	Percent	Performance
Leukocytes absent	129	86.58%	Acceptable
Leukocytes present	20	13.42%	

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

Vaginal Fluid Preparation

Specimen PPM-18



Identification	Labs	Percent	Performance
Ferning present	134	92.41%	Acceptable
Ferming absent	11	7.59%	

Ferning is present in this photograph of air-dried vaginal secretions. The fern test is used to test for ruptured membranes. 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. Ferning indicates leakage of amniotic fluid. To view another photo of a positive fern prep, see 2018 M1 Specimen PPM-6.

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