

MEDICAL LABORATORY EVALUATION

PARTICIPANT SUMMARY

2 • 0 • 1 • 9

Hematology, Coagulation,
Blood Bank, Urinalysis, PPM
2019 MLE-M1

**ACP | Medical Laboratory
Evaluation** 

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

Table of Contents

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

Table of Contents (cont'd)

Hematology (cont'd)

Hematology with 5-part Automated Differential (BCX Samples – Module 228)	38
White Blood Cell Count	38
Red Blood Cell Count	39
Hemoglobin	40
Hematocrit	41
Platelet Count	42
Automated Differential	43
Hematology with 5 or 6-part Automated Differential (MX Samples – Module 229)	48
White Blood Cell Count	48
Red Blood Cell Count	49
Hemoglobin	50
Hematocrit	50
Platelet Count	51
Automated Differential (including Immature Granulocytes)	52
Waived Hematology (HD Samples – Module 213)	75
Hemoglobin	75
Hematocrit	75
Blood Cell Identification	59

Blood Bank

ABO Group	64
Rh Factor (D Type)	64
Rh Factor (Slide Method)	68
Unexpected Antibody Detection	64
Antibody Identification	65
Compatibility Testing	65

Coagulation

Prothrombin Time	66
International Normalized Ratio (INR)	67
Activated Partial Thromboplastin Time	68
Fibrinogen	68
CoaguChek XS Plus Prothrombin Time	69
International Normalized Ratio (INR)	70
CoaguChek XS INR	70
i-Stat Prothrombin Time	71
International Normalized Ratio (INR)	71
Fluid Cell Count/Crystals	71
WBC Count	71
RBC Count	71
Crystal Identification	72

Table of Contents (cont'd)

Urinalysis

Microalbumin, Urine	74
Dipstick	74
Quantitative	74
Creatinine, Urine	74
Dipstick	74
Quantitative	74
Urinalysis Dipstick	76
Specific Gravity	76
pH	77
Protein.....	78
Glucose.....	80
Ketones.....	81
Bilirubin	82
Urobilinogen.....	83
Blood or Hemoglobin.....	84
Leukocyte Esterase.....	85
Nitrite.....	86
Microalbumin (Dipstick Only).....	87
Urine hCG	88
Fecal Occult Blood	89
KOH Skin Preparation	75
Urine Sediment Identification	90

Provider-Performed Microscopy (PPM)

Provider-Performed Microscopy (PPM)	92
--	----

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 \pm the intervals below. An explanation on how to calculate the range of acceptability based upon these limits is also provided in your MLE Program Guide on page 37 under the heading "Acceptable Ranges for Quantitative Results."

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

*Whichever is greater

HEMOCUE HEMATOLOGY–HEMOGLOBIN (g/dL)

<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>Specimen HQ-1</u>				<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>Specimen HQ-2</u>			
			<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>				<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
HemoCue	37	5.04	0.21	4.1	5.1	4.6 - 5.4	33	5.08	0.21	4.2	5.1	4.7 - 5.5	

HEMOCUE HEMATOLOGY–GLUCOSE (mg/dL)

<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>Specimen HQ-1</u>				<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>Specimen HQ-2</u>			
			<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>				<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	29	319.5	10.6	3.3	320	255 - 384	30	48.5	6.6	13.6	47	36 - 61	
All HemoCue Methods	29	319.5	10.6	3.3	320	255 - 384	30	48.5	6.6	13.6	47	36 - 61	
HemoCue Glucose 201/+	28	318.8	10.0	3.1	320	255 - 383	29	48.5	6.7	13.8	47	36 - 61	

SEDIMENTATION RATE (MM/HR)

<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>Specimen ES-1</u>				<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>Specimen ES-2</u>			
			<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>				<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	95	7.6	2.6	34.7	8	2 - 13	98	60.7	13.1	21.6	59	34 - 88	
All Automated Methods	26	8.1	4.2	51.6	7	0 - 17	26	75.8	11.2	14.8	74	53 - 99	
All Manual Methods	68	7.9	2.3	29.5	8	3 - 13	70	55.5	9.0	16.1	55	37 - 74	
All Vital Diagnostics Methods	14	6.6	1.2	18.6	7	4 - 10	14	76.6	10.8	14.1	74	55 - 99	
Westergren - diluted	58	7.6	2.6	33.7	8	2 - 13	59	55.7	9.1	16.3	56	37 - 74	

SEDIMAT SEDIMENTATION RATE (MM/HR)

<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>Specimen MAT-1</u>				<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>Specimen MAT-2</u>			
			<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>				<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
Polymedco Sedimat 15	12	2.0	0.6	30.2	2	0 - 4	12	54.8	6.3	11.6	57	42 - 68	

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

<u>Instrument</u>	Specimen CL-1						Specimen CL-2					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	15	2.79	0.24	8.7	2.9	2.3 - 3.3	15	19.18	1.18	6.2	19.1	16.3 - 22.1
All Abbott Cell-Dyn Instruments	13	2.84	0.10	3.4	2.9	2.4 - 3.3	13	19.14	0.30	1.6	19.1	16.2 - 22.1
Abbott Cell-Dyn Ruby	11	2.84	0.10	3.4	2.9	2.4 - 3.3	11	19.14	0.30	1.6	19.1	16.2 - 22.1
<u>Instrument</u>	Specimen CL-3						Specimen CL-4					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	15	7.36	0.51	6.9	7.5	6.2 - 8.5	15	19.11	1.17	6.1	18.9	16.2 - 22.0
All Abbott Cell-Dyn Instruments	13	7.47	0.18	2.4	7.5	6.3 - 8.6	13	19.01	0.31	1.6	18.9	16.1 - 21.9
Abbott Cell-Dyn Ruby	11	7.47	0.18	2.4	7.5	6.3 - 8.6	11	19.01	0.31	1.6	18.9	16.1 - 21.9
<u>Instrument</u>	Specimen CL-5											
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>						
All Method	15	7.29	0.48	6.6	7.3	6.1 - 8.4						
All Abbott Cell-Dyn Instruments	13	7.37	0.33	4.5	7.3	6.2 - 8.5						
Abbott Cell-Dyn Ruby	11	7.37	0.33	4.5	7.3	6.2 - 8.5						

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

<u>Instrument</u>	Specimen CL-1						Specimen CL-2					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	15	2.122	0.061	2.9	2.12	1.99 - 2.25	15	5.276	0.101	1.9	5.33	4.95 - 5.60
All Abbott Cell-Dyn Instruments	13	2.136	0.063	2.9	2.14	2.00 - 2.27	13	5.311	0.077	1.4	5.34	4.99 - 5.64
Abbott Cell-Dyn Ruby	11	2.136	0.063	2.9	2.14	2.00 - 2.27	11	5.311	0.077	1.4	5.34	4.99 - 5.64
<u>Instrument</u>	Specimen CL-3						Specimen CL-4					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	15	4.789	0.108	2.3	4.80	4.50 - 5.08	15	5.306	0.111	2.1	5.34	4.98 - 5.63
All Abbott Cell-Dyn Instruments	13	4.831	0.075	1.5	4.86	4.54 - 5.13	13	5.349	0.079	1.5	5.37	5.02 - 5.67
Abbott Cell-Dyn Ruby	11	4.831	0.075	1.5	4.86	4.54 - 5.13	11	5.349	0.079	1.5	5.37	5.02 - 5.67
<u>Instrument</u>	Specimen CL-5											
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>						
All Method	15	4.750	0.094	2.0	4.79	4.46 - 5.04						
All Abbott Cell-Dyn Instruments	13	4.784	0.073	1.5	4.81	4.49 - 5.08						
Abbott Cell-Dyn Ruby	11	4.784	0.073	1.5	4.81	4.49 - 5.08						

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

<u><i>Instrument</i></u>	Specimen CL-1						Specimen CL-2					
	<u><i>Labs</i></u>	<u><i>Mean</i></u>	<u><i>SD</i></u>	<u><i>CV</i></u>	<u><i>Median</i></u>	<u><i>Range</i></u>	<u><i>Labs</i></u>	<u><i>Mean</i></u>	<u><i>SD</i></u>	<u><i>CV</i></u>	<u><i>Median</i></u>	<u><i>Range</i></u>
All Method	15	5.70	0.16	2.8	5.8	5.3 - 6.1	15	16.40	0.42	2.6	16.5	15.2 - 17.6
All Abbott Cell-Dyn Instruments	13	5.69	0.17	2.9	5.7	5.2 - 6.1	13	16.49	0.33	2.0	16.5	15.3 - 17.7
Abbott Cell-Dyn Ruby	11	5.69	0.17	2.9	5.7	5.2 - 6.1	11	16.49	0.33	2.0	16.5	15.3 - 17.7
Specimen CL-3						Specimen CL-4						
All Method	15	13.46	0.45	3.4	13.7	12.5 - 14.4	15	16.41	0.43	2.6	16.6	15.2 - 17.6
All Abbott Cell-Dyn Instruments	13	13.57	0.25	1.8	13.7	12.6 - 14.6	13	16.50	0.35	2.1	16.6	15.3 - 17.7
Abbott Cell-Dyn Ruby	11	13.57	0.25	1.8	13.7	12.6 - 14.6	11	16.50	0.35	2.1	16.6	15.3 - 17.7
Specimen CL-5												
All Method	15	13.43	0.42	3.1	13.6	12.4 - 14.4						
All Abbott Cell-Dyn Instruments	13	13.53	0.26	1.9	13.6	12.5 - 14.5						
Abbott Cell-Dyn Ruby	11	13.53	0.26	1.9	13.6	12.5 - 14.5						

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

<u><i>Instrument</i></u>	Specimen CL-1						Specimen CL-2					
	<u><i>Labs</i></u>	<u><i>Mean</i></u>	<u><i>SD</i></u>	<u><i>CV</i></u>	<u><i>Median</i></u>	<u><i>Range</i></u>	<u><i>Labs</i></u>	<u><i>Mean</i></u>	<u><i>SD</i></u>	<u><i>CV</i></u>	<u><i>Median</i></u>	<u><i>Range</i></u>
All Method	15	15.59	0.92	5.9	15.4	14.6 - 16.6	15	45.16	2.30	5.1	44.7	42.4 - 47.9
All Abbott Cell-Dyn Instruments	13	15.21	0.42	2.7	15.3	14.3 - 16.2	13	44.14	0.77	1.7	44.3	41.4 - 46.8
Abbott Cell-Dyn Ruby	11	15.21	0.42	2.7	15.3	14.3 - 16.2	11	44.14	0.77	1.7	44.3	41.4 - 46.8
Specimen CL-3						Specimen CL-4						
All Method	15	39.06	1.63	4.2	38.6	36.7 - 41.4	15	45.41	2.13	4.7	44.8	42.6 - 48.2
All Abbott Cell-Dyn Instruments	13	38.40	0.69	1.8	38.3	36.0 - 40.8	13	44.46	0.59	1.3	44.7	41.7 - 47.2
Abbott Cell-Dyn Ruby	11	38.40	0.69	1.8	38.3	36.0 - 40.8	11	44.46	0.59	1.3	44.7	41.7 - 47.2
Specimen CL-5												
All Method	15	38.67	1.68	4.3	38.4	36.3 - 41.0						
All Abbott Cell-Dyn Instruments	13	37.96	0.63	1.7	38.3	35.6 - 40.3						
Abbott Cell-Dyn Ruby	11	37.96	0.63	1.7	38.3	35.6 - 40.3						

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

<u>Instrument</u>	Specimen CL-1						Specimen CL-2					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	15	78.3	11.0	14.0	74	58 - 98	15	473.6	26.4	5.6	472	355 - 592
All Abbott Cell-Dyn Instruments	13	73.9	2.8	3.8	74	55 - 93	13	469.4	23.3	5.0	472	352 - 587
Abbott Cell-Dyn Ruby	11	73.9	2.8	3.8	74	55 - 93	11	469.4	23.3	5.0	472	352 - 587
Specimen CL-3												
All Method	15	263.0	15.0	5.7	261	197 - 329	15	475.9	23.2	4.9	471	356 - 595
All Abbott Cell-Dyn Instruments	13	259.1	13.1	5.0	258	194 - 324	13	471.1	21.1	4.5	464	353 - 589
Abbott Cell-Dyn Ruby	11	259.1	13.1	5.0	258	194 - 324	11	471.1	21.1	4.5	464	353 - 589
Specimen CL-5												
All Method	15	263.2	15.5	5.9	258	197 - 330						
All Abbott Cell-Dyn Instruments	13	260.1	10.4	4.0	258	195 - 326						
Abbott Cell-Dyn Ruby	11	260.1	10.4	4.0	258	195 - 326						

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

<u>Instrument</u>	Specimen CL-1						Specimen CL-2					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	15	53.98	0.68	1.3	53.9	51.9 - 56.1	15	76.61	1.39	1.8	76.7	72.4 - 80.8
All Abbott Cell-Dyn Instruments	13	54.01	0.73	1.3	54.1	51.8 - 56.3	13	76.27	1.08	1.4	76.5	73.0 - 79.6
Abbott Cell-Dyn Ruby	11	54.01	0.73	1.3	54.1	51.8 - 56.3	11	76.27	1.08	1.4	76.5	73.0 - 79.6
Specimen CL-3												
All Method	15	67.80	1.29	1.9	67.4	63.9 - 71.7	15	76.20	1.91	2.5	76.9	70.4 - 82.0
All Abbott Cell-Dyn Instruments	13	67.59	1.23	1.8	67.3	63.8 - 71.3	13	75.91	1.87	2.5	76.8	70.2 - 81.6
Abbott Cell-Dyn Ruby	11	67.59	1.23	1.8	67.3	63.8 - 71.3	11	75.91	1.87	2.5	76.8	70.2 - 81.6
Specimen CL-5												
All Method	15	67.91	1.51	2.2	67.7	63.3 - 72.5						
All Abbott Cell-Dyn Instruments	13	67.77	1.57	2.3	67.5	63.0 - 72.5						
Abbott Cell-Dyn Ruby	11	67.77	1.57	2.3	67.5	63.0 - 72.5						

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

<u>Instrument</u>	Specimen CL-1						Specimen CL-2					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	15	35.56	1.45	4.1	36.2	31.2 - 40.0	14	16.20	1.09	6.7	16.1	12.9 - 19.5
All Abbott Cell-Dyn Instruments	13	35.44	1.52	4.3	36.1	30.8 - 40.1	12	16.37	1.09	6.7	16.3	13.0 - 19.7
Abbott Cell-Dyn Ruby	11	35.44	1.52	4.3	36.1	30.8 - 40.1	10	16.37	1.09	6.7	16.3	13.0 - 19.7
<u>Instrument</u>	Specimen CL-3						Specimen CL-4					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	15	23.88	1.39	5.8	24.0	19.6 - 28.1	15	16.51	1.15	7.0	16.3	13.0 - 20.0
All Abbott Cell-Dyn Instruments	13	23.97	1.48	6.2	24.1	19.5 - 28.4	13	16.57	1.23	7.4	16.5	12.8 - 20.3
Abbott Cell-Dyn Ruby	11	23.97	1.48	6.2	24.1	19.5 - 28.4	11	16.57	1.23	7.4	16.5	12.8 - 20.3
<u>Instrument</u>	Specimen CL-5											
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>						
All Method	15	23.13	2.48	10.7	23.5	15.6 - 30.6						
All Abbott Cell-Dyn Instruments	13	23.13	2.68	11.6	23.6	15.0 - 31.2						
Abbott Cell-Dyn Ruby	11	23.13	2.68	11.6	23.6	15.0 - 31.2						

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

<u>Instrument</u>	Specimen CL-1						Specimen CL-2					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	15	7.01	0.92	13.1	7.0	4.2 - 9.8	14	4.17	0.25	6.0	4.2	3.4 - 5.0
All Abbott Cell-Dyn Instruments	13	7.07	0.98	13.8	7.4	4.1 - 10.1	12	4.12	0.22	5.4	4.1	3.4 - 4.8
Abbott Cell-Dyn Ruby	11	7.07	0.98	13.8	7.4	4.1 - 10.1	10	4.12	0.22	5.4	4.1	3.4 - 4.8
<u>Instrument</u>	Specimen CL-3						Specimen CL-4					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	15	5.48	0.83	15.2	5.4	2.9 - 8.0	15	4.04	0.48	12.0	4.2	2.5 - 5.5
All Abbott Cell-Dyn Instruments	13	5.46	0.90	16.5	5.1	2.7 - 8.2	13	4.01	0.52	12.9	4.1	2.4 - 5.6
Abbott Cell-Dyn Ruby	11	5.46	0.90	16.5	5.1	2.7 - 8.2	11	4.01	0.52	12.9	4.1	2.4 - 5.6
<u>Instrument</u>	Specimen CL-5											
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>						
All Method	15	5.85	0.86	14.7	5.9	3.2 - 8.5						
All Abbott Cell-Dyn Instruments	13	5.87	0.93	15.8	6.0	3.0 - 8.7						
Abbott Cell-Dyn Ruby	11	5.87	0.93	15.8	6.0	3.0 - 8.7						

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

<u><i>Instrument</i></u>	Specimen CL-1						Specimen CL-2					
	<u><i>Labs</i></u>	<u><i>Mean</i></u>	<u><i>SD</i></u>	<u><i>CV</i></u>	<u><i>Median</i></u>	<u><i>Range</i></u>	<u><i>Labs</i></u>	<u><i>Mean</i></u>	<u><i>SD</i></u>	<u><i>CV</i></u>	<u><i>Median</i></u>	<u><i>Range</i></u>
All Method	15	2.95	0.55	18.7	3.1	1.2 - 4.7	15	2.59	0.78	30.0	2.9	0.2 - 5.0
All Abbott Cell-Dyn Instruments	13	3.13	0.24	7.5	3.1	2.4 - 3.9	13	2.86	0.15	5.3	2.9	2.4 - 3.4
Abbott Cell-Dyn Ruby	11	3.13	0.24	7.5	3.1	2.4 - 3.9	11	2.86	0.15	5.3	2.9	2.4 - 3.4
Specimen CL-3						Specimen CL-4						
All Method	15	2.68	0.59	22.0	2.8	0.9 - 4.5	15	2.60	0.67	25.7	2.9	0.5 - 4.7
All Abbott Cell-Dyn Instruments	13	2.87	0.21	7.4	2.8	2.2 - 3.6	13	2.83	0.18	6.4	2.9	2.2 - 3.4
Abbott Cell-Dyn Ruby	11	2.87	0.21	7.4	2.8	2.2 - 3.6	11	2.83	0.18	6.4	2.9	2.2 - 3.4
Specimen CL-5												
All Method	15	2.78	0.67	24.0	3.0	0.7 - 4.8						
All Abbott Cell-Dyn Instruments	13	3.00	0.22	7.2	3.0	2.3 - 3.7						
Abbott Cell-Dyn Ruby	11	3.00	0.22	7.2	3.0	2.3 - 3.7						

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

<u><i>Instrument</i></u>	Specimen CL-1						Specimen CL-2					
	<u><i>Labs</i></u>	<u><i>Mean</i></u>	<u><i>SD</i></u>	<u><i>CV</i></u>	<u><i>Median</i></u>	<u><i>Range</i></u>	<u><i>Labs</i></u>	<u><i>Mean</i></u>	<u><i>SD</i></u>	<u><i>CV</i></u>	<u><i>Median</i></u>	<u><i>Range</i></u>
All Method	15	0.50	0.47	94.4	0.4	0.0 - 2.0	15	0.56	1.00	177.5	0.2	0.0 - 3.6
All Abbott Cell-Dyn Instruments	13	0.34	0.17	50.1	0.4	0.0 - 0.9	13	0.56	1.08	193.6	0.2	0.0 - 3.8
Abbott Cell-Dyn Ruby	11	0.34	0.17	50.1	0.4	0.0 - 0.9	11	0.56	1.08	193.6	0.2	0.0 - 3.8
Specimen CL-3						Specimen CL-4						
All Method	15	0.11	0.20	180.5	0.1	0.0 - 0.8	15	0.65	1.09	167.7	0.3	0.0 - 4.0
All Abbott Cell-Dyn Instruments	13	0.04	0.05	124.7	0.0	0.0 - 0.3	13	0.67	1.18	175.1	0.3	0.0 - 4.2
Abbott Cell-Dyn Ruby	11	0.04	0.05	124.7	0.0	0.0 - 0.3	11	0.67	1.18	175.1	0.3	0.0 - 4.2
Specimen CL-5												
All Method	15	0.33	0.35	107.5	0.3	0.0 - 1.4						
All Abbott Cell-Dyn Instruments	13	0.21	0.17	78.2	0.2	0.0 - 0.8						
Abbott Cell-Dyn Ruby	11	0.21	0.17	78.2	0.2	0.0 - 0.8						

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

<i><u>Instrument</u></i>	Specimen SYX-1						Specimen SYX-2					
	<i><u>Labs</u></i>	<i><u>Mean</u></i>	<i><u>SD</u></i>	<i><u>CV</u></i>	<i><u>Median</u></i>	<i><u>Range</u></i>	<i><u>Labs</u></i>	<i><u>Mean</u></i>	<i><u>SD</u></i>	<i><u>CV</u></i>	<i><u>Median</u></i>	<i><u>Range</u></i>
All Method	79	2.80	0.11	3.8	2.8	2.3 - 3.3	81	20.39	0.73	3.6	20.4	17.3 - 23.5
All Sysmex Instruments	77	2.80	0.11	3.8	2.8	2.3 - 3.3	79	20.39	0.73	3.6	20.4	17.3 - 23.5
Sysmex KX-21N & K-800, 1000, 4500	27	2.73	0.11	4.2	2.7	2.3 - 3.2	28	19.86	0.64	3.2	19.9	16.8 - 22.9
Sysmex pocH-100i	11	2.75	0.08	3.0	2.8	2.3 - 3.2	11	20.10	0.23	1.2	20.1	17.0 - 23.2
Sysmex XP-300	40	2.85	0.10	3.5	2.9	2.4 - 3.3	38	20.94	0.36	1.7	21.0	17.7 - 24.1
<i><u>Instrument</u></i>	Specimen SYX-3						Specimen SYX-4					
	<i><u>Labs</u></i>	<i><u>Mean</u></i>	<i><u>SD</u></i>	<i><u>CV</u></i>	<i><u>Median</u></i>	<i><u>Range</u></i>	<i><u>Labs</u></i>	<i><u>Mean</u></i>	<i><u>SD</u></i>	<i><u>CV</u></i>	<i><u>Median</u></i>	<i><u>Range</u></i>
All Method	81	8.41	0.31	3.7	8.4	7.1 - 9.7	80	20.41	0.69	3.4	20.4	17.3 - 23.5
All Sysmex Instruments	79	8.41	0.31	3.7	8.4	7.1 - 9.7	78	20.40	0.69	3.4	20.4	17.3 - 23.5
Sysmex KX-21N & K-800, 1000, 4500	27	8.14	0.15	1.8	8.1	6.9 - 9.4	28	19.95	0.48	2.4	20.0	16.9 - 23.0
Sysmex pocH-100i	11	8.23	0.18	2.2	8.3	6.9 - 9.5	11	20.07	0.33	1.6	20.1	17.0 - 23.1
Sysmex XP-300	38	8.66	0.19	2.2	8.7	7.3 - 10.0	38	20.87	0.52	2.5	21.0	17.7 - 24.1
<i><u>Instrument</u></i>	Specimen SYX-5											
	<i><u>Labs</u></i>	<i><u>Mean</u></i>	<i><u>SD</u></i>	<i><u>CV</u></i>	<i><u>Median</u></i>	<i><u>Range</u></i>						
All Method	81	8.43	0.30	3.6	8.4	7.1 - 9.7						
All Sysmex Instruments	79	8.43	0.30	3.6	8.4	7.1 - 9.7						
Sysmex KX-21N & K-800, 1000, 4500	27	8.17	0.14	1.7	8.2	6.9 - 9.5						
Sysmex pocH-100i	11	8.26	0.17	2.1	8.2	7.0 - 9.6						
Sysmex XP-300	39	8.66	0.19	2.2	8.7	7.3 - 10.0						

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

<i><u>Instrument</u></i>	Specimen SYX-1						Specimen SYX-2					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	81	2.462	0.037	1.5	2.46	2.31 - 2.62	79	5.686	0.075	1.3	5.68	5.34 - 6.03
All Sysmex Instruments	79	2.462	0.036	1.5	2.46	2.31 - 2.62	77	5.686	0.076	1.3	5.69	5.34 - 6.03
Sysmex KX-21N & K-800, 1000, 4500	28	2.464	0.033	1.3	2.46	2.31 - 2.62	28	5.716	0.085	1.5	5.71	5.37 - 6.06
Sysmex pocH-100i	11	2.495	0.045	1.8	2.50	2.34 - 2.65	11	5.753	0.101	1.7	5.75	5.40 - 6.10
Sysmex XP-300	40	2.452	0.031	1.3	2.45	2.30 - 2.60	39	5.654	0.054	1.0	5.65	5.31 - 6.00
Specimen SYX-3							Specimen SYX-4					
All Method	80	4.226	0.054	1.3	4.23	3.97 - 4.48	80	5.685	0.073	1.3	5.68	5.34 - 6.03
All Sysmex Instruments	78	4.226	0.054	1.3	4.23	3.97 - 4.48	78	5.684	0.072	1.3	5.68	5.34 - 6.03
Sysmex KX-21N & K-800, 1000, 4500	27	4.226	0.047	1.1	4.22	3.97 - 4.48	28	5.715	0.072	1.3	5.72	5.37 - 6.06
Sysmex pocH-100i	11	4.303	0.050	1.2	4.30	4.04 - 4.57	11	5.725	0.085	1.5	5.74	5.38 - 6.07
Sysmex XP-300	40	4.206	0.041	1.0	4.20	3.95 - 4.46	39	5.651	0.052	0.9	5.65	5.31 - 6.00
Specimen SYX-5												
All Method	80	4.229	0.052	1.2	4.23	3.97 - 4.49						
All Sysmex Instruments	78	4.230	0.052	1.2	4.23	3.97 - 4.49						
Sysmex KX-21N & K-800, 1000, 4500	27	4.236	0.042	1.0	4.23	3.98 - 4.50						
Sysmex pocH-100i	11	4.280	0.064	1.5	4.29	4.02 - 4.54						
Sysmex XP-300	40	4.213	0.046	1.1	4.22	3.95 - 4.47						

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

<u><i>Instrument</i></u>	Specimen SYX-1						Specimen SYX-2					
	<u><i>Labs</i></u>	<u><i>Mean</i></u>	<u><i>SD</i></u>	<u><i>CV</i></u>	<u><i>Median</i></u>	<u><i>Range</i></u>	<u><i>Labs</i></u>	<u><i>Mean</i></u>	<u><i>SD</i></u>	<u><i>CV</i></u>	<u><i>Median</i></u>	<u><i>Range</i></u>
All Method	80	6.10	0.13	2.2	6.1	5.6 - 6.6	81	17.99	0.26	1.4	18.0	16.7 - 19.3
All Sysmex Instruments	78	6.09	0.13	2.1	6.1	5.6 - 6.6	79	17.99	0.26	1.4	18.0	16.7 - 19.3
Sysmex KX-21N & K-800, 1000, 4500	28	6.08	0.14	2.2	6.1	5.6 - 6.6	28	17.93	0.27	1.5	18.0	16.6 - 19.2
Sysmex pocH-100i	11	6.25	0.14	2.2	6.2	5.8 - 6.7	11	18.16	0.22	1.2	18.2	16.8 - 19.5
Sysmex XP-300	40	6.07	0.12	1.9	6.1	5.6 - 6.5	40	17.99	0.25	1.4	18.0	16.7 - 19.3
	Specimen SYX-3						Specimen SYX-4					
All Method	79	12.10	0.14	1.2	12.1	11.2 - 13.0	79	17.99	0.26	1.5	18.0	16.7 - 19.3
All Sysmex Instruments	77	12.10	0.14	1.2	12.1	11.2 - 13.0	78	17.99	0.26	1.5	18.0	16.7 - 19.3
Sysmex KX-21N & K-800, 1000, 4500	28	12.06	0.17	1.4	12.1	11.2 - 13.0	28	17.97	0.22	1.2	18.0	16.7 - 19.3
Sysmex pocH-100i	11	12.11	0.12	1.0	12.1	11.2 - 13.0	11	18.13	0.35	1.9	18.2	16.8 - 19.4
Sysmex XP-300	39	12.11	0.14	1.2	12.1	11.2 - 13.0	39	17.97	0.26	1.4	18.0	16.7 - 19.3
	Specimen SYX-5											
All Method	80	12.11	0.14	1.1	12.1	11.2 - 13.0						
All Sysmex Instruments	78	12.12	0.13	1.1	12.1	11.2 - 13.0						
Sysmex KX-21N & K-800, 1000, 4500	28	12.08	0.14	1.2	12.1	11.2 - 13.0						
Sysmex pocH-100i	11	12.12	0.13	1.0	12.1	11.2 - 13.0						
Sysmex XP-300	39	12.14	0.13	1.1	12.1	11.2 - 13.0						

SYSMEX HEMATOLOGY W/ AUTOMATED DIFFERENTIAL–HEMATOCRIT (percent)

<u>Instrument</u>	<u>Specimen SYX-1</u>						<u>Specimen SYX-2</u>					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	81	17.92	0.47	2.6	17.8	16.8 - 19.0	81	49.78	1.16	2.3	49.5	46.7 - 52.8
All Sysmex Instruments	79	17.92	0.48	2.7	17.8	16.8 - 19.0	79	49.79	1.18	2.4	49.6	46.7 - 52.8
Sysmex KX-21N & K-800, 1000, 4500	28	17.72	0.43	2.4	17.7	16.6 - 18.8	27	49.46	0.90	1.8	49.5	46.4 - 52.5
Sysmex pocH-100i	11	18.63	0.51	2.7	18.7	17.5 - 19.8	11	51.48	1.40	2.7	51.9	48.3 - 54.6
Sysmex XP-300	40	17.87	0.30	1.7	17.8	16.7 - 19.0	40	49.46	0.69	1.4	49.4	46.4 - 52.5
<u>Specimen SYX-3</u>												
All Method	81	33.49	0.86	2.6	33.3	31.4 - 35.5	80	49.77	1.10	2.2	49.6	46.7 - 52.8
All Sysmex Instruments	79	33.49	0.88	2.6	33.3	31.4 - 35.5	78	49.76	1.11	2.2	49.6	46.7 - 52.8
Sysmex KX-21N & K-800, 1000, 4500	27	33.11	0.62	1.9	33.1	31.1 - 35.1	28	49.64	0.99	2.0	49.6	46.6 - 52.7
Sysmex pocH-100i	11	34.95	0.85	2.4	35.4	32.8 - 37.1	11	51.18	1.43	2.8	51.6	48.1 - 54.3
Sysmex XP-300	40	33.29	0.49	1.5	33.3	31.2 - 35.3	39	49.45	0.74	1.5	49.5	46.4 - 52.5
<u>Specimen SYX-4</u>												
All Method	81	33.51	0.86	2.6	33.4	31.4 - 35.6						
All Sysmex Instruments	79	33.52	0.86	2.6	33.4	31.5 - 35.6						
Sysmex KX-21N & K-800, 1000, 4500	26	33.10	0.51	1.5	33.2	31.1 - 35.1						
Sysmex pocH-100i	11	34.75	0.92	2.6	34.9	32.6 - 36.9						
Sysmex XP-300	40	33.34	0.50	1.5	33.4	31.3 - 35.4						
<u>Specimen SYX-5</u>												

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

<u><i>Instrument</i></u>	Specimen SYX-1						Specimen SYX-2					
	<u><i>Labs</i></u>	<u><i>Mean</i></u>	<u><i>SD</i></u>	<u><i>CV</i></u>	<u><i>Median</i></u>	<u><i>Range</i></u>	<u><i>Labs</i></u>	<u><i>Mean</i></u>	<u><i>SD</i></u>	<u><i>CV</i></u>	<u><i>Median</i></u>	<u><i>Range</i></u>
All Method	79	61.3	3.6	5.9	62	45 - 77	81	383.2	18.6	4.9	386	287 - 479
All Sysmex Instruments	77	61.3	3.6	5.9	62	45 - 77	79	383.1	18.9	4.9	386	287 - 479
Sysmex KX-21N & K-800, 1000, 4500	27	62.4	3.1	4.9	62	46 - 78	28	385.4	19.7	5.1	388	289 - 482
Sysmex pocH-100i	11	62.7	6.8	10.8	62	47 - 79	11	361.9	17.5	4.8	358	271 - 453
Sysmex XP-300	40	60.6	3.5	5.7	62	45 - 76	40	387.4	14.7	3.8	388	290 - 485
	Specimen SYX-3						Specimen SYX-4					
All Method	81	196.9	8.0	4.1	197	147 - 247	79	385.2	17.6	4.6	385	288 - 482
All Sysmex Instruments	79	197.0	8.1	4.1	197	147 - 247	77	385.2	17.8	4.6	385	288 - 482
Sysmex KX-21N & K-800, 1000, 4500	28	198.3	7.8	3.9	199	148 - 248	27	388.0	15.6	4.0	387	291 - 485
Sysmex pocH-100i	11	192.5	8.7	4.5	191	144 - 241	11	363.9	15.7	4.3	366	272 - 455
Sysmex XP-300	40	197.4	7.9	4.0	197	148 - 247	39	389.2	15.8	4.1	385	291 - 487
	Specimen SYX-5											
All Method	81	197.8	8.5	4.3	198	148 - 248						
All Sysmex Instruments	79	197.7	8.6	4.4	198	148 - 248						
Sysmex KX-21N & K-800, 1000, 4500	28	199.2	8.4	4.2	199	149 - 249						
Sysmex pocH-100i	11	189.6	8.7	4.6	186	142 - 238						
Sysmex XP-300	40	199.0	7.7	3.8	199	149 - 249						

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

<u><i>Instrument</i></u>	Specimen SYX-1						Specimen SYX-2					
	<u><i>Labs</i></u>	<u><i>Mean</i></u>	<u><i>SD</i></u>	<u><i>CV</i></u>	<u><i>Median</i></u>	<u><i>Range</i></u>	<u><i>Labs</i></u>	<u><i>Mean</i></u>	<u><i>SD</i></u>	<u><i>CV</i></u>	<u><i>Median</i></u>	<u><i>Range</i></u>
All Method	72	12.98	1.15	8.9	13.0	9.5 - 16.5	69	61.77	0.65	1.1	61.8	59.8 - 63.8
All Sysmex Instruments	70	12.99	1.15	8.8	13.0	9.5 - 16.5	67	61.75	0.64	1.0	61.8	59.8 - 63.7
Sysmex KX-21N & K-800, 1000, 4500	26	13.15	0.59	4.5	13.1	11.3 - 15.0	26	61.65	0.97	1.6	61.8	58.7 - 64.6
Sysmex XP-300	35	13.33	1.15	8.6	13.4	9.8 - 16.8	35	61.61	0.55	0.9	61.6	59.9 - 63.3
<u><i>Instrument</i></u>	Specimen SYX-3						Specimen SYX-4					
	<u><i>Labs</i></u>	<u><i>Mean</i></u>	<u><i>SD</i></u>	<u><i>CV</i></u>	<u><i>Median</i></u>	<u><i>Range</i></u>	<u><i>Labs</i></u>	<u><i>Mean</i></u>	<u><i>SD</i></u>	<u><i>CV</i></u>	<u><i>Median</i></u>	<u><i>Range</i></u>
All Method	72	29.88	0.93	3.1	29.8	27.0 - 32.7	70	61.60	0.77	1.3	61.7	59.2 - 64.0
All Sysmex Instruments	70	29.87	0.94	3.1	29.8	27.0 - 32.7	68	61.60	0.77	1.3	61.7	59.2 - 64.0
Sysmex KX-21N & K-800, 1000, 4500	26	29.94	0.96	3.2	30.1	27.0 - 32.9	25	61.76	0.66	1.1	61.9	59.7 - 63.8
Sysmex XP-300	35	30.04	0.86	2.9	29.9	27.4 - 32.7	34	61.59	0.71	1.2	61.6	59.4 - 63.8
<u><i>Instrument</i></u>	Specimen SYX-5											
	<u><i>Labs</i></u>	<u><i>Mean</i></u>	<u><i>SD</i></u>	<u><i>CV</i></u>	<u><i>Median</i></u>	<u><i>Range</i></u>						
All Method	72	29.72	0.89	3.0	29.8	27.0 - 32.5						
All Sysmex Instruments	70	29.72	0.91	3.0	29.8	27.0 - 32.5						
Sysmex KX-21N & K-800, 1000, 4500	26	29.71	0.80	2.7	29.7	27.3 - 32.2						
Sysmex XP-300	35	29.94	0.92	3.1	30.1	27.1 - 32.8						

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

<u>Instrument</u>	Specimen SYX-1						Specimen SYX-2					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	70	17.24	1.46	8.5	17.2	12.8 - 21.7	69	12.86	0.65	5.0	12.9	10.9 - 14.9
All Sysmex Instruments	68	17.19	1.45	8.5	17.2	12.8 - 21.6	67	12.88	0.65	5.0	12.9	10.9 - 14.9
Sysmex KX-21N & K-800, 1000, 4500	25	17.46	0.97	5.6	17.5	14.5 - 20.4	25	12.93	0.76	5.9	12.8	10.6 - 15.3
Sysmex XP-300	34	17.46	1.57	9.0	17.5	12.7 - 22.2	34	13.07	0.54	4.2	13.1	11.4 - 14.7
	Specimen SYX-3						Specimen SYX-4					
All Method	70	14.99	0.97	6.5	14.9	12.0 - 18.0	69	12.85	0.85	6.6	12.8	10.3 - 15.4
All Sysmex Instruments	68	15.00	0.99	6.6	14.9	12.0 - 18.0	67	12.84	0.86	6.7	12.8	10.2 - 15.5
Sysmex KX-21N & K-800, 1000, 4500	25	14.88	0.67	4.5	14.9	12.8 - 17.0	25	12.69	0.72	5.7	12.6	10.5 - 14.9
Sysmex XP-300	34	15.37	1.04	6.7	15.1	12.2 - 18.5	33	13.26	0.60	4.6	13.1	11.4 - 15.1
	Specimen SYX-5											
All Method	69	15.09	0.83	5.5	15.1	12.5 - 17.6						
All Sysmex Instruments	67	15.06	0.83	5.5	15.0	12.5 - 17.6						
Sysmex KX-21N & K-800, 1000, 4500	25	15.12	0.62	4.1	15.1	13.2 - 17.0						
Sysmex XP-300	34	15.19	0.90	5.9	15.1	12.4 - 17.9						

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

<u><i>Instrument</i></u>	Specimen SYX-1						Specimen SYX-2					
	<u><i>Labs</i></u>	<u><i>Mean</i></u>	<u><i>SD</i></u>	<u><i>CV</i></u>	<u><i>Median</i></u>	<u><i>Range</i></u>	<u><i>Labs</i></u>	<u><i>Mean</i></u>	<u><i>SD</i></u>	<u><i>CV</i></u>	<u><i>Median</i></u>	<u><i>Range</i></u>
All Method	71	69.78	1.86	2.7	69.7	64.1 - 75.4	70	25.38	0.66	2.6	25.3	23.4 - 27.4
All Sysmex Instruments	69	69.81	1.87	2.7	69.7	64.1 - 75.5	68	25.39	0.67	2.6	25.4	23.3 - 27.4
Sysmex KX-21N & K-800, 1000, 4500	25	69.34	1.11	1.6	69.5	66.0 - 72.7	25	25.27	0.58	2.3	25.3	23.5 - 27.1
Sysmex XP-300	35	69.24	1.40	2.0	69.4	65.0 - 73.5	35	25.36	0.67	2.6	25.3	23.3 - 27.4
	Specimen SYX-3						Specimen SYX-4					
All Method	71	55.15	1.27	2.3	55.0	51.3 - 59.0	70	25.56	0.95	3.7	25.5	22.7 - 28.5
All Sysmex Instruments	69	55.15	1.28	2.3	55.0	51.2 - 59.1	68	25.57	0.96	3.8	25.5	22.6 - 28.5
Sysmex KX-21N & K-800, 1000, 4500	25	55.18	0.80	1.4	55.0	52.7 - 57.6	25	25.55	0.63	2.4	25.6	23.6 - 27.5
Sysmex XP-300	35	54.63	1.17	2.1	54.5	51.1 - 58.2	34	25.19	0.67	2.7	25.2	23.1 - 27.2
	Specimen SYX-5											
All Method	70	55.25	1.19	2.2	55.1	51.6 - 58.9						
All Sysmex Instruments	68	55.28	1.19	2.2	55.1	51.6 - 58.9						
Sysmex KX-21N & K-800, 1000, 4500	25	55.18	1.03	1.9	55.1	52.0 - 58.3						
Sysmex XP-300	34	54.87	0.93	1.7	55.0	52.0 - 57.7						

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

<u>Instrument</u>	Specimen HD-1						Specimen HD-2					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	451	2.08	0.13	6.4	2.1	1.7 - 2.4	446	20.51	0.71	3.5	20.6	17.4 - 23.6
All Abbott Cell-Dyn Instruments	112	2.11	0.13	6.0	2.1	1.7 - 2.5	114	20.05	1.08	5.4	20.0	17.0 - 23.1
All ABX Instruments	70	2.08	0.08	3.9	2.1	1.7 - 2.4	71	20.45	0.57	2.8	20.5	17.3 - 23.6
All Boule (CDS) Instruments	135	1.97	0.08	4.3	2.0	1.6 - 2.3	134	20.71	0.53	2.5	20.7	17.6 - 23.9
All COULTER Instruments	118	2.17	0.12	5.5	2.2	1.8 - 2.5	117	20.76	0.54	2.6	20.7	17.6 - 23.9
Abbott Cell-Dyn 1700	15	2.24	0.06	2.8	2.2	1.9 - 2.6	15	21.20	1.08	5.1	21.2	18.0 - 24.4
Abbott Cell-Dyn 1800	24	2.02	0.12	6.1	2.0	1.7 - 2.4	25	20.48	0.69	3.4	20.5	17.4 - 23.6
Abbott Cell-Dyn Emerald	73	2.12	0.11	5.3	2.1	1.7 - 2.5	74	19.67	0.97	4.9	19.6	16.7 - 22.7
Boule (CDS) Medonic M series	129	1.97	0.08	4.1	2.0	1.6 - 2.3	127	20.68	0.47	2.3	20.7	17.5 - 23.8
COULTER AcT diff/diff 2	112	2.17	0.12	5.5	2.2	1.8 - 2.5	111	20.72	0.50	2.4	20.6	17.6 - 23.9
Horiba ABX Micros/45/60	70	2.08	0.08	3.9	2.1	1.7 - 2.4	71	20.45	0.57	2.8	20.5	17.3 - 23.6
	Specimen HD-3						Specimen HD-4					
All Method	448	8.01	0.29	3.6	8.0	6.8 - 9.3	448	20.56	0.74	3.6	20.6	17.4 - 23.7
All Abbott Cell-Dyn Instruments	113	8.04	0.41	5.1	8.0	6.8 - 9.3	114	20.10	1.09	5.4	20.0	17.0 - 23.2
All ABX Instruments	68	7.97	0.19	2.3	8.0	6.7 - 9.2	67	20.44	0.48	2.4	20.5	17.3 - 23.6
All Boule (CDS) Instruments	135	7.90	0.24	3.1	7.9	6.7 - 9.1	133	20.68	0.49	2.4	20.7	17.5 - 23.8
All COULTER Instruments	117	8.15	0.22	2.7	8.1	6.9 - 9.4	118	20.90	0.52	2.5	20.9	17.7 - 24.1
Abbott Cell-Dyn 1700	15	8.64	0.31	3.6	8.6	7.3 - 10.0	15	21.47	1.12	5.2	21.5	18.2 - 24.7
Abbott Cell-Dyn 1800	25	7.97	0.28	3.6	7.9	6.7 - 9.2	25	20.62	0.59	2.9	20.5	17.5 - 23.8
Abbott Cell-Dyn Emerald	73	7.94	0.35	4.5	7.9	6.7 - 9.2	74	19.67	0.96	4.9	19.6	16.7 - 22.7
Boule (CDS) Medonic M series	129	7.89	0.23	2.9	7.9	6.7 - 9.1	127	20.65	0.47	2.3	20.7	17.5 - 23.8
COULTER AcT diff/diff 2	112	8.15	0.22	2.7	8.1	6.9 - 9.4	111	20.84	0.46	2.2	20.8	17.7 - 24.0
Horiba ABX Micros/45/60	68	7.97	0.19	2.3	8.0	6.7 - 9.2	67	20.44	0.48	2.4	20.5	17.3 - 23.6

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

Specimen HD-5

<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	446	8.04	0.31	3.8	8.0	6.8 - 9.3
All Abbott Cell-Dyn Instruments	113	8.01	0.44	5.5	8.0	6.8 - 9.3
All ABX Instruments	71	7.98	0.25	3.1	8.0	6.7 - 9.2
All Boule (CDS) Instruments	133	7.91	0.24	3.0	7.9	6.7 - 9.1
All COULTER Instruments	116	8.21	0.23	2.8	8.2	6.9 - 9.5
Abbott Cell-Dyn 1700	15	8.67	0.35	4.0	8.6	7.3 - 10.0
Abbott Cell-Dyn 1800	25	7.98	0.44	5.6	8.1	6.7 - 9.2
Abbott Cell-Dyn Emerald	73	7.93	0.35	4.4	7.9	6.7 - 9.2
Boule (CDS) Medonic M series	129	7.90	0.23	2.9	7.9	6.7 - 9.1
COULTER AcT diff/diff 2	111	8.22	0.23	2.9	8.2	6.9 - 9.5
Horiba ABX Micros/45/60	71	7.98	0.25	3.1	8.0	6.7 - 9.2

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

Specimen HD-1

<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	451	2.377	0.064	2.7	2.37	2.23 - 2.52
All Abbott Cell-Dyn Instruments	113	2.371	0.082	3.5	2.36	2.22 - 2.52
All ABX Instruments	71	2.361	0.050	2.1	2.35	2.21 - 2.51
All Boule (CDS) Instruments	133	2.364	0.044	1.9	2.36	2.22 - 2.51
All COULTER Instruments	120	2.406	0.066	2.7	2.41	2.26 - 2.56
Abbott Cell-Dyn 1700	15	2.389	0.075	3.1	2.41	2.24 - 2.54
Abbott Cell-Dyn 1800	25	2.418	0.094	3.9	2.44	2.27 - 2.57
Abbott Cell-Dyn Emerald	73	2.350	0.072	3.1	2.35	2.20 - 2.50
Boule (CDS) Medonic M series	127	2.362	0.043	1.8	2.36	2.22 - 2.51
COULTER AcT diff/diff 2	114	2.408	0.067	2.8	2.41	2.26 - 2.56
Horiba ABX Micros/45/60	71	2.361	0.050	2.1	2.35	2.21 - 2.51

Specimen HD-2

<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
447	5.658	0.151	2.7	5.67	5.31 - 6.00
112	5.503	0.146	2.7	5.51	5.17 - 5.84
70	5.655	0.107	1.9	5.64	5.31 - 6.00
132	5.776	0.092	1.6	5.78	5.42 - 6.13
119	5.677	0.117	2.1	5.69	5.33 - 6.02
15	5.563	0.124	2.2	5.56	5.22 - 5.90
24	5.528	0.120	2.2	5.53	5.19 - 5.87
73	5.483	0.155	2.8	5.49	5.15 - 5.82
126	5.777	0.092	1.6	5.78	5.43 - 6.13
113	5.679	0.118	2.1	5.70	5.33 - 6.02
70	5.655	0.107	1.9	5.64	5.31 - 6.00

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

<u><i>Instrument</i></u>	Specimen HD-3						Specimen HD-4					
	<u><i>Labs</i></u>	<u><i>Mean</i></u>	<u><i>SD</i></u>	<u><i>CV</i></u>	<u><i>Median</i></u>	<u><i>Range</i></u>	<u><i>Labs</i></u>	<u><i>Mean</i></u>	<u><i>SD</i></u>	<u><i>CV</i></u>	<u><i>Median</i></u>	<u><i>Range</i></u>
All Method	449	4.658	0.107	2.3	4.67	4.37 - 4.94	447	5.667	0.150	2.6	5.69	5.32 - 6.01
All Abbott Cell-Dyn Instruments	111	4.578	0.133	2.9	4.59	4.30 - 4.86	109	5.509	0.123	2.2	5.49	5.17 - 5.84
All ABX Instruments	71	4.631	0.081	1.7	4.62	4.35 - 4.91	68	5.655	0.105	1.9	5.66	5.31 - 6.00
All Boule (CDS) Instruments	134	4.694	0.071	1.5	4.70	4.41 - 4.98	133	5.777	0.090	1.6	5.78	5.43 - 6.13
All COULTER Instruments	120	4.699	0.101	2.1	4.71	4.41 - 4.99	119	5.692	0.119	2.1	5.70	5.35 - 6.04
Abbott Cell-Dyn 1700	15	4.670	0.100	2.1	4.66	4.38 - 4.96	15	5.611	0.105	1.9	5.63	5.27 - 5.95
Abbott Cell-Dyn 1800	24	4.628	0.093	2.0	4.64	4.34 - 4.91	24	5.490	0.102	1.9	5.49	5.16 - 5.82
Abbott Cell-Dyn Emerald	73	4.536	0.146	3.2	4.53	4.26 - 4.81	73	5.488	0.152	2.8	5.47	5.15 - 5.82
Boule (CDS) Medonic M series	128	4.694	0.070	1.5	4.70	4.41 - 4.98	127	5.778	0.091	1.6	5.78	5.43 - 6.13
COULTER AcT diff/diff 2	114	4.699	0.102	2.2	4.72	4.41 - 4.99	114	5.687	0.128	2.2	5.70	5.34 - 6.03
Horiba ABX Micros/45/60	71	4.631	0.081	1.7	4.62	4.35 - 4.91	68	5.655	0.105	1.9	5.66	5.31 - 6.00
Specimen HD-5												
All Method	446	4.661	0.110	2.4	4.67	4.38 - 4.95						
All Abbott Cell-Dyn Instruments	112	4.569	0.157	3.4	4.59	4.29 - 4.85						
All ABX Instruments	71	4.634	0.080	1.7	4.64	4.35 - 4.92						
All Boule (CDS) Instruments	133	4.699	0.070	1.5	4.69	4.41 - 4.99						
All COULTER Instruments	118	4.704	0.100	2.1	4.70	4.42 - 4.99						
Abbott Cell-Dyn 1700	15	4.676	0.121	2.6	4.67	4.39 - 4.96						
Abbott Cell-Dyn 1800	25	4.583	0.210	4.6	4.64	4.30 - 4.86						
Abbott Cell-Dyn Emerald	73	4.534	0.147	3.2	4.53	4.26 - 4.81						
Boule (CDS) Medonic M series	127	4.697	0.069	1.5	4.69	4.41 - 4.98						
COULTER AcT diff/diff 2	113	4.700	0.108	2.3	4.70	4.41 - 4.99						
Horiba ABX Micros/45/60	71	4.634	0.080	1.7	4.64	4.35 - 4.92						

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

<u>Instrument</u>	Specimen HD-1						Specimen HD-2					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	452	6.05	0.15	2.5	6.1	5.6 - 6.5	455	18.10	0.37	2.0	18.1	16.8 - 19.4
All Abbott Cell-Dyn Instruments	115	6.01	0.21	3.4	6.0	5.5 - 6.5	115	18.01	0.45	2.5	17.9	16.7 - 19.3
All ABX Instruments	69	6.08	0.11	1.8	6.1	5.6 - 6.6	69	18.07	0.28	1.6	18.1	16.8 - 19.4
All Boule (CDS) Instruments	134	6.09	0.10	1.7	6.1	5.6 - 6.6	133	18.26	0.29	1.6	18.3	16.9 - 19.6
All COULTER Instruments	121	5.98	0.16	2.7	6.0	5.5 - 6.5	119	18.06	0.33	1.8	18.1	16.7 - 19.4
Abbott Cell-Dyn 1700	15	6.15	0.14	2.2	6.1	5.7 - 6.6	15	17.86	0.45	2.5	17.8	16.6 - 19.2
Abbott Cell-Dyn 1800	25	6.16	0.19	3.0	6.2	5.7 - 6.6	25	18.46	0.42	2.3	18.5	17.1 - 19.8
Abbott Cell-Dyn Emerald	75	5.93	0.18	3.1	6.0	5.5 - 6.4	75	17.89	0.37	2.1	17.9	16.6 - 19.2
Boule (CDS) Medonic M series	128	6.09	0.10	1.7	6.1	5.6 - 6.6	127	18.27	0.28	1.5	18.3	16.9 - 19.6
COULTER AcT diff/diff 2	115	5.98	0.17	2.8	6.0	5.5 - 6.5	113	18.05	0.33	1.8	18.1	16.7 - 19.4
Horiba ABX Micros/45/60	69	6.08	0.11	1.8	6.1	5.6 - 6.6	69	18.07	0.28	1.6	18.1	16.8 - 19.4
	Specimen HD-3						Specimen HD-4					
All Method	456	13.44	0.24	1.8	13.4	12.4 - 14.4	456	18.15	0.37	2.1	18.1	16.8 - 19.5
All Abbott Cell-Dyn Instruments	114	13.42	0.32	2.4	13.4	12.4 - 14.4	115	18.06	0.49	2.7	18.1	16.7 - 19.4
All ABX Instruments	68	13.49	0.17	1.3	13.5	12.5 - 14.5	67	18.05	0.25	1.4	18.1	16.7 - 19.4
All Boule (CDS) Instruments	133	13.47	0.18	1.3	13.5	12.5 - 14.5	133	18.28	0.29	1.6	18.3	17.0 - 19.6
All COULTER Instruments	121	13.41	0.25	1.9	13.4	12.4 - 14.4	120	18.12	0.32	1.7	18.1	16.8 - 19.4
Abbott Cell-Dyn 1700	15	13.49	0.30	2.3	13.4	12.5 - 14.5	15	18.05	0.50	2.8	18.0	16.7 - 19.4
Abbott Cell-Dyn 1800	25	13.70	0.26	1.9	13.7	12.7 - 14.7	25	18.55	0.37	2.0	18.5	17.2 - 19.9
Abbott Cell-Dyn Emerald	74	13.31	0.27	2.1	13.3	12.3 - 14.3	75	17.90	0.41	2.3	18.0	16.6 - 19.2
Boule (CDS) Medonic M series	127	13.47	0.18	1.3	13.5	12.5 - 14.5	127	18.30	0.28	1.6	18.3	17.0 - 19.6
COULTER AcT diff/diff 2	115	13.41	0.25	1.9	13.4	12.4 - 14.4	114	18.11	0.32	1.8	18.1	16.8 - 19.4
Horiba ABX Micros/45/60	68	13.49	0.17	1.3	13.5	12.5 - 14.5	67	18.05	0.25	1.4	18.1	16.7 - 19.4

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

Specimen HD-5

<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	457	13.45	0.26	2.0	13.5	12.5 - 14.4
All Abbott Cell-Dyn Instruments	112	13.42	0.33	2.5	13.4	12.4 - 14.4
All ABX Instruments	69	13.47	0.22	1.6	13.5	12.5 - 14.5
All Boule (CDS) Instruments	133	13.47	0.18	1.3	13.5	12.5 - 14.5
All COULTER Instruments	120	13.45	0.26	1.9	13.5	12.5 - 14.4
Abbott Cell-Dyn 1700	15	13.52	0.34	2.5	13.4	12.5 - 14.5
Abbott Cell-Dyn 1800	23	13.77	0.22	1.6	13.8	12.8 - 14.8
Abbott Cell-Dyn Emerald	72	13.29	0.25	1.9	13.3	12.3 - 14.3
Boule (CDS) Medonic M series	127	13.47	0.18	1.3	13.5	12.5 - 14.5
COULTER AcT diff/diff 2	114	13.45	0.26	1.9	13.4	12.5 - 14.4
Horiba ABX Micros/45/60	69	13.47	0.22	1.6	13.5	12.5 - 14.5

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

Specimen HD-1

<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	451	16.95	1.04	6.2	16.9	15.9 - 18.0
All Abbott Cell-Dyn Instruments	111	17.99	0.67	3.7	18.0	16.9 - 19.1
All ABX Instruments	71	16.31	0.35	2.2	16.3	15.3 - 17.3
All Boule (CDS) Instruments	133	15.86	0.41	2.6	15.8	14.9 - 16.9
All COULTER Instruments	118	17.53	0.52	3.0	17.5	16.4 - 18.6
Abbott Cell-Dyn 1700	12	17.37	0.58	3.4	17.6	16.3 - 18.5
Abbott Cell-Dyn 1800	25	18.02	0.62	3.4	18.2	16.9 - 19.2
Abbott Cell-Dyn Emerald	73	18.09	0.65	3.6	18.1	17.0 - 19.2
Boule (CDS) Medonic M series	127	15.84	0.41	2.6	15.8	14.8 - 16.8
COULTER AcT diff/diff 2	112	17.55	0.53	3.0	17.6	16.4 - 18.7
Horiba ABX Micros/45/60	71	16.31	0.35	2.2	16.3	15.3 - 17.3

Specimen HD-2

<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
448	51.24	1.66	3.2	51.1	48.1 - 54.4
112	52.47	1.98	3.8	52.5	49.3 - 55.7
70	50.27	1.05	2.1	50.1	47.2 - 53.3
134	50.52	1.28	2.5	50.6	47.4 - 53.6
118	51.43	1.19	2.3	51.4	48.3 - 54.6
14	50.86	1.63	3.2	50.2	47.8 - 54.0
23	52.93	1.67	3.2	53.1	49.7 - 56.2
73	52.76	1.84	3.5	52.9	49.5 - 56.0
128	50.57	1.27	2.5	50.6	47.5 - 53.7
112	51.46	1.19	2.3	51.5	48.3 - 54.6
70	50.27	1.05	2.1	50.1	47.2 - 53.3

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

<i><u>Instrument</u></i>	Specimen HD-3						Specimen HD-4					
	<i><u>Labs</u></i>	<i><u>Mean</u></i>	<i><u>SD</u></i>	<i><u>CV</u></i>	<i><u>Median</u></i>	<i><u>Range</u></i>	<i><u>Labs</u></i>	<i><u>Mean</u></i>	<i><u>SD</u></i>	<i><u>CV</u></i>	<i><u>Median</u></i>	<i><u>Range</u></i>
All Method	454	37.89	1.61	4.2	37.7	35.6 - 40.2	449	51.31	1.63	3.2	51.3	48.2 - 54.4
All Abbott Cell-Dyn Instruments	113	39.29	1.47	3.7	39.4	36.9 - 41.7	114	52.40	1.95	3.7	52.4	49.2 - 55.6
All ABX Instruments	71	37.01	0.67	1.8	36.9	34.7 - 39.3	68	50.27	1.07	2.1	50.1	47.2 - 53.3
All Boule (CDS) Instruments	135	36.40	0.83	2.3	36.5	34.2 - 38.6	134	50.60	1.23	2.4	50.7	47.5 - 53.7
All COULTER Instruments	119	38.60	0.90	2.3	38.6	36.2 - 41.0	120	51.57	1.25	2.4	51.6	48.4 - 54.7
Abbott Cell-Dyn 1700	14	38.52	1.32	3.4	38.6	36.2 - 40.9	14	51.36	1.67	3.3	51.5	48.2 - 54.5
Abbott Cell-Dyn 1800	24	39.61	1.21	3.1	39.8	37.2 - 42.0	24	52.38	1.80	3.4	52.4	49.2 - 55.6
Abbott Cell-Dyn Emerald	74	39.34	1.54	3.9	39.3	36.9 - 41.8	75	52.63	2.00	3.8	52.6	49.4 - 55.8
Boule (CDS) Medonic M series	129	36.40	0.85	2.3	36.5	34.2 - 38.6	128	50.65	1.21	2.4	50.7	47.6 - 53.7
COULTER AcT diff/diff 2	114	38.64	0.97	2.5	38.6	36.3 - 41.0	114	51.57	1.28	2.5	51.5	48.4 - 54.7
Horiba ABX Micros/45/60	71	37.01	0.67	1.8	36.9	34.7 - 39.3	68	50.27	1.07	2.1	50.1	47.2 - 53.3

Specimen HD-5						
<i><u>Labs</u></i>	<i><u>Mean</u></i>	<i><u>SD</u></i>	<i><u>CV</u></i>	<i><u>Median</u></i>	<i><u>Range</u></i>	
All Method	452	37.88	1.61	4.3	37.7	35.6 - 40.2
All Abbott Cell-Dyn Instruments	112	39.27	1.54	3.9	39.4	36.9 - 41.7
All ABX Instruments	71	37.02	0.71	1.9	37.1	34.7 - 39.3
All Boule (CDS) Instruments	135	36.42	0.85	2.3	36.4	34.2 - 38.7
All COULTER Instruments	119	38.62	0.97	2.5	38.6	36.2 - 41.0
Abbott Cell-Dyn 1700	14	38.62	1.41	3.7	38.8	36.3 - 41.0
Abbott Cell-Dyn 1800	23	39.58	1.58	4.0	39.9	37.2 - 42.0
Abbott Cell-Dyn Emerald	74	39.31	1.54	3.9	39.5	36.9 - 41.7
Boule (CDS) Medonic M series	129	36.41	0.86	2.4	36.4	34.2 - 38.6
COULTER AcT diff/diff 2	113	38.62	0.99	2.6	38.6	36.3 - 41.0
Horiba ABX Micros/45/60	71	37.02	0.71	1.9	37.1	34.7 - 39.3

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

<i><u>Instrument</u></i>	Specimen HD-1						Specimen HD-2					
	<i><u>Labs</u></i>	<i><u>Mean</u></i>	<i><u>SD</u></i>	<i><u>CV</u></i>	<i><u>Median</u></i>	<i><u>Range</u></i>	<i><u>Labs</u></i>	<i><u>Mean</u></i>	<i><u>SD</u></i>	<i><u>CV</u></i>	<i><u>Median</u></i>	<i><u>Range</u></i>
All Method	448	76.9	8.2	10.7	76	57 - 97	452	550.3	34.9	6.3	545	412 - 688
All Abbott Cell-Dyn Instruments	114	80.2	12.2	15.2	78	60 - 101	113	558.1	44.2	7.9	551	418 - 698
All ABX Instruments	71	82.3	7.9	9.6	82	61 - 103	71	536.0	24.8	4.6	533	401 - 670
All Boule (CDS) Instruments	134	71.8	6.1	8.5	72	53 - 90	134	530.8	23.8	4.5	531	398 - 664
All COULTER Instruments	119	77.1	5.0	6.4	77	57 - 97	118	574.8	23.9	4.2	576	431 - 719
Abbott Cell-Dyn 1700	15	70.8	5.0	7.1	71	53 - 89	15	582.3	35.6	6.1	580	436 - 728
Abbott Cell-Dyn 1800	25	76.1	6.0	7.9	76	57 - 96	24	611.2	29.6	4.8	606	458 - 765
Abbott Cell-Dyn Emerald	75	84.0	13.9	16.6	82	62 - 105	72	535.4	27.5	5.1	535	401 - 670
Boule (CDS) Medonic M series	128	71.7	6.1	8.5	72	53 - 90	129	529.7	23.4	4.4	529	397 - 663
COULTER AcT diff/diff 2	113	77.3	4.8	6.2	77	57 - 97	113	575.0	24.1	4.2	576	431 - 719
Horiba ABX Micros/45/60	71	82.3	7.9	9.6	82	61 - 103	71	536.0	24.8	4.6	533	401 - 670
	Specimen HD-3						Specimen HD-4					
All Method	456	264.3	18.0	6.8	264	198 - 331	454	549.9	36.4	6.6	547	412 - 688
All Abbott Cell-Dyn Instruments	113	270.2	19.4	7.2	269	202 - 338	114	556.9	44.3	7.9	547	417 - 697
All ABX Instruments	71	267.0	15.2	5.7	268	200 - 334	70	534.0	24.7	4.6	536	400 - 668
All Boule (CDS) Instruments	135	250.6	12.6	5.0	251	187 - 314	134	530.9	26.4	5.0	531	398 - 664
All COULTER Instruments	122	272.2	15.0	5.5	271	204 - 341	120	574.9	26.3	4.6	571	431 - 719
Abbott Cell-Dyn 1700	15	270.1	19.9	7.4	269	202 - 338	15	587.0	39.0	6.6	580	440 - 734
Abbott Cell-Dyn 1800	25	276.1	18.2	6.6	277	207 - 346	25	602.2	25.3	4.2	608	451 - 753
Abbott Cell-Dyn Emerald	73	268.2	19.6	7.3	265	201 - 336	72	532.3	29.0	5.5	535	399 - 666
Boule (CDS) Medonic M series	129	249.8	11.8	4.7	251	187 - 313	128	529.3	25.1	4.7	530	396 - 662
COULTER AcT diff/diff 2	116	272.8	14.8	5.4	271	204 - 341	114	575.6	25.7	4.5	571	431 - 720
Horiba ABX Micros/45/60	71	267.0	15.2	5.7	268	200 - 334	70	534.0	24.7	4.6	536	400 - 668

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

Specimen HD-5

<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	455	263.5	17.1	6.5	263	197 - 330
All Abbott Cell-Dyn Instruments	114	268.9	18.7	7.0	269	201 - 337
All ABX Instruments	71	265.6	13.2	5.0	265	199 - 332
All Boule (CDS) Instruments	135	252.3	14.3	5.7	251	189 - 316
All COULTER Instruments	120	269.6	14.4	5.3	270	202 - 337
Abbott Cell-Dyn 1700	15	266.1	15.4	5.8	268	199 - 333
Abbott Cell-Dyn 1800	25	275.2	19.7	7.1	281	206 - 344
Abbott Cell-Dyn Emerald	74	267.3	18.7	7.0	266	200 - 335
Boule (CDS) Medonic M series	128	250.8	12.9	5.1	250	188 - 314
COULTER AcT diff/diff 2	114	270.0	14.0	5.2	270	202 - 338
Horiba ABX Micros/45/60	71	265.6	13.2	5.0	265	199 - 332

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

Specimen HD-1

<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	442	55.41	8.86	16.0	59.7	28.8 - 82.0
All Abbott Cell-Dyn Instruments	112	50.32	3.56	7.1	50.7	39.6 - 61.1
All ABX Instruments	68	39.78	5.63	14.1	39.0	22.8 - 56.7
All Boule (CDS) Instruments	133	61.95	1.96	3.2	62.0	56.0 - 67.9
All COULTER Instruments	113	61.82	1.93	3.1	61.9	56.0 - 67.6
Abbott Cell-Dyn 1700	16	53.15	3.55	6.7	53.5	42.4 - 63.9
Abbott Cell-Dyn 1800	25	46.38	2.45	5.3	46.2	39.0 - 53.8
Abbott Cell-Dyn Emerald	71	51.07	2.73	5.3	51.1	42.8 - 59.3
Boule (CDS) Medonic M series	127	61.89	1.94	3.1	62.0	56.0 - 67.8
COULTER AcT diff/diff 2	111	61.80	1.94	3.1	61.9	55.9 - 67.7
Horiba ABX Micros/45/60	68	39.78	5.63	14.1	39.0	22.8 - 56.7

Specimen HD-2

<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
432	13.76	1.49	10.8	14.1	9.2 - 18.3
109	13.50	2.05	15.2	13.7	7.3 - 19.7
66	11.77	1.25	10.6	11.4	8.0 - 15.6
132	14.69	0.52	3.5	14.6	13.1 - 16.3
114	14.21	0.60	4.2	14.2	12.4 - 16.1
16	12.74	1.00	7.8	12.6	9.7 - 15.8
25	10.77	0.53	5.0	10.8	9.1 - 12.4
65	14.48	1.10	7.6	14.1	11.1 - 17.8
126	14.65	0.48	3.3	14.6	13.2 - 16.1
111	14.19	0.56	3.9	14.2	12.5 - 15.9
66	11.77	1.25	10.6	11.4	8.0 - 15.6

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

<u><i>Instrument</i></u>	Specimen HD-3						Specimen HD-4					
	<u><i>Labs</i></u>	<u><i>Mean</i></u>	<u><i>SD</i></u>	<u><i>CV</i></u>	<u><i>Median</i></u>	<u><i>Range</i></u>	<u><i>Labs</i></u>	<u><i>Mean</i></u>	<u><i>SD</i></u>	<u><i>CV</i></u>	<u><i>Median</i></u>	<u><i>Range</i></u>
All Method	439	30.83	3.62	11.7	32.3	19.9 - 41.8	437	13.78	1.52	11.0	14.1	9.2 - 18.4
All Abbott Cell-Dyn Instruments	111	28.75	2.19	7.6	29.2	22.1 - 35.4	107	13.46	1.87	13.9	13.7	7.8 - 19.1
All ABX Instruments	66	24.96	2.59	10.4	24.4	17.1 - 32.8	66	11.75	1.20	10.2	11.7	8.1 - 15.4
All Boule (CDS) Instruments	133	33.28	0.98	2.9	33.4	30.3 - 36.3	133	14.68	0.56	3.8	14.7	12.9 - 16.4
All COULTER Instruments	112	33.38	0.94	2.8	33.4	30.5 - 36.2	114	14.16	0.55	3.9	14.2	12.5 - 15.8
Abbott Cell-Dyn 1700	16	29.43	1.45	4.9	29.1	25.0 - 33.8	16	12.98	1.27	9.8	12.8	9.1 - 16.8
Abbott Cell-Dyn 1800	25	25.48	1.20	4.7	25.2	21.8 - 29.1	24	10.84	0.67	6.2	10.9	8.8 - 12.9
Abbott Cell-Dyn Emerald	70	29.77	1.28	4.3	29.7	25.9 - 33.7	66	14.52	1.19	8.2	14.2	10.9 - 18.1
Boule (CDS) Medonic M series	127	33.23	0.95	2.9	33.3	30.3 - 36.1	127	14.65	0.53	3.6	14.7	13.0 - 16.3
COULTER AcT diff/diff 2	110	33.36	0.91	2.7	33.4	30.6 - 36.1	112	14.14	0.53	3.7	14.2	12.5 - 15.8
Horiba ABX Micros/45/60	66	24.96	2.59	10.4	24.4	17.1 - 32.8	66	11.75	1.20	10.2	11.7	8.1 - 15.4
Specimen HD-5												
All Method	439	30.75	3.63	11.8	32.4	19.8 - 41.7						
All Abbott Cell-Dyn Instruments	111	28.60	2.11	7.4	29.1	22.2 - 35.0						
All ABX Instruments	65	24.71	2.17	8.8	24.2	18.2 - 31.3						
All Boule (CDS) Instruments	133	33.38	0.94	2.8	33.3	30.5 - 36.3						
All COULTER Instruments	111	33.22	0.94	2.8	33.2	30.4 - 36.1						
Abbott Cell-Dyn 1700	16	29.56	1.36	4.6	29.5	25.4 - 33.7						
Abbott Cell-Dyn 1800	25	25.38	1.21	4.8	25.3	21.7 - 29.1						
Abbott Cell-Dyn Emerald	70	29.52	1.16	3.9	29.4	26.0 - 33.1						
Boule (CDS) Medonic M series	127	33.32	0.89	2.7	33.2	30.6 - 36.0						
COULTER AcT diff/diff 2	109	33.21	0.91	2.7	33.2	30.4 - 36.0						
Horiba ABX Micros/45/60	65	24.71	2.17	8.8	24.2	18.2 - 31.3						

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

<u>Instrument</u>	Specimen HD-1						Specimen HD-2					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	439	12.77	7.08	55.4	10.5	0.0 - 34.1	440	4.38	1.23	28.1	4.3	0.6 - 8.1
All Abbott Cell-Dyn Instruments	111	16.10	3.71	23.1	15.0	4.9 - 27.3	112	3.96	1.51	38.2	3.3	0.0 - 8.5
All ABX Instruments	68	24.97	3.88	15.6	26.2	13.3 - 36.7	68	4.33	0.47	10.9	4.3	2.9 - 5.8
All Boule (CDS) Instruments	132	9.53	2.09	21.9	9.7	3.2 - 15.8	128	5.56	0.50	9.0	5.5	4.0 - 7.1
All COULTER Instruments	113	6.02	1.63	27.0	5.9	1.1 - 10.9	114	3.53	0.47	13.4	3.6	2.1 - 5.0
Abbott Cell-Dyn 1700	16	14.04	2.10	15.0	14.7	7.7 - 20.4	16	4.93	0.39	7.9	4.9	3.7 - 6.2
Abbott Cell-Dyn 1800	25	21.52	2.07	9.6	21.8	15.3 - 27.8	25	6.32	0.47	7.4	6.3	4.9 - 7.8
Abbott Cell-Dyn Emerald	70	14.64	2.39	16.3	14.1	7.4 - 21.9	71	2.91	0.44	15.2	2.8	1.5 - 4.3
Boule (CDS) Medonic M series	125	9.55	2.09	21.8	9.5	3.2 - 15.9	125	5.54	0.49	8.9	5.5	4.0 - 7.1
COULTER AcT diff/diff 2	110	6.05	1.63	26.9	6.0	1.1 - 11.0	111	3.53	0.48	13.5	3.6	2.1 - 5.0
Horiba ABX Micros/45/60	68	24.97	3.88	15.6	26.2	13.3 - 36.7	68	4.33	0.47	10.9	4.3	2.9 - 5.8

<u>Instrument</u>	Specimen HD-3						Specimen HD-4					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	443	7.56	2.40	31.7	7.0	0.3 - 14.8	438	4.39	1.20	27.4	4.2	0.7 - 8.1
All Abbott Cell-Dyn Instruments	112	8.10	2.42	29.9	7.2	0.8 - 15.4	112	3.95	1.46	36.9	3.3	0.0 - 8.4
All ABX Instruments	68	11.03	1.51	13.7	11.2	6.5 - 15.6	68	4.34	0.48	11.0	4.3	2.9 - 5.8
All Boule (CDS) Instruments	132	7.35	0.91	12.5	7.4	4.6 - 10.1	127	5.58	0.48	8.7	5.6	4.1 - 7.1
All COULTER Instruments	116	5.31	0.68	12.8	5.3	3.2 - 7.4	112	3.60	0.38	10.4	3.6	2.4 - 4.8
Abbott Cell-Dyn 1700	15	8.79	0.74	8.4	8.7	6.5 - 11.1	16	4.98	0.31	6.3	5.0	4.0 - 6.0
Abbott Cell-Dyn 1800	25	11.98	0.90	7.6	12.0	9.2 - 14.7	25	6.22	0.35	5.7	6.2	5.1 - 7.3
Abbott Cell-Dyn Emerald	70	6.61	0.90	13.7	6.5	3.8 - 9.4	71	2.92	0.40	13.8	2.8	1.7 - 4.2
Boule (CDS) Medonic M series	125	7.28	0.88	12.1	7.3	4.6 - 10.0	124	5.56	0.47	8.4	5.6	4.1 - 7.0
COULTER AcT diff/diff 2	113	5.33	0.68	12.8	5.3	3.2 - 7.4	110	3.60	0.38	10.5	3.6	2.4 - 4.8
Horiba ABX Micros/45/60	68	11.03	1.51	13.7	11.2	6.5 - 15.6	68	4.34	0.48	11.0	4.3	2.9 - 5.8

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

Specimen HD-5

<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	440	7.68	2.37	30.9	7.1	0.5 - 14.8
All Abbott Cell-Dyn Instruments	112	8.22	2.50	30.4	7.5	0.7 - 15.8
All ABX Instruments	68	11.01	1.51	13.7	11.3	6.4 - 15.6
All Boule (CDS) Instruments	131	7.51	0.77	10.2	7.5	5.2 - 9.9
All COULTER Instruments	114	5.44	0.64	11.9	5.5	3.5 - 7.4
Abbott Cell-Dyn 1700	16	9.08	0.73	8.0	9.2	6.9 - 11.3
Abbott Cell-Dyn 1800	25	12.24	0.77	6.3	12.0	9.9 - 14.6
Abbott Cell-Dyn Emerald	70	6.56	0.91	13.9	6.4	3.8 - 9.3
Boule (CDS) Medonic M series	125	7.46	0.74	9.9	7.5	5.2 - 9.7
COULTER AcT diff/diff 2	111	5.45	0.65	11.9	5.5	3.5 - 7.4
Horiba ABX Micros/45/60	68	11.01	1.51	13.7	11.3	6.4 - 15.6

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

Specimen HD-1

<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	438	31.91	3.20	10.0	32.2	22.3 - 41.6
All Abbott Cell-Dyn Instruments	108	33.72	1.71	5.1	33.8	28.5 - 38.9
All ABX Instruments	68	35.10	2.34	6.7	35.3	28.0 - 42.2
All Boule (CDS) Instruments	132	28.51	2.70	9.5	28.0	20.4 - 36.7
All COULTER Instruments	115	32.11	1.29	4.0	32.2	28.2 - 36.0
Abbott Cell-Dyn 1700	16	32.81	2.13	6.5	32.1	26.4 - 39.3
Abbott Cell-Dyn 1800	24	32.48	1.25	3.8	32.7	28.7 - 36.3
Abbott Cell-Dyn Emerald	68	34.37	1.39	4.1	34.2	30.1 - 38.6
Boule (CDS) Medonic M series	126	28.54	2.65	9.3	28.0	20.5 - 36.5
COULTER AcT diff/diff 2	112	32.10	1.31	4.1	32.2	28.1 - 36.1
Horiba ABX Micros/45/60	68	35.10	2.34	6.7	35.3	28.0 - 42.2

Specimen HD-2

<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
432	81.85	1.76	2.2	82.2	76.5 - 87.2
105	82.71	1.07	1.3	82.9	79.4 - 86.0
65	83.88	1.05	1.3	84.2	80.7 - 87.1
127	79.79	0.67	0.8	79.8	77.7 - 81.9
115	82.27	0.64	0.8	82.3	80.3 - 84.2
16	82.32	1.14	1.4	82.5	78.8 - 85.8
25	82.91	0.70	0.8	82.9	80.7 - 85.1
65	82.68	1.24	1.5	83.1	78.9 - 86.5
126	79.79	0.68	0.8	79.8	77.7 - 81.9
112	82.28	0.62	0.8	82.3	80.4 - 84.2
65	83.88	1.05	1.3	84.2	80.7 - 87.1

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

<u><i>Instrument</i></u>	Specimen HD-3						Specimen HD-4					
	<u><i>Labs</i></u>	<u><i>Mean</i></u>	<u><i>SD</i></u>	<u><i>CV</i></u>	<u><i>Median</i></u>	<u><i>Range</i></u>	<u><i>Labs</i></u>	<u><i>Mean</i></u>	<u><i>SD</i></u>	<u><i>CV</i></u>	<u><i>Median</i></u>	<u><i>Range</i></u>
All Method	439	61.64	2.24	3.6	61.5	54.9 - 68.4	434	81.83	1.83	2.2	82.2	76.3 - 87.4
All Abbott Cell-Dyn Instruments	109	63.17	1.40	2.2	63.4	58.9 - 67.4	105	82.59	1.23	1.5	82.9	78.9 - 86.3
All ABX Instruments	66	64.23	1.35	2.1	64.5	60.1 - 68.3	65	84.02	1.05	1.3	84.2	80.8 - 87.2
All Boule (CDS) Instruments	131	59.35	1.44	2.4	59.4	55.0 - 63.7	126	79.76	0.71	0.9	79.8	77.6 - 81.9
All COULTER Instruments	116	61.33	0.94	1.5	61.3	58.4 - 64.2	115	82.28	0.65	0.8	82.2	80.3 - 84.3
Abbott Cell-Dyn 1700	15	61.83	1.20	1.9	61.9	58.2 - 65.5	16	82.03	1.38	1.7	82.4	77.8 - 86.2
Abbott Cell-Dyn 1800	25	62.54	1.00	1.6	62.7	59.5 - 65.6	24	82.94	0.67	0.8	83.0	80.9 - 85.0
Abbott Cell-Dyn Emerald	68	63.74	1.19	1.9	63.9	60.1 - 67.4	65	82.58	1.36	1.7	83.0	78.4 - 86.7
Boule (CDS) Medonic M series	125	59.46	1.35	2.3	59.4	55.4 - 63.6	124	79.77	0.68	0.9	79.8	77.7 - 81.9
COULTER AcT diff/diff 2	113	61.34	0.92	1.5	61.3	58.5 - 64.2	111	82.28	0.60	0.7	82.2	80.4 - 84.1
Horiba ABX Micros/45/60	66	64.23	1.35	2.1	64.5	60.1 - 68.3	65	84.02	1.05	1.3	84.2	80.8 - 87.2
Specimen HD-5												
All Method	439	61.66	2.26	3.7	61.6	54.8 - 68.5						
All Abbott Cell-Dyn Instruments	110	63.27	1.39	2.2	63.6	59.1 - 67.5						
All ABX Instruments	66	64.29	1.30	2.0	64.3	60.3 - 68.2						
All Boule (CDS) Instruments	131	59.22	1.13	1.9	59.2	55.8 - 62.7						
All COULTER Instruments	114	61.39	0.96	1.6	61.4	58.5 - 64.3						
Abbott Cell-Dyn 1700	16	61.38	1.25	2.0	61.4	57.6 - 65.2						
Abbott Cell-Dyn 1800	25	62.38	1.16	1.9	62.2	58.9 - 65.9						
Abbott Cell-Dyn Emerald	70	63.95	1.03	1.6	64.0	60.8 - 67.1						
Boule (CDS) Medonic M series	126	59.23	1.10	1.9	59.3	55.9 - 62.6						
COULTER AcT diff/diff 2	111	61.40	0.93	1.5	61.4	58.6 - 64.2						
Horiba ABX Micros/45/60	66	64.29	1.30	2.0	64.3	60.3 - 68.2						

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

<u><i>Instrument</i></u>	Specimen DIF-1						Specimen DIF-2					
	<u><i>Labs</i></u>	<u><i>Mean</i></u>	<u><i>SD</i></u>	<u><i>CV</i></u>	<u><i>Median</i></u>	<u><i>Range</i></u>	<u><i>Labs</i></u>	<u><i>Mean</i></u>	<u><i>SD</i></u>	<u><i>CV</i></u>	<u><i>Median</i></u>	<u><i>Range</i></u>
All Method	12	4.10	0.18	4.4	4.1	3.4 - 4.8	12	21.03	0.50	2.4	21.2	17.8 - 24.2
All COULTER Instruments	12	4.10	0.18	4.4	4.1	3.4 - 4.8	12	21.03	0.50	2.4	21.2	17.8 - 24.2
COULTER UniCel DxH 600	10	4.07	0.18	4.3	4.1	3.4 - 4.7	10	21.22	0.42	2.0	21.3	18.0 - 24.4
Specimen DIF-3						Specimen DIF-4						
All Method	12	9.62	0.24	2.5	9.7	8.1 - 11.1	12	21.01	0.58	2.8	20.8	17.8 - 24.2
All COULTER Instruments	12	9.62	0.24	2.5	9.7	8.1 - 11.1	12	21.01	0.58	2.8	20.8	17.8 - 24.2
COULTER UniCel DxH 600	10	9.73	0.15	1.5	9.8	8.2 - 11.2	10	21.15	0.63	3.0	21.0	17.9 - 24.4
Specimen DIF-5												
All Method	12	9.67	0.27	2.8	9.7	8.2 - 11.2						
All COULTER Instruments	12	9.67	0.27	2.8	9.7	8.2 - 11.2						
COULTER UniCel DxH 600	10	9.82	0.15	1.5	9.9	8.3 - 11.3						

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

<u><i>Instrument</i></u>	Specimen DIF-1						Specimen DIF-2					
	<u><i>Labs</i></u>	<u><i>Mean</i></u>	<u><i>SD</i></u>	<u><i>CV</i></u>	<u><i>Median</i></u>	<u><i>Range</i></u>	<u><i>Labs</i></u>	<u><i>Mean</i></u>	<u><i>SD</i></u>	<u><i>CV</i></u>	<u><i>Median</i></u>	<u><i>Range</i></u>
All Method	12	2.638	0.036	1.4	2.65	2.47 - 2.80	12	5.337	0.089	1.7	5.34	5.01 - 5.66
All COULTER Instruments	12	2.638	0.036	1.4	2.65	2.47 - 2.80	12	5.337	0.089	1.7	5.34	5.01 - 5.66
COULTER UniCel DxH 600	10	2.632	0.041	1.5	2.64	2.47 - 2.79	10	5.315	0.099	1.9	5.29	4.99 - 5.64
Specimen DIF-3						Specimen DIF-4						
All Method	12	4.167	0.058	1.4	4.16	3.91 - 4.42	12	5.314	0.086	1.6	5.29	4.99 - 5.64
All COULTER Instruments	12	4.167	0.058	1.4	4.16	3.91 - 4.42	12	5.314	0.086	1.6	5.29	4.99 - 5.64
COULTER UniCel DxH 600	10	4.170	0.069	1.7	4.15	3.91 - 4.43	10	5.305	0.096	1.8	5.29	4.98 - 5.63
Specimen DIF-5												
All Method	12	4.152	0.055	1.3	4.12	3.90 - 4.41						
All COULTER Instruments	12	4.152	0.055	1.3	4.12	3.90 - 4.41						
COULTER UniCel DxH 600	10	4.153	0.061	1.5	4.12	3.90 - 4.41						

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

<u><i>Instrument</i></u>	Specimen DIF-1						Specimen DIF-2					
	<u><i>Labs</i></u>	<u><i>Mean</i></u>	<u><i>SD</i></u>	<u><i>CV</i></u>	<u><i>Median</i></u>	<u><i>Range</i></u>	<u><i>Labs</i></u>	<u><i>Mean</i></u>	<u><i>SD</i></u>	<u><i>CV</i></u>	<u><i>Median</i></u>	<u><i>Range</i></u>
All Method	12	6.68	0.10	1.5	6.6	6.2 - 7.2	12	16.91	0.18	1.0	17.0	15.7 - 18.1
All COULTER Instruments	12	6.68	0.10	1.5	6.6	6.2 - 7.2	12	16.91	0.18	1.0	17.0	15.7 - 18.1
COULTER UniCel DxH 600	10	6.65	0.08	1.3	6.6	6.1 - 7.2	10	16.90	0.13	0.7	17.0	15.7 - 18.1
<u><i>Instrument</i></u>	Specimen DIF-3						Specimen DIF-4					
	<u><i>Labs</i></u>	<u><i>Mean</i></u>	<u><i>SD</i></u>	<u><i>CV</i></u>	<u><i>Median</i></u>	<u><i>Range</i></u>	<u><i>Labs</i></u>	<u><i>Mean</i></u>	<u><i>SD</i></u>	<u><i>CV</i></u>	<u><i>Median</i></u>	<u><i>Range</i></u>
All Method	12	11.81	0.21	1.8	11.9	10.9 - 12.7	12	16.87	0.21	1.3	16.9	15.6 - 18.1
All COULTER Instruments	12	11.81	0.21	1.8	11.9	10.9 - 12.7	12	16.87	0.21	1.3	16.9	15.6 - 18.1
COULTER UniCel DxH 600	10	11.83	0.24	2.0	12.0	11.0 - 12.7	10	16.85	0.15	0.9	16.9	15.6 - 18.1
<u><i>Instrument</i></u>	Specimen DIF-5											
	<u><i>Labs</i></u>	<u><i>Mean</i></u>	<u><i>SD</i></u>	<u><i>CV</i></u>	<u><i>Median</i></u>	<u><i>Range</i></u>						
All Method	12	11.82	0.14	1.2	11.8	10.9 - 12.7						
All COULTER Instruments	12	11.82	0.14	1.2	11.8	10.9 - 12.7						
COULTER UniCel DxH 600	10	11.85	0.16	1.4	11.9	11.0 - 12.7						

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

<u><i>Instrument</i></u>	Specimen DIF-1						Specimen DIF-2					
	<u><i>Labs</i></u>	<u><i>Mean</i></u>	<u><i>SD</i></u>	<u><i>CV</i></u>	<u><i>Median</i></u>	<u><i>Range</i></u>	<u><i>Labs</i></u>	<u><i>Mean</i></u>	<u><i>SD</i></u>	<u><i>CV</i></u>	<u><i>Median</i></u>	<u><i>Range</i></u>
All Method	12	21.42	0.45	2.1	21.6	20.1 - 22.8	12	54.28	1.03	1.9	53.9	51.0 - 57.6
All COULTER Instruments	12	21.42	0.45	2.1	21.6	20.1 - 22.8	12	54.28	1.03	1.9	53.9	51.0 - 57.6
COULTER UniCel DxH 600	10	21.60	0.34	1.6	21.7	20.3 - 22.9	10	54.57	1.05	1.9	54.3	51.2 - 57.9
<u><i>Instrument</i></u>	Specimen DIF-3						Specimen DIF-4					
	<u><i>Labs</i></u>	<u><i>Mean</i></u>	<u><i>SD</i></u>	<u><i>CV</i></u>	<u><i>Median</i></u>	<u><i>Range</i></u>	<u><i>Labs</i></u>	<u><i>Mean</i></u>	<u><i>SD</i></u>	<u><i>CV</i></u>	<u><i>Median</i></u>	<u><i>Range</i></u>
All Method	12	37.63	0.93	2.5	37.9	35.3 - 39.9	12	54.24	0.96	1.8	54.3	50.9 - 57.5
All COULTER Instruments	12	37.63	0.93	2.5	37.9	35.3 - 39.9	12	54.24	0.96	1.8	54.3	50.9 - 57.5
COULTER UniCel DxH 600	10	38.03	0.53	1.4	37.9	35.7 - 40.4	10	54.57	0.94	1.7	54.4	51.2 - 57.9
<u><i>Instrument</i></u>	Specimen DIF-5											
	<u><i>Labs</i></u>	<u><i>Mean</i></u>	<u><i>SD</i></u>	<u><i>CV</i></u>	<u><i>Median</i></u>	<u><i>Range</i></u>						
All Method	12	37.48	0.83	2.2	37.6	35.2 - 39.8						
All COULTER Instruments	12	37.48	0.83	2.2	37.6	35.2 - 39.8						
COULTER UniCel DxH 600	10	37.85	0.48	1.3	37.7	35.5 - 40.2						

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

<u>Instrument</u>	<u>Specimen DIF-1</u>						<u>Specimen DIF-2</u>					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	12	80.3	3.9	4.9	82	60 - 101	12	450.8	12.4	2.8	454	338 - 564
All COULTER Instruments	12	80.3	3.9	4.9	82	60 - 101	12	450.8	12.4	2.8	454	338 - 564
COULTER UniCel DxH 600	10	79.5	3.9	5.0	80	59 - 100	10	453.7	13.2	2.9	458	340 - 568
<u>Instrument</u>	<u>Specimen DIF-3</u>						<u>Specimen DIF-4</u>					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	12	248.6	11.9	4.8	249	186 - 311	12	445.8	18.4	4.1	446	334 - 558
All COULTER Instruments	12	248.6	11.9	4.8	249	186 - 311	12	445.8	18.4	4.1	446	334 - 558
COULTER UniCel DxH 600	10	253.0	8.0	3.2	252	189 - 317	10	442.2	17.4	3.9	438	331 - 553
<u>Instrument</u>	<u>Specimen DIF-5</u>											
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>						
All Method	12	253.9	6.3	2.5	253	190 - 318						
All COULTER Instruments	12	253.9	6.3	2.5	253	190 - 318						
COULTER UniCel DxH 600	10	253.8	7.8	3.1	254	190 - 318						

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

<u>Instrument</u>	<u>Specimen DIF-1</u>						<u>Specimen DIF-2</u>					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	12	51.84	1.08	2.1	52.0	48.6 - 55.1	12	67.20	1.11	1.7	67.2	63.8 - 70.6
All COULTER Instruments	12	51.84	1.08	2.1	52.0	48.6 - 55.1	12	67.20	1.11	1.7	67.2	63.8 - 70.6
COULTER UniCel DxH 600	10	52.37	0.50	1.0	52.3	50.8 - 53.9	10	67.75	0.68	1.0	68.0	65.6 - 69.9
<u>Instrument</u>	<u>Specimen DIF-3</u>						<u>Specimen DIF-4</u>					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	12	59.47	0.50	0.8	59.4	57.9 - 61.0	12	67.46	1.85	2.7	67.9	61.8 - 73.1
All COULTER Instruments	12	59.47	0.50	0.8	59.4	57.9 - 61.0	12	67.46	1.85	2.7	67.9	61.8 - 73.1
COULTER UniCel DxH 600	10	59.27	0.50	0.8	59.4	57.7 - 60.8	10	68.43	0.67	1.0	68.3	66.4 - 70.5
<u>Instrument</u>	<u>Specimen DIF-5</u>											
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>						
All Method	12	59.18	1.20	2.0	59.1	55.5 - 62.8						
All COULTER Instruments	12	59.18	1.20	2.0	59.1	55.5 - 62.8						
COULTER UniCel DxH 600	10	59.78	0.81	1.4	59.8	57.3 - 62.3						

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

<u>Instrument</u>	<u>Specimen DIF-1</u>						<u>Specimen DIF-2</u>					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	12	37.59	2.28	6.1	37.5	30.7 - 44.5	12	21.10	1.62	7.7	20.3	16.2 - 26.0
All COULTER Instruments	12	37.59	2.28	6.1	37.5	30.7 - 44.5	12	21.10	1.62	7.7	20.3	16.2 - 26.0
COULTER UniCel DxH 600	10	36.55	1.62	4.4	36.8	31.6 - 41.5	10	20.55	1.33	6.5	20.2	16.5 - 24.6
<u>Instrument</u>	<u>Specimen DIF-3</u>						<u>Specimen DIF-4</u>					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	12	29.51	1.21	4.1	29.2	25.8 - 33.2	12	20.91	1.62	7.7	20.7	16.0 - 25.8
All COULTER Instruments	12	29.51	1.21	4.1	29.2	25.8 - 33.2	12	20.91	1.62	7.7	20.7	16.0 - 25.8
COULTER UniCel DxH 600	10	29.28	0.84	2.9	29.1	26.7 - 31.9	10	20.18	1.20	5.9	20.0	16.5 - 23.8
<u>Instrument</u>	<u>Specimen DIF-5</u>											
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>						
All Method	12	29.72	1.66	5.6	29.5	24.7 - 34.7						
All COULTER Instruments	12	29.72	1.66	5.6	29.5	24.7 - 34.7						
COULTER UniCel DxH 600	10	28.90	0.95	3.3	28.8	26.0 - 31.8						

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

<u>Instrument</u>	<u>Specimen DIF-1</u>						<u>Specimen DIF-2</u>					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	12	3.27	1.20	36.8	3.4	0.0 - 6.9	12	6.42	0.85	13.2	6.5	3.8 - 9.0
All COULTER Instruments	12	3.27	1.20	36.8	3.4	0.0 - 6.9	12	6.42	0.85	13.2	6.5	3.8 - 9.0
COULTER UniCel DxH 600	10	3.70	1.16	31.3	3.7	0.2 - 7.2	10	6.37	0.80	12.6	6.7	3.9 - 8.8
<u>Instrument</u>	<u>Specimen DIF-3</u>						<u>Specimen DIF-4</u>					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	12	5.10	1.17	22.9	5.4	1.5 - 8.7	12	6.44	0.90	13.9	6.6	3.7 - 9.2
All COULTER Instruments	12	5.10	1.17	22.9	5.4	1.5 - 8.7	12	6.44	0.90	13.9	6.6	3.7 - 9.2
COULTER UniCel DxH 600	10	5.38	0.76	14.2	5.7	3.0 - 7.7	10	6.23	1.02	16.4	6.1	3.1 - 9.4
<u>Instrument</u>	<u>Specimen DIF-5</u>											
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>						
All Method	12	5.20	0.49	9.4	5.2	3.7 - 6.7						
All COULTER Instruments	12	5.20	0.49	9.4	5.2	3.7 - 6.7						
COULTER UniCel DxH 600	10	5.35	0.36	6.7	5.3	4.2 - 6.5						

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

<u><i>Instrument</i></u>	Specimen DIF-1						Specimen DIF-2					
	<u><i>Labs</i></u>	<u><i>Mean</i></u>	<u><i>SD</i></u>	<u><i>CV</i></u>	<u><i>Median</i></u>	<u><i>Range</i></u>	<u><i>Labs</i></u>	<u><i>Mean</i></u>	<u><i>SD</i></u>	<u><i>CV</i></u>	<u><i>Median</i></u>	<u><i>Range</i></u>
All Method	12	7.29	0.43	5.8	7.1	6.0 - 8.6	12	5.24	0.24	4.6	5.2	4.5 - 6.0
All COULTER Instruments	12	7.29	0.43	5.8	7.1	6.0 - 8.6	12	5.24	0.24	4.6	5.2	4.5 - 6.0
COULTER UniCel DxH 600	10	7.38	0.48	6.5	7.4	5.9 - 8.9	10	5.33	0.21	3.9	5.4	4.7 - 6.0
Specimen DIF-3						Specimen DIF-4						
All Method	12	5.86	0.36	6.2	6.0	4.7 - 7.0	12	5.14	0.21	4.0	5.2	4.5 - 5.8
All COULTER Instruments	12	5.86	0.36	6.2	6.0	4.7 - 7.0	12	5.14	0.21	4.0	5.2	4.5 - 5.8
COULTER UniCel DxH 600	10	6.05	0.26	4.3	6.1	5.2 - 6.9	10	5.13	0.14	2.7	5.2	4.7 - 5.6
Specimen DIF-5												
All Method	12	5.86	0.30	5.1	5.9	4.9 - 6.8						
All COULTER Instruments	12	5.86	0.30	5.1	5.9	4.9 - 6.8						
COULTER UniCel DxH 600	10	5.97	0.28	4.7	6.1	5.1 - 6.9						

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

<u><i>Instrument</i></u>	Specimen DIF-1						Specimen DIF-2					
	<u><i>Labs</i></u>	<u><i>Mean</i></u>	<u><i>SD</i></u>	<u><i>CV</i></u>	<u><i>Median</i></u>	<u><i>Range</i></u>	<u><i>Labs</i></u>	<u><i>Mean</i></u>	<u><i>SD</i></u>	<u><i>CV</i></u>	<u><i>Median</i></u>	<u><i>Range</i></u>
All Method	12	0.13	0.36	273.0	0.0	0.0 - 1.3	12	0.03	0.07	212.1	0.0	0.0 - 0.3
All COULTER Instruments	12	0.13	0.36	273.0	0.0	0.0 - 1.3	12	0.03	0.07	212.1	0.0	0.0 - 0.3
COULTER UniCel DxH 600	10	0.00	0.01	0.0	0.0	0.0 - 0.1	10	0.00	0.01	0.0	0.0	0.0 - 0.1
Specimen DIF-3						Specimen DIF-4						
All Method	12	0.07	0.09	129.9	0.0	0.0 - 0.4	12	0.04	0.07	163.5	0.0	0.0 - 0.3
All COULTER Instruments	12	0.07	0.09	129.9	0.0	0.0 - 0.4	12	0.04	0.07	163.5	0.0	0.0 - 0.3
COULTER UniCel DxH 600	10	0.02	0.04	245.0	0.0	0.0 - 0.2	10	0.02	0.04	245.0	0.0	0.0 - 0.2
Specimen DIF-5												
All Method	12	0.04	0.09	198.4	0.0	0.0 - 0.4						
All COULTER Instruments	12	0.04	0.09	198.4	0.0	0.0 - 0.4						
COULTER UniCel DxH 600	10	0.00	0.01	0.0	0.0	0.0 - 0.1						

BLOOD LEAD (µg/dL)

<u>Instrument</u>	Specimen LED-1						Specimen LED-2					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	18	21.05	2.04	9.7	20.8	17.0 - 25.1	19	14.96	1.11	7.4	14.9	10.9 - 19.0
All Magellan Diagnostics Methods	18	21.05	2.04	9.7	20.8	17.0 - 25.1	19	14.96	1.11	7.4	14.9	10.9 - 19.0
Magellan Diagnostics LeadCare II	18	21.05	2.04	9.7	20.8	17.0 - 25.1	19	14.96	1.11	7.4	14.9	10.9 - 19.0

<u>Instrument</u>	Specimen LED-3						Specimen LED-4					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	5	38.65	0.92	2.4	38.7	34.6 - 42.7	5	25.45	0.78	3.1	25.5	21.4 - 29.5

<u>Instrument</u>	Specimen LED-5					
<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	
All Method	5	36.95	1.48	4.0	37.0	32.9 - 41.0

RETICULOCYTE COUNT (percent)

<u>Instrument</u>	Specimen RT-1						Specimen RT-2					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	25	7.36	1.92	26.1	7.0	3.5 - 11.2	23	0.97	0.17	18.1	1.0	0.6 - 1.4
All Automated Methods	14	6.30	1.14	18.1	6.1	4.0 - 8.6	14	0.94	0.16	17.1	0.9	0.6 - 1.3
All Manual Methods	11	8.70	1.90	21.9	8.2	4.8 - 12.6	11	1.20	0.48	40.1	1.1	0.2 - 2.2

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

<u><i>Instrument</i></u>	Specimen BCX-1						Specimen BCX-2					
	<u><i>Labs</i></u>	<u><i>Mean</i></u>	<u><i>SD</i></u>	<u><i>CV</i></u>	<u><i>Median</i></u>	<u><i>Range</i></u>	<u><i>Labs</i></u>	<u><i>Mean</i></u>	<u><i>SD</i></u>	<u><i>CV</i></u>	<u><i>Median</i></u>	<u><i>Range</i></u>
All Method	100	3.95	0.12	3.1	3.9	3.3 - 4.6	99	24.86	0.74	3.0	24.9	21.1 - 28.6
All ABX Instruments	88	3.95	0.12	3.1	3.9	3.3 - 4.6	87	24.85	0.73	2.9	24.9	21.1 - 28.6
All COULTER Instruments	11	3.96	0.11	2.8	4.0	3.3 - 4.6	11	24.95	0.89	3.6	24.8	21.2 - 28.7
ABX Pentra 60C+	80	3.95	0.12	3.1	3.9	3.3 - 4.6	78	24.87	0.68	2.7	24.9	21.1 - 28.7
COULTER AcT 5diff	11	3.96	0.11	2.8	4.0	3.3 - 4.6	11	24.95	0.89	3.6	24.8	21.2 - 28.7
	Specimen BCX-3						Specimen BCX-4					
All Method	100	4.99	0.15	3.1	5.0	4.2 - 5.8	99	17.16	0.55	3.2	17.2	14.5 - 19.8
All ABX Instruments	89	4.98	0.16	3.3	5.0	4.2 - 5.8	88	17.16	0.55	3.2	17.2	14.5 - 19.8
All COULTER Instruments	11	5.00	0.13	2.7	5.0	4.2 - 5.8	11	17.32	0.84	4.8	17.5	14.7 - 20.0
ABX Pentra 60C+	80	4.97	0.16	3.2	5.0	4.2 - 5.8	79	17.17	0.53	3.1	17.2	14.5 - 19.8
COULTER AcT 5diff	11	5.00	0.13	2.7	5.0	4.2 - 5.8	11	17.32	0.84	4.8	17.5	14.7 - 20.0
	Specimen BCX-5											
All Method	100	7.55	0.22	2.9	7.5	6.4 - 8.7						
All ABX Instruments	89	7.55	0.22	3.0	7.5	6.4 - 8.7						
All COULTER Instruments	11	7.46	0.31	4.2	7.5	6.3 - 8.6						
ABX Pentra 60C+	79	7.55	0.20	2.7	7.5	6.4 - 8.7						
COULTER AcT 5diff	11	7.46	0.31	4.2	7.5	6.3 - 8.6						

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

<u>Instrument</u>	Specimen BCX-1						Specimen BCX-2					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	101	3.910	0.058	1.5	3.91	3.67 - 4.15	98	5.751	0.070	1.2	5.75	5.40 - 6.10
All ABX Instruments	89	3.908	0.057	1.5	3.91	3.67 - 4.15	87	5.752	0.071	1.2	5.75	5.40 - 6.10
All COULTER Instruments	11	3.925	0.067	1.7	3.92	3.68 - 4.17	11	5.773	0.108	1.9	5.75	5.42 - 6.12
ABX Pentra 60C+	80	3.911	0.058	1.5	3.91	3.67 - 4.15	78	5.750	0.068	1.2	5.75	5.40 - 6.10
COULTER AcT 5diff	11	3.925	0.067	1.7	3.92	3.68 - 4.17	11	5.773	0.108	1.9	5.75	5.42 - 6.12
	Specimen BCX-3						Specimen BCX-4					
All Method	99	4.799	0.068	1.4	4.80	4.51 - 5.09	101	4.219	0.058	1.4	4.22	3.96 - 4.48
All ABX Instruments	88	4.801	0.068	1.4	4.80	4.51 - 5.09	89	4.217	0.058	1.4	4.22	3.96 - 4.47
All COULTER Instruments	11	4.821	0.124	2.6	4.82	4.53 - 5.12	11	4.235	0.060	1.4	4.22	3.98 - 4.49
ABX Pentra 60C+	79	4.807	0.066	1.4	4.80	4.51 - 5.10	80	4.222	0.057	1.4	4.22	3.96 - 4.48
COULTER AcT 5diff	11	4.821	0.124	2.6	4.82	4.53 - 5.12	11	4.235	0.060	1.4	4.22	3.98 - 4.49
	Specimen BCX-5											
All Method	100	4.595	0.068	1.5	4.59	4.31 - 4.88						
All ABX Instruments	88	4.593	0.065	1.4	4.59	4.31 - 4.87						
All COULTER Instruments	11	4.618	0.087	1.9	4.63	4.34 - 4.90						
ABX Pentra 60C+	79	4.598	0.064	1.4	4.60	4.32 - 4.88						
COULTER AcT 5diff	11	4.618	0.087	1.9	4.63	4.34 - 4.90						

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

<i><u>Instrument</u></i>	Specimen BCX-1						Specimen BCX-2					
	<i><u>Labs</u></i>	<i><u>Mean</u></i>	<i><u>SD</u></i>	<i><u>CV</u></i>	<i><u>Median</u></i>	<i><u>Range</u></i>	<i><u>Labs</u></i>	<i><u>Mean</u></i>	<i><u>SD</u></i>	<i><u>CV</u></i>	<i><u>Median</u></i>	<i><u>Range</u></i>
All Method	100	10.49	0.13	1.3	10.5	9.7 - 11.3	97	17.67	0.18	1.0	17.7	16.4 - 19.0
All ABX Instruments	87	10.49	0.12	1.1	10.5	9.7 - 11.3	87	17.68	0.18	1.0	17.7	16.4 - 19.0
All COULTER Instruments	11	10.54	0.17	1.6	10.6	9.7 - 11.3	11	17.45	0.27	1.5	17.6	16.2 - 18.7
ABX Pentra 60C+	78	10.49	0.12	1.1	10.5	9.7 - 11.3	78	17.68	0.18	1.0	17.7	16.4 - 19.0
COULTER AcT 5diff	11	10.54	0.17	1.6	10.6	9.7 - 11.3	11	17.45	0.27	1.5	17.6	16.2 - 18.7
<i><u>Instrument</u></i>	Specimen BCX-3						Specimen BCX-4					
	<i><u>Labs</u></i>	<i><u>Mean</u></i>	<i><u>SD</u></i>	<i><u>CV</u></i>	<i><u>Median</u></i>	<i><u>Range</u></i>	<i><u>Labs</u></i>	<i><u>Mean</u></i>	<i><u>SD</u></i>	<i><u>CV</u></i>	<i><u>Median</u></i>	<i><u>Range</u></i>
All Method	100	14.66	0.18	1.2	14.7	13.6 - 15.7	101	11.37	0.13	1.2	11.4	10.5 - 12.2
All ABX Instruments	89	14.67	0.17	1.2	14.7	13.6 - 15.7	89	11.37	0.13	1.1	11.4	10.5 - 12.2
All COULTER Instruments	11	14.65	0.34	2.3	14.7	13.6 - 15.7	11	11.38	0.17	1.5	11.4	10.5 - 12.2
ABX Pentra 60C+	80	14.67	0.17	1.2	14.7	13.6 - 15.7	80	11.37	0.13	1.2	11.4	10.5 - 12.2
COULTER AcT 5diff	11	14.65	0.34	2.3	14.7	13.6 - 15.7	11	11.38	0.17	1.5	11.4	10.5 - 12.2
<i><u>Instrument</u></i>	Specimen BCX-5											
	<i><u>Labs</u></i>	<i><u>Mean</u></i>	<i><u>SD</u></i>	<i><u>CV</u></i>	<i><u>Median</u></i>	<i><u>Range</u></i>						
All Method	100	13.99	0.18	1.3	14.0	13.0 - 15.0						
All ABX Instruments	89	14.00	0.18	1.3	14.0	13.0 - 15.0						
All COULTER Instruments	11	14.01	0.27	2.0	14.0	13.0 - 15.0						
ABX Pentra 60C+	80	14.00	0.18	1.3	14.0	13.0 - 15.0						
COULTER AcT 5diff	11	14.01	0.27	2.0	14.0	13.0 - 15.0						

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

<u>Instrument</u>	Specimen BCX-1						Specimen BCX-2					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	101	30.44	0.53	1.8	30.4	28.6 - 32.3	100	50.24	0.73	1.4	50.3	47.2 - 53.3
All ABX Instruments	89	30.44	0.49	1.6	30.4	28.6 - 32.3	88	50.25	0.70	1.4	50.3	47.2 - 53.3
All COULTER Instruments	11	30.47	0.83	2.7	30.6	28.6 - 32.4	11	50.20	1.00	2.0	50.2	47.1 - 53.3
ABX Pentra 60C+	80	30.41	0.49	1.6	30.4	28.5 - 32.3	79	50.29	0.68	1.4	50.3	47.2 - 53.4
COULTER AcT 5diff	11	30.47	0.83	2.7	30.6	28.6 - 32.4	11	50.20	1.00	2.0	50.2	47.1 - 53.3
	Specimen BCX-3						Specimen BCX-4					
All Method	100	41.64	0.66	1.6	41.6	39.1 - 44.2	101	33.19	0.49	1.5	33.2	31.2 - 35.2
All ABX Instruments	88	41.64	0.59	1.4	41.6	39.1 - 44.2	89	33.18	0.47	1.4	33.2	31.1 - 35.2
All COULTER Instruments	11	41.63	1.13	2.7	41.7	39.1 - 44.2	11	33.25	0.68	2.1	33.0	31.2 - 35.3
ABX Pentra 60C+	79	41.66	0.60	1.4	41.7	39.1 - 44.2	80	33.20	0.48	1.4	33.2	31.2 - 35.2
COULTER AcT 5diff	11	41.63	1.13	2.7	41.7	39.1 - 44.2	11	33.25	0.68	2.1	33.0	31.2 - 35.3
	Specimen BCX-5											
All Method	100	39.78	0.65	1.6	39.8	37.3 - 42.2						
All ABX Instruments	88	39.77	0.58	1.5	39.8	37.3 - 42.2						
All COULTER Instruments	11	39.88	1.09	2.7	40.0	37.4 - 42.3						
ABX Pentra 60C+	79	39.79	0.59	1.5	39.8	37.4 - 42.2						
COULTER AcT 5diff	11	39.88	1.09	2.7	40.0	37.4 - 42.3						

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

<u><i>Instrument</i></u>	Specimen BCX-1						Specimen BCX-2					
	<u><i>Labs</i></u>	<u><i>Mean</i></u>	<u><i>SD</i></u>	<u><i>CV</i></u>	<u><i>Median</i></u>	<u><i>Range</i></u>	<u><i>Labs</i></u>	<u><i>Mean</i></u>	<u><i>SD</i></u>	<u><i>CV</i></u>	<u><i>Median</i></u>	<u><i>Range</i></u>
All Method	101	107.3	5.4	5.1	107	80 - 135	99	491.5	12.4	2.5	492	368 - 615
All ABX Instruments	89	107.4	5.4	5.0	107	80 - 135	87	492.6	11.9	2.4	492	369 - 616
All COULTER Instruments	11	107.5	6.1	5.6	108	80 - 135	11	483.5	13.4	2.8	476	362 - 605
ABX Pentra 60C+	80	107.6	5.2	4.9	107	80 - 135	78	492.6	12.2	2.5	492	369 - 616
COULTER AcT 5diff	11	107.5	6.1	5.6	108	80 - 135	11	483.5	13.4	2.8	476	362 - 605
	Specimen BCX-3						Specimen BCX-4					
All Method	100	148.9	5.9	3.9	149	111 - 187	100	215.9	6.7	3.1	216	161 - 270
All ABX Instruments	88	149.0	5.5	3.7	149	111 - 187	88	216.4	6.4	3.0	217	162 - 271
All COULTER Instruments	11	148.9	8.1	5.4	150	111 - 187	11	211.6	7.7	3.6	212	158 - 265
ABX Pentra 60C+	79	149.3	5.5	3.7	149	111 - 187	79	216.3	6.6	3.0	217	162 - 271
COULTER AcT 5diff	11	148.9	8.1	5.4	150	111 - 187	11	211.6	7.7	3.6	212	158 - 265
	Specimen BCX-5											
All Method	100	234.9	8.8	3.7	235	176 - 294						
All ABX Instruments	88	235.2	8.9	3.8	236	176 - 295						
All COULTER Instruments	11	232.1	7.6	3.3	230	174 - 291						
ABX Pentra 60C+	79	235.4	8.9	3.8	236	176 - 295						
COULTER AcT 5diff	11	232.1	7.6	3.3	230	174 - 291						

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

<u><i>Instrument</i></u>	Specimen BCX-1						Specimen BCX-2					
	<u><i>Labs</i></u>	<u><i>Mean</i></u>	<u><i>SD</i></u>	<u><i>CV</i></u>	<u><i>Median</i></u>	<u><i>Range</i></u>	<u><i>Labs</i></u>	<u><i>Mean</i></u>	<u><i>SD</i></u>	<u><i>CV</i></u>	<u><i>Median</i></u>	<u><i>Range</i></u>
All Method	99	59.41	5.30	8.9	59.6	43.5 - 75.4	99	53.22	4.53	8.5	53.2	39.6 - 66.9
All ABX Instruments	88	59.42	5.30	8.9	59.6	43.5 - 75.4	88	53.63	4.30	8.0	53.6	40.7 - 66.6
All COULTER Instruments	10	58.98	5.71	9.7	58.8	41.8 - 76.2	10	49.70	6.11	12.3	49.1	31.3 - 68.1
ABX Pentra 60C+	80	59.60	5.09	8.5	59.7	44.3 - 74.9	79	54.11	4.10	7.6	54.0	41.8 - 66.4
COULTER AcT 5diff	10	58.98	5.71	9.7	58.8	41.8 - 76.2	10	49.70	6.11	12.3	49.1	31.3 - 68.1
	Specimen BCX-3						Specimen BCX-4					
All Method	100	51.48	4.20	8.2	51.5	38.8 - 64.1	97	68.78	3.88	5.6	69.6	57.1 - 80.5
All ABX Instruments	89	51.94	3.98	7.7	52.0	39.9 - 63.9	87	69.52	3.25	4.7	70.1	59.7 - 79.3
All COULTER Instruments	10	47.84	4.32	9.0	48.7	34.8 - 60.8	10	60.05	4.62	7.7	61.6	46.1 - 74.0
ABX Pentra 60C+	80	52.21	3.78	7.2	52.4	40.8 - 63.6	77	70.32	2.30	3.3	70.3	63.4 - 77.3
COULTER AcT 5diff	10	47.84	4.32	9.0	48.7	34.8 - 60.8	10	60.05	4.62	7.7	61.6	46.1 - 74.0
	Specimen BCX-5											
All Method	98	70.78	4.13	5.8	71.7	58.3 - 83.2						
All ABX Instruments	86	72.00	2.46	3.4	72.0	64.6 - 79.4						
All COULTER Instruments	10	60.57	2.54	4.2	60.7	52.9 - 68.2						
ABX Pentra 60C+	77	72.14	2.39	3.3	72.1	64.9 - 79.4						
COULTER AcT 5diff	10	60.57	2.54	4.2	60.7	52.9 - 68.2						

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

<u>Instrument</u>	Specimen BCX-1						Specimen BCX-2					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	99	30.73	4.96	16.1	29.8	15.8 - 45.7	98	38.71	4.70	12.1	38.9	24.6 - 52.9
All ABX Instruments	88	31.13	4.89	15.7	30.3	16.4 - 45.9	88	38.89	4.67	12.0	39.1	24.8 - 53.0
All COULTER Instruments	10	27.37	4.67	17.1	28.7	13.3 - 41.4	10	38.30	7.15	18.7	38.6	16.8 - 59.8
ABX Pentra 60C+	80	30.94	4.58	14.8	30.3	17.1 - 44.7	79	38.32	4.37	11.4	38.6	25.2 - 51.5
COULTER AcT 5diff	10	27.37	4.67	17.1	28.7	13.3 - 41.4	10	38.30	7.15	18.7	38.6	16.8 - 59.8
Specimen BCX-3												
All Method	99	42.04	3.76	8.9	41.7	30.7 - 53.4	100	24.97	3.42	13.7	24.8	14.7 - 35.3
All ABX Instruments	88	42.15	3.68	8.7	41.9	31.1 - 53.2	86	24.98	2.56	10.2	24.9	17.3 - 32.7
All COULTER Instruments	10	40.52	4.11	10.1	40.1	28.2 - 52.9	10	21.82	4.84	22.2	19.9	7.3 - 36.4
ABX Pentra 60C+	80	41.96	3.62	8.6	41.7	31.0 - 52.9	78	24.47	1.99	8.1	24.6	18.4 - 30.5
COULTER AcT 5diff	10	40.52	4.11	10.1	40.1	28.2 - 52.9	10	21.82	4.84	22.2	19.9	7.3 - 36.4
Specimen BCX-4												
All Method	99	23.23	2.55	11.0	23.2	15.5 - 30.9						
All ABX Instruments	88	23.54	2.33	9.9	23.6	16.5 - 30.6						
All COULTER Instruments	10	20.26	2.66	13.1	19.5	12.2 - 28.3						
ABX Pentra 60C+	79	23.38	2.20	9.4	23.5	16.7 - 30.0						
COULTER AcT 5diff	10	20.26	2.66	13.1	19.5	12.2 - 28.3						
Specimen BCX-5												

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

<i>Instrument</i>	Specimen BCX-1						Specimen BCX-2					
	<i>Labs</i>	<i>Mean</i>	<i>SD</i>	<i>CV</i>	<i>Median</i>	<i>Range</i>	<i>Labs</i>	<i>Mean</i>	<i>SD</i>	<i>CV</i>	<i>Median</i>	<i>Range</i>
All Method	97	1.23	0.81	65.8	1.0	0.0 - 3.7	100	3.09	1.09	35.2	2.9	0.0 - 6.4
All ABX Instruments	85	1.17	0.77	65.7	1.0	0.0 - 3.5	88	3.05	1.09	35.8	2.9	0.0 - 6.4
All COULTER Instruments	11	1.67	1.04	62.2	1.7	0.0 - 4.8	11	3.30	1.07	32.5	3.2	0.0 - 6.6
ABX Pentra 60C+	77	1.17	0.72	61.1	1.0	0.0 - 3.4	79	3.14	1.10	35.1	3.0	0.0 - 6.5
COULTER AcT 5diff	11	1.67	1.04	62.2	1.7	0.0 - 4.8	11	3.30	1.07	32.5	3.2	0.0 - 6.6
	Specimen BCX-3						Specimen BCX-4					
All Method	98	1.04	0.60	58.4	1.0	0.0 - 2.9	99	1.92	0.67	34.8	1.8	0.0 - 4.0
All ABX Instruments	86	0.96	0.55	57.2	0.9	0.0 - 2.7	87	1.84	0.59	31.8	1.8	0.0 - 3.6
All COULTER Instruments	11	1.55	0.86	55.9	1.5	0.0 - 4.2	11	2.67	1.27	47.6	2.0	0.0 - 6.5
ABX Pentra 60C+	77	0.97	0.54	56.2	0.9	0.0 - 2.6	78	1.89	0.58	30.6	1.9	0.1 - 3.7
COULTER AcT 5diff	11	1.55	0.86	55.9	1.5	0.0 - 4.2	11	2.67	1.27	47.6	2.0	0.0 - 6.5
	Specimen BCX-5											
All Method	97	0.99	0.54	54.7	0.9	0.0 - 2.7						
All ABX Instruments	86	0.94	0.50	53.3	0.9	0.0 - 2.5						
All COULTER Instruments	11	1.62	0.93	57.4	1.2	0.0 - 4.5						
ABX Pentra 60C+	77	0.96	0.50	51.5	0.9	0.0 - 2.5						
COULTER AcT 5diff	11	1.62	0.93	57.4	1.2	0.0 - 4.5						

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

<u><i>Instrument</i></u>	Specimen BCX-1						Specimen BCX-2					
	<u><i>Labs</i></u>	<u><i>Mean</i></u>	<u><i>SD</i></u>	<u><i>CV</i></u>	<u><i>Median</i></u>	<u><i>Range</i></u>	<u><i>Labs</i></u>	<u><i>Mean</i></u>	<u><i>SD</i></u>	<u><i>CV</i></u>	<u><i>Median</i></u>	<u><i>Range</i></u>
All Method	100	7.62	1.72	22.6	7.6	2.4 - 12.8	98	4.06	0.81	19.8	4.0	1.6 - 6.5
All ABX Instruments	89	7.73	1.67	21.5	7.8	2.7 - 12.8	87	3.98	0.78	19.5	3.9	1.6 - 6.4
All COULTER Instruments	10	6.68	2.03	30.3	6.4	0.6 - 12.8	11	4.89	1.03	21.0	5.0	1.8 - 8.0
ABX Pentra 60C+	80	7.73	1.66	21.5	7.8	2.7 - 12.8	78	3.95	0.77	19.5	3.9	1.6 - 6.3
COULTER AcT 5diff	10	6.68	2.03	30.3	6.4	0.6 - 12.8	11	4.89	1.03	21.0	5.0	1.8 - 8.0
	Specimen BCX-3						Specimen BCX-4					
All Method	100	4.24	1.05	24.8	4.1	1.0 - 7.4	99	2.63	0.47	18.0	2.6	1.2 - 4.1
All ABX Instruments	88	4.24	1.08	25.4	4.1	1.0 - 7.5	89	2.59	0.46	17.6	2.6	1.2 - 4.0
All COULTER Instruments	11	4.33	0.89	20.7	3.8	1.6 - 7.1	11	3.29	0.64	19.5	3.0	1.3 - 5.3
ABX Pentra 60C+	79	4.29	1.09	25.5	4.1	1.0 - 7.6	80	2.58	0.45	17.6	2.6	1.2 - 4.0
COULTER AcT 5diff	11	4.33	0.89	20.7	3.8	1.6 - 7.1	11	3.29	0.64	19.5	3.0	1.3 - 5.3
	Specimen BCX-5											
All Method	101	2.83	0.68	24.0	2.8	0.7 - 4.9						
All ABX Instruments	89	2.73	0.63	23.1	2.7	0.8 - 4.7						
All COULTER Instruments	11	3.65	0.56	15.3	3.6	1.9 - 5.4						
ABX Pentra 60C+	80	2.72	0.64	23.6	2.7	0.7 - 4.7						
COULTER AcT 5diff	11	3.65	0.56	15.3	3.6	1.9 - 5.4						

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

<u><i>Instrument</i></u>	Specimen BCX-1						Specimen BCX-2					
	<u><i>Labs</i></u>	<u><i>Mean</i></u>	<u><i>SD</i></u>	<u><i>CV</i></u>	<u><i>Median</i></u>	<u><i>Range</i></u>	<u><i>Labs</i></u>	<u><i>Mean</i></u>	<u><i>SD</i></u>	<u><i>CV</i></u>	<u><i>Median</i></u>	<u><i>Range</i></u>
All Method	87	0.24	0.05	20.5	0.2	0.0 - 0.4	86	0.20	0.01	0.0	0.2	0.1 - 0.3
All ABX Instruments	86	0.24	0.05	20.5	0.2	0.0 - 0.4	85	0.20	0.01	0.0	0.2	0.1 - 0.3
All COULTER Instruments	11	4.88	0.45	9.2	4.9	3.5 - 6.3	11	3.67	0.32	8.6	3.7	2.7 - 4.7
ABX Pentra 60C+	77	0.24	0.05	20.5	0.2	0.0 - 0.4	77	0.20	0.01	0.0	0.2	0.1 - 0.3
COULTER AcT 5diff	11	4.88	0.45	9.2	4.9	3.5 - 6.3	11	3.67	0.32	8.6	3.7	2.7 - 4.7
	Specimen BCX-3						Specimen BCX-4					
All Method	86	0.30	0.01	0.0	0.3	0.2 - 0.4	86	0.60	0.01	0.0	0.6	0.5 - 0.7
All ABX Instruments	85	0.30	0.01	0.0	0.3	0.2 - 0.4	85	0.60	0.01	0.0	0.6	0.5 - 0.7
All COULTER Instruments	11	5.61	0.38	6.7	5.7	4.4 - 6.8	11	11.94	0.72	6.0	12.0	9.7 - 14.1
ABX Pentra 60C+	76	0.30	0.01	0.0	0.3	0.2 - 0.4	76	0.60	0.01	0.0	0.6	0.5 - 0.7
COULTER AcT 5diff	11	5.61	0.38	6.7	5.7	4.4 - 6.8	11	11.94	0.72	6.0	12.0	9.7 - 14.1
	Specimen BCX-5											
All Method	88	0.68	0.04	5.5	0.7	0.5 - 0.8						
All ABX Instruments	87	0.68	0.04	5.6	0.7	0.5 - 0.8						
All COULTER Instruments	11	13.77	0.48	3.5	13.7	12.3 - 15.3						
ABX Pentra 60C+	78	0.68	0.04	5.5	0.7	0.5 - 0.8						
COULTER AcT 5diff	11	13.77	0.48	3.5	13.7	12.3 - 15.3						

HEMATOLOGY W/ 5 or 6-PART DIFFERENTIAL—WHITE BLOOD CELL COUNT (x 10⁹/L)

Specimen MX-1							Specimen MX-2					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	103	3.46	0.32	9.4	3.6	2.9 - 4.0	104	20.65	0.91	4.4	20.7	17.5 - 23.8
All Sysmex XE/XT Instruments	10	3.60	0.14	3.9	3.6	3.0 - 4.2	10	19.92	1.14	5.7	19.7	16.9 - 23.0
All Sysmex XN/XS Instruments	97	3.46	0.33	9.6	3.6	2.9 - 4.0	98	20.69	0.88	4.2	20.7	17.5 - 23.8
Sysmex XN-1000	13	3.55	0.11	3.2	3.5	3.0 - 4.1	13	20.21	0.48	2.4	20.2	17.1 - 23.3
Sysmex XN-430	23	3.15	0.27	8.5	3.0	2.6 - 3.7	23	20.37	0.54	2.6	20.3	17.3 - 23.5
Sysmex XN-550	11	3.09	0.31	10.2	3.0	2.6 - 3.6	11	19.85	0.71	3.6	19.8	16.8 - 22.9
Sysmex XS-1000i	42	3.72	0.11	3.1	3.7	3.1 - 4.3	42	21.40	0.67	3.1	21.4	18.1 - 24.7
Specimen MX-3							Specimen MX-4					
All Method	104	7.32	0.51	7.0	7.5	6.2 - 8.5	102	20.56	0.91	4.4	20.5	17.4 - 23.7
All Sysmex XE/XT Instruments	10	7.47	0.24	3.2	7.5	6.3 - 8.6	10	19.18	1.06	5.5	19.0	16.3 - 22.1
All Sysmex XN/XS Instruments	98	7.31	0.52	7.1	7.5	6.2 - 8.5	96	20.65	0.84	4.1	20.6	17.5 - 23.8
Sysmex XN-1000	13	7.39	0.17	2.3	7.3	6.2 - 8.6	13	20.42	0.45	2.2	20.4	17.3 - 23.5
Sysmex XN-430	23	6.88	0.37	5.4	6.7	5.8 - 8.0	23	20.27	0.71	3.5	20.2	17.2 - 23.4
Sysmex XN-550	11	6.70	0.54	8.0	6.5	5.6 - 7.8	11	19.72	0.74	3.7	19.5	16.7 - 22.7
Sysmex XS-1000i	42	7.74	0.22	2.8	7.8	6.5 - 8.9	41	21.25	0.65	3.0	21.3	18.0 - 24.5
Specimen MX-5												
All Method	103	7.36	0.48	6.6	7.5	6.2 - 8.5						
All Sysmex XE/XT Instruments	10	7.42	0.28	3.8	7.4	6.3 - 8.6						
All Sysmex XN/XS Instruments	97	7.36	0.49	6.7	7.5	6.2 - 8.5						
Sysmex XN-1000	13	7.41	0.18	2.4	7.4	6.2 - 8.6						
Sysmex XN-430	23	6.91	0.33	4.8	6.8	5.8 - 8.0						
Sysmex XN-550	11	6.82	0.43	6.3	6.7	5.7 - 7.9						
Sysmex XS-1000i	42	7.77	0.21	2.7	7.7	6.6 - 9.0						

HEMATOLOGY W/ 5 or 6-PART DIFFERENTIAL-RED BLOOD CELL COUNT (x 10¹²/L)

<u>Instrument</u>	Specimen MX-1						Specimen MX-2					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	102	2.396	0.035	1.5	2.39	2.25 - 2.55	101	5.811	0.248	4.3	5.71	5.46 - 6.16
All Sysmex XE/XT Instruments	10	2.472	0.026	1.1	2.47	2.32 - 2.62	10	5.680	0.348	6.1	5.60	5.33 - 6.03
All Sysmex XN/XS Instruments	97	2.393	0.032	1.4	2.39	2.24 - 2.54	96	5.818	0.242	4.2	5.72	5.46 - 6.17
Sysmex XN-1000	13	2.388	0.025	1.0	2.39	2.24 - 2.54	13	5.793	0.214	3.7	5.75	5.44 - 6.15
Sysmex XN-430	23	2.395	0.031	1.3	2.39	2.25 - 2.54	22	5.989	0.297	5.0	5.82	5.62 - 6.35
Sysmex XN-550	11	2.385	0.083	3.5	2.37	2.24 - 2.53	11	5.763	0.161	2.8	5.71	5.41 - 6.11
Sysmex XS-1000i	42	2.405	0.031	1.3	2.40	2.26 - 2.55	41	5.763	0.212	3.7	5.69	5.41 - 6.11
	Specimen MX-3						Specimen MX-4					
All Method	103	4.631	0.052	1.1	4.63	4.35 - 4.91	103	5.811	0.238	4.1	5.71	5.46 - 6.16
All Sysmex XE/XT Instruments	10	4.652	0.043	0.9	4.67	4.37 - 4.94	10	5.617	0.146	2.6	5.63	5.27 - 5.96
All Sysmex XN/XS Instruments	97	4.630	0.053	1.1	4.63	4.35 - 4.91	97	5.823	0.237	4.1	5.72	5.47 - 6.18
Sysmex XN-1000	13	4.652	0.033	0.7	4.66	4.37 - 4.94	13	5.808	0.259	4.5	5.71	5.45 - 6.16
Sysmex XN-430	23	4.641	0.046	1.0	4.64	4.36 - 4.92	23	5.887	0.273	4.6	5.75	5.53 - 6.25
Sysmex XN-550	11	4.620	0.058	1.3	4.61	4.34 - 4.90	11	5.811	0.216	3.7	5.71	5.46 - 6.16
Sysmex XS-1000i	42	4.623	0.063	1.4	4.63	4.34 - 4.91	42	5.791	0.222	3.8	5.70	5.44 - 6.14
	Specimen MX-5											
All Method	102	4.626	0.045	1.0	4.62	4.34 - 4.91						
All Sysmex XE/XT Instruments	10	4.650	0.059	1.3	4.66	4.37 - 4.93						
All Sysmex XN/XS Instruments	95	4.623	0.042	0.9	4.62	4.34 - 4.91						
Sysmex XN-1000	13	4.642	0.039	0.8	4.65	4.36 - 4.93						
Sysmex XN-430	23	4.645	0.036	0.8	4.65	4.36 - 4.93						
Sysmex XN-550	11	4.606	0.041	0.9	4.61	4.32 - 4.89						
Sysmex XS-1000i	40	4.614	0.037	0.8	4.62	4.33 - 4.90						

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

<u>Instrument</u>	Specimen MX-1						Specimen MX-2					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	102	5.94	0.08	1.4	5.9	5.5 - 6.4	104	17.88	0.77	4.3	17.5	16.6 - 19.2
All Sysmex XE/XT Instruments	10	5.98	0.10	1.6	6.0	5.5 - 6.5	10	17.87	1.01	5.6	17.5	16.6 - 19.2
All Sysmex XN/XS Instruments	96	5.94	0.08	1.4	5.9	5.5 - 6.4	98	17.88	0.76	4.2	17.5	16.6 - 19.2
Sysmex XN-1000	13	5.95	0.05	0.9	6.0	5.5 - 6.4	13	17.75	0.70	4.0	17.5	16.5 - 19.0
Sysmex XN-430	23	5.98	0.06	1.0	6.0	5.5 - 6.4	23	18.23	0.89	4.9	17.6	16.9 - 19.6
Sysmex XN-550	11	6.03	0.23	3.8	6.0	5.6 - 6.5	11	17.55	0.46	2.6	17.5	16.3 - 18.8
Sysmex XS-1000i	41	5.91	0.09	1.4	5.9	5.5 - 6.4	42	17.88	0.72	4.0	17.6	16.6 - 19.2
Specimen MX-3												
All Method	104	13.19	0.14	1.1	13.2	12.2 - 14.2	103	17.87	0.74	4.1	17.6	16.6 - 19.2
All Sysmex XE/XT Instruments	10	13.18	0.13	1.0	13.2	12.2 - 14.2	10	17.20	0.33	1.9	17.1	15.9 - 18.5
All Sysmex XN/XS Instruments	98	13.19	0.14	1.1	13.2	12.2 - 14.2	97	17.91	0.74	4.1	17.6	16.6 - 19.2
Sysmex XN-1000	13	13.25	0.10	0.7	13.3	12.3 - 14.2	13	17.78	0.75	4.2	17.6	16.5 - 19.1
Sysmex XN-430	23	13.18	0.12	0.9	13.2	12.2 - 14.2	23	17.93	0.82	4.6	17.6	16.6 - 19.2
Sysmex XN-550	11	13.18	0.15	1.1	13.2	12.2 - 14.2	11	17.80	0.62	3.5	17.5	16.5 - 19.1
Sysmex XS-1000i	42	13.20	0.17	1.3	13.2	12.2 - 14.2	42	17.96	0.73	4.1	17.7	16.7 - 19.3
Specimen MX-4												
All Method	103	13.19	0.13	1.0	13.2	12.2 - 14.2						
All Sysmex XE/XT Instruments	10	13.13	0.12	0.9	13.2	12.2 - 14.1						
All Sysmex XN/XS Instruments	97	13.20	0.13	1.0	13.2	12.2 - 14.2						
Sysmex XN-1000	13	13.20	0.12	0.9	13.2	12.2 - 14.2						
Sysmex XN-430	23	13.20	0.10	0.8	13.2	12.2 - 14.2						
Sysmex XN-550	11	13.18	0.11	0.8	13.2	12.2 - 14.2						
Sysmex XS-1000i	42	13.21	0.16	1.2	13.2	12.2 - 14.2						
Specimen MX-5												
All Method	103	13.19	0.13	1.0	13.2	12.2 - 14.2						
All Sysmex XE/XT Instruments	10	13.13	0.12	0.9	13.2	12.2 - 14.1						
All Sysmex XN/XS Instruments	97	13.20	0.13	1.0	13.2	12.2 - 14.2						
Sysmex XN-1000	13	13.20	0.12	0.9	13.2	12.2 - 14.2						
Sysmex XN-430	23	13.20	0.10	0.8	13.2	12.2 - 14.2						
Sysmex XN-550	11	13.18	0.11	0.8	13.2	12.2 - 14.2						
Sysmex XS-1000i	42	13.21	0.16	1.2	13.2	12.2 - 14.2						

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

<i>Instrument</i>	Specimen MX-1						Specimen MX-2					
	<i>Labs</i>	<i>Mean</i>	<i>SD</i>	<i>CV</i>	<i>Median</i>	<i>Range</i>	<i>Labs</i>	<i>Mean</i>	<i>SD</i>	<i>CV</i>	<i>Median</i>	<i>Range</i>
All Method	102	18.46	0.43	2.3	18.5	17.3 - 19.6	101	53.72	2.30	4.3	53.0	50.4 - 57.0
All Sysmex XE/XT Instruments	10	18.97	0.33	1.8	19.0	17.8 - 20.2	10	52.64	2.87	5.5	51.6	49.4 - 55.8
All Sysmex XN/XS Instruments	96	18.43	0.42	2.3	18.5	17.3 - 19.6	96	53.78	2.27	4.2	53.1	50.5 - 57.1
Sysmex XN-1000	13	18.11	0.29	1.6	18.0	17.0 - 19.2	13	52.98	1.88	3.6	52.4	49.7 - 56.2
Sysmex XN-430	23	18.37	0.41	2.2	18.5	17.2 - 19.5	21	54.84	2.65	4.8	53.9	51.5 - 58.2
Sysmex XN-550	11	18.18	0.77	4.2	18.1	17.0 - 19.3	11	52.62	1.85	3.5	52.5	49.4 - 55.8
Sysmex XS-1000i	41	18.73	0.27	1.4	18.6	17.6 - 19.9	42	53.96	2.15	4.0	53.3	50.7 - 57.2
Specimen MX-3												
All Method	103	39.72	0.62	1.6	39.8	37.3 - 42.2	102	53.78	2.11	3.9	53.2	50.5 - 57.1
All Sysmex XE/XT Instruments	10	39.77	0.52	1.3	39.8	37.3 - 42.2	10	52.42	1.35	2.6	52.4	49.2 - 55.6
All Sysmex XN/XS Instruments	97	39.72	0.63	1.6	39.8	37.3 - 42.2	96	53.86	2.13	4.0	53.3	50.6 - 57.1
Sysmex XN-1000	13	39.55	0.51	1.3	39.5	37.1 - 42.0	13	53.15	2.31	4.3	52.4	49.9 - 56.4
Sysmex XN-430	23	39.69	0.60	1.5	39.8	37.3 - 42.1	23	54.08	2.41	4.5	53.1	50.8 - 57.4
Sysmex XN-550	11	39.25	0.88	2.2	39.1	36.8 - 41.7	10	53.39	1.86	3.5	53.1	50.1 - 56.6
Sysmex XS-1000i	42	39.92	0.67	1.7	39.9	37.5 - 42.4	42	54.09	2.04	3.8	53.7	50.8 - 57.4
Specimen MX-5												
All Method	101	39.64	0.55	1.4	39.7	37.2 - 42.1						
All Sysmex XE/XT Instruments	10	39.78	0.43	1.1	39.9	37.3 - 42.2						
All Sysmex XN/XS Instruments	96	39.65	0.58	1.5	39.7	37.2 - 42.1						
Sysmex XN-1000	13	39.45	0.53	1.3	39.4	37.0 - 41.9						
Sysmex XN-430	23	39.69	0.47	1.2	39.6	37.3 - 42.1						
Sysmex XN-550	11	39.11	0.82	2.1	39.2	36.7 - 41.5						
Sysmex XS-1000i	42	39.86	0.58	1.5	39.8	37.4 - 42.3						

HEMATOLOGY W/ 5 or 6-PART DIFFERENTIAL-PLATELET COUNT (x 10⁹/L)

Specimen MX-1							Specimen MX-2					
<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	104	58.4	4.3	7.4	58	43 - 73	104	436.7	26.6	6.1	436	327 - 546
All Sysmex XE/XT Instruments	10	58.8	8.4	14.2	60	44 - 74	10	407.8	33.4	8.2	394	305 - 510
All Sysmex XN/XS Instruments	98	58.4	4.0	6.9	58	43 - 73	98	438.5	25.3	5.8	436	328 - 549
Sysmex XN-1000	13	55.6	3.2	5.7	56	41 - 70	13	444.4	19.6	4.4	439	333 - 556
Sysmex XN-430	23	58.3	4.1	7.0	58	43 - 73	22	457.0	18.0	3.9	452	342 - 572
Sysmex XN-550	11	58.3	3.3	5.6	58	43 - 73	11	461.2	17.3	3.8	457	345 - 577
Sysmex XS-1000i	42	59.8	4.1	6.8	61	44 - 75	41	421.6	14.0	3.3	423	316 - 528
Specimen MX-3							Specimen MX-4					
All Method	102	224.0	8.2	3.7	224	168 - 280	102	437.4	23.4	5.3	437	328 - 547
All Sysmex XE/XT Instruments	10	215.7	10.2	4.7	215	161 - 270	10	402.3	29.9	7.4	393	301 - 503
All Sysmex XN/XS Instruments	96	224.5	7.8	3.5	224	168 - 281	95	440.3	20.2	4.6	438	330 - 551
Sysmex XN-1000	13	222.6	7.1	3.2	223	166 - 279	13	445.5	22.5	5.1	446	334 - 557
Sysmex XN-430	22	227.0	6.3	2.8	226	170 - 284	22	451.4	14.8	3.3	448	338 - 565
Sysmex XN-550	11	231.1	7.7	3.3	231	173 - 289	11	455.5	12.1	2.7	457	341 - 570
Sysmex XS-1000i	42	220.7	8.4	3.8	221	165 - 276	41	424.6	12.7	3.0	426	318 - 531
Specimen MX-5												
All Method	101	223.8	8.3	3.7	224	167 - 280						
All Sysmex XE/XT Instruments	10	213.2	13.6	6.4	213	159 - 267						
All Sysmex XN/XS Instruments	95	224.4	7.6	3.4	225	168 - 281						
Sysmex XN-1000	13	221.3	6.1	2.7	223	165 - 277						
Sysmex XN-430	22	228.7	4.9	2.1	229	171 - 286						
Sysmex XN-550	11	229.3	7.5	3.3	229	171 - 287						
Sysmex XS-1000i	42	220.5	8.1	3.7	221	165 - 276						

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

<u><i>Instrument</i></u>	Specimen MX-1						Specimen MX-2					
	<u><i>Labs</i></u>	<u><i>Mean</i></u>	<u><i>SD</i></u>	<u><i>CV</i></u>	<u><i>Median</i></u>	<u><i>Range</i></u>	<u><i>Labs</i></u>	<u><i>Mean</i></u>	<u><i>SD</i></u>	<u><i>CV</i></u>	<u><i>Median</i></u>	<u><i>Range</i></u>
All Method	81	58.00	1.90	3.3	57.8	52.2 - 63.8	85	59.43	2.03	3.4	59.4	53.3 - 65.6
All Sysmex XE/XT Instruments	10	66.53	1.31	2.0	66.7	62.6 - 70.5	10	61.50	1.78	2.9	61.0	56.1 - 66.9
All Sysmex XN/XS Instruments	80	57.92	1.78	3.1	57.8	52.5 - 63.3	79	59.28	1.97	3.3	59.2	53.3 - 65.2
Sysmex XN-1000	11	60.34	0.62	1.0	60.3	58.4 - 62.3	11	61.91	1.19	1.9	62.0	58.3 - 65.5
Sysmex XN-430	20	56.38	1.64	2.9	56.5	51.4 - 61.3	20	58.45	2.13	3.6	57.9	52.0 - 64.9
Sysmex XN-550	10	57.03	0.92	1.6	57.0	54.2 - 59.8	10	57.93	1.60	2.8	58.0	53.1 - 62.8
Sysmex XS-1000i	35	58.35	1.05	1.8	58.7	55.2 - 61.5	34	59.36	1.29	2.2	59.5	55.5 - 63.3
	Specimen MX-3						Specimen MX-4					
All Method	84	48.74	1.86	3.8	48.3	43.1 - 54.4	85	59.10	2.08	3.5	59.0	52.8 - 65.4
All Sysmex XE/XT Instruments	10	52.52	2.34	4.5	52.4	45.4 - 59.6	10	60.88	1.46	2.4	60.7	56.5 - 65.3
All Sysmex XN/XS Instruments	78	48.48	1.62	3.3	48.3	43.6 - 53.4	79	58.97	2.06	3.5	58.9	52.7 - 65.2
Sysmex XN-1000	11	50.95	0.70	1.4	50.9	48.8 - 53.1	11	61.95	1.22	2.0	61.6	58.2 - 65.6
Sysmex XN-430	19	47.30	1.05	2.2	47.4	44.1 - 50.5	20	58.26	1.94	3.3	58.2	52.4 - 64.1
Sysmex XN-550	10	47.62	1.16	2.4	47.5	44.1 - 51.2	10	57.63	1.61	2.8	57.3	52.7 - 62.5
Sysmex XS-1000i	34	48.65	1.22	2.5	48.7	44.9 - 52.4	34	58.86	1.61	2.7	59.0	54.0 - 63.7
	Specimen MX-5											
All Method	85	48.87	2.19	4.5	48.3	42.3 - 55.5						
All Sysmex XE/XT Instruments	10	53.55	2.22	4.1	54.0	46.8 - 60.3						
All Sysmex XN/XS Instruments	78	48.46	1.68	3.5	48.3	43.4 - 53.6						
Sysmex XN-1000	11	51.15	0.59	1.1	51.4	49.3 - 53.0						
Sysmex XN-430	19	47.29	0.87	1.8	47.1	44.6 - 49.9						
Sysmex XN-550	10	46.80	0.76	1.6	46.8	44.5 - 49.1						
Sysmex XS-1000i	34	48.70	1.34	2.8	48.5	44.6 - 52.8						

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

<u>Instrument</u>	Specimen MX-1						Specimen MX-2					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	86	17.65	1.57	8.9	17.6	12.9 - 22.4	83	16.17	2.01	12.4	15.4	10.1 - 22.3
All Sysmex XE/XT Instruments	10	17.02	1.84	10.8	16.4	11.5 - 22.6	10	22.35	1.68	7.5	22.4	17.3 - 27.4
All Sysmex XN/XS Instruments	80	17.70	1.55	8.8	17.6	13.0 - 22.4	79	15.91	1.64	10.3	15.3	10.9 - 20.9
Sysmex XN-1000	11	17.47	1.01	5.8	17.5	14.4 - 20.6	11	15.65	1.19	7.6	15.4	12.0 - 19.3
Sysmex XN-430	19	19.29	1.21	6.3	19.3	15.6 - 23.0	19	16.56	1.65	10.0	17.4	11.6 - 21.6
Sysmex XN-550	10	18.72	0.54	2.9	18.7	17.0 - 20.4	10	17.28	1.40	8.1	17.5	13.0 - 21.5
Sysmex XS-1000i	35	16.69	0.90	5.4	16.9	13.9 - 19.4	33	14.91	0.97	6.5	15.1	12.0 - 17.9
<u>Instrument</u>	Specimen MX-3						Specimen MX-4					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	84	29.68	1.84	6.2	29.6	24.1 - 35.3	82	16.20	1.88	11.6	15.8	10.5 - 21.9
All Sysmex XE/XT Instruments	10	31.83	2.85	8.9	32.3	23.2 - 40.4	10	23.05	1.05	4.5	23.4	19.9 - 26.2
All Sysmex XN/XS Instruments	78	29.52	1.66	5.6	29.5	24.5 - 34.5	79	16.12	1.55	9.6	15.8	11.4 - 20.8
Sysmex XN-1000	11	27.43	0.83	3.0	27.3	24.9 - 30.0	11	16.03	1.56	9.7	15.5	11.3 - 20.7
Sysmex XN-430	19	31.35	0.52	1.7	31.4	29.7 - 33.0	20	16.64	1.95	11.7	17.5	10.7 - 22.5
Sysmex XN-550	10	30.47	1.01	3.3	30.5	27.4 - 33.6	10	17.01	1.54	9.0	17.5	12.3 - 21.7
Sysmex XS-1000i	33	28.96	0.91	3.1	29.0	26.2 - 31.7	35	15.36	1.32	8.6	15.3	11.3 - 19.4
<u>Instrument</u>	Specimen MX-5											
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>						
All Method	83	29.43	1.78	6.1	29.6	24.0 - 34.8						
All Sysmex XE/XT Instruments	10	30.67	3.41	11.1	30.5	20.4 - 40.9						
All Sysmex XN/XS Instruments	78	29.41	1.72	5.9	29.6	24.2 - 34.6						
Sysmex XN-1000	11	27.44	0.58	2.1	27.2	25.6 - 29.2						
Sysmex XN-430	19	31.05	0.68	2.2	31.2	28.9 - 33.2						
Sysmex XN-550	10	31.34	0.59	1.9	31.1	29.5 - 33.2						
Sysmex XS-1000i	34	28.60	1.35	4.7	29.0	24.5 - 32.7						

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

<i><u>Instrument</u></i>	Specimen MX-1						Specimen MX-2					
	<i><u>Labs</u></i>	<i><u>Mean</u></i>	<i><u>SD</u></i>	<i><u>CV</u></i>	<i><u>Median</u></i>	<i><u>Range</u></i>	<i><u>Labs</u></i>	<i><u>Mean</u></i>	<i><u>SD</u></i>	<i><u>CV</u></i>	<i><u>Median</u></i>	<i><u>Range</u></i>
All Method	85	0.83	0.41	49.8	0.8	0.0 - 2.1	84	1.22	0.56	45.6	1.0	0.0 - 2.9
All Sysmex XE/XT Instruments	10	1.27	0.53	41.7	1.3	0.0 - 2.9	10	2.12	0.59	27.9	2.2	0.3 - 3.9
All Sysmex XN/XS Instruments	78	0.78	0.37	46.7	0.8	0.0 - 1.9	77	1.14	0.47	41.5	1.0	0.0 - 2.6
Sysmex XN-1000	11	1.46	0.27	18.7	1.4	0.6 - 2.3	11	2.21	0.59	26.8	2.3	0.4 - 4.0
Sysmex XN-430	18	0.63	0.25	39.8	0.7	0.0 - 1.4	18	0.95	0.22	23.2	1.0	0.2 - 1.7
Sysmex XN-550	10	0.44	0.23	51.7	0.4	0.0 - 1.2	10	0.89	0.13	14.3	0.9	0.5 - 1.3
Sysmex XS-1000i	34	0.77	0.22	28.5	0.8	0.1 - 1.5	34	1.03	0.20	19.1	1.0	0.4 - 1.7

<i><u>Instrument</u></i>	Specimen MX-3						Specimen MX-4					
	<i><u>Labs</u></i>	<i><u>Mean</u></i>	<i><u>SD</u></i>	<i><u>CV</u></i>	<i><u>Median</u></i>	<i><u>Range</u></i>	<i><u>Labs</u></i>	<i><u>Mean</u></i>	<i><u>SD</u></i>	<i><u>CV</u></i>	<i><u>Median</u></i>	<i><u>Range</u></i>
All Method	85	1.90	0.87	45.6	1.6	0.0 - 4.5	83	1.23	0.50	40.3	1.1	0.0 - 2.8
All Sysmex XE/XT Instruments	10	3.03	0.36	11.9	2.8	1.9 - 4.2	10	2.13	0.68	31.7	2.1	0.1 - 4.2
All Sysmex XN/XS Instruments	79	1.81	0.83	45.9	1.5	0.0 - 4.4	77	1.17	0.44	37.4	1.1	0.0 - 2.5
Sysmex XN-1000	11	3.51	0.26	7.4	3.5	2.7 - 4.3	11	2.00	0.59	29.6	1.7	0.2 - 3.8
Sysmex XN-430	18	1.37	0.25	18.3	1.4	0.6 - 2.2	18	1.03	0.17	16.6	1.1	0.5 - 1.6
Sysmex XN-550	10	1.38	0.31	22.3	1.3	0.4 - 2.3	10	0.93	0.19	20.7	0.9	0.3 - 1.6
Sysmex XS-1000i	33	1.49	0.26	17.6	1.5	0.7 - 2.3	33	1.04	0.20	19.0	1.0	0.4 - 1.7

<i><u>Instrument</u></i>	Specimen MX-5					
<i><u>Labs</u></i>	<i><u>Mean</u></i>	<i><u>SD</u></i>	<i><u>CV</u></i>	<i><u>Median</u></i>	<i><u>Range</u></i>	
All Method	84	1.85	0.80	43.2	1.6	0.0 - 4.3
All Sysmex XE/XT Instruments	10	3.10	0.82	26.4	2.9	0.6 - 5.6
All Sysmex XN/XS Instruments	79	1.79	0.78	43.5	1.5	0.0 - 4.2
Sysmex XN-1000	11	3.33	0.26	7.8	3.3	2.5 - 4.2
Sysmex XN-430	18	1.38	0.19	13.9	1.4	0.8 - 2.0
Sysmex XN-550	10	1.41	0.27	18.9	1.4	0.6 - 2.3
Sysmex XS-1000i	33	1.51	0.31	20.8	1.5	0.5 - 2.5

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

<i>Instrument</i>	Specimen MX-1						Specimen MX-2					
	<i>Labs</i>	<i>Mean</i>	<i>SD</i>	<i>CV</i>	<i>Median</i>	<i>Range</i>	<i>Labs</i>	<i>Mean</i>	<i>SD</i>	<i>CV</i>	<i>Median</i>	<i>Range</i>
All Method	84	15.37	0.60	3.9	15.4	13.5 - 17.2	84	15.15	0.69	4.5	15.1	13.0 - 17.3
All Sysmex XE/XT Instruments	10	15.18	0.95	6.2	14.9	12.3 - 18.1	10	14.03	0.52	3.7	14.1	12.4 - 15.6
All Sysmex XN/XS Instruments	78	15.38	0.57	3.7	15.5	13.6 - 17.1	78	15.23	0.62	4.1	15.2	13.3 - 17.2
Sysmex XN-1000	11	15.85	0.47	2.9	15.8	14.4 - 17.3	11	15.45	0.67	4.4	15.4	13.4 - 17.5
Sysmex XN-430	19	15.55	0.56	3.6	15.5	13.8 - 17.3	19	15.40	0.66	4.3	15.4	13.4 - 17.4
Sysmex XN-550	10	15.36	0.57	3.7	15.1	13.6 - 17.1	10	14.84	0.64	4.3	14.6	12.9 - 16.8
Sysmex XS-1000i	34	15.08	0.46	3.1	15.2	13.6 - 16.5	34	15.09	0.53	3.5	15.2	13.5 - 16.7
	Specimen MX-3						Specimen MX-4					
All Method	83	13.11	0.41	3.1	13.1	11.8 - 14.4	84	15.12	0.72	4.7	15.1	12.9 - 17.3
All Sysmex XE/XT Instruments	10	12.62	0.46	3.6	12.5	11.2 - 14.0	10	13.93	0.46	3.3	13.9	12.5 - 15.4
All Sysmex XN/XS Instruments	77	13.15	0.38	2.9	13.1	11.9 - 14.4	78	15.21	0.65	4.3	15.2	13.2 - 17.2
Sysmex XN-1000	11	13.34	0.39	2.9	13.2	12.1 - 14.6	11	15.20	0.73	4.8	15.4	13.0 - 17.4
Sysmex XN-430	18	12.97	0.37	2.8	13.0	11.8 - 14.1	19	15.32	0.81	5.3	15.1	12.8 - 17.8
Sysmex XN-550	10	12.97	0.52	4.0	13.1	11.3 - 14.6	10	15.36	0.73	4.8	15.5	13.1 - 17.6
Sysmex XS-1000i	34	13.22	0.31	2.3	13.2	12.2 - 14.2	34	15.13	0.52	3.4	15.1	13.5 - 16.7
	Specimen MX-5											
All Method	83	13.20	0.45	3.4	13.3	11.8 - 14.6						
All Sysmex XE/XT Instruments	10	12.68	0.65	5.1	12.7	10.7 - 14.7						
All Sysmex XN/XS Instruments	77	13.24	0.41	3.1	13.3	12.0 - 14.5						
Sysmex XN-1000	11	13.31	0.37	2.8	13.4	12.2 - 14.5						
Sysmex XN-430	18	13.14	0.39	3.0	13.2	11.9 - 14.4						
Sysmex XN-550	10	12.94	0.57	4.4	13.2	11.2 - 14.7						
Sysmex XS-1000i	34	13.33	0.38	2.9	13.3	12.1 - 14.5						

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

<u>Instrument</u>	Specimen MX-1						Specimen MX-2					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	39	19.99	26.92	134.7	8.6	0.0 - 100.8	39	20.67	28.00	135.4	8.9	0.0 - 104.7
All Sysmex XE/XT Instruments	10	82.25	0.82	1.0	82.4	79.7 - 84.8	10	85.38	3.76	4.4	83.9	74.1 - 96.7
All Sysmex XN/XS Instruments	78	8.17	1.58	19.4	8.5	3.4 - 13.0	79	8.46	1.72	20.3	8.8	3.3 - 13.7
Sysmex XN-1000	11	4.88	0.12	2.4	4.9	4.5 - 5.3	11	4.78	0.15	3.2	4.8	4.3 - 5.3
Sysmex XN-430	20	8.50	0.70	8.2	8.4	6.4 - 10.6	20	8.96	0.75	8.4	8.7	6.6 - 11.3
Sysmex XN-550	10	9.24	2.30	24.9	8.9	2.3 - 16.2	10	9.06	0.71	7.8	9.3	6.9 - 11.2
Sysmex XS-1000i	34	9.03	0.79	8.7	8.9	6.6 - 11.5	34	9.33	0.74	7.9	9.3	7.1 - 11.6
	Specimen MX-3						Specimen MX-4					
All Method	39	17.13	23.66	138.1	7.3	0.0 - 88.2	39	20.64	27.93	135.4	9.1	0.0 - 104.5
All Sysmex XE/XT Instruments	10	71.88	0.92	1.3	72.0	69.1 - 74.7	10	85.23	2.91	3.4	84.3	76.5 - 94.0
All Sysmex XN/XS Instruments	79	7.04	1.17	16.6	7.1	3.5 - 10.6	78	8.55	1.76	20.5	9.1	3.2 - 13.9
Sysmex XN-1000	11	4.77	0.15	3.1	4.8	4.3 - 5.3	11	4.83	0.17	3.5	4.8	4.3 - 5.4
Sysmex XN-430	20	6.99	0.56	8.0	7.0	5.3 - 8.7	20	8.77	0.76	8.7	8.6	6.4 - 11.1
Sysmex XN-550	10	7.57	0.67	8.8	7.6	5.5 - 9.6	10	9.07	0.61	6.7	9.1	7.2 - 10.9
Sysmex XS-1000i	34	7.72	0.70	9.1	7.6	5.6 - 9.9	33	9.58	0.70	7.3	9.5	7.4 - 11.7
	Specimen MX-5											
All Method	39	17.15	23.50	137.1	7.3	0.0 - 87.7						
All Sysmex XE/XT Instruments	10	71.53	0.74	1.0	71.6	69.3 - 73.8						
All Sysmex XN/XS Instruments	79	7.11	1.20	16.8	7.2	3.5 - 10.7						
Sysmex XN-1000	11	4.77	0.11	2.3	4.7	4.4 - 5.2						
Sysmex XN-430	20	7.15	0.61	8.5	7.0	5.3 - 9.0						
Sysmex XN-550	10	7.50	0.63	8.4	7.5	5.6 - 9.4						
Sysmex XS-1000i	34	7.79	0.72	9.3	7.8	5.6 - 10.0						

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

<i><u>Instrument</u></i>	Specimen MX-1						Specimen MX-2					
	<i><u>Labs</u></i>	<i><u>Mean</u></i>	<i><u>SD</u></i>	<i><u>CV</u></i>	<i><u>Median</u></i>	<i><u>Range</u></i>	<i><u>Labs</u></i>	<i><u>Mean</u></i>	<i><u>SD</u></i>	<i><u>CV</u></i>	<i><u>Median</u></i>	<i><u>Range</u></i>
All Method	44	15.08	0.79	5.3	14.9	12.7 - 17.5	45	15.51	1.01	6.5	15.4	12.4 - 18.6
All Sysmex XN/XS Instruments	42	15.10	0.81	5.3	14.9	12.6 - 17.6	42	15.59	0.92	5.9	15.4	12.8 - 18.4
Sysmex XN-1000	10	14.81	0.53	3.6	14.8	13.2 - 16.5	10	15.37	0.61	4.0	15.3	13.5 - 17.3
Sysmex XN-430	19	15.10	0.91	6.0	14.9	12.3 - 17.9	19	15.79	1.10	7.0	15.6	12.4 - 19.2
Sysmex XN-550	10	15.44	0.82	5.3	15.1	12.9 - 18.0	10	15.53	0.86	5.5	15.4	12.9 - 18.2
	Specimen MX-3						Specimen MX-4					
All Method	45	12.92	0.87	6.7	13.0	10.3 - 15.6	45	15.68	0.79	5.0	15.6	13.3 - 18.1
All Sysmex XN/XS Instruments	42	12.94	0.78	6.0	13.1	10.6 - 15.3	42	15.71	0.78	5.0	15.7	13.3 - 18.1
Sysmex XN-1000	10	13.23	0.51	3.8	13.2	11.7 - 14.8	10	15.63	0.58	3.7	15.9	13.9 - 17.4
Sysmex XN-430	19	12.89	0.78	6.0	12.9	10.5 - 15.3	19	15.54	0.90	5.8	15.5	12.8 - 18.3
Sysmex XN-550	10	13.13	0.99	7.5	13.4	10.1 - 16.2	10	16.14	0.70	4.3	15.9	14.0 - 18.3
	Specimen MX-5											
All Method	43	12.77	0.58	4.5	12.6	11.0 - 14.5						
All Sysmex XN/XS Instruments	41	12.80	0.55	4.3	12.6	11.1 - 14.5						
Sysmex XN-1000	10	13.04	0.65	5.0	13.0	11.0 - 15.0						
Sysmex XN-430	19	12.92	0.79	6.1	12.6	10.5 - 15.3						
Sysmex XN-550	10	12.57	0.35	2.7	12.6	11.5 - 13.7						

2019 M1 Specimens BC-1 through BC-6

CASE HISTORY:

A 22 year old male presented to an urgent care center with symptoms of pneumonia including productive cough, shortness of breath, and dizziness. The patient is a new immigrant from a Southeast Asian country with no prior medical history available. Upon examination, the patient has scleral icterus, fever, tachycardia, right upper quadrant tenderness, and splenomegaly. Urinalysis was positive for hemoglobin, and chemistry results showed increased lactate dehydrogenase (LDH) and increased indirect bilirubin. A CBC was ordered, and results appear below.

Test	Results	Reference Range
WBC	16.9 x 10 ⁹ /L	4.5 - 15.0 x 10 ⁹ /L
RBC	4.5 x 10 ¹² /L	4.6 - 6.0 x 10 ¹² /L
HGB	12.2 g/dL	14.0 - 18.0 g/dL
HCT	37 %	40 - 54 %
MCV	82 fL	80 - 94 fL
MCH	27 pg	26 - 32 pg
MCHC	33 g/dL	32 - 36 g/dL
RDW	16 %	11.5 - 14.5 %
PLT	399 x 10 ⁹ /L	150 - 450 x 10 ⁹ /L

This patient was diagnosed with Glucose-6-phosphate dehydrogenase (G6PD) deficiency. G6PD is a critical enzyme that protects cells from oxidative damage. G6PD deficiency primarily affects the red blood cells. People that are deficient in G6PD are susceptible to hemolysis when exposed to certain triggers, including oxidizing medications, infections, or ingestion of fava beans. These can trigger acute hemolytic episodes which may be life threatening, especially in children. Babies with G6PD deficiency may have prolonged or unusually severe neonatal jaundice. In the absence of triggering events, most people with G6PD deficiency are asymptomatic and go through life unaware of having the disorder.

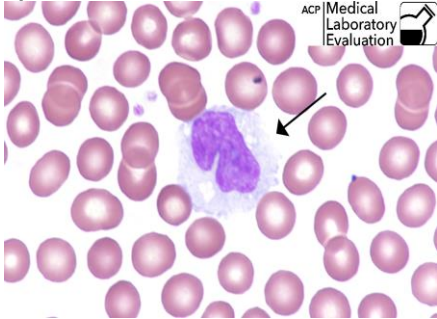
G6PD deficiency is the most common inherited enzyme deficiency, affecting over 400 million people globally. It exists in concentrated pockets in Africa, the Middle East, and Southeast Asia. In the U.S., about one in ten African-American males are affected. The gene that codes for G6PD production is located on the X chromosome. Since females have two X chromosomes and males only have one, this X-linked mutation predominantly affects males.

When exposure to a trigger occurs, the affected erythrocytes undergo both intravascular and extravascular destruction two to four days later. The effect can vary in severity from an asymptomatic drop in hemoglobin to marked intravascular hemolysis. Older RBCs are most deficient in G6PD, so even with ongoing exposure to the trigger, the hemolysis usually is self-limited as the older cells are destroyed and replaced with new cells. There is no specific therapy other than avoidance of implicated medications and treatment of underlying infections. Triggering drugs of particular concern for refugee populations include sulfas, primaquine for malaria, and dapsone, which is commonly used for leprosy and as a prophylactic agent in HIV-infected people.

Laboratory findings during an acute hemolytic event include normocytic anemia, increased reticulocyte count, normal liver enzymes, and elevated indirect bilirubin. The urinalysis may be positive for blood/hemoglobin without any RBCs seen microscopically.

BLOOD CELL IDENTIFICATION

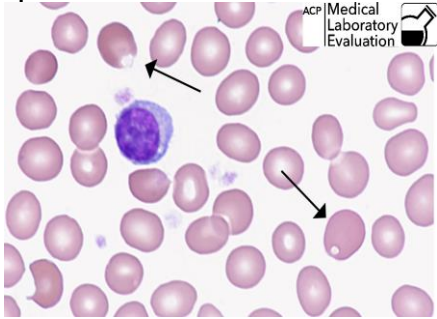
Specimen BC-1



<u>Identification</u>	<u>Labs</u>	<u>Percent</u>	<u>Performance</u>
Monocyte	165	98.80%	Acceptable

The arrow in this photograph points to a monocyte. The nucleus is indented and the nuclear chromatin is lacy with small clumps. The cytoplasm is abundant, pale gray-blue, and filled with swirls of minute granules that produce a cloudy or turbid “ground glass” appearance. The cytoplasmic membrane is irregular, with pseudopods. Cytoplasmic vacuoles are a common sign of toxicity, and can vary in size and number. To view another photo of a monocyte, see 2018 M2 Specimen BC-11. To view a reactive lymphocyte, see 2018 BC-9.

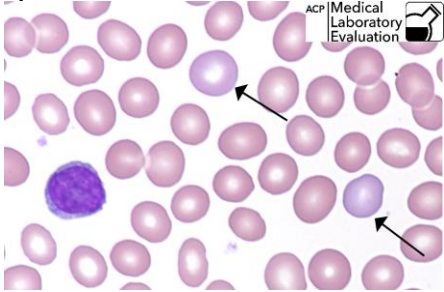
Specimen BC-2



<u>Identification</u>	<u>Labs</u>	<u>Percent</u>	<u>Performance</u>
Blister cell	151	90.42%	Acceptable
Immature/abnormal cell-refer	5	2.99%	Acceptable
Erythrocyte w/overlay platelet	6	3.59%	

The arrows in this photograph point to blister cells. Blister cells are red blood cells that contain a vacuole near the outer edge of the cell. Macrophages residing in the spleen aid in the removal of inclusion bodies from circulating red cells. The RBCs are pitted, leaving a blister cell or a bite cell like the one in the lower left corner of the photo. These vacuoles can also form in response to trauma to the cell membrane when cells are forced through obstacles such as thrombi or fibrin strands. The membrane around the vacuole of the blister cell can enlarge and rupture, leaving behind a schistocyte with two points, which gives the cell a half-moon or helmet shape. To view another photo of blister cells, see 2014 M3 Specimen BC-18.

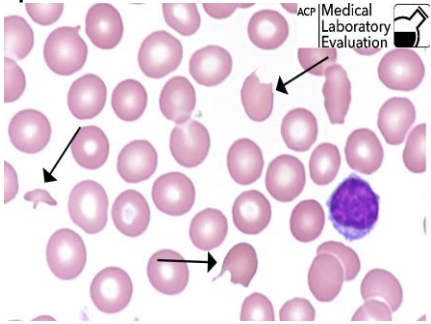
Specimen BC-3



<u>Identification</u>	<u>Labs</u>	<u>Percent</u>	<u>Performance</u>
Polychromatophilic red cell	165	98.80%	Acceptable
Immature/abnormal cell – refer	1	0.60%	Acceptable

The arrows in this photograph point to **polychromatophilic red blood cells**. These are immature red cells. They have a distinctive gray-blue color due to diffused residual RNA, which will be absorbed later as they fully mature. These cells are larger than the mature RBCs around them. Polychromasia (presence of polychromatophilic red cells) in the peripheral blood smear is an indicator of increased bone marrow activity. When the bone marrow cannot keep up with the need for new red cells, either due to hemolysis or bleeding, it compensates by releasing cells into circulation before they are fully mature. These immature cells would appear as reticulocytes when examined with a supravital stain such as New Methylene Blue. To view another photo of polychromatophilic RBCs, see 2017 M2 Specimen BC-7.

Specimen BC-4

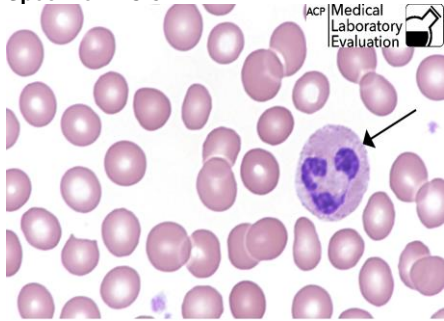


<u>Identification</u>	<u>Labs</u>	<u>Percent</u>	<u>Performance</u>
Fragmented cell	157	94.01%	Acceptable
Immature abnormal cell – refer	1	0.60%	Acceptable
Acanthocyte	8	4.79%	

The arrows in this photograph point to **fragmented red blood cells (schistocytes)**. Ragged pieces of broken red blood cells in the peripheral smear are a sign of intravascular hemolysis. Red blood cell fragments are smaller than normal cells, and appear in many sizes and shapes, usually with pointed ends. Sometimes fragmented cells are called by other terms that describe their shape. For example, the cell at the bottom of this photo might be called a “helmet cell” and the one at the top may be called a “bite cell.” A few participants identified these cells incorrectly as acanthocytes. Acanthocytes are whole, contracted, red cells with irregularly spaced long, thin, thorn-like projections, often in combination with rounded projections. Acanthocytes are never helmet shaped. To view another photo of schistocytes, see 2017 M3 Specimen BC-16. To view a photo of acanthocytes, see 2017 M1 BC-5.

BLOOD CELL IDENTIFICATION

Specimen BC-5

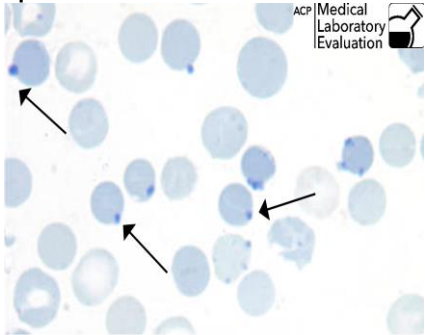


<u>Identification</u>	<u>Labs</u>	<u>Percent</u>	<u>Performance</u>
Neutrophil-Segmented or band	160	95.81%	Acceptable
Neutrophil-seg band w/toxic	6	3.59%	

The arrow in this photograph points to a normal segmented neutrophil. The nucleus of a typical “seg” is divided into two to five segments, or lobes, connected by a thin, thread-like filament. The cytoplasm of this cell is pale pink and filled with fine, violet and pink granules. The granules are not toxic. Toxic granules are larger than the small blue granules seen in the typical neutrophil. A cell with toxic granulation would have more and larger dark blue-black granules in its cytoplasm. To view another photo of a normal neutrophil, see 2018 M2 Specimen BC-10. To view a neutrophil with toxic granulation, see 2017 M3 BC-15.

BLOOD CELL IDENTIFICATION

Specimen BC-6



<u>Identification</u>	<u>Labs</u>	<u>Percent</u>	<u>Performance</u>
Heinz body	107	66.46%	Not graded – Educational Challenge
Immature/abnormal cell-refer	40	24.84%	
Reticulocyte	7	4.35%	
Pappenheimer body	3	1.86%	
Malaria	2	1.24%	
Protozoan, non-malarial	2	1.24%	

The arrows in this ungraded educational challenge point to red blood cells containing Heinz bodies. Heinz bodies are irregularly shaped inclusions that are usually attached to the cell membrane. They are formed from oxidized, denatured hemoglobin that cross-links and precipitates intracellularly. Heinz bodies are only made visible with supravital stains, such as crystal violet or new methylene blue. Heinz bodies are not visible on routine Wright-stained preparations because they stain pink, just like normal hemoglobin. Heinz bodies are seen in hereditary defects like alpha thalassemia and G6PD deficiency, in oxidative hemolysis due to certain drugs, and in splenectomized patients. To view another photo of Heinz bodies, see 2009 M2 Specimen BC-12.

References:

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

"Complete Blood Count with Red Blood Cell Indices, White Blood Cell Differential, and Platelet Count | Refugee Health Guidelines | Immigrant and Refugee Health | CDC." Centers for Disease Control and Prevention. June 21, 2016. Accessed March 28, 2019. Available at: <https://www.cdc.gov/immigrantrefugeehealth/guidelines/domestic/general/discussion/complete-blood-count.html>

de Back, Djuna Z et al. "Of macrophages and red blood cells; a complex love story." *Frontiers in physiology* vol. 5 9. 30 Jan. 2014, doi:10.3389/fphys.2014.00009

Frank JE. Diagnosis and management of G6PD deficiency. *Am Fam Physician*. 2005 Oct 1;72(7):1277-82. Review. Accessed March 28, 2019. Available at: <https://www.aafp.org/afp/2005/1001/p1277.html>

"Glucose-6-Phosphate Dehydrogenase Deficiency." National Organization for Rare Disorders (NORD). 2017. Accessed March 28, 2019. Available at: <https://rarediseases.org/rare-diseases/glucose-6-phosphate-dehydrogenase-deficiency/>

Schick P. Glucose-6-phosphate dehydrogenase deficiency. *Medscape*. Updated: Apr 07, 2016. Available at: <http://emedicine.medscape.com/article/200390-overview> Accessed March 28, 2019.

BLOOD BANK

ABO GROUP

<u>Specimen</u>	<u>Results</u>	<u>Labs</u>	<u>Percent</u>	<u>Performance</u>
BB-1	Group A	5	100%	Acceptable
BB-2	Group O	5	100%	Acceptable
BB-3	Group O	5	100%	Acceptable
BB-4	Group A	5	100%	Acceptable
BB-5	Group AB	5	100%	Acceptable

RH FACTOR (D TYPE)

<u>Specimen</u>	<u>Results</u>	<u>Labs</u>	<u>Percent</u>	<u>Performance</u>
BB-1	Rh Positive	16	100%	Acceptable
BB-2	Rh Negative	16	100%	Acceptable
BB-3	Rh Positive	16	100%	Acceptable
BB-4	Rh Negative	16	100%	Acceptable
BB-5	Rh Positive	16	100%	Acceptable

UNEXPECTED ANTIBODY DETECTION

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

BLOOD BANK

ANTIBODY IDENTIFICATION

<u>Specimen</u>	<u>Results</u>	<u>Labs</u>	<u>Percent</u>	<u>Performance</u>
AB-1	Anti-E	1	100%	Acceptable
AB-2	No antibody detected	1	100%	Acceptable
AB-3	Anti-M	1	100%	Acceptable
AB-4	No antibody detected	1	100%	Acceptable
AB-5	No antibody detected	1	100%	Acceptable

COMPATIBILITY TESTING

<u>Specimen</u>	<u>Results</u>	<u>Labs</u>	<u>Percent</u>	<u>Performance</u>
AB-1	Not Compatible	3	100%	Acceptable
AB-2	Compatible	3	100%	Acceptable
AB-3	Compatible	3	100%	Acceptable
AB-4	Compatible	3	100%	Acceptable
AB-5	Compatible	3	100%	Acceptable

PROTHROMBIN TIME (seconds)

<u>Reagent/Instrument</u>	<u>Labs</u>	Specimen CG-1					Specimen CG-2						
		<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	
All Method	33	21.91	1.99	9.1	21.8	18.6 - 25.2	33	11.47	0.95	8.3	11.2	9.7 - 13.2	
Dade Innovin													
Dade Behring BFT II	5	23.00	2.29	9.9	23.4	19.5 - 26.5	5	10.23	0.33	3.2	10.1	8.6 - 11.8	
Sysmex CA-500/600 series	13	22.01	0.61	2.8	22.3	18.7 - 25.4	13	11.18	0.39	3.5	11.2	9.5 - 12.9	
All Coagulation Instruments	18	22.14	1.24	5.6	22.3	18.8 - 25.5	18	10.92	0.56	5.1	11.1	9.2 - 12.6	
HemosIL PT-Fibrinogen													
IL ACL, all models	5	20.10	0.57	2.8	20.1	17.0 - 23.2	5	12.50	0.14	1.1	12.5	10.6 - 14.4	
HemosIL RecombiPlasTin 2G													
IL ACL, all models	5	26.60	1.13	4.3	26.6	22.6 - 30.6	5	12.10	0.57	4.7	12.1	10.2 - 14.0	
IL TEST PT Fibrinogen													
IL ACL, all models	5	20.15	0.90	4.5	20.4	17.1 - 23.2	5	12.78	0.33	2.6	12.8	10.8 - 14.7	
		Specimen CG-3					Specimen CG-4						
All Method	33	14.09	1.06	7.5	13.8	11.9 - 16.3	33	31.16	4.22	13.5	31.7	26.4 - 35.9	
Dade Innovin													
Dade Behring BFT II	5	12.70	0.70	5.5	12.6	10.7 - 14.7	5	34.33	1.99	5.8	35.0	29.1 - 39.5	
Sysmex CA-500/600 series	13	13.73	0.47	3.4	13.8	11.6 - 15.8	13	31.68	1.11	3.5	31.7	26.9 - 36.5	
All Coagulation Instruments	18	13.48	0.66	4.9	13.5	11.4 - 15.6	18	32.28	1.69	5.2	31.8	27.4 - 37.2	
HemosIL RecombiPlasTin 2G													
IL ACL, all models	5	14.90	0.71	4.7	14.9	12.6 - 17.2	5	26.00	1.13	4.4	26.0	22.1 - 29.9	
IL TEST PT Fibrinogen													
IL ACL, all models	5	15.65	0.35	2.3	15.7	13.3 - 18.0	5	40.25	1.63	4.0	40.3	34.2 - 46.3	
PH/CMS Thromboplastin-D													
All Coagulation Instruments	5	15.30	0.48	3.2	15.5	13.0 - 17.6	5	25.95	1.73	6.7	26.5	22.0 - 29.9	
		Specimen CG-5											
All Method	33	10.99	1.22	11.1	10.6	9.3 - 12.7							
Dade Innovin													
Dade Behring BFT II	5	9.33	0.15	1.6	9.4	7.9 - 10.8							
Sysmex CA-500/600 series	13	10.51	0.27	2.6	10.6	8.9 - 12.1							
All Coagulation Instruments	18	10.23	0.56	5.4	10.5	8.6 - 11.8							
HemosIL RecombiPlasTin 2G													
IL ACL, all models	5	12.15	0.35	2.9	12.2	10.3 - 14.0							
IL TEST PT Fibrinogen													
IL ACL, all models	5	12.20	0.14	1.2	12.2	10.3 - 14.1							
PH/CMS Thromboplastin-D													
All Coagulation Instruments	5	12.75	0.81	6.4	12.6	10.8 - 14.7							

PROTHROMBIN TIME-INTERNATIONAL NORMALIZED RATIO (INR)

<u>Reagent/Instrument</u>	Specimen CG-1						Specimen CG-2					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	33	2.33	0.20	8.7	2.3	1.8 - 2.8	33	1.11	0.06	5.6	1.1	0.8 - 1.4
Dade Innovin												
Dade Behring BFT II	5	2.30	0.23	10.0	2.3	1.8 - 2.8	5	1.15	0.06	5.0	1.2	0.9 - 1.4
Sysmex CA-500/600 series	13	2.20	0.08	3.7	2.2	1.7 - 2.7	13	1.09	0.06	5.9	1.1	0.8 - 1.4
All Coagulation Instruments	18	2.22	0.13	5.8	2.2	1.7 - 2.7	18	1.10	0.07	6.2	1.1	0.8 - 1.4
HemosIL PT-Fibrinogen												
IL ACL, all models	5	2.50	0.01	0.0	2.5	2.0 - 3.0	5	1.10	0.01	0.0	1.1	0.8 - 1.4
HemosIL RecombiPlasTin 2G												
IL ACL, all models	5	2.45	0.21	8.7	2.5	1.9 - 3.0	5	1.10	0.01	0.0	1.1	0.8 - 1.4
IL TEST PT Fibrinogen												
IL ACL, all models	5	2.58	0.13	4.9	2.6	2.0 - 3.1	5	1.13	0.05	4.4	1.1	0.9 - 1.4
	Specimen CG-3						Specimen CG-4					
All Method	33	1.40	0.11	7.9	1.4	1.1 - 1.7	33	3.45	0.41	11.8	3.3	2.7 - 4.2
Dade Innovin												
Dade Behring BFT II	5	1.38	0.10	7.0	1.4	1.1 - 1.7	5	3.23	0.15	4.7	3.2	2.5 - 3.9
Sysmex CA-500/600 series	13	1.35	0.08	5.8	1.3	1.0 - 1.7	13	3.17	0.13	3.9	3.2	2.5 - 3.9
All Coagulation Instruments	18	1.36	0.08	5.8	1.4	1.0 - 1.7	18	3.19	0.13	4.2	3.2	2.5 - 3.9
HemosIL PT-Fibrinogen												
IL ACL, all models	5	1.50	0.01	0.0	1.5	1.2 - 1.8	5	4.00	0.14	3.5	4.0	3.2 - 4.8
HemosIL RecombiPlasTin 2G												
IL ACL, all models	5	1.40	0.01	0.0	1.4	1.1 - 1.7	5	3.75	0.21	5.7	3.8	3.0 - 4.5
IL TEST PT Fibrinogen												
IL ACL, all models	5	1.58	0.10	6.1	1.6	1.2 - 1.9	5	4.03	0.29	7.1	4.2	3.2 - 4.9
	Specimen CG-5											
All Method	33	1.06	0.08	7.4	1.1	0.8 - 1.3						
Dade Innovin												
Dade Behring BFT II	5	1.05	0.06	5.5	1.1	0.8 - 1.3						
Sysmex CA-500/600 series	13	1.03	0.06	6.1	1.0	0.8 - 1.3						
All Coagulation Instruments	18	1.03	0.06	5.7	1.0	0.8 - 1.3						
HemosIL PT-Fibrinogen												
IL ACL, all models	5	1.05	0.07	6.7	1.1	0.8 - 1.3						
HemosIL RecombiPlasTin 2G												
IL ACL, all models	5	1.10	0.01	0.0	1.1	0.8 - 1.4						
IL TEST PT Fibrinogen												
IL ACL, all models	5	1.15	0.10	8.7	1.1	0.9 - 1.4						

ACTIVATED PARTIAL THROMBOPLASTIN (seconds)

<u>Reagent/Instrument</u>	<u>Specimen CG-1</u>						<u>Specimen CG-2</u>					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	16	36.9	1.2	3.4	37	31 - 43	16	28.4	5.5	19.4	26	24 - 33
Dade Actin FSL Sysmex CA-500/600 series	8	36.6	1.2	3.2	37	31 - 43	8	25.1	1.0	3.9	25	21 - 29
Hemoliance SynthASil IL ACL, all models	5	38.5	0.7	1.8	39	32 - 45	5	39.0	1.4	3.6	39	33 - 45
<u>Specimen CG-3</u>						<u>Specimen CG-4</u>						
All Method	16	31.9	5.0	15.6	30	27 - 37	16	44.9	2.5	5.6	45	38 - 52
Dade Actin FSL Sysmex CA-500/600 series	8	28.9	1.2	4.3	29	24 - 34	8	44.1	1.6	3.5	45	37 - 51
Hemoliance SynthASil IL ACL, all models	5	35.0	1.4	4.0	35	29 - 41	5	49.5	0.7	1.4	50	42 - 57
<u>Specimen CG-5</u>												
All Method	16	24.3	2.0	8.1	24	20 - 28						
Dade Actin FSL Sysmex CA-500/600 series	8	23.0	0.8	3.3	23	19 - 27						
Hemoliance SynthASil IL ACL, all models	5	27.0	0.1	0.0	27	22 - 32						

Fibrinogen (mg/dL)

One participant reported Fibrinogen. The vendor assay values on a Sysmex CA-540 for specimens CG-1 through CG-5 are: 194 mg/dL, 350 mg/dL, 105 mg/dL, 197 mg/dL, and 220 mg/dL, respectively.

RH FACTOR (Slide Method)

<u>Specimen</u>	<u>Results</u>	<u>Labs</u>	<u>Percent</u>	<u>Performance</u>
RH-1	Rh Positive	1	100%	Acceptable
RH-2	Rh Negative	1	100%	Acceptable
RH-3	Rh Positive	1	100%	Acceptable
RH-4	Rh Negative	1	100%	Acceptable
RH-5	Rh Positive	1	100%	Acceptable

COAGUCHEK XS PLUS PROTHROMBIN TIME (seconds)

<u>Instrument</u>	Specimen XS-1						Specimen XS-2					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	21	13.93	0.35	2.5	13.8	11.8 - 16.1	21	35.14	2.46	7.0	35.2	29.8 - 40.5
All Roche CoaguChek XS Plus Instruments	21	13.93	0.35	2.5	13.8	11.8 - 16.1	21	35.23	2.49	7.1	35.5	29.9 - 40.6
Roche CoaguChek XS Plus - Waived	11	13.85	0.70	5.0	13.9	11.7 - 16.0	11	35.35	2.26	6.4	35.2	30.0 - 40.7
Roche CoaguChek XS Plus	10	13.80	0.20	1.4	13.7	11.7 - 15.9	10	35.03	3.01	8.6	35.7	29.7 - 40.3
	Specimen XS-3						Specimen XS-4					
All Method	20	24.72	1.41	5.7	25.1	21.0 - 28.5	20	34.27	2.47	7.2	35.2	29.1 - 39.5
All Roche CoaguChek XS Plus Instruments	20	24.72	1.41	5.7	25.1	21.0 - 28.5	20	34.27	2.47	7.2	35.2	29.1 - 39.5
Roche CoaguChek XS Plus - Waived	11	25.44	0.80	3.1	25.8	21.6 - 29.3	11	35.60	1.27	3.6	35.8	30.2 - 41.0
Roche CoaguChek XS Plus	9	-	-	-	24.2	21.0 - 28.5	9	-	-	-	32.5	29.1 - 39.5
	Specimen XS-5											
All Method	20	13.73	0.35	2.5	13.7	11.6 - 15.8						
All Roche CoaguChek XS Plus Instruments	20	13.73	0.35	2.5	13.7	11.6 - 15.8						
Roche CoaguChek XS Plus - Waived	11	14.00	0.19	1.3	14.0	11.9 - 16.1						
Roche CoaguChek XS Plus	9	-	-	-	13.4	11.6 - 15.8						

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

<u>Instrument</u>	Specimen XS-1						Specimen XS-2					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	32	1.16	0.06	4.8	1.2	0.9 - 1.4	32	2.92	0.16	5.6	3.0	2.3 - 3.6
All Roche CoaguChek XS Plus Instruments	32	1.16	0.06	4.9	1.2	0.9 - 1.4	32	2.93	0.17	5.7	3.0	2.3 - 3.6
Roche CoaguChek XS Plus - Waived	22	1.18	0.04	3.6	1.2	0.9 - 1.5	22	2.95	0.16	5.4	3.0	2.3 - 3.6
Roche CoaguChek XS Plus	10	1.13	0.05	4.3	1.1	0.9 - 1.4	10	2.87	0.19	6.6	3.0	2.2 - 3.5
	Specimen XS-3						Specimen XS-4					
All Method	20	2.06	0.12	5.7	2.1	1.6 - 2.5	20	2.86	0.19	6.6	2.9	2.2 - 3.5
All Roche CoaguChek XS Plus Instruments	20	2.06	0.12	5.7	2.1	1.6 - 2.5	20	2.86	0.19	6.6	2.9	2.2 - 3.5
Roche CoaguChek XS Plus - Waived	11	2.12	0.08	3.6	2.1	1.6 - 2.6	11	2.95	0.10	3.6	3.0	2.3 - 3.6
Roche CoaguChek XS Plus	9	-	-	-	2.0	1.6 - 2.5	9	-	-	-	2.7	2.2 - 3.5
	Specimen XS-5											
All Method	20	1.15	0.05	4.6	1.2	0.9 - 1.4						
All Roche CoaguChek XS Plus Instruments	20	1.15	0.05	4.6	1.2	0.9 - 1.4						
Roche CoaguChek XS Plus - Waived	11	1.18	0.04	3.5	1.2	0.9 - 1.5						
Roche CoaguChek XS Plus	9	-	-	-	1.1	0.9 - 1.4						

COAGUCHEK XS - INTERNATIONAL NORMALIZED RATIO (INR)

<u>Instrument</u>	Specimen INX-1						Specimen INX-2					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
Roche CoaguChek XS	107	3.20	0.14	4.3	3.2	2.5 - 3.9	109	1.17	0.05	4.2	1.2	0.9 - 1.5

i-Stat PROTHROMBIN TIME (seconds)

<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>Specimen PTI-1</u>				<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>Specimen PTI-2</u>			
			<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>SD</u>				<u>CV</u>	<u>Median</u>	<u>Range</u>	
i-Stat Prothrombin Time	10	25.10	0.93	3.7	25.3	21.3 - 28.9	10	14.80	1.35	9.2	14.8	12.5 - 17.1	
			<u>Specimen PTI-3</u>							<u>Specimen PTI-4</u>			
i-Stat Prothrombin Time	10	25.12	0.94	3.8	25.5	21.3 - 28.9	10	15.04	1.39	9.3	14.7	12.7 - 17.3	
			<u>Specimen PTI-5</u>										
i-Stat Prothrombin Time	10	14.44	0.67	4.7	14.4	12.2 - 16.7							

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

<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>Specimen PTI-1</u>				<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>Specimen PTI-2</u>			
			<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>SD</u>				<u>CV</u>	<u>Median</u>	<u>Range</u>	
i-Stat Prothrombin Time	10	2.16	0.09	4.1	2.2	1.7 - 2.6	10	1.24	0.11	9.2	1.2	0.9 - 1.5	
			<u>Specimen PTI-3</u>							<u>Specimen PTI-4</u>			
i-Stat Prothrombin Time	10	2.18	0.08	3.8	2.2	1.7 - 2.7	10	1.24	0.11	9.2	1.2	0.9 - 1.5	
			<u>Specimen PTI-5</u>										
i-Stat Prothrombin Time	10	1.20	0.07	5.9	1.2	0.9 - 1.5							

FLUID CELL COUNT – WHITE BLOOD CELL COUNT (µL)

<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>Specimen BF-1</u>				<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>Specimen BF-2</u>			
			<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>SD</u>				<u>CV</u>	<u>Median</u>	<u>Range</u>	
All Method	5	7.5	0.7	9.4	8	6 - 9	5	293.5	34.6	11.8	294	224 - 363	

FLUID CELL COUNT – RED BLOOD CELL COUNT (µL)

<u>Instrument</u>	<u>Labs</u>	<u>Mean</u>	<u>Specimen BF-1</u>				<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>Specimen BF-2</u>			
			<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>SD</u>				<u>CV</u>	<u>Median</u>	<u>Range</u>	
All Method	5	0.5	0.7	141.4	1	0 - 2	5	855.0	28.3	3.3	855	798 - 912	

2019 M1
FLUID CRYSTAL IDENTIFICATION
Specimens FC-1 and FC-2

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. The compensator separates the microscope's light rays into slow-moving and fast-moving vibrations or waves. The compensator is marked with an arrow indicating the direction of the slow vibration. The "axis" in the photos below indicates the direction of the slow wave. 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.

Specimen FC-1

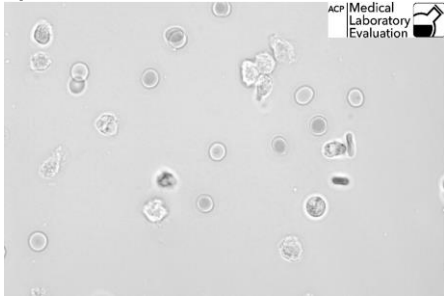


<u>Identification</u>	<u>Labs</u>	<u>Percent</u>	<u>Performance</u>
Cholesterol crystals	4	100%	Acceptable

The crystals in this photograph are **cholesterol crystals**. They are large, flat, rectangular plates with notched corners. Cholesterol crystals are considered a nonspecific finding. They are associated with chronic inflammatory conditions, and may be seen in chronic effusions from patients with rheumatoid or osteoarthritis. To view a photo of cholesterol crystals under compensated, polarized light, see 2016 M3 Specimen FC-6.

**2019 M1
FLUID CRYSTAL IDENTIFICATION**

Specimen FC-6



<u>Identification</u>	<u>Labs</u>	<u>Percent</u>	<u>Performance</u>
No crystals observed	4	100%	Acceptable

There are **no crystals present** in this photograph of an unstained wet mount preparation of synovial fluid. The objects in this photo are red blood cells and white blood cells

REFERENCES:

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

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

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

MICROALBUMIN, DIPSTICK

Specimen UM-1

Participant Results

<u>Method</u>	<u>Labs</u>	<u>Negative</u>	<u>10 mg/L</u>	<u>20 mg/L</u>	<u>30 mg/L</u>	<u>50 mg/L</u>	<u>80 mg/L</u>	<u>100 mg/L</u>	<u>150 mg/L</u>	<u>+ (4 - 8 mg/dL)</u>	<u>++ (>8 mg/dL)</u>
ALL METHODS	31	-	14	-	16	-	-	-	1	-	-
Siemens Clinitek Microalbumin	30	-	14	-	15	-	-	-	1	-	-
Siemens Multistix Pro	1	-	-	-	1	-	-	-	-	-	-

CREATININE, DIPSTICK

Specimen UM-1

Participant Results

<u>Method</u>	<u>Labs</u>	<u>Negative</u>	<u>10 mg/dL</u>	<u>30 mg/dL</u>	<u>50 mg/dL</u>	<u>100 mg/dL</u>	<u>200 mg/dL</u>	<u>300 mg/dL</u>
ALL METHODS	33	-	-	1	-	-	4	28
Siemens Clinitek Microalbumin	29	-	-	-	-	-	3	26
Siemens Multistix Pro	3	-	-	1	-	-	-	2

MICROALBUMIN, QUANTITATIVE

Specimen UM-1

<u>Method</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	57	31.05	2.21	7.1	31.0	21.7 - 40.4
Beckman AU	22	29.85	1.71	5.7	30.1	20.8 - 38.9

CREATININE, URINE (mg/dL)

Specimen UM-1

<u>Method</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	53	214.84	16.18	7.5	216.0	178.3 - 251.4
Beckman AU	21	208.16	15.19	7.3	201.1	172.7 - 243.6

WAIVED HEMATOLOGY–HEMOGLOBIN (g/dL)

<u>Instrument</u>	Specimen HD-1						Specimen HD-2					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	94	6.09	0.17	2.9	6.1	5.6 - 6.6	96	17.26	0.84	4.9	17.3	15.5 - 19.0
All Stanbio Methods	33	6.20	0.19	3.1	6.2	5.7 - 6.7	35	17.42	1.17	6.7	17.8	15.0 - 19.8
Alere (Stanbio) HemoPoint H2	33	6.20	0.19	3.1	6.2	5.7 - 6.7	35	17.42	1.17	6.7	17.8	15.0 - 19.8
HemoCue	59	6.04	0.14	2.2	6.0	5.6 - 6.5	57	17.21	0.43	2.5	17.2	16.0 - 18.5

WAIVED HEMATOLOGY–HEMATOCRIT (percent)

<u>Instrument</u>	Specimen HD-1						Specimen HD-2					
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	10	16.23	3.03	18.7	18.0	10.1 - 22.3	12	49.04	5.79	11.8	51.3	37.4 - 60.7

KOH SKIN PREPARATION

<u>Specimen</u>	<u>Identification</u>	<u>Labs</u>	<u>Percent</u>	<u>Performance</u>
K-1	Yeast/fungal elements present	105	97.22%	Acceptable
	Yeast/fungal elements absent	3	2.78%	
Organism present in specimen K-1: <i>Trichophyton mentagrophytes</i> .				
K-2	Yeast/fungal elements absent	105	97.22%	Acceptable
	Yeast/fungal elements present	3.78%	13.53%	

Organism present in specimen K-2: *Eikenella corrodens*.

URINALYSIS DIPSTICK–SPECIFIC GRAVITY

Specimen UA-1

<u>Method</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Range</u>
All Method	700	1.0207	0.0047	0.5	1.020	1.010 - 1.031
All Roche Methods	13	1.0104	0.0024	0.2	1.010	1.000 - 1.021
All Siemens Methods	437	1.0232	0.0028	0.3	1.025	1.013 - 1.034
Diagnostic Test Group Clarity Urocheck 120	10	1.0200	0.0024	0.2	1.020	1.010 - 1.030
Henry Schein Urispec / Urispec Plus	19	1.0158	0.0020	0.2	1.015	1.005 - 1.026
McKesson 120 Urine Analyzer	23	1.0196	0.0021	0.2	1.020	1.009 - 1.030
Roche Chemstrips	26	1.0125	0.0032	0.3	1.015	1.002 - 1.023
Roche Urisys	10	1.0100	0.0024	0.2	1.010	1.000 - 1.020
Siemens Clinitek 50	15	1.0177	0.0025	0.2	1.020	1.007 - 1.028
Siemens Clinitek Advantus	13	1.0200	0.0001	0.0	1.020	1.010 - 1.030
Siemens Clinitek Status / Status+	399	1.0236	0.0025	0.2	1.025	1.013 - 1.034
Siemens Reagent Strips	115	1.0159	0.0042	0.4	1.015	1.005 - 1.026

URINALYSIS DIPSTICK-pH

Specimen UA-1

Participant Results

<u>Method</u>	<u>Labs</u>	<u>≤3.5</u>	<u>4.0</u>	<u>4.5</u>	<u>5.0</u>	<u>5.5</u>	<u>6.0</u>	<u>6.5</u>	<u>7.0</u>	<u>7.5</u>	<u>8.0</u>	<u>8.5</u>	<u>≥9.0</u>
ALL METHODS	731	-	-	-	-	-	2	16	617	95	1	-	-
Beckman AU	1	-	-	-	-	-	-	1	-	-	-	-	-
BTNX Rapid Response Test Strips	1	-	-	-	-	-	-	-	1	-	-	-	-
BTNX Rapid Response U120/U500	1	-	-	-	-	-	-	-	1	-	-	-	-
Consult Diagnostics Reagent Strips	4	-	-	-	-	-	-	1	3	-	-	-	-
Consult Diagnostics Urine Analyzer	5	-	-	-	-	-	-	1	4	-	-	-	-
CTMI CT-120 Urine Analyzer	3	-	-	-	-	-	-	-	3	-	-	-	-
Diagnostic Test Group Clarity Urocheck	4	-	-	-	-	-	-	-	4	-	-	-	-
Diagnostic Test Group Clarity Urocheck 120	10	-	-	-	-	-	-	-	10	-	-	-	-
Germaine Laboratories AimStrip	2	-	-	-	-	-	-	-	2	-	-	-	-
Germaine Labs AimStrip Urine Analyzer	3	-	-	-	-	-	-	-	3	-	-	-	-
Henry Schein One Step Plus	2	-	-	-	-	-	-	-	2	-	-	-	-
Henry Schein Urispec / Urispec Plus	20	-	-	-	-	-	-	-	20	-	-	-	-
McKesson 10SG Reagent Strips	3	-	-	-	-	-	-	-	2	1	-	-	-
McKesson 120 Urine Analyzer	24	-	-	-	-	-	-	3	21	-	-	-	-
Medline 120 Urine Analyzer	4	-	-	-	-	-	-	1	3	-	-	-	-
Medline Urinalysis Reagent Strips	4	-	-	-	-	-	-	1	3	-	-	-	-
Moore Medical Urine Reagent Strips	1	-	-	-	-	-	-	-	1	-	-	-	-
NDC Pro Advantage	2	-	-	-	-	-	-	1	1	-	-	-	-
Other Analyzer Method	1	-	-	-	-	-	-	1	-	-	-	-	-
Other Dipstick Method	6	-	-	-	-	-	-	-	6	-	-	-	-
pH Paper	1	-	-	-	-	-	-	-	1	-	-	-	-
PSS Select Urine Analyzer	1	-	-	-	-	-	-	-	1	-	-	-	-
Roche Chemstrips	33	-	-	-	-	-	1	-	31	-	1	-	-
Roche cobas u 411	1	-	-	-	-	-	-	-	1	-	-	-	-
Roche Criterion Analyzer	2	-	-	-	-	-	-	-	2	-	-	-	-
Roche SuperUA/ChemstripUA	1	-	-	-	-	-	-	-	1	-	-	-	-
Roche Urisys	10	-	-	-	-	-	-	-	10	-	-	-	-
Siemens Clinitek 10 / 100	3	-	-	-	-	-	-	-	1	2	-	-	-
Siemens Clinitek 50	15	-	-	-	-	-	-	-	15	-	-	-	-
Siemens Clinitek 500	4	-	-	-	-	-	-	-	2	2	-	-	-
Siemens Clinitek Advantus	15	-	-	-	-	-	-	-	10	5	-	-	-
Siemens Clinitek Status / Status+	409	-	-	-	-	-	-	-	408	1	-	-	-
Siemens Hemacombistix	1	-	-	-	-	-	-	-	-	1	-	-	-
Siemens Multistix Pro	3	-	-	-	-	-	-	-	1	2	-	-	-
Siemens Reagent Strips	121	-	-	-	-	-	-	5	35	81	-	-	-
Uriscan Optima	2	-	-	-	-	-	-	1	1	-	-	-	-
UriScan Reagent Strips	3	-	-	-	-	-	1	-	2	-	-	-	-

URINALYSIS DIPSTICK-PROTEIN QUALITATIVE

Specimen UA-1

<u>Method</u>	<i>Participant Results</i>												
	<u>Labs</u>	<u>Negative</u>	<u>Trace</u>	<u>(1+)</u>	<u>(2+)</u>	<u>(3+)</u>	<u>(4+)</u>	<u>10 - 20</u> <u>mg/dL</u>	<u>30 - 70</u> <u>mg/dL</u>	<u>75</u> <u>mg/dL</u>	<u>100 - 200</u> <u>mg/dL</u>	<u>≥300 - 600</u> <u>mg/dL</u>	<u>>600 or ≥1000</u> <u>mg/dL</u>
ALL METHODS	734	3	-	5	183	126	3	-	6	-	208	194	6
Arkray DiaScreen 50	1	-	-	-	1	-	-	-	-	-	-	-	-
BTNX Rapid Response Test Strips	1	-	-	-	1	-	-	-	-	-	-	-	-
BTNX Rapid Response U120/U500	1	-	-	-	1	-	-	-	-	-	-	-	-
Consult Diagnostics Reagent Strips	4	-	-	-	3	-	-	-	-	-	1	-	-
Consult Diagnostics Urine Analyzer	5	-	-	-	5	-	-	-	-	-	-	-	-
CTMI CT-120 Urine Analyzer	3	-	-	-	2	-	-	-	-	-	1	-	-
Diagnostic Test Group Clarity Urocheck	4	-	-	-	4	-	-	-	-	-	-	-	-
Diagnostic Test Group Clarity Urocheck 120	9	-	-	-	8	-	-	-	-	-	1	-	-
Germaine Laboratories AimStrip	2	-	-	1	-	1	-	-	-	-	-	-	-
Germaine Labs AimStrip Urine Analyzer	3	-	-	-	2	-	-	-	-	-	1	-	-
Henry Schein One Step Plus	2	-	-	-	-	-	-	-	-	-	2	-	-
Henry Schein Urispec / Urispec Plus	20	1	-	-	1	-	-	-	2	-	16	-	-
McKesson 10SG Reagent Strips	3	-	-	-	1	1	-	-	-	-	-	1	-
McKesson 120 Urine Analyzer	23	-	-	1	19	1	-	-	-	-	2	-	-
Medline 120 Urine Analyzer	4	-	-	-	3	1	-	-	-	-	-	-	-
Medline Urinalysis Reagent Strips	3	-	-	-	2	1	-	-	-	-	-	-	-
Moore Medical Urine Reagent Strips	1	-	-	-	1	-	-	-	-	-	-	-	-
NDC Pro Advantage	2	-	-	-	2	-	-	-	-	-	-	-	-
Other Dipstick Method	6	-	-	1	-	3	-	-	1	-	1	-	-

URINALYSIS DIPSTICK--PROTEIN QUALITATIVE (cont'd)

Specimen UA-1

<u>Method</u>	<u>Participant Results</u>												
	<u>Labs</u>	<u>Negative</u>	<u>Trace</u>	<u>(1+)</u>	<u>(2+)</u>	<u>(3+)</u>	<u>(4+)</u>	<u>10 - 20</u> <u>mg/dL</u>	<u>30 - 70</u> <u>mg/dL</u>	<u>75</u> <u>mg/dL</u>	<u>100 - 200</u> <u>mg/dL</u>	<u>≥300 - 600</u> <u>mg/dL</u>	<u>>600 or ≥1000</u> <u>mg/dL</u>
PSS Select Urine Analyzer	1	-	-	-	1	-	-	-	-	-	-	-	-
Roche Chemstrips	40	-	-	1	28	3	-	-	-	-	8	-	-
Roche cobas u 411	1	-	-	-	-	-	-	-	-	-	1	-	-
Roche Criterion Analyzer	2	-	-	-	-	-	-	-	-	-	2	-	-
Roche SuperUA/ChemstripUA	1	-	-	-	1	-	-	-	-	-	-	-	-
Roche Urisys	10	-	-	-	2	-	-	-	3	-	5	-	-
Siemens Albustix	1	-	-	-	1	-	-	-	-	-	-	-	-
Siemens Clinitek 10 / 100	3	-	-	-	1	-	-	-	-	-	-	2	-
Siemens Clinitek 50	15	-	-	-	-	5	-	-	-	-	2	8	-
Siemens Clinitek 500	4	-	-	-	1	1	-	-	-	-	2	-	-
Siemens Clinitek Advantus	14	-	-	-	7	-	-	-	-	-	7	-	-
Siemens Clinitek Status / Status+	406	1	-	-	43	73	-	-	-	-	127	162	-
Siemens Hemacombistix	1	-	-	-	1	-	-	-	-	-	-	-	-
Siemens Multistix Pro	3	-	-	-	-	1	1	-	-	-	-	1	-
Siemens Reagent Strips	121	1	-	-	33	31	2	-	-	-	28	20	6
Siemens Uristix	3	-	-	-	2	1	-	-	-	-	-	-	-
Sulfosalicylic Acid	1	-	-	-	1	-	-	-	-	-	-	-	-
Uriscan Optima	2	-	-	-	1	-	-	-	-	-	1	-	-
UriScan Reagent Strips	3	-	-	1	-	2	-	-	-	-	-	-	-

URINALYSIS DIPSTICK–GLUCOSE

Specimen UA-1

<u>Method</u>	<u>Labs</u>	<u>Negative or Normal</u>	<u>Trace</u>	<u>(1+)</u>	<u>Participant Results</u>				<u>30 - 100 mg/dL</u>	<u>150 - 300 mg/dL</u>	<u>500 mg/dL</u>	<u>>500 or ≥1000 or ≥2000 mg/dL</u>
					<u>(2+)</u>	<u>(3+)</u>	<u>(4+)</u>					
ALL METHODS	732	730	1	-	-	1	-	-	-	-	-	
BTNX Rapid Response Test Strips	1	1	-	-	-	-	-	-	-	-	-	
BTNX Rapid Response U120/U500	1	1	-	-	-	-	-	-	-	-	-	
Consult Diagnostics Reagent Strips	4	4	-	-	-	-	-	-	-	-	-	
Consult Diagnostics Urine Analyzer	5	5	-	-	-	-	-	-	-	-	-	
CTMI CT-120 Urine Analyzer	3	3	-	-	-	-	-	-	-	-	-	
Diagnostic Test Group Clarity Urocheck	4	4	-	-	-	-	-	-	-	-	-	
Diagnostic Test Group Clarity Urocheck 120	10	9	1	-	-	-	-	-	-	-	-	
Germaine Laboratories AimStrip	2	2	-	-	-	-	-	-	-	-	-	
Germaine Labs AimStrip Urine Analyzer	3	3	-	-	-	-	-	-	-	-	-	
Henry Schein One Step Plus	2	2	-	-	-	-	-	-	-	-	-	
Henry Schein Urispec / Urispec Plus	20	20	-	-	-	-	-	-	-	-	-	
McKesson 10SG Reagent Strips	3	3	-	-	-	-	-	-	-	-	-	
McKesson 120 Urine Analyzer	23	23	-	-	-	-	-	-	-	-	-	
Medline 120 Urine Analyzer	4	4	-	-	-	-	-	-	-	-	-	
Medline Urinalysis Reagent Strips	3	3	-	-	-	-	-	-	-	-	-	
Moore Medical Urine Reagent Strips	1	1	-	-	-	-	-	-	-	-	-	
NDC Pro Advantage	2	2	-	-	-	-	-	-	-	-	-	
Other Dipstick Method	6	6	-	-	-	-	-	-	-	-	-	
PSS Select Urine Analyzer	1	1	-	-	-	-	-	-	-	-	-	
Roche Chemstrips	40	40	-	-	-	-	-	-	-	-	-	
Roche cobas u 411	1	1	-	-	-	-	-	-	-	-	-	
Roche Criterion Analyzer	2	2	-	-	-	-	-	-	-	-	-	
Roche SuperUA/ChemstripUA	1	1	-	-	-	-	-	-	-	-	-	
Roche Urisys	10	10	-	-	-	-	-	-	-	-	-	
Siemens Clinitek 10 / 100	3	3	-	-	-	-	-	-	-	-	-	
Siemens Clinitek 50	15	15	-	-	-	-	-	-	-	-	-	
Siemens Clinitek 500	4	4	-	-	-	-	-	-	-	-	-	
Siemens Clinitek Advantus	15	15	-	-	-	-	-	-	-	-	-	
Siemens Clinitek Status / Status+	404	404	-	-	-	-	-	-	-	-	-	
Siemens Hemacombistix	1	1	-	-	-	-	-	-	-	-	-	
Siemens Multistix Pro	3	3	-	-	-	-	-	-	-	-	-	
Siemens Reagent Strips	122	121	-	-	-	1	-	-	-	-	-	
Siemens Uristix	3	3	-	-	-	-	-	-	-	-	-	
Uriscan Optima	2	2	-	-	-	-	-	-	-	-	-	
UriScan Reagent Strips	3	3	-	-	-	-	-	-	-	-	-	

URINALYSIS DIPSTICK–KETONES

Specimen UA-1

<u>Method</u>	<u>Labs</u>	<u>Negative</u>	<u>Trace</u>	<u>Small</u>	<u>Moderate</u>	<u>Large</u>	<u>Participant Results</u>								
							<u>(1+)</u>	<u>(2+)</u>	<u>(3+)</u>	<u>(4+)</u>	<u>5 - 10</u> <u>mg/dL</u>	<u>15 - 25</u> <u>mg/dL</u>	<u>40 - 60</u> <u>mg/dL</u>	<u>80 - 100</u> <u>mg/dL</u>	<u>≥150</u> <u>mg/dL</u>
ALL METHODS	722	715	4	-	-	-	-	-	1	-	1	-	-	-	1
BTNX Rapid Response Test Strips	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
BTNX Rapid Response U120/U500	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Consult Diagnostics Reagent Strips	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Consult Diagnostics Urine Analyzer	5	5	-	-	-	-	-	-	-	-	-	-	-	-	-
CTMI CT-120 Urine Analyzer	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Diagnostic Test Group Clarity Urocheck	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Diagnostic Test Group Clarity Urocheck 120	10	9	-	-	-	-	-	-	1	-	-	-	-	-	-
Germaine Laboratories AimStrip	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-
Germaine Labs AimStrip Urine Analyzer	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Henry Schein One Step Plus	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-
Henry Schein Urispec / Urispec Plus	20	20	-	-	-	-	-	-	-	-	-	-	-	-	-
McKesson 10SG Reagent Strips	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-
McKesson 120 Urine Analyzer	23	23	-	-	-	-	-	-	-	-	-	-	-	-	-
Medline 120 Urine Analyzer	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Medline Urinalysis Reagent Strips	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Moore Medical Urine Reagent Strips	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
NDC Pro Advantage	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Dipstick Method	6	5	1	-	-	-	-	-	-	-	-	-	-	-	-
PSS Select Urine Analyzer	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Roche Chemstrips	33	33	-	-	-	-	-	-	-	-	-	-	-	-	-
Roche cobas u 411	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Roche Criterion Analyzer	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-
Roche SuperUA/ChemstripUA	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Roche Urisys	10	10	-	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek 10 / 100	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek 50	15	15	-	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek 500	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek Advantus	15	15	-	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek Status / Status+	406	406	-	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Ketostix	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Multistix Pro	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Reagent Strips	120	115	3	-	-	-	-	-	-	-	1	-	-	-	1
Uriscan Optima	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-
UriScan Reagent Strips	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-

URINALYSIS DIPSTICK–BILIRUBIN

Specimen UA-1

<u>Method</u>	<u>Labs</u>	<u>Negative</u>	<u>Trace</u>	<u>Small</u>	<u>Moderate</u>	<u>Participant Results</u>					<u>0.5 - 1.0 mg/dL</u>	<u>2.0 - 4.0 mg/dL</u>	<u>6.0 - 10.0 mg/dL</u>	<u>>10.0 mg/dL</u>
						<u>Large</u>	<u>(1+)</u>	<u>(2+)</u>	<u>(3+)</u>	<u>(4+)</u>				
ALL METHODS	700	698	-	-	-	-	-	1	1	-	-	-	-	-
BTNX Rapid Response Test Strips	1	1	-	-	-	-	-	-	-	-	-	-	-	-
BTNX Rapid Response U120/U500	1	1	-	-	-	-	-	-	-	-	-	-	-	-
Consult Diagnostics Reagent Strips	4	4	-	-	-	-	-	-	-	-	-	-	-	-
Consult Diagnostics Urine Analyzer	5	5	-	-	-	-	-	-	-	-	-	-	-	-
CTMI CT-120 Urine Analyzer	3	3	-	-	-	-	-	-	-	-	-	-	-	-
Diagnostic Test Group Clarity Urocheck	4	4	-	-	-	-	-	-	-	-	-	-	-	-
Diagnostic Test Group Clarity Urocheck 120	9	9	-	-	-	-	-	-	-	-	-	-	-	-
Germaine Laboratories AimStrip	2	2	-	-	-	-	-	-	-	-	-	-	-	-
Germaine Labs AimStrip Urine Analyzer	3	3	-	-	-	-	-	-	-	-	-	-	-	-
Henry Schein One Step Plus	2	2	-	-	-	-	-	-	-	-	-	-	-	-
Henry Schein Urispec / Urispec Plus	20	20	-	-	-	-	-	-	-	-	-	-	-	-
McKesson 10SG Reagent Strips	3	3	-	-	-	-	-	-	-	-	-	-	-	-
McKesson 120 Urine Analyzer	22	22	-	-	-	-	-	-	-	-	-	-	-	-
Medline 120 Urine Analyzer	5	5	-	-	-	-	-	-	-	-	-	-	-	-
Medline Urinalysis Reagent Strips	2	2	-	-	-	-	-	-	-	-	-	-	-	-
Moore Medical Urine Reagent Strips	1	1	-	-	-	-	-	-	-	-	-	-	-	-
NDC Pro Advantage	2	2	-	-	-	-	-	-	-	-	-	-	-	-
Other Dipstick Method	3	3	-	-	-	-	-	-	-	-	-	-	-	-
PSS Select Urine Analyzer	1	1	-	-	-	-	-	-	-	-	-	-	-	-
Roche Chemstrips	30	30	-	-	-	-	-	-	-	-	-	-	-	-
Roche cobas u 411	1	1	-	-	-	-	-	-	-	-	-	-	-	-
Roche Criterion Analyzer	2	2	-	-	-	-	-	-	-	-	-	-	-	-
Roche SuperUA/ChemstripUA	1	1	-	-	-	-	-	-	-	-	-	-	-	-
Roche Urisys	10	10	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek 10 / 100	3	3	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek 50	15	15	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek 500	4	4	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek Advantus	14	14	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek Status / Status+	402	402	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Multistix Pro	2	2	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Reagent Strips	112	111	-	-	-	-	-	-	1	-	-	-	-	-
Uriscan Optima	2	2	-	-	-	-	-	-	-	-	-	-	-	-
UriScan Reagent Strips	2	2	-	-	-	-	-	-	-	-	-	-	-	-

URINALYSIS DIPSTICK–UROBILINOGEN

Specimen UA-1

<u>Method</u>	<u>Labs</u>	<i>Participant Results</i>				
		<u>Normal or 0.0 - 0.2 mg/dL or <3.2 µmol/L</u>	<u>1.0 or <2.0 mg/dL or 16 or 17 µmol/L</u>	<u>2.0/3.0 mg/dL or 34 or 35 µmol/L</u>	<u>4.0 or 4.0/6.0 mg/dL or 70 µmol/L</u>	<u>≥8.0 or ≥12.0 mg/dL or ≥140 or 200 µmol/L</u>
ALL METHODS	697	690	2	5	-	-
BTNX Rapid Response Test Strips	1	1	-	-	-	-
BTNX Rapid Response U120/U500	1	1	-	-	-	-
Consult Diagnostics Reagent Strips	4	3	-	1	-	-
Consult Diagnostics Urine Analyzer	5	4	-	1	-	-
CTMI CT-120 Urine Analyzer	3	3	-	-	-	-
Diagnostic Test Group Clarity Urocheck	4	4	-	-	-	-
Diagnostic Test Group Clarity Urocheck 120	10	10	-	-	-	-
DIRUI H-800 Urine Analyzer	1	-	-	1	-	-
Germaine Laboratories AimStrip	2	2	-	-	-	-
Germaine Labs AimStrip Urine Analyzer	3	2	-	1	-	-
Henry Schein One Step Plus	2	2	-	-	-	-
Henry Schein Urispec / Urispec Plus	20	20	-	-	-	-
McKesson 10SG Reagent Strips	3	3	-	-	-	-
McKesson 120 Urine Analyzer	23	23	-	-	-	-
Medline 120 Urine Analyzer	4	3	-	1	-	-
Medline Urinalysis Reagent Strips	2	2	-	-	-	-
Moore Medical Urine Reagent Strips	1	1	-	-	-	-
NDC Pro Advantage	2	2	-	-	-	-
Other Dipstick Method	3	3	-	-	-	-
PSS Select Urine Analyzer	1	1	-	-	-	-
Roche Chemstrips	30	30	-	-	-	-
Roche cobas u 411	1	1	-	-	-	-
Roche Criterion Analyzer	2	2	-	-	-	-
Roche SuperUA/ChemstripUA	1	1	-	-	-	-
Roche Urisys	10	10	-	-	-	-
Siemens Clinitek 10 / 100	3	3	-	-	-	-
Siemens Clinitek 50	15	15	-	-	-	-
Siemens Clinitek 500	4	4	-	-	-	-
Siemens Clinitek Advantus	13	13	-	-	-	-
Siemens Clinitek Status / Status+	399	398	1	-	-	-
Siemens Multistix Pro	2	2	-	-	-	-
Siemens Reagent Strips	115	114	1	-	-	-
Uriscan Optima	2	2	-	-	-	-
UriScan Reagent Strips	2	2	-	-	-	-

URINALYSIS DIPSTICK–BLOOD/HEMOGLOBIN

Specimen UA-1

<u>Method</u>	<u>Participant Results</u>											<u>5 - 25</u> <u>Erv/µL</u>	<u>50 -</u> <u>100</u> <u>Erv/µL</u>	<u>200 -</u> <u>250</u> <u>Erv/µL</u>	<u>±0.03</u> <u>mg/dL</u>	<u>0.06</u> <u>-</u> <u>0.10</u> <u>mg/</u> <u>dL</u>	<u>0.2 -</u> <u>0.5</u> <u>mg/</u> <u>dL</u>	<u>≥ 1.0</u> <u>mg/</u> <u>dL</u>
	<u>Labs</u>	<u>Negative</u>	<u>Trace</u>	<u>Small</u>	<u>Moderate</u>	<u>Large</u>	<u>(1+)</u>	<u>(2+)</u>	<u>(3+)</u>	<u>(4+)</u>	<u>(5+)</u>							
ALL METHODS	727	2	-	-	29	382	-	9	229	1	1	-	-	73	-	-	-	1
BTNX Rapid Response Test Strips	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
BTNX Rapid Response U120/U500	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
Consult Diagnostics Reagent Strips	4	-	-	-	-	1	-	-	2	-	-	-	-	1	-	-	-	-
Consult Diagnostics Urine Analyzer	5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-
CTMI CT-120 Urine Analyzer	3	-	-	-	-	-	-	-	2	-	-	-	-	1	-	-	-	-
Diagnostic Test Group Clarity Urocheck	4	-	-	-	-	1	-	-	3	-	-	-	-	-	-	-	-	-
Diagnostic Test Group Clarity Urocheck 120	10	-	-	-	-	-	-	-	9	-	-	-	-	1	-	-	-	-
Germaine Laboratories AimStrip	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
Germaine Labs AimStrip Urine Analyzer	3	-	-	-	-	-	-	-	2	-	-	-	-	1	-	-	-	-
Henry Schein One Step Plus	2	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-
Henry Schein Urispec / Urispec Plus	20	-	-	-	-	-	-	-	1	-	-	-	-	19	-	-	-	-
Iris Ichem VELOCITY Urine Chemistry System	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
McKesson 10SG Reagent Strips	3	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-
McKesson 120 Urine Analyzer	23	-	-	-	-	-	-	-	22	-	-	-	-	1	-	-	-	-
Medline 120 Urine Analyzer	4	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-
Medline Urinalysis Reagent Strips	3	-	-	-	-	-	-	-	2	-	-	-	-	1	-	-	-	-
Moore Medical Urine Reagent Strips	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
NDC Pro Advantage	2	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-
Other Dipstick Method	6	-	-	-	3	1	-	-	2	-	-	-	-	-	-	-	-	-
PSS Select Urine Analyzer	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
Roche Chemstrips	40	-	-	-	-	4	-	1	2	-	1	-	-	32	-	-	-	-
Roche cobas u 411	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
Roche Criterion Analyzer	2	-	-	-	-	-	-	-	-	1	-	-	-	1	-	-	-	-
Roche SuperUA/ChemstripUA	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
Roche Urisys	10	-	-	-	-	-	-	2	-	-	-	-	-	8	-	-	-	-
Siemens Clinitek 10 / 100	3	-	-	-	-	2	-	-	1	-	-	-	-	-	-	-	-	-
Siemens Clinitek 50	15	-	-	-	2	8	-	-	5	-	-	-	-	-	-	-	-	-
Siemens Clinitek 500	4	-	-	-	-	2	-	-	2	-	-	-	-	-	-	-	-	-
Siemens Clinitek Advantus	15	-	-	-	-	7	-	1	7	-	-	-	-	-	-	-	-	-
Siemens Clinitek Status / Status+	404	1	-	-	24	268	-	5	106	-	-	-	-	-	-	-	-	-
Siemens Hemacombistix	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Siemens Multistix Pro	3	-	-	-	-	2	-	-	1	-	-	-	-	-	-	-	-	-
Siemens Reagent Strips	120	-	-	-	-	85	-	-	33	-	-	-	-	1	-	-	-	1
Uriscan Optima	2	-	-	-	-	-	-	-	1	-	-	-	-	1	-	-	-	-
UriScan Reagent Strips	3	-	-	-	-	-	-	-	2	-	-	-	-	1	-	-	-	-

URINALYSIS DIPSTICK--LEUKOCYTE ESTERASE

Specimen UA-1

Participant Results

<u>Method</u>	<u>Labs</u>	<u>Negative</u>	<u>Trace</u>	<u>Small</u>	<u>Moderate</u>	<u>Large</u>	<u>(1+)</u>	<u>(2+)</u>	<u>(3+)</u>	<u>(4+)</u>	<u>15 or 25 µL</u>	<u>75 or 100 µL</u>	<u>250 or 500 µL</u>
ALL METHODS	727	726	-	-	-	-	-	-	1	-	-	-	-
BTNX Rapid Response Test Strips	1	1	-	-	-	-	-	-	-	-	-	-	-
BTNX Rapid Response U120/U500	1	1	-	-	-	-	-	-	-	-	-	-	-
Consult Diagnostics Reagent Strips	4	4	-	-	-	-	-	-	-	-	-	-	-
Consult Diagnostics Urine Analyzer	5	5	-	-	-	-	-	-	-	-	-	-	-
CTMI CT-120 Urine Analyzer	3	3	-	-	-	-	-	-	-	-	-	-	-
Diagnostic Test Group Clarity Urocheck	4	4	-	-	-	-	-	-	-	-	-	-	-
Diagnostic Test Group Clarity Urocheck 120	10	10	-	-	-	-	-	-	-	-	-	-	-
Germaine Laboratories AimStrip	2	1	-	-	-	-	-	-	1	-	-	-	-
Germaine Labs AimStrip Urine Analyzer	3	3	-	-	-	-	-	-	-	-	-	-	-
Henry Schein One Step Plus	2	2	-	-	-	-	-	-	-	-	-	-	-
Henry Schein Urispec / Urispec Plus	20	20	-	-	-	-	-	-	-	-	-	-	-
McKesson 10SG Reagent Strips	3	3	-	-	-	-	-	-	-	-	-	-	-
McKesson 120 Urine Analyzer	23	23	-	-	-	-	-	-	-	-	-	-	-
Medline 120 Urine Analyzer	4	4	-	-	-	-	-	-	-	-	-	-	-
Medline Urinalysis Reagent Strips	3	3	-	-	-	-	-	-	-	-	-	-	-
Moore Medical Urine Reagent Strips	1	1	-	-	-	-	-	-	-	-	-	-	-
NDC Pro Advantage	2	2	-	-	-	-	-	-	-	-	-	-	-
Other Dipstick Method	6	6	-	-	-	-	-	-	-	-	-	-	-
PSS Select Urine Analyzer	1	1	-	-	-	-	-	-	-	-	-	-	-
Roche Chemstrips	40	40	-	-	-	-	-	-	-	-	-	-	-
Roche cobas u 411	1	1	-	-	-	-	-	-	-	-	-	-	-
Roche Criterion Analyzer	2	2	-	-	-	-	-	-	-	-	-	-	-
Roche SuperUA/ChemstripUA	1	1	-	-	-	-	-	-	-	-	-	-	-
Roche Urisys	10	10	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek 10 / 100	3	3	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek 50	15	15	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek 500	4	4	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek Advantus	15	15	-	-	-	-	-	-	-	-	-	-	-
Siemens Clinitek Status / Status+	404	404	-	-	-	-	-	-	-	-	-	-	-
Siemens Multistix Pro	3	3	-	-	-	-	-	-	-	-	-	-	-
Siemens Reagent Strips	119	119	-	-	-	-	-	-	-	-	-	-	-
Siemens Uristix	1	1	-	-	-	-	-	-	-	-	-	-	-
Uriscan Optima	2	2	-	-	-	-	-	-	-	-	-	-	-
UriScan Reagent Strips	3	3	-	-	-	-	-	-	-	-	-	-	-

URINALYSIS DIPSTICK–NITRITE

Specimen UA-1

Participant Results

<u>Method</u>	<u>Labs</u>	<u>Negative</u>	<u>Positive</u>
ALL METHODS	727	724	3
BTNX Rapid Response Test Strips	1	1	-
BTNX Rapid Response U120/U500	1	1	-
Consult Diagnostics Reagent Strips	4	4	-
Consult Diagnostics Urine Analyzer	5	5	-
CTMI CT-120 Urine Analyzer	3	3	-
Diagnostic Test Group Clarity Urocheck	4	4	-
Diagnostic Test Group Clarity Urocheck 120	10	10	-
Germaine Laboratories AimStrip	2	2	-
Germaine Labs AimStrip Urine Analyzer	3	3	-
Henry Schein One Step Plus	3	3	-
Henry Schein Urispec / Urispec Plus	19	17	2
McKesson 10SG Reagent Strips	3	3	-
McKesson 120 Urine Analyzer	22	22	-
Medline 120 Urine Analyzer	5	5	-
Medline Urinalysis Reagent Strips	3	3	-
Moore Medical Urine Reagent Strips	1	1	-
NDC Pro Advantage	2	2	-
Other Dipstick Method	6	6	-
PSS Select Urine Analyzer	1	1	-
Roche Chemstrips	40	40	-
Roche cobas u 411	1	1	-
Roche Criterion Analyzer	2	2	-
Roche SuperUA/ChemstripUA	1	1	-
Roche Urisys	10	10	-
Siemens Clinitek 10 / 100	3	3	-
Siemens Clinitek 50	15	15	-
Siemens Clinitek 500	4	4	-
Siemens Clinitek Advantus	15	15	-
Siemens Clinitek Status / Status+	403	403	-
Siemens Multistix Pro	3	3	-
Siemens Reagent Strips	120	119	1
Siemens Uristix	1	1	-
Uriscan Optima	2	2	-
UriScan Reagent Strips	3	3	-

URINALYSIS –MICROALBUMIN (dipstick only)

Specimen UA-1

<u>Method</u>	<u>Labs</u>	<i>Participant Results</i>									
		<u>Negative</u>	<u>10 mg/L</u>	<u>20 mg/L</u>	<u>30 mg/L</u>	<u>50 mg/L</u>	<u>80 mg/L</u>	<u>100 mg/L</u>	<u>150 mg/L</u>	<u>+ (4 - 8 mg/dL)</u>	<u>++ (>8 mg/dL)</u>
ALL METHODS	59	2	-	-	2	-	2	10	43	-	-
BTNX Rapid Response Microalb/Crea	1	-	-	-	-	-	-	-	1	-	-
Henry Schein Urispec / Urispec Plus	1	1	-	-	-	-	-	-	-	-	-
Roche Micral - 1 minute	10	1	-	-	-	-	1	8	-	-	-
Siemens Clinitek 50	1	-	-	-	-	-	-	1	-	-	-
Siemens Clinitek Microalbumin	42	-	-	-	1	-	1	-	40	-	-
Siemens Clinitek Status / Status+	2	-	-	-	1	-	-	-	1	-	-
Siemens Multistix Pro	1	-	-	-	-	-	-	-	1	-	-

URINALYSIS –URINE hCG**Specimen UA-1**

<u>Method</u>	<i>Participant Results</i>		
	<u>Labs</u>	<u>Positive</u>	<u>Negative</u>
ALL METHODS	404	401	3
Alere Aceava hCG-Urine	1	1	-
Alere Clearview 25 hCG Combo	1	1	-
Alere Clearview hCG Cassette	2	2	-
Alere Clearview hCG Combo II	1	1	-
Alere hCG Cassette	3	3	-
Alfa Scientific Instant View	7	7	-
Beckman Coulter ICON 20 hCG	2	2	-
Beckman Coulter ICON 25 hCG	20	20	-
Beckman Coulter ICON II	5	5	-
BioSign hCG	1	1	-
BTNX Rapid Response hCG	2	2	-
Cardinal Health SP Brand combo	24	24	-
Cardinal Hlth SPBrand-cassette	2	2	-
Clarity Diagnostics hCG Combo	2	2	-
Clarity Diagnostics hCG strip/cassette	11	10	1
CONSULT diagnostics hCG Cassette	45	44	1
CONSULT diagnostics hCG Combo	10	10	-
CONSULT diagnostics hCG Dipstick	33	33	-
Consult Diagnostics Reagent Strips	1	1	-
Germaine Laboratories AimStrip Pregnancy	1	1	-
Henry Schein One Step	57	57	-
Immunostics hCG Detector-urine	1	1	-
McKesson hCG Combo Cassette	4	4	-
McKesson hCG Urine Cassette	12	12	-
MediChoice hCG Combi Cassette	5	5	-
Medline hCG Combo Test Cassette	7	7	-
Medline hCG Test Cassette	4	4	-
Moore Medical hCG Urine	2	2	-
NDC Pro Advantage	1	1	-
PEP (Lab Supply) HCG	1	1	-
Polymedco Poly stat hCG	1	1	-
Quidel QuickVue One-Step Combo	16	16	-
Quidel QuickVue One-Step Urine	38	38	-
Quidel QuickVue+ One-Step Combo	23	23	-
Quidel Sofia hCG	2	2	-
Sekisui OSOM Card Pregnancy	7	6	1
Sekisui OSOM hCG Combo Test	1	1	-
Siemens Clinitek Status / Status+	11	11	-

URINALYSIS –URINE hCG (cont'd)

Specimen UA-1

<u>Method</u>	<i>Participant Results</i>		
	<u>Labs</u>	<u>Positive</u>	<u>Negative</u>
Stanbio QuPID	8	8	-
Stanbio QuPID Plus	2	2	-
Stanbio TRUE hCG	9	9	-
Sure-Vue hCG - 25mIU	2	2	-
Sure-Vue hCG-STAT	6	6	-

FECAL OCCULT BLOOD

<u>Method</u>	Specimen OC-1			Specimen OC-2		
	<u>Labs</u>	<u>Positive</u>	<u>Negative</u>	<u>Labs</u>	<u>Positive</u>	<u>Negative</u>
ALL METHODS	280	3	277	280	276	4
Alere Clearview iFOBT Complete	1	-	1	1	1	-
Beckman Coulter Hemocult ICT	39	1	38	39	38	1
Guaiaac (slide) Test	170	2	168	170	167	3
Hemosure iFOB	30	-	30	30	30	-
Other Immunochemical FOB kit	20	-	20	20	20	-
Polymedco OC Auto Micro 80	4	-	4	4	4	-
Polymedco OC-Light iFOB	8	-	8	8	8	-
Quidel QuickVue iFOB	6	-	6	6	6	-

**2019 M1
Urine Sediment Identification
SPECIMENS US-1 AND US-2**

CASE HISTORY:

A 52-year old female, presented to her physician with nausea, vomiting, swollen feet and ankles. The patient has a long history of diabetes and hypertension. She had lost weight since her previous visit and reported urinating less frequently. Upon physical exam, the patient had a normal temperature, tachypnea, moderate lower extremity swelling, and superficial skin abrasions from scratching. A routine urinalysis was performed, and the results appear below.

Color = Amber
Appearance = Cloudy

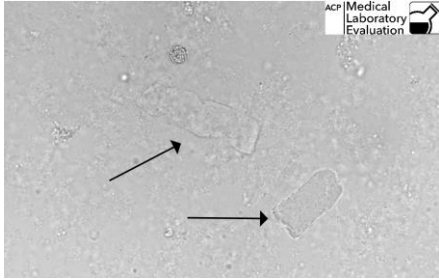
Dipstick results:

Specific gravity = 1.010
pH = 6.0
Protein = 30 mg/dL (1+)
Glucose = Negative
Ketones = Negative
Bilirubin = Negative
Urobilinogen = Normal/0.2 mg/dL
Blood = Negative
Leukocyte Esterase = Negative
Nitrite = Negative

This patient was diagnosed with chronic renal failure. Chronic renal failure (CRF) is a gradual, persistent impairment of kidney function. The kidney's main functions include filtering waste products from the blood plasma and maintaining the proper balance of water in the body. Chronic renal failure is a progressive disease in which the kidneys gradually lose the ability to excrete waste, concentrate urine, and conserve electrolytes. When patients with advanced renal failure lose the ability to concentrate urine, their urine specific gravity stays fixed at 1.010, regardless of physiologic conditions in the body. Symptoms of CRF, which can be nonspecific and affect almost every part of the body, may not appear until the kidneys are badly damaged. When CRF progresses to the point of requiring dialysis or kidney transplant, it is termed end-stage renal disease (ESRD). Diabetes and hypertension are the leading causes of end stage renal disease.

Urine Sediment Identification

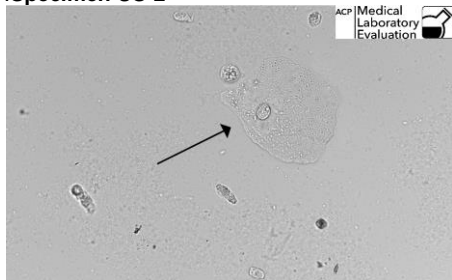
Specimen US-1



<u>Identification</u>	<u>Labs</u>	<u>Percent</u>	<u>Performance</u>
Waxy cast	357	84.40%	Acceptable
Hyaline cast	53	12.53%	
Granular cast	9	2.13%	

The arrows in this photograph point to waxy casts. Casts are cylindrical bodies of proteins that have been molded inside the lumen of a renal tubule. Waxy casts usually have cracks or fissures and blunt ends. Waxy casts are associated with renal stasis, indicating advanced renal disease; therefore, abnormal chemical and microscopic findings always accompany waxy casts. Several labs misidentified these waxy casts as hyaline casts. Hyaline casts usually have rounded ends and are more smooth and translucent than waxy casts. Normal chemical and microscopic results usually accompany hyaline casts and contaminating fibers that resemble casts. To view another photo of a waxy cast, see 2013 M3 Specimen US-6. To view a photo of a hyaline cast, see 2014 M1 Specimen US-2.

Specimen US-2



<u>Identification</u>	<u>Labs</u>	<u>Percent</u>	<u>Performance</u>
Squamous epithelial cell	414	97.41%	Acceptable
Transitional epithelial cell	6	1.41%	

The arrow in this photograph points to a squamous epithelial cell. Squamous epithelial cells line the lower urinary tract, vaginal mucosa, and external skin surfaces. Squamous cells are large, flat, and irregularly shaped, with a single small nucleus and plentiful cytoplasm. They often appear folded or rolled. Small numbers of squamous cells are routinely seen in urine specimens from female patients. Large numbers of squamous cells can indicate contamination of the urine during specimen collection from external skin or vaginal secretions. Use of the proper midstream collection technique minimizes contamination. To view another photo of squamous epithelial cells, see 2017 M3 Specimen US-6.

REFERENCES:

"Kidney Disease." American Kidney Fund 2019. Accessed March 20, 2019.

Available at: <http://www.kidneyfund.org/kidney-disease/>

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

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

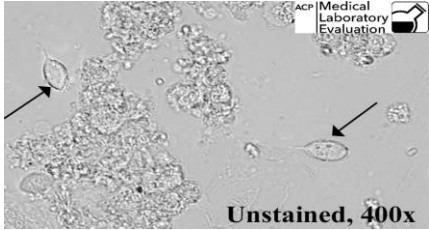
Shankland, S.J. "Glomerular Diseases." *ACP Medicine.* Ed. D. C. Dale. New York: WebMD, Inc., 2004. 1997-1999.

Sterns, R.H. "Renal Function and Disorders of Water and Sodium Balance." *ACP Medicine.* Ed. D. C. Dale. New York: WebMD, Inc., 2004. 1929.

PROVIDER-PERFORMED MICROSCOPY (PPM)

Wet Mount Preparation

Specimen PPM-1



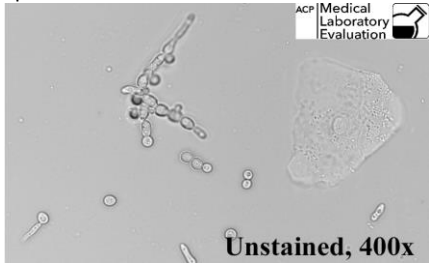
<u>Identification</u>	<u>Labs</u>	<u>Percent</u>	<u>Performance</u>
Trichomonas vaginalis	465	96.47%	Acceptable
Yeast/fungi	7	1.45%	
Spermatozoa	6	1.24%	

The arrows in this photograph of a vaginal wet mount point to *Trichomonas vaginalis*.

T. vaginalis is a single-celled protozoan parasite that is about the same size as a white blood cell. It can be pear-shaped, rounded, or triangular. It has four flagella, an anterior undulating membrane, and a sharp protruding posterior axostyle that looks like a tail. Trichomonas is easily identified in a fresh wet prep by its distinctive irregular, jerky, rotating motility. Trichomoniasis is a common sexually-transmitted infection (STI) that affects women more often than men. Symptoms include urinary frequency, burning and discharge. The genital inflammation caused by Trichomonas can make the patient more susceptible to other STIs such as HIV. Trichomoniasis is easily cured with medication. To view another photo of Trichomonas, see 2016 M2 Specimen PPM-7.

KOH Preparation

Specimen PPM-2



<u>Identification</u>	<u>Labs</u>	<u>Percent</u>	<u>Performance</u>
Yeast/fungal elements present	452	99.34%	Acceptable
Yeast/fungal elements absent	3	0.66%	

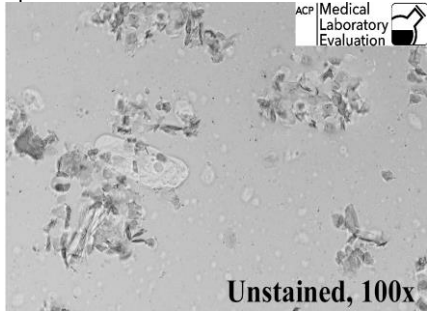
Yeast and fungal elements are present in this photograph of a vaginal KOH prep.

To view another photo of yeast cells, see 2018 M3 Specimen PPM-14.

PROVIDER-PERFORMED MICROSCOPY (PPM)

SCABIES DETECTION

Specimen PPM-3

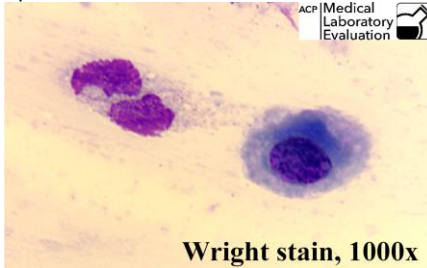


<u>Identification</u>	<u>Labs</u>	<u>Percent</u>	<u>Performance</u>
Scabies absent	148	95.48%	Acceptable
Scabies present	7	4.52%	

Scabies are absent in this photograph of a skin scrapings preparation. The diagnosis of scabies is often made only by the patient history and examination of the skin. There may be only 10-15 mites on the entire body of an infested person who is otherwise healthy, so a negative test does not rule out the diagnosis of scabies. To view a photo of a scabies mite, see 2018 M2 Specimen PPM-8.

NASAL SMEAR

Specimen PPM-4



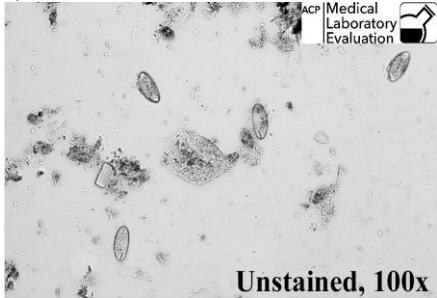
<u>Identification</u>	<u>Labs</u>	<u>Percent</u>	<u>Performance</u>
Eosinophils absent	53	50.48%	Acceptable
Eosinophils present	52	49.52%	

Eosinophils are absent in this photograph of Wright-stained nasal mucus. Respiratory secretions are examined for leukocytes in order to differentiate allergic conditions from infections. Eosinophils are a specific type of leukocyte (white blood cell) associated with allergic conditions. The pink and purple cells in this photo are not eosinophils. Eosinophils have large, round, orange-staining granules that fill the cytoplasm. This gives “eos” a unique bright red-orange color that makes them easy to spot and identify. To view a photo of eosinophils in a nasal smear, see 2018 M2 Specimen PPM-10. **This specimen is graded to 83% referee consensus.**

PROVIDER-PERFORMED MICROSCOPY (PPM)

STOOL PREPARATION

Specimen PPM-5

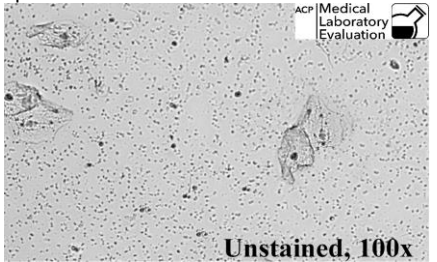


<u>Identification</u>	<u>Labs</u>	<u>Percent</u>	<u>Performance</u>
Pinworms/eggs present	203	99.51%	Acceptable
Pinworms/eggs absent	1	0.49%	

Pinworm eggs are present in this photograph of a perianal pinworm preparation. To view another photo of pinworm eggs, see 2018 M1 Specimen PPM-5.

VAGINAL FLUID PREPARATION

Specimen PPM-6



<u>Identification</u>	<u>Labs</u>	<u>Percent</u>	<u>Performance</u>
Ferning absent	168	100%	Acceptable

Ferning is absent 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 fern leaf, unlike normal vaginal secretions or urine, which do not crystallize. Ferning indicates leakage of amniotic fluid. To view a positive fern test, see 2018 M1 Specimen PPM-6.

REFERENCES:

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

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

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

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

Scabies. In: Parasite Image Library at DPDx Laboratory Identification of Parasites of Public Health Concern. Centers for Disease Control and Prevention (CDC). Available at: <http://www.cdc.gov/dpdx/scabies/index.html>

Medical Laboratory Evaluation

25 Massachusetts Ave NW Ste 700

Washington, DC 20001-7401

800-338-2746 • 202-261-4500 • Fax: 202-835-0440

www.acponline.org/mle