MEDICAL LABORATORY

EVALUATION

INTERNATIONAL PARTICIPANT SUMMARY

2 • 0 • 0 • 3

Hematology, Coagulation,
Blood Bank, Urinalysis,
Microbiology
MLE – A3

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

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Urinalysis

Microbiology

2003 Evaluation Criteria

Qualitative

For qualitative procedures, evaluation is based on 80% participant consensus

Blood Cell Identification	80% Consensus
Urine Dipstick	80% Consensus
Urine hCG	80% Consensus
Microalbumin (Semi-Quantitative)	80% Consensus
Urine Sediment Identification	80% Consensus
KOH Skin Preparation	80% Consensus
ABO/Rh	80% Consensus
Unexpected Antibody Detection	80% Consensus
Compatibility Testing	80% Consensus
Bacterial Identification	80% Consensus
Parasite Identification	Vendor Assay
Strep A Antigen Detection	80% Consensus
Antimicrobial Susceptibility Testing	80% Consensus
Dermatophyte Screen	80% Consensus
Gram Stain	80% Consensus
Gram Stain Morphology	Not Graded

Quantitative

For quantitative procedures, a mean and standard deviation (SD) are calculated for each analyte's "All Method" group. Acceptable performance is established on a target value ± the intervals below. An explanation on how to calculate the range of acceptability based upon these limits is also provided in your MLE Program Guide on pages 44-45 under the heading "Acceptable Ranges for Quantitative Results."

Hemoglobin	± 3 SD
Hematocrit	± 3 SD
White Blood Cell Count	± 3 SD
Red Blood Cell Count	± 3 SD
Platelet Count	± 3 SD
Automated Differential	± 3 SD
Prothrombin Time	± 2 SD
Activated Partial Thromboplastin Time	± 2 SD
Fibrinogen	± 3 SD
International Normalized Ratio (All other samples)	Not Graded
Specific Gravity	± 3 SD

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

	Specimen SYX-11					Specimen SYX-12				
Instruments	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Labs***	***Mean***	***SD***	***CV***	***Median***
Sysmex SE Series 9000, Alpha	1	-	-	-	8.1	1	-	-	-	2.5

	Specimen HD-13					Specimen HD-14				
Sysmex SE Series 9000, Alpha	1	-	-	-	7.6	1	-	-	-	13.4

	Specimen HD-15				
Sysmex SE Series 9000, Alpha	1	-	-	-	19.3

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

	Specimen SYX-11					Specimen SYX-12				
Instruments	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Labs***	***Mean***	***SD***	***CV***	***Median***
Sysmex SE Series 9000, Alpha	1	-	-	-	3.98	1	-	-	-	2.52

	Specimen HD-13					Specimen HD-14				
Sysmex SE Series 9000, Alpha	1	-	-	-	4.64	1	-	-	-	5.62

	Specimen HD-15				
Sysmex SE Series 9000, Alpha	1	-	-	-	5.64

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

	Specimen SYX-11					Specimen SYX-12				
Instruments	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Labs***	***Mean***	***SD***	***CV***	***Median***
Sysmex SE Series 9000, Alpha	1	-	-	-	10.8	1	-	-	-	6.7

	Specimen HD-13					Specimen HD-14				
Sysmex SE Series 9000, Alpha	1	-	-	-	13.6	1	-	-	-	17.7

	Specimen HD-15				
Sysmex SE Series 9000, Alpha	1	-	-	-	18.0

SYSMEX HEMATOLOGY W/ AUTOMATED DIFFERENTIAL - HEMATOCRIT (percent)

	Specimen SYX-11					Specimen SYX-12				
Instruments	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Labs***	***Mean***	***SD***	***CV***	***Median***
Sysmex SE Series 9000, Alpha	1	-	-	-	31.1	1	-	-	-	19.9

	Specimen HD-13					Specimen HD-14				
Sysmex SE Series 9000, Alpha	1	-	-	-	39.8	1	-	-	-	51.1

	Specimen HD-15				
Sysmex SE Series 9000, Alpha	1	-	-	-	51.4

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

	Specimen SYX-11					Specimen SYX-12				
Instruments	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Labs***	***Mean***	***SD***	***CV***	***Median***
Sysmex SE Series 9000, Alpha	1	-	-	-	341	1	-	-	-	59

	Specimen HD-13					Specimen HD-14				
Sysmex SE Series 9000, Alpha	1	-	-	-	213	1	-	-	-	135

	Specimen HD-15				
Sysmex SE Series 9000, Alpha	1	-	-	-	507

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

	Specimen HD-11					Specimen HD-12				
Instruments	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Labs***	***Mean***	***SD***	***CV***	***Median***
All Methods	4	-	-	-	2.7	4	-	-	-	6.5
Abbott Cell-Dyn 1400	1	-	-	-	3.1	1	-	-	-	6.7
Abbott Cell-Dyn 1700	3	-	-	-	2.7	3	-	-	-	6.4

	Specimen HD-13					Specimen HD-14				
All Methods	4	-	-	-	15.2	4	-	-	-	8.9
Abbott Cell-Dyn 1400	1	-	-	-	15.7	1	-	-	-	9.2
Abbott Cell-Dyn 1700	3	-	-	-	14.9	3	-	-	-	8.8

	Specimen HD-15				
All Methods	4	-	-	-	9.9
Abbott Cell-Dyn 1400	1	-	-	-	10.4
Abbott Cell-Dyn 1700	3	-	-	-	9.7

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

	Specimen HD-11					Specimen HD-12				
Instruments	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Labs***	***Mean***	***SD***	***CV***	***Median***
All Methods	4	-	-	-	3.58	4	-	-	-	5.45
Abbott Cell-Dyn 1400	1	-	-	-	3.62	1	-	-	-	5.44
Abbott Cell-Dyn 1700	3	-	-	-	3.54	3	-	-	-	5.46

	Specimen HD-13					Specimen HD-14				
All Methods	4	-	-	-	4.10	4	-	-	-	4.82
Abbott Cell-Dyn 1400	1	-	-	-	4.11	1	-	-	-	4.80
Abbott Cell-Dyn 1700	3	-	-	-	4.08	3	-	-	-	4.83

	Specimen HD-15				
All Methods	4	-	-	-	4.48
Abbott Cell-Dyn 1400	1	-	-	-	4.55
Abbott Cell-Dyn 1700	3	-	-	-	4.40

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

	Specimen HD-11					Specimen HD-12				
Instruments	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Labs***	***Mean***	***SD***	***CV***	***Median***
All Methods	4	-	-	-	10.6	4	-	-	-	16.0
Abbott Cell-Dyn 1400	1	-	-	-	11.1	1	-	-	-	16.8
Abbott Cell-Dyn 1700	3	-	-	-	10.5	3	-	-	-	16.0

	Specimen HD-13					Specimen HD-14				
All Methods	4	-	-	-	12.8	4	-	-	-	15.1
Abbott Cell-Dyn 1400	1	-	-	-	13.2	1	-	-	-	15.7
Abbott Cell-Dyn 1700	3	-	-	-	12.6	3	-	-	-	14.9

	Specimen HD-15				
All Methods	4	-	-	-	13.9
Abbott Cell-Dyn 1400	1	-	-	-	14.5
Abbott Cell-Dyn 1700	3	-	-	-	13.8

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

	Specimen HD-11					Specimen HD-12				
Instruments	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Labs***	***Mean***	***SD***	***CV***	***Median***
All Methods	4	-	-	-	32.4	4	-	-	-	49.5
Abbott Cell-Dyn 1400	1	-	-	-	31.5	1	-	-	-	47.3
Abbott Cell-Dyn 1700	3	-	-	-	32.7	3	-	-	-	50.1

	Specimen HD-13					Specimen HD-14				
All Methods	4	-	-	-	38.2	4	-	-	-	46.7
Abbott Cell-Dyn 1400	1	-	-	-	37.0	1	-	-	-	45.1
Abbott Cell-Dyn 1700	3	-	-	-	38.4	3	-	-	-	47.1

	Specimen HD-15				
All Methods	4	-	-	-	43.5
Abbott Cell-Dyn 1400	1	-	-	-	41.9
Abbott Cell-Dyn 1700	3	-	-	-	43.8

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

	Specimen HD-11					Specimen HD-12				
Instruments	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Labs***	***Mean***	***SD***	***CV***	***Median***
All Methods	4	-	-	-	147	4	-	-	-	321
Abbott Cell-Dyn 1400	1	-	-	-	179	1	-	-	-	346
Abbott Cell-Dyn 1700	3	-	-	-	139	3	-	-	-	307

	Specimen HD-13					Specimen HD-14				
All Methods	4	-	-	-	78	4	-	-	-	170
Abbott Cell-Dyn 1400	1	-	-	-	93	1	-	-	-	190
Abbott Cell-Dyn 1700	3	-	-	-	76	3	-	-	-	167

	Specimen HD-15				
All Methods	4	-	-	-	197
Abbott Cell-Dyn 1400	1	-	-	-	233
Abbott Cell-Dyn 1700	3	-	-	-	185

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

	Specimen HD-11					Specimen HD-12				
Instruments	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Labs***	***Mean***	***SD***	***CV***	***Median***
Abbott Cell-Dyn 1700	3	-	-	-	56.6	3	-	-	-	35.2

	Specimen HD-13					Specimen HD-14				
Abbott Cell-Dyn 1700	3	-	-	-	54.9	3	-	-	-	45.9

	Specimen HD-15				
Abbott Cell-Dyn 1700	3	-	-	-	44.2

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

	Specimen HD-11					Specimen HD-12				
Instruments	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Labs***	***Mean***	***SD***	***CV***	***Median***
Abbott Cell-Dyn 1700	3	-	-	-	6.2	3	-	-	-	3.6

	Specimen HD-13					Specimen HD-14				
Abbott Cell-Dyn 1700	3	-	-	-	5.4	3	-	-	-	5.6

	Specimen HD-15				
Abbott Cell-Dyn 1700	3	-	-	-	6.4

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

	Specimen HD-11					Specimen HD-12				
Instruments	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Labs***	***Mean***	***SD***	***CV***	***Median***
Abbott Cell-Dyn 1700	3	-	-	-	38.3	3	-	-	-	60.0

	Specimen HD-13					Specimen HD-14				
Abbott Cell-Dyn 1700	3	-	-	-	39.1	3	-	-	-	48.3

	Specimen HD-15				
Abbott Cell-Dyn 1700	3	-	-	-	48.9

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

	Specimen DIF-11					Specimen DIF-12				
Instruments	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Labs***	***Mean***	***SD***	***CV***	***Median***
All Methods	4	-	-	-	8.1	4	-	-	-	15.5
Abbott Cell-Dyn 3500 / 3700	1	-	-	-	7.6	1	-	-	-	13.1
COULTER GEN-S	2	-	-	-	8.3	2	-	-	-	15.7
COULTER STKS, STKS W/RETIC	1	-	-	-	8.0	1	-	-	-	15.6

	Specimen DIF-13					Specimen DIF-14				
All Methods	4	-	-	-	3.2	4	-	-	-	20.3
Abbott Cell-Dyn 3500 / 3700	1	-	-	-	3.1	1	-	-	-	17.7
COULTER GEN-S	2	-	-	-	3.2	2	-	-	-	20.6
COULTER STKS, STKS W/RETIC	1	-	-	-	3.3	1	-	-	-	20.1

	Specimen DIF-15				
All Methods	4	-	-	-	6.2
Abbott Cell-Dyn 3500 / 3700	1	-	-	-	5.6
COULTER GEN-S	2	-	-	-	6.2
COULTER STKS, STKS W/RETIC	1	-	-	-	6.1

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

	Specimen DIF-11					Specimen DIF-12				
Instruments	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Labs***	***Mean***	***SD***	***CV***	***Median***
All Methods	4	-	-	-	3.39	4	-	-	-	3.39
Abbott Cell-Dyn 3500 / 3700	1	-	-	-	3.57	1	-	-	-	3.42
COULTER GEN-S	2	-	-	-	3.36	2	-	-	-	3.34
COULTER STKS, STKS W/RETIC	1	-	-	-	3.40	1	-	-	-	3.40

	Specimen DIF-13					Specimen DIF-14				
All Methods	4	-	-	-	2.98	4	-	-	-	5.24
Abbott Cell-Dyn 3500 / 3700	1	-	-	-	3.10	1	-	-	-	5.49
COULTER GEN-S	2	-	-	-	2.98	2	-	-	-	5.22
COULTER STKS, STKS W/RETIC	1	-	-	-	2.98	1	-	-	-	5.19

	Specimen DIF-15				
All Methods	4	-	-	-	3.49
Abbott Cell-Dyn 3500 / 3700	1	-	-	-	3.59
COULTER GEN-S	2	-	-	-	3.46
COULTER STKS, STKS W/RETIC	1	-	-	-	3.50

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

	Specimen DIF-11					Specimen DIF-12				
Instruments	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Labs***	***Mean***	***SD***	***CV***	***Median***
All Methods	4	-	-	-	9.4	4	-	-	-	9.6
Abbott Cell-Dyn 3500 / 3700	1	-	-	-	9.8	1	-	-	-	9.7
COULTER GEN-S	2	-	-	-	9.4	2	-	-	-	9.6
COULTER STKS, STKS W/RETIC	1	-	-	-	9.3	1	-	-	-	9.4

	Specimen DIF-13					Specimen DIF-14				
All Methods	4	-	-	-	8.2	4	-	-	-	16.9
Abbott Cell-Dyn 3500 / 3700	1	-	-	-	8.7	1	-	-	-	18.0
COULTER GEN-S	2	-	-	-	8.2	2	-	-	-	16.9
COULTER STKS, STKS W/RETIC	1	-	-	-	8.2	1	-	-	-	16.7

	Specimen DIF-15				
All Methods	4	-	-	-	10.8
Abbott Cell-Dyn 3500 / 3700	1	-	-	-	11.0
COULTER GEN-S	2	-	-	-	10.8
COULTER STKS, STKS W/RETIC	1	-	-	-	10.7

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

	Specimen DIF-11					Specimen DIF-12				
Instruments	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Labs***	***Mean***	***SD***	***CV***	***Median***
All Methods	4	-	-	-	26.6	4	-	-	-	26.9
Abbott Cell-Dyn 3500 / 3700	1	-	-	-	28.1	1	-	-	-	27.1
COULTER GEN-S	2	-	-	-	26.6	2	-	-	-	26.9
COULTER STKS, STKS W/RETIC	1	-	-	-	26.3	1	-	-	-	26.6

	Specimen DIF-13					Specimen DIF-14				
All Methods	4	-	-	-	23.5	4	-	-	-	47.4
Abbott Cell-Dyn 3500 / 3700	1	-	-	-	24.3	1	-	-	-	49.3
COULTER GEN-S	2	-	-	-	23.5	2	-	-	-	47.4
COULTER STKS, STKS W/RETIC	1	-	-	-	23.1	1	-	-	-	46.3

	Specimen DIF-15				
All Methods	4	-	-	-	30.5
Abbott Cell-Dyn 3500 / 3700	1	-	-	-	31.1
COULTER GEN-S	2	-	-	-	30.5
COULTER STKS, STKS W/RETIC	1	-	-	-	29.8

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

	Specimen DIF-11					Specimen DIF-12				
Instruments	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Labs***	***Mean***	***SD***	***CV***	***Median***
All Methods	4	-	-	-	327	4	-	-	-	461
Abbott Cell-Dyn 3500 / 3700	1	-	-	-	371	1	-	-	-	530
COULTER GEN-S	2	-	-	-	316	2	-	-	-	448
COULTER STKS, STKS W/RETIC	1	-	-	-	309	1	-	-	-	444

	Specimen DIF-13					Specimen DIF-14				
All Methods	4	-	-	-	99	4	-	-	-	651
Abbott Cell-Dyn 3500 / 3700	1	-	-	-	111	1	-	-	-	764
COULTER GEN-S	2	-	-	-	99	2	-	-	-	635
COULTER STKS, STKS W/RETIC	1	-	-	-	92	1	-	-	-	607

	Specimen DIF-15				
All Methods	4	-	-	-	114
Abbott Cell-Dyn 3500 / 3700	1	-	-	-	141
COULTER GEN-S	2	-	-	-	112
COULTER STKS, STKS W/RETIC	1	-	-	-	108

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

	Specimen DIF-11					Specimen DIF-12				
Instruments	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Labs***	***Mean***	***SD***	***CV***	***Median***
All Methods	4	-	-	-	62.7	4	-	-	-	65.4
Abbott Cell-Dyn 3500 / 3700	1	-	-	-	62.6	1	-	-	-	68.1
COULTER GEN-S	2	-	-	-	59.9	2	-	-	-	61.7
COULTER STKS, STKS W/RETIC	1	-	-	-	67.1	1	-	-	-	68.7

	Specimen DIF-13					Specimen DIF-14				
All Methods	4	-	-	-	58.9	4	-	-	-	70.5
Abbott Cell-Dyn 3500 / 3700	1	-	-	-	57.7	1	-	-	-	78.0
COULTER GEN-S	2	-	-	-	58.9	2	-	-	-	67.0
COULTER STKS, STKS W/RETIC	1	-	-	-	67.8	1	-	-	-	73.5

	Specimen DIF-15				
All Methods	4	-	-	-	66.7
Abbott Cell-Dyn 3500 / 3700	1	-	-	-	68.6
COULTER GEN-S	2	-	-	-	63.5
COULTER STKS, STKS W/RETIC	1	-	-	-	74.0

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

	Specimen DIF-11					Specimen DIF-12				
Instruments	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Labs***	***Mean***	***SD***	***CV***	***Median***
All Methods	4	-	-	-	34.1	4	-	-	-	24.6
Abbott Cell-Dyn 3500 / 3700	1	-	-	-	35.4	1	-	-	-	28.4
COULTER GEN-S	2	-	-	-	34.6	2	-	-	-	24.6
COULTER STKS, STKS W/RETIC	1	-	-	-	26.0	1	-	-	-	18.4

	Specimen DIF-13					Specimen DIF-14				
All Methods	4	-	-	-	39.2	4	-	-	-	18.9
Abbott Cell-Dyn 3500 / 3700	1	-	-	-	40.5	1	-	-	-	20.8
COULTER GEN-S	2	-	-	-	39.2	2	-	-	-	18.9
COULTER STKS, STKS W/RETIC	1	-	-	-	28.6	1	-	-	-	14.5

	Specimen DIF-15				
All Methods	4	-	-	-	29.5
Abbott Cell-Dyn 3500 / 3700	1	-	-	-	30.0
COULTER GEN-S	2	-	-	-	29.5
COULTER STKS, STKS W/RETIC	1	-	-	-	23.0

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

	Specimen DIF-11					Specimen DIF-12				
Instruments	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Labs***	***Mean***	***SD***	***CV***	***Median***
All Methods	3	-	-	-	1.6	4	-	-	-	1.2
Abbott Cell-Dyn 3500 / 3700	1	-	-	-	0.7	1	-	-	-	0.2
COULTER GEN-S	1	-	-	-	2.6	2	-	-	-	2.7
COULTER STKS, STKS W/RETIC	1	-	-	-	1.6	1	-	-	-	1.4

	Specimen DIF-13					Specimen DIF-14				
All Methods	4	-	-	-	1.2	4	-	-	-	2.4
Abbott Cell-Dyn 3500 / 3700	1	-	-	-	0.7	1	-	-	-	0.2
COULTER GEN-S	2	-	-	-	1.0	2	-	-	-	3.7
COULTER STKS, STKS W/RETIC	1	-	-	-	2.0	1	-	-	-	1.7

	Specimen DIF-15				
All Methods	4	-	-	-	2.2
Abbott Cell-Dyn 3500 / 3700	1	-	-	-	0.2
COULTER GEN-S	2	-	-	-	4.6
COULTER STKS, STKS W/RETIC	1	-	-	-	1.0

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

	Specimen DIF-11					Specimen DIF-12				
Instruments	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Labs***	***Mean***	***SD***	***CV***	***Median***
All Methods	4	-	-	-	4.1	4	-	-	-	10.8
Abbott Cell-Dyn 3500 / 3700	1	-	-	-	0.7	1	-	-	-	2.7
COULTER GEN-S	2	-	-	-	4.1	2	-	-	-	10.8
COULTER STKS, STKS W/RETIC	1	-	-	-	5.1	1	-	-	-	11.5

	Specimen DIF-13					Specimen DIF-14				
All Methods	4	-	-	-	0.9	4	-	-	-	9.9
Abbott Cell-Dyn 3500 / 3700	1	-	-	-	0.2	1	-	-	-	0.9
COULTER GEN-S	2	-	-	-	0.9	2	-	-	-	10.2
COULTER STKS, STKS W/RETIC	1	-	-	-	1.5	1	-	-	-	10.2

	Specimen DIF-15				
All Methods	4	-	-	-	2.1
Abbott Cell-Dyn 3500 / 3700	1	-	-	-	0.4
COULTER GEN-S	2	-	-	-	2.1
COULTER STKS, STKS W/RETIC	1	-	-	-	2.1

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

	Specimen DIF-11					Specimen DIF-12				
Instruments	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Labs***	***Mean***	***SD***	***CV***	***Median***
All Methods	4	-	-	-	0.3	4	-	-	-	0.3
Abbott Cell-Dyn 3500 / 3700	1	-	-	-	0.6	1	-	-	-	0.6
COULTER GEN-S	2	-	-	-	0.2	2	-	-	-	0.3
COULTER STKS, STKS W/RETIC	1	-	-	-	0.2	1	-	-	-	0.1

	Specimen DIF-13					Specimen DIF-14				
All Methods	3	-	-	-	0.2	3	-	-	-	0.2
Abbott Cell-Dyn 3500 / 3700	1	-	-	-	0.9	-	-	-	-	-
COULTER GEN-S	1	-	-	-	0.2	2	-	-	-	0.4
COULTER STKS, STKS W/RETIC	1	-	-	-	0.2	1	-	-	-	0.2

	Specimen DIF-15				
All Methods	4	-	-	-	0.6
Abbott Cell-Dyn 3500 / 3700	1	-	-	-	0.7
COULTER GEN-S	2	-	-	-	0.4
COULTER STKS, STKS W/RETIC	1	-	-	-	0.4

BLOOD CELL IDENTIFICATION

BLOOD CELL CASE HISTORY, 2003-A3

Two days after returning a stint as a volunteer with Habitat for Humanity this 17-year-old female developed mild diarrhea with stomach cramps. She complained about being constantly tired; she began having frequent headaches and also intermittent chills. When she lost her appetite, her mother decided to take her to the pediatrician for diagnosis and treatment. Significant results of the CBC, performed at this office laboratory, are listed below. The following blood cells were observed on the manual differential.

Total WBC	15.0 x 10^9/L
RBC	4.25 x 10^{12}/L
Hgb	13 g/dL
Hct	38 %
MCV	92 fL
Plt	275 x 10^9/ L
Granulocytes	80 %
Lymphocytes	15 %
Monocytes	5%

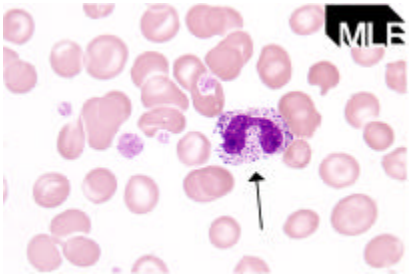
This patient was diagnosed with non-typhoid Salmonellosis.

References:

E. Anne Steine-Martin et al, *Clinical Hematology: Principles, Procedures, Correlations*, Lippincott, Philadelphia, PA, 1992.

Handin, Robert I, Disorders Of The Platelet And Vessel Wall, *Harrison's Principles of Internal Medicine*, New York, NY, McGraw-Hill, 1998.

Specimen BC-13



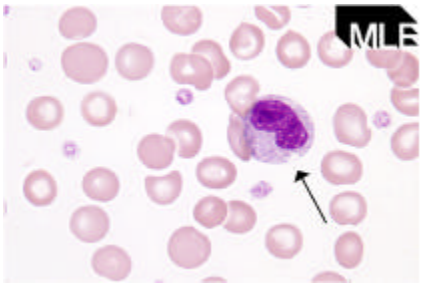
Identification	Labs	Percent	Performance
Seg/band neutrophil with toxic grain	17	100%	Acceptable

The arrow in this photograph points to a band-stage neutrophil with toxic granulation. The band, the last development step before granulated neutrophil, has identical cellular cytoplasm as the mature polymorphonuclear cell. Bands have distinct, coarse, clumped chromatin and a constricted nucleus without threadlike filaments. The key to identifying a band lies in the shape of the nucleus. If the cell has a nucleus with parallel sides that form either a "C" or "S" shape or has an indentation that is less than one half of the width of the nucleus, it is commonly described as a band. Approximately 40% of the white cells in bone marrow are bands, but they only appear as approximately 6% of the peripheral blood cells.

This band has pronounced toxic granulation, the most-notable evidence of the toxic change in the cytoplasm of neutrophils in response to stimulation by foreign antigens or organisms. These prominent, blue-black granules are unevenly distributed throughout the cytoplasm. Toxic granules are thought to be normal primary granules, always present in the neutrophils but not visible with routine Wright stain. The presence of these granules has been associated with bacterial infections, poisoning, burns, chemotherapy, and pregnancy (1). The key to distinguishing between true toxic granules and abnormal metachromatic granules produced in some genetic disorders is that toxic granules will not be present in every neutrophil and the granules will often cluster within a cell. If the granules are present in the cells as a result of poor staining technique or a genetic abnormality, they will be present in every neutrophil (2). Döhle bodies, blue cytoplasmic inclusions in white blood cells that are associated with infections, often appear in cells in conjunction with toxic granulation. However, none were present in these cells.

BLOOD CELL IDENTIFICATION

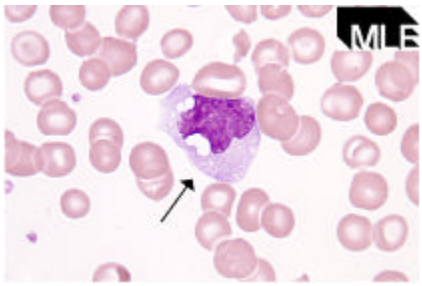
Specimen BC-14



Identification	Labs	Percent	Performance
Metamyelocyte	14	82.4%	Acceptable
Segmented or band neutrophil	2	11.8%	
Prolymphocyte	1	5.9%	

The arrow in this photograph points to a metamyelocyte, a cell that is two steps away from the mature polymorphonuclear cell. The metamyelocyte stage appears at the end of all DNA synthesis. Although the traditional decision about metamyelocyte maturity was based upon the slight indentation in the nucleus, hematologists now feel that the clumped nuclear chromatin is a more significant indicator, since the myelocyte nucleus may vary from round to deeply indented, but the nuclear chromatin will only be coarse and condensed (3). Metamyelocytes are rarely seen in peripheral smears and are found as 13% to 22% of the normal bone marrow.

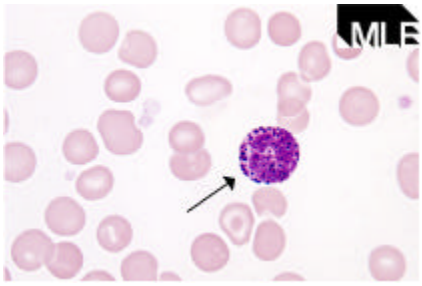
Specimen BC-15



Identification	Labs	Percent	Performance
Monocyte	16	94.1%	Acceptable
Lymphocyte, reactive	1	5.9%	

The arrow in this photograph points to a monocyte. This cell has the typical monocyte characteristics, from its lacy, folded nucleus surrounded by vacuoles and nestled in a blue-gray cytoplasm to its two slight pseudopods on either side of the red blood cell. In bone marrow, 2% of the cells may be monocytes, which can be 3% to 11% in the peripheral blood. The number of monocytes in the peripheral blood elevate in response to conditions with increased cell damage. Some conditions that cause an increase in monocytes may be active tuberculosis, syphilis, trauma, and parasitic and rickettsial infections. Monocytes often increase during the recovery stage of an infectious disease.

Specimen BC-16

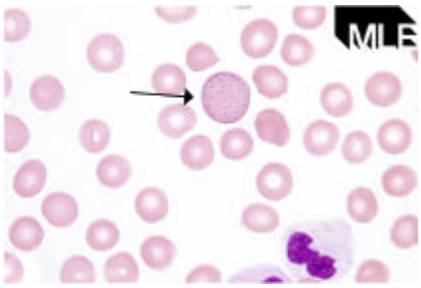


Identification	Labs	Percent	Performance
Basophil, any stage	17	100%	Acceptable

The arrow in this photograph points to a basophil. The large, dark-purple to black granules in the cytoplasm of this cell obscure its nuclear detail, which is typical of a basophil. This nucleus appears to have two lobes, another typical feature of this cell. The number of basophils present in both bone marrow and peripheral blood is less than or equal to 1%. The number of basophils can increase in patients with ulcerative colitis, some cancers, and hypoactive thyroid conditions.

BLOOD CELL IDENTIFICATION

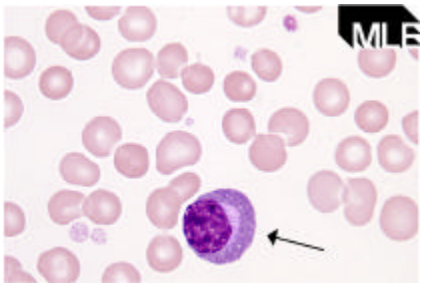
Specimen BC-17



Identification	Labs	Percent	Performance
Basophilic stippling	17	100%	Acceptable

The arrow in this photograph points to a red blood cell with basophilic stippling. These numerous dark-blue to purple, fine granules are evenly distributed in the cytoplasm of this red blood cell. The granules consist of residual ribonucleic acid, and if this cell were stained with new methylene blue, it would be identified as a reticulocyte. This residual ribonucleic acid may also be seen in Wright stain as polychromasia, where the cytoplasm of the red cell appears more blue than pink in appearance. Large numbers of basophilic stippling cells may be seen in lead poisoning, thalassemia, or abnormal hemoglobin synthesis.

Specimen BC-18



Identification	Labs	Percent	Performance
Plasma cell	8	47.1%	Not graded
Nucleated red cell	4	23.5%	
Lymphocyte, reactive	3	17.7%	
Blast cell	1	5.9%	
Lymphocyte	1	5.9%	

The arrow in this ungraded, educational challenge points to a plasma cell. These cells have an eccentrically positioned, round or oval, coarse-chromatin nucleus without nucleoli but are surrounded by a perinuclear halo and a dark-blue cytoplasm. Less than 1% of the bone marrow cells are plasma cells, and their occurrence in the peripheral blood is more rare.

References

1. Carr JH, Rodak BF. Clinical Hematology Atlas. Philadelphia: WB Saunders; 1999.

2. Steine-Martin EA, et al. Clinical Hematology: Principles, Procedures, Correlations. Philadelphia: Lippincott; 1992.

3. Rodak BF. Hematology: Clinical Principles and Applications. 2nd ed. Philadelphia: WB Saunders; 2002.

ABO GROUP

Specimen	Identification	Labs	Percent	Performance
BB-11	Group AB	4	100%	Acceptable
BB-12	Group O	4	100%	Acceptable
BB-13	Group B	4	100%	Acceptable
BB-14	Group A	4	100%	Acceptable
BB-15	Group A	4	100%	Acceptable

RH FACTOR (D TYPE)

Specimen	Identification	Labs	Percent	Performance
BB-11	Rh Negative	3	75.0%	Not graded
BB-12	Rh Negative	4	100%	Acceptable
BB-13	Rh Positive	4	100%	Acceptable
BB-14	Rh Positive	4	100%	Acceptable
BB-15	Rh Negative	4	100%	Acceptable

Specimen BB-11 (Rh Factor) is an ungraded challenge due to less than 80% participant consensus.

UNEXPECTED ANTIBODY DETECTION

Specimen	Identification	Labs	Percent	Performance
AB-11	No unexpected antibody detected	4	100%	Acceptable
AB-12	Unexpected antibody detected (Anti-Fy^{a} present)	4	100%	Acceptable
AB-13	Unexpected antibody detected (Anti-Jk^{a} present)	4	100%	Acceptable
AB-14	No unexpected antibody detected	4	100%	Acceptable
AB-15	Unexpected antibody detected (Anti-D present)	4	100%	Acceptable

COMPATIBILITY TESTING

Specimen	Identification	Labs	Percent	Performance
AB-11	Compatible	4	100%	Acceptable
AB-12	Not Compatible	4	100%	Acceptable
AB-13	Not Compatible	3	75.0%	Not graded
AB-14	Compatible	4	100%	Acceptable
AB-15	Compatible	4	100%	Acceptable

Specimen AB-13 is an ungraded challenge due to less than 80% participant consensus.

PROTHROMBIN TIME (seconds)

	Specimen CG-11					Specimen CG-12				
Reagent/Instruments	Labs	Mean	SD	CV	Median	Labs	Mean	SD	CV	Median
All Methods	44	12.93	1.41	10.9	12.6	45	33.29	6.17	18.5	33.5
bioMerieux Simplastin HTF										
BehnK Electronik Compact X	2	-	-	-	12.3	2	-	-	-	34.4
bioMerieux Thrombotimer	3	-	-	-	12.7	3	-	-	-	36.2
OTC Coag-A-Mate MTX / II	2	-	-	-	11.9	2	-	-	-	32.6
OTC Coag-A-Mate XC/XCPlus/RA	1	-	-	-	13.6	1	-	-	-	35.3
All Coagulation Instruments	8	12.45	0.80	6.4	12.4	8	34.68	1.75	5.0	35.2
Dade Innovin										
Sysmex CA-1000	1	-	-	-	12.1	1	-	-	-	35.5
Sysmex CA-500	1	-	-	-	12.3	1	-	-	-	35.5
Sysmex CA-5000	3	-	-	-	11.5	3	-	-	-	32.5
All Coagulation Instruments	5	11.96	0.43	3.6	12.1	5	33.76	1.60	4.7	32.9
Dade Thrombo-C Plus										
Sysmex CA-500	1	-	-	-	11.2	1	-	-	-	17.9
Dade Thrombo-C, ISI 2.0-2.6										
Sysmex CA-500	1	-	-	-	11.8	1	-	-	-	23.3
Diag Stago STA Neoplastine CL+										
Diagnostica Stago STart 4/8	1	-	-	-	12.9	1	-	-	-	34.4
Helena Thromboplastin MI										
Tilt Tube	1	-	-	-	1.0	-	-	-	-	-
Helena Thromboplastin										
IL ACL, all models	1	-	-	-	12.9	1	-	-	-	36.8
Tilt Tube	1	-	-	-	14.4	1	-	-	-	37.9
All Coagulation Instruments	2	-	-	-	13.7	2	-	-	-	37.4
IL TEST PT Fibrinogen										
IL ACL, all models	1	-	-	-	12.6	1	-	-	-	26.8
IL TEST PT-FIB HS										
IL ACL, all models	10	12.91	0.88	6.8	13.0	10	30.21	3.85	12.7	29.5
IL TEST PT-FIB Recombinant										
IL ACL, all models	4	-	-	-	12.0	4	-	-	-	37.9
OTC Simplastin Excel S										
BehnK Electronik Chrom	1	-	-	-	15.6	1	-	-	-	41.0
OTC Coag-A-Mate MTX / II	2	-	-	-	15.8	2	-	-	-	37.1
OTC Coag-A-Mate XC/XCPlus/RA	1	-	-	-	15.5	2	-	-	-	41.7
OTC Coag-A-Mate XM	1	-	-	-	16.1	1	-	-	-	35.0
All Coagulation Instruments	7	15.46	0.75	4.8	15.5	8	38.41	5.52	14.4	36.9
OTC Simplastin Excel										
All Coagulation Instruments	1	-	-	-	10.9	1	-	-	-	19.5

PROTHROMBIN TIME (seconds)

	Specimen CG-13					Specimen CG-14				
Reagent/Instruments	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Labs***	***Mean***	***SD***	***CV***	***Median***
All Methods	45	15.89	2.12	13.3	15.4	45	20.21	3.12	15.5	20.1
bioMerieux Simplastin HTF										
BehnK Electronik Compact X	1	-	-	-	15.8	2	-	-	-	19.8
bioMerieux Thrombotimer	3	-	-	-	14.9	3	-	-	-	20.3
OTC Coag-A-Mate MTX / II	2	-	-	-	14.0	2	-	-	-	19.1
OTC Coag-A-Mate XC/XCPlus/RA	1	-	-	-	15.3	1	-	-	-	21.8
All Coagulation Instruments	7	14.83	0.91	6.1	14.9	8	20.13	1.34	6.7	20.3
Dade Innovin										
Sysmex CA-1000	1	-	-	-	15.0	1	-	-	-	22.9
Sysmex CA-500	1	-	-	-	14.6	1	-	-	-	20.5
Sysmex CA-5000	3	-	-	-	14.2	3	-	-	-	18.9
All Coagulation Instruments	5	13.78	1.64	11.9	14.2	5	19.60	2.29	11.7	19.0
Dade Thrombo-C Plus										
Sysmex CA-500	1	-	-	-	12.5	1	-	-	-	13.7
Dade Thrombo-C, ISI 2.0-2.6										
Sysmex CA-500	1	-	-	-	13.7	1	-	-	-	15.5
Diag Stago STA Neoplastine CL+										
Diagnostica Stago STart 4/8	1	-	-	-	16.7	1	-	-	-	21.2
Helena Thromboplastin MI										
Tilt Tube	1	-	-	-	19.6	-	-	-	-	-
Helena Thromboplastin										
IL ACL, all models	1	-	-	-	16.0	1	-	-	-	21.5
Tilt Tube	1	-	-	-	18.7	1	-	-	-	24.0
All Coagulation Instruments	2	-	-	-	17.4	2	-	-	-	22.8
IL TEST PT Fibrinogen										
IL ACL, all models	1	-	-	-	14.7	1	-	-	-	17.1
IL TEST PT-FIB HS										
IL ACL, all models	10	15.98	0.81	5.1	16.2	10	18.87	1.39	7.4	18.8
IL TEST PT-FIB Recombinant										
IL ACL, all models	4	-	-	-	15.7	4	-	-	-	22.2
OTC Simplastin Excel S										
BehnK Electronik Chrom	1	-	-	-	20.2	1	-	-	-	26.7
OTC Coag-A-Mate MTX / II	2	-	-	-	20.1	2	-	-	-	24.7
OTC Coag-A-Mate XC/XCPlus/RA	1	-	-	-	18.7	2	-	-	-	25.2
OTC Coag-A-Mate XM	1	-	-	-	18.5	1	-	-	-	24.2
All Coagulation Instruments	7	19.26	0.97	5.1	19.6	8	24.14	2.84	11.8	24.0
OTC Simplastin Excel										
All Coagulation Instruments	1	-	-	-	13.5	1	-	-	-	13.6

	Specimen CG-15				
All Methods	44	12.36	1.38	11.2	12.3
bioMerieux Simplastin HTF					
BehnK Electronik Compact X	2	-	-	-	10.9
bioMerieux Thrombotimer	3	-	-	-	12.3
OTC Coag-A-Mate MTX / II	2	-	-	-	11.6
OTC Coag-A-Mate XC/XCPlus/RA	1	-	-	-	12.7
All Coagulation Instruments	8	11.90	1.00	8.4	11.9
Dade Innovin					
Sysmex CA-1000	1	-	-	-	11.7
Sysmex CA-500	1	-	-	-	12.0
Sysmex CA-5000	3	-	-	-	11.5
All Coagulation Instruments	5	11.30	0.86	7.6	11.5
Dade Thrombo-C Plus					
Sysmex CA-500	1	-	-	-	10.9

PROTHROMBIN TIME (seconds)

Specimen CG-15 (cont'd)

Reagent/Instruments	*Labs*	*Mean*	*SD*	*CV*	*Median*
Dade Thrombo-C, ISI 2.0-2.6					
Sysmex CA-500	1	-	-	-	11.1
Diag Stago STA Neoplastine CL+					
Diagnostica Stago STart 4/8	1	-	-	-	11.9
Helena Thromboplastin MI					
Tilt Tube	1	-	-	-	15.1
Helena Thromboplastin					
IL ACL, all models	1	-	-	-	11.9
Tilt Tube	1	-	-	-	31.0
All Coagulation Instruments	2	-	-	-	21.5
IL TEST PT Fibrinogen					
IL ACL, all models	1	-	-	-	12.6
IL TEST PT-FIB HS					
IL ACL, all models	10	12.71	0.48	3.8	12.6
IL TEST PT-FIB Recombinant					
IL ACL, all models	4	-	-	-	11.9
OTC Simplastin Excel S					
BehnK Electronik Chrom	1	-	-	-	15.1
OTC Coag-A-Mate MTX / II	2	-	-	-	15.0
OTC Coag-A-Mate XM	1	-	-	-	15.4
All Coagulation Instruments	6	14.55	0.95	6.5	14.8
OTC Simplastin Excel					
All Coagulation Instruments	1	-	-	-	9.7

PROTHROMBIN TIME - INTERNATIONAL NORMALIZED RATIO (INR)

	Specimen CG-11					**Specimen CG-12**				
Reagent/Instruments	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Labs*	*Mean*	*SD*	*CV*	*Median*
All Methods	43	1.05	0.11	10.9	1.1	44	3.37	0.59	17.7	3.3
bioMerieux Simplastin HTF										
BehnK Electronik Compact X	2	-	-	-	1.1	2	-	-	-	3.6
BioMerieux Thrombotimer	3	-	-	-	0.9	3	-	-	-	3.3
OTC Coag-A-Mate MTX / II	2	-	-	-	1.0	2	-	-	-	3.5
OTC Coag-A-Mate XC/XCPlus/RA	1	-	-	-	1.2	1	-	-	-	4.7
All Coagulation Instruments	8	1.03	0.14	13.6	1.0	8	3.56	0.57	15.9	3.5
Dade Innovin										
Sysmex CA-1000	1	-	-	-	1.1	1	-	-	-	2.9
Sysmex CA-500	1	-	-	-	1.3	1	-	-	-	4.0
Sysmex CA-5000	3	-	-	-	1.1	3	-	-	-	2.9
All Coagulation Instruments	5	1.12	0.11	9.8	1.1	5	3.12	0.51	16.4	2.9
Dade Thrombo-C Plus										
Sysmex CA-500	1	-	-	-	1.0	1	-	-	-	2.5
Dade Thrombo-C, ISI 2.0-2.6										
Sysmex CA-500	1	-	-	-	1.1	1	-	-	-	4.8
Diag Stago STA Neoplastine CL+										
Diagnostica Stago STart 4/8	1	-	-	-	1.1	1	-	-	-	3.7
Helena Thromboplastin										
IL ACL, all models	1	-	-	-	1.1	1	-	-	-	3.3
Tilt Tube	1	-	-	-	1.1	1	-	-	-	3.3
All Coagulation Instruments	2	-	-	-	1.1	2	-	-	-	3.3
IL TEST PT Fibrinogen										
IL ACL, all models	1	-	-	-	1.0	1	-	-	-	2.6

PROTHROMBIN TIME - INTERNATIONAL NORMALIZED RATIO (INR)

	Specimen CG-11 (cont'd)					Specimen CG-12 (cont'd)				
Reagent/Instruments	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Labs***	***Mean***	***SD***	***CV***	***Median***
IL TEST PT-FIB HS										
IL ACL, all models	10	1.03	0.12	11.3	1.1	10	3.47	0.56	16.1	3.4
IL TEST PT-FIB Recombinant										
IL ACL, all models	3	-	-	-	0.9	3	-	-	-	3.6
OTC Simplastin Excel S										
BehnK Electronik Chrom	1	-	-	-	1.1	1	-	-	-	3.5
OTC Coag-A-Mate MTX / II	2	-	-	-	1.1	2	-	-	-	3.5
OTC Coag-A-Mate XC/XCPlus/RA	1	-	-	-	0.9	2	-	-	-	3.4
OTC Coag-A-Mate XM	1	-	-	-	1.2	1	-	-	-	2.9
All Coagulation Instruments	7	1.07	0.10	8.9	1.1	8	3.33	0.58	17.4	3.4
OTC Simplastin Excel										
All Coagulation Instruments	1	-	-	-	0.8	1	-	-	-	2.6

	Specimen CG-13					Specimen CG-14				
All Methods	43	1.39	0.14	10.1	1.4	44	1.82	0.25	13.7	1.8
bioMerieux Simplastin HTF										
BehnK Electronik Compact X	1	-	-	-	1.5	2	-	-	-	1.9
bioMerieux Thrombotimer	3	-	-	-	1.3	3	-	-	-	1.8
OTC Coag-A-Mate MTX / II	2	-	-	-	1.3	2	-	-	-	1.8
OTC Coag-A-Mate XC/XCPlus/RA	1	-	-	-	1.4	1	-	-	-	2.4
All Coagulation Instruments	7	1.31	0.13	10.2	1.3	8	1.96	0.30	15.2	1.9
Dade Innovin										
Sysmex CA-1000	1	-	-	-	1.4	1	-	-	-	1.7
Sysmex CA-500	1	-	-	-	1.5	1	-	-	-	2.2
Sysmex CA-5000	3	-	-	-	1.2	3	-	-	-	1.6
All Coagulation Instruments	5	1.26	0.23	18.3	1.3	5	1.78	0.25	14.0	1.7
Dade Thrombo-C Plus										
Sysmex CA-500	1	-	-	-	1.2	1	-	-	-	1.5
Dade Thrombo-C, ISI 2.0-2.6										
Sysmex CA-500	1	-	-	-	1.5	1	-	-	-	1.9
Diag Stago STA Neoplastine CL+										
Diagnostica Stago STart 4/8	1	-	-	-	1.5	1	-	-	-	2.0
Helena Thromboplastin MI										
Tilt Tube	1	-	-	-	1.4	-	-	-	-	-
Helena Thromboplastin										
IL ACL, all models	1	-	-	-	1.4	1	-	-	-	1.9
Tilt Tube	1	-	-	-	1.6	1	-	-	-	2.0
All Coagulation Instruments	2	-	-	-	1.5	2	-	-	-	2.0
IL TEST PT Fibrinogen										
IL ACL, all models	1	-	-	-	1.2	1	-	-	-	1.5
IL TEST PT-FIB HS										
IL ACL, all models	10	1.41	0.09	6.2	1.4	10	1.77	0.13	7.6	1.8
IL TEST PT-FIB Recombinant										
IL ACL, all models	3	-	-	-	1.4	3	-	-	-	1.9
OTC Simplastin Excel S										
BehnK Electronik Chrom	1	-	-	-	1.5	1	-	-	-	2.1
OTC Coag-A-Mate MTX / II	2	-	-	-	1.5	2	-	-	-	2.0
OTC Coag-A-Mate XC/XCPlus/RA	1	-	-	-	1.1	2	-	-	-	1.7
OTC Coag-A-Mate XM	1	-	-	-	1.4	1	-	-	-	1.9
All Coagulation Instruments	7	1.41	0.16	11.1	1.4	8	1.84	0.29	15.7	1.9
OTC Simplastin Excel										
All Coagulation Instruments	1	-	-	-	1.3	1	-	-	-	1.3

PROTHROMBIN TIME - INTERNATIONAL NORMALIZED RATIO (INR)

Specimen CG-15

Reagent/Instruments	*Labs*	*Mean*	*SD*	*CV*	*Median*
All Methods	44	0.99	0.10	10.5	1.0
bioMerieux Simplastin HTF					
BehnK Electronik Compact X	2	-	-	-	1.0
bioMerieux Thrombotimer	3	-	-	-	1.0
OTC Coag-A-Mate MTX / II	2	-	-	-	1.0
OTC Coag-A-Mate XC/XCPlus/RA	1	-	-	-	1.1
All Coagulation Instruments	8	0.98	0.13	13.2	1.0
Dade Innovin					
Sysmex CA-1000	1	-	-	-	1.0
Sysmex CA-500	1	-	-	-	1.2
Sysmex CA-5000	3	-	-	-	1.0
All Coagulation Instruments	5	1.04	0.11	11.0	1.0
Dade Thrombo-C Plus					
Sysmex CA-500	1	-	-	-	0.9
Dade Thrombo-C, ISI 2.0-2.6					
Sysmex CA-500	1	-	-	-	0.9
Diag Stago STA Neoplastine CL+					
Diagnostica Stago STart 4/8	1	-	-	-	1.0
Helena Thromboplastin MI					
Tilt Tube	1	-	-	-	1.0
Helena Thromboplastin					
IL ACL, all models	1	-	-	-	1.0
Tilt Tube	1	-	-	-	1.0
All Coagulation Instruments	2	-	-	-	1.0
IL TEST PT Fibrinogen					
IL ACL, all models	1	-	-	-	1.0
IL TEST PT-FIB HS					
IL ACL, all models	10	0.99	0.03	3.2	1.0
IL TEST PT-FIB Recombinant					
IL ACL, all models	3	-	-	-	0.9
OTC Simplastin Excel S					
BehnK Electronik Chrom	1	-	-	-	1.0
OTC Coag-A-Mate MTX / II	2	-	-	-	1.0
OTC Coag-A-Mate XM	1	-	-	-	1.1
All Coagulation Instruments	6	1.00	0.06	6.3	1.0
OTC Simplastin Excel					
All Coagulation Instruments	1	-	-	-	0.7

ACTIVATED PARTIAL THROMBOPLASTIN (seconds)

	Specimen CG-11					**Specimen CG-12**				
Reagent/Instruments	*Labs*	*Mean*	*SD*	*CV*	*Median*	*Labs*	*Mean*	*SD*	*CV*	*Median*
All Methods	43	32.3	2.8	8.6	32	44	53.7	8.8	16.4	53
Dade Actin FS										
BMC CoagChek System	1	-	-	-	30	1	-	-	-	37
Sysmex CA-5000	1	-	-	-	30	1	-	-	-	54
All Coagulation Instruments	2	-	-	-	30	2	-	-	-	46
Dade Actin FSL										
IL ACL, all models	1	-	-	-	31	1	-	-	-	52
Dade Actin										
Sysmex CA-500	3	-	-	-	32	3	-	-	-	59
Sysmex CA-5000	2	-	-	-	33	2	-	-	-	59
All Coagulation Instruments	5	33.4	2.5	7.5	32	5	59.8	4.8	8.0	59

ACTIVATED PARTIAL THROMBOPLASTIN (seconds)

	Specimen CG-11 (cont'd)					Specimen CG-12 (cont'd)				
Reagent/Instruments	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Labs***	***Mean***	***SD***	***CV***	***Median***
Diagnostica Stago STA-PTT										
Diagnostica Stago STart 4/8	1	-	-	-	34	1	-	-	-	51
Helena aPTT-SA										
IL ACL, all models	1	-	-	-	33	1	-	-	-	52
IL TEST APTT										
IL ACL, all models	1	-	-	-	26	1	-	-	-	42
IL TEST APTT-SP										
IL ACL, all models	13	31.2	1.6	5.0	31	13	46.1	2.0	4.3	46
OTC APTT Reagent										
BehnK Electronik Chrom	1	-	-	-	31	1	-	-	-	60
BehnK Electronik Compact X	2	-	-	-	34	2	-	-	-	58
bioMerieux Thrombotimer	2	-	-	-	35	2	-	-	-	67
OTC Coag-A-Mate MTX / II	4	-	-	-	31	4	-	-	-	56
OTC Coag-A-Mate XC/XCPlus/RA	3	-	-	-	32	3	-	-	-	59
OTC Coag-A-Mate XM	1	-	-	-	29	1	-	-	-	54
All Coagulation Instruments	16	32.4	2.1	6.6	33	16	57.8	6.3	10.8	58
	Specimen CG-13					**Specimen CG-14**				
All Methods	46	50.3	8.6	17.1	51	44	39.8	5.4	13.7	39
Dade Actin FS										
BMC CoagChek System	1	-	-	-	36	1	-	-	-	34
Sysmex CA-5000	1	-	-	-	34	1	-	-	-	39
All Coagulation Instruments	2	-	-	-	35	2	-	-	-	37
Dade Actin FSL										
IL ACL, all models	1	-	-	-	48	1	-	-	-	39
Dade Actin										
Sysmex CA-500	3	-	-	-	57	3	-	-	-	44
Sysmex CA-5000	2	-	-	-	46	2	-	-	-	42
All Coagulation Instruments	5	52.8	6.3	11.9	56	5	43.6	3.3	7.5	43
Diagnostica Stago STA-PTT										
Diagnostica Stago STart 4/8	1	-	-	-	41	1	-	-	-	40
Helena aPTT-SA										
IL ACL, all models	1	-	-	-	46	1	-	-	-	38
Tilt Tube	1	-	-	-	37	1	-	-	-	38
All Coagulation Instruments	2	-	-	-	42	44	39.8	5.4	13.7	39
Helena Thromboplastin										
Tilt Tube	1	-	-	-	48	-	-	-	-	-
IL TEST APTT										
IL ACL, all models	1	-	-	-	34	1	-	-	-	32
IL TEST APTT-SP										
IL ACL, all models	13	54.7	7.4	13.5	52	12	35.5	1.7	4.9	35
OTC APTT Reagent										
BehnK Electronik Chrom	1	-	-	-	57	1	-	-	-	44
BehnK Electronik Compact X	1	-	-	-	58	2	-	-	-	43
bioMerieux Thrombotimer	2	-	-	-	60	2	-	-	-	50
OTC Coag-A-Mate MTX / II	4	-	-	-	53	4	-	-	-	40
OTC Coag-A-Mate XC/XCPlus/RA	3	-	-	-	50	3	-	-	-	43
OTC Coag-A-Mate XM	1	-	-	-	37	1	-	-	-	39
All Coagulation Instruments	15	51.3	8.5	16.5	53	16	42.2	4.8	11.3	43

ACTIVATED PARTIAL THROMBOPLASTIN (seconds)

	Specimen CG-15				
Reagent/Instruments	***Labs***	***Mean***	***SD***	***CV***	***Median***
All Methods	45	31.6	4.8	15.2	31
Dade Actin FS					
BMC CoagChek System	1	-	-	-	29
Sysmex CA-5000	1	-	-	-	29
All Coagulation Instruments	2	-	-	-	29
Dade Actin FSL					
IL ACL, all models	1	-	-	-	28
Dade Actin					
Sysmex CA-500	3	-	-	-	26
Sysmex CA-5000	2	-	-	-	31
All Coagulation Instruments	5	29.2	3.6	12.2	28
Diagnostica Stago STA-PTT					
Diagnostica Stago STart 4/8	1	-	-	-	34
Helena aPTT-SA					
IL ACL, all models	1	-	-	-	33
Tilt Tube	1	-	-	-	36
All Coagulation Instruments	2	-	-	-	35
Helena Thromboplastin					
Tilt Tube	1	-	-	-	37
IL TEST APTT					
IL ACL, all models	1	-	-	-	26
IL TEST APTT-SP					
IL ACL, all models	13	33.8	3.8	11.4	35
OTC APTT Reagent					
BehnK Electronik Chrom	1	-	-	-	31
BehnK Electronik Compact X	2	-	-	-	31
bioMerieux Thrombotimer	2	-	-	-	29
OTC Coag-A-Mate MTX / II	4	-	-	-	27
OTC Coag-A-Mate XC/XCPlus/RA	3	-	-	-	30
OTC Coag-A-Mate XM	1	-	-	-	15
All Coagulation Instruments	16	28.1	4.4	15.5	29

FIBRINOGEN (mg/dL)

	Specimen CG-11					Specimen CG-12				
Reagent/Instruments	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Labs***	***Mean***	***SD***	***CV***	***Median***
All Methods	28	252.7	42.1	16.6	254	29	331.6	68.5	20.7	314
Dade Fibrinogen Set										
OTC Coag-A-Mate XM	1	-	-	-	200	1	-	-	-	328
Sysmex CA-500	2	-	-	-	244	2	-	-	-	292
Sysmex CA-5000	2	-	-	-	252	2	-	-	-	299
All Coagulation Instruments	6	259.3	55.3	21.3	249	6	330.7	72.3	21.9	302
Helena Thromboplastin										
IL ACL, all models	1	-	-	-	264	1	-	-	-	397
IL TEST PT Fibrinogen										
IL ACL, all models	2	-	-	-	295	2	-	-	-	418
IL TEST PT-FIB HS										
IL ACL, all models	7	251.0	22.9	9.1	254	7	367.1	45.4	12.4	367
IL TEST PT-FIB Recombinant										
IL ACL, all models	2	-	-	-	214	2	-	-	-	269
OTC Fibriquik Fibrinogen										
BehnK Electronik Chrom	1	-	-	-	211	1	-	-	-	249
OTC Coag-A-Mate MTX / II	3	-	-	-	257	3	-	-	-	301
OTC Coag-A-Mate XC/XCPlus/RA	1	-	-	-	213	1	-	-	-	220
OTC Coag-A-Mate XM	-	-	-	-	-	1	-	-	-	360
All Coagulation Instruments	6	249.0	39.9	16.0	247	7	304.6	64.5	21.2	301

FIBRINOGEN (mg/dL)

	Specimen CG-13					Specimen CG-14				
Reagent/Instruments	***Labs***	***Mean***	***SD***	***CV***	***Median***	***Labs***	***Mean***	***SD***	***CV***	***Median***
All Methods	26	138.8	22.7	16.4	138	30	321.5	60.4	18.8	308
Dade Fibrinogen Set										
OTC Coag-A-Mate XM	1	-	-	-	103	1	-	-	-	340
Sysmex CA-500	2	-	-	-	140	2	-	-	-	299
Sysmex CA-5000	2	-	-	-	137	2	-	-	-	311
All Coagulation Instruments	6	141.2	28.8	20.4	140	6	337.7	65.3	19.3	311
Helena Thromboplastin										
IL ACL, all models	1	-	-	-	140	1	-	-	-	405
IL TEST PT Fibrinogen										
IL ACL, all models	2	-	-	-	182	2	-	-	-	385
IL TEST PT-FIB HS										
IL ACL, all models	7	128.0	14.7	11.5	124	7	328.1	44.4	13.5	326
IL TEST PT-FIB Recombinant										
IL ACL, all models	2	-	-	-	116	2	-	-	-	276
OTC Fibriquik Fibrinogen										
BehnK Electronik Chrom	1	-	-	-	124	1	-	-	-	245
OTC Coag-A-Mate MTX / II	3	-	-	-	141	3	-	-	-	294
OTC Coag-A-Mate XC/XCPlus/RA	-	-	-	-	-	1	-	-	-	243
OTC Coag-A-Mate XM	-	-	-	-	-	1	-	-	-	410
All Coagulation Instruments	5	144.8	16.2	11.2	141	7	290.4	57.9	19.9	281

	Specimen CG-15				
All Methods	27	324.0	39.8	12.3	328
Dade Fibrinogen Set					
OTC Coag-A-Mate XM	1	-	-	-	353
Sysmex CA-500	2	-	-	-	340
Sysmex CA-5000	2	-	-	-	333
All Coagulation Instruments	6	366.8	68.6	18.7	348
Helena Thromboplastin					
IL ACL, all models	1	-	-	-	281
IL TEST PT Fibrinogen					
IL ACL, all models	2	-	-	-	361
IL TEST PT-FIB HS					
IL ACL, all models	7	321.0	15.2	4.7	321
IL TEST PT-FIB Recombinant					
IL ACL, all models	2	-	-	-	284
OTC Fibriquik Fibrinogen					
BehnK Electronik Chrom	1	-	-	-	317
OTC Coag-A-Mate MTX / II	3	-	-	-	337
OTC Coag-A-Mate XC/XCPlus/RA	1	-	-	-	257
All Coagulation Instruments	6	338.0	51.0	15.1	337

URINALYSIS DIPSTICK – SPECIFIC GRAVITY

Specimen UA-3

Method	***Labs***	***Mean***	***SD***	***CV***	***Median***
All Methods	58	1.0265	0.0045	0.4	1.030
Bayer Clinitek 200/200+	1	-	-	-	1.025
Bayer Clinitek 50	9	1.0289	0.0033	0.3	1.030
Bayer Clinitek 500	19	1.0300	0.0000	0.0	1.030
Bayer Clinitek Atlas	2	-	-	-	1.023
Bayer Reagent Strips	3	-	-	-	1.030
Quidel QuickVue UrinChek	1	-	-	-	1.030
Roche (BMC) Chemstrips	7	1.0250	0.0041	0.4	1.025
Roche (BMC) Criterion Analyzer	6	1.0217	0.0026	0.3	1.020
Roche (BMC) Mini UA	3	-	-	-	1.020

URINALYSIS DIPSTICK - pH

Specimen UA-3

	Participant Results									
Method	**4.0**	**5.0**	**5.5**	**6.0**	**6.5**	**7.0**	**7.5**	**8.0**	**8.5**	**9.0**
All Methods	-	18	12	27	-	-	-	-	-	-
Bayer Clinitek 200/200+	-	1	-	-	-	-	-	-	-	-
Bayer Clinitek 50	-	3	3	3	-	-	-	-	-	-
Bayer Clinitek 500	-	-	3	15	-	-	-	-	-	-
Bayer Clinitek Atlas	-	-	2	-	-	-	-	-	-	-
Bayer Reagent Strips	-	-	2	1	-	-	-	-	-	-
Quidel QuickVue UrinChek	-	1	-	-	-	-	-	-	-	-
Roche (BMC) Chemstrips	-	5	-	2	-	-	-	-	-	-
Roche (BMC) Criterion Analyzer	-	3	-	3	-	-	-	-	-	-
Roche (BMC) Mini UA	-	2	-	1	-	-	-	-	-	-

URINALYSIS DIPSTICK - PROTEIN QUALITATIVE

Specimen UA-3

	Participant Results					
Method	**Negative**	**Trace**	**30mg/dL (1+)**	**100 mg/dL (2+)**	**300-500mg/dL (3+)**	**≥1000mg/dL (4+)**
All Methods	1	1	1	40	13	-
Bayer Clinitek 200/200+	-	-	-	-	1	-
Bayer Clinitek 50	-	1	-	-	8	-
Bayer Clinitek 500	-	-	-	16	1	-
Bayer Clinitek Atlas	-	-	-	1	1	-
Bayer Reagent Strips	-	-	-	2	1	-
Quidel QuickVue UrinChek	-	-	-	1	-	-
Roche (BMC) Chemstrips	-	-	1	6	-	-
Roche (BMC) Criterion Analyzer	-	-	-	5	1	-
Roche (BMC) Mini UA	-	-	-	3	-	-

URINALYSIS DIPSTICK - GLUCOSE OR REDUCING SUBSTANCE

Specimen UA-3

	Participant Results							
Method	**Negative**	**50-100 mg/dL (Trace)**	**150 mg/dL**	**250 mg/dL**	**500 mg/dL**	**1000 mg/dL**	**>1000 mg/dL**	**≥2000 mg/dL**
All Methods	-	2	1	-	12	24	17	1
Bayer Clinitek 200/200+	-	-	-	-	1	-	-	-
Bayer Clinitek 50	-	-	-	-	2	2	5	-
Bayer Clinitek 500	-	1	-	-	7	3	7	-
Bayer Clinitek Atlas	-	-	-	-	-	1	1	-
Bayer Reagent Strips	-	-	-	-	1	-	2	-
Quidel QucikVue UrinChek	-	-	1	-	-	-	-	-
Roche (BMC) Chemstrips	-	-	-	-	-	-	6	1
Roche (BMC) Criterion Analyzer	-	-	-	-	-	6	-	-
Roche (BMC) Mini UA	-	-	-	-	-	2	1	-

URINALYSIS DIPSTICK - KETONES

Specimen UA-3

		Participant Results			
Method	**Negative**	**Trace (5 mg/dL)**	**Small (1+, 15 mg/dL)**	**Moderate (2+, 40 mg/dL)**	**Large (3+, 80 mg/dL)**
All Methods	56	-	-	-	-
Bayer Clinitek 200/200+	1	-	-	-	-
Bayer Clinitek 50	9	-	-	-	-
Bayer Clinitek 500	17	-	-	-	-
Bayer Clinitek Atlas	2	-	-	-	-
Bayer Reagent Strips	3	-	-	-	-
Quidel QuickVue UrinChek	1	-	-	-	-
Roche (BMC) Chemstrips	7	-	-	-	-
Roche (BMC) Criterion Analyzer	6	-	-	-	-
Roche (BMC) Mini UA	3	-	-	-	-

URINALYSIS DIPSTICK - BILIRUBIN

Specimen UA-3

		Participant Results		
Method	**Negative**	**Small (1+)**	**Moderate (2+)**	**Large (3+)**
All Methods	57	-	-	-
Bayer Clinitek 200/200+	1	-	-	-
Bayer Clinitek 50	9	-	-	-
Bayer Clinitek 500	18	-	-	-
Bayer Clinitek Atlas	2	-	-	-
Bayer Reagent Strips	3	-	-	-
Quidel QuickVue UrinChek	1	-	-	-
Roche (BMC) Chemstrips	7	-	-	-
Roche (BMC) Criterion Analyzer	6	-	-	-
Roche (BMC) Mini UA	3	-	-	-

URINALYSIS DIPSTICK - BLOOD/HEMOGLOBIN

Specimen UA-3

		Participant Results			
Method	**Negative**	**Trace**	**Small (1+)**	**Moderate (2+)**	**Large (3+)**
All Methods	29	20	7	-	-
Bayer Clinitek 200/200+	1	-	-	-	-
Bayer Clinitek 50	2	7	-	-	-
Bayer Clinitek 500	1	12	5	-	-
Bayer Clinitek Atlas	-	-	2	-	-
Bayer Reagent Strips	2	1	-	-	-
Quidel QuickVue UrinChek	1	-	-	-	-
Roche (BMC) Chemstrips	6	-	-	-	-
Roche (BMC) Criterion Analyzer	6	-	-	-	-
Roche (BMC) Mini UA	3	-	-	-	-

URINALYSIS DIPSTICK - LEUKOCYTE ESTERASE

Specimen UA-3

	Participant Results				
Method	**Negative**	**Trace**	**Small (1+)**	**Moderate (2+)**	**Large (3+)**
All Methods	57	-	-	-	-
Bayer Clinitek 200/200+	1	-	-	-	-
Bayer Clinitek 50	9	-	-	-	-
Bayer Clinitek 500	18	-	-	-	-
Bayer Clinitek Atlas	2	-	-	-	-
Bayer Reagent Strips	3	-	-	-	-
Quidel QuickVue UrinChek	1	-	-	-	-
Roche (BMC) Chemstrips	7	-	-	-	-
Roche (BMC) Criterion Analyzer	6	-	-	-	-
Roche (BMC) Mini UA	3	-	-	-	-

URINALYSIS DIPSTICK - NITRITE

Specimen UA-3

	Participant Results	
Method	**Negative**	**Positive**
All Methods	56	-
Bayer Clinitek 200/200+	1	-
Bayer Clinitek 50	9	-
Bayer Clinitek 500	17	-
Bayer Clinitek Atlas	2	-
Bayer Reagent Strips	3	-
Quidel QuickVue UrinChek	1	-
Roche (BMC) Chemstrips	7	-
Roche (BMC) Criterion Analyzer	5	-
Roche (BMC) Mini UA	3	-

URINALYSIS DIPSTICK – MICROALBUMIN

Specimen UA-3

	Participant Results						
Method	**Negative**	**10 mg/L**	**20/30 mg/L**	**50 mg/L (+)**	**80 mg/L**	**100 mg/L (++)**	**150 mg/L**
All Methods	3	-	-	-	-	-	1
Bayer DCA 2000	-	-	-	-	-	-	1
Roche (BMC) Micral – 1 minute	1	-	-	-	-	-	-

URINALYSIS – URINE hCG

Specimen UA-3

	Participant Results	
Method	**Negative**	**Positive**
All Methods	-	7

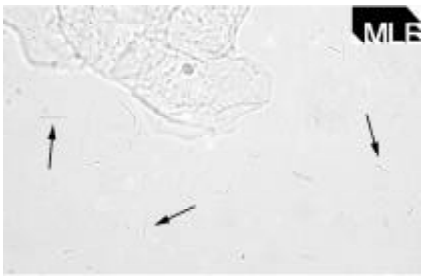
KOH SKIN PREPARATION

Specimen	*Identification*	*Labs*	*Percent*	*Performance*
K-5	Yeast/fungal element present	7	87.5%	Acceptable
	No yeast/fungus present	1	12.5%	
K-6	No yeast/fungus present	6	75.0%	Not graded
	Yeast/fungal element present	1	25.0%	

This is an ungraded challenge due to less than 80% participant consensus.

URINE SEDIMENT IDENTIFICATION

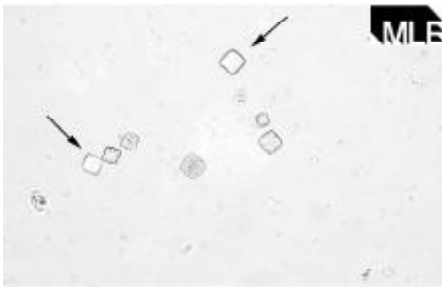
Specimen US-5



Identification	Labs	Percent	Performance
Bacteria	60	100%	Acceptable

The arrows in this photograph point to three distinct bacteria. Although normal, healthy urine is sterile, bacteria may be seen in urine for pathologic and nonpathologic reasons. The pathologic presence is due to some form of urinary system infection, either bladder or kidney. The nonpathologic presence of bacteria may be due to contamination of urine with bacteria from the external genital areas, either perineal or vaginal. When urine sits at room temperature, bacteria multiply and may be more apparent in the sediment.

Specimen US-6



Identification	Labs	Percent	Performance
Uric acid crystal	57	95.0%	Acceptable
Calcium phosphate crystal	1	1.7%	
Starch (Talc) granules	1	1.7%	
Cholesterol crystal	1	1.7%	

The arrows in this photograph point to uric acid crystals. Uric acid crystals are among the list of normal crystals found in acid urine and are among the most-common crystals seen in acid urine with a pH below 6. Uric acid crystals can be a clinically significant indicator of gout when found in patients who also have elevated serum uric acid. Large numbers of these crystals plus renal epithelial cells and epithelial cell casts can indicate that a patient has a gouty nephropathy or is forming a stone. The clinical significance of uric acid crystals is enhanced when they are seen in fresh urine because uric acid precipitates in urine that has been sitting at room temperature.

THROAT CULTURE

Specimen TC-11

Identification	*Labs*	*Percent*	*Performance*
Pos. Group A Strep	19	65.5%	Not graded
Presump. Pos. Group A Strep	2	6.9%	
Neg. Group A Strep	8	27.6%	

Organism present in specimen TC-11: *Streptococcus pyogenes.* This is an ungraded challenge due to less than 80% participant consensus.

THROAT CULTURE

Specimen TC-12

Identification	***Labs***	***Percent***	***Performance***
Neg. Group A Strep	28	96.6%	Acceptable
Pos. Group A Strep	1	3.5%	

Organism present in specimen TC-12: *Branhamella catarrhalis.*

STREP A ANTIGEN DETECTION

Specimen RS-11

				Strength of Reaction		
Method	***Labs***	***Positive***	***Negative***	***Strong***	***Moderate***	***Weak***
All Methods	13	12	1	4	7	-
Acon Laboratories	1	1	-	-	1	-
BD LINK 2	6	6	-	2	4	-
BioSystems	1	1	-	-	1	-
Wampole Clearview	1	1	-	-	-	-

GENERAL BACTERIOLOGY

Specimen UC-11 - Urine Culture

Identification	***Labs***	***Percent***	***Performance***
Proteus mirabilis	3	100%	Acceptable

Gram Stain

Gram negative	3	100%	Acceptable

Gram Stain Morphology

Rods/bacilli	3	100%	

Organism present in specimen UC-11: *Proteus mirabilis.*

Specimen GC-11 – GC Culture

Identification	***Labs***	***Percent***	***Performance***
Neisseria gonorrhoeae	3	100%	Acceptable

Organism present in specimen GC-11: *Neisseria gonorrhoeae.*

Specimen BA-7 – Respiratory Culture

Identification	***Labs***	***Percent***	***Performance***
Streptococcus pneumoniae	2	66.7%	Acceptable
Streptococcus alpha-hemolytic	1	33.3%	Acceptable

Organism present in specimen BA-7: *Streptococcus pneumoniae.*

GENERAL BACTERIOLOGY

Specimen BA-8 – Spinal Fluid Culture

Identification	***Labs***	***Percent***	***Performance***
Neisseria meningitidis	2	66.7%	Not graded
Moraxella sp.	1	33.3%	

Organism present in specimen BA-8: *Neisseria meningitides.* This is an ungraded challenge due to less than 80% participant consensus.

Specimen BA-9 – Wound Culture

Identification	***Labs***	***Percent***	***Performance***
Pseudomonas aeruginosa	3	75.0%	Acceptable
Pseudomonas sp.	1	25.0%	Acceptable

Organisms present in specimen BA-9: *Pseudomonas aeruginosa* and *Staphylococcus epidermidis.*

URINE CULTURE

Specimen UC-11

Identification	***Labs***	***Percent***	***Performance***
Proteus mirabilis	27	93.1%	Acceptable
Proteus sp.	1	3.5%	Acceptable
Staphylococcus saprophyticus	1	3.5%	
Gram Stain			
Gram negative	25	96.2%	Acceptable
Gram positive	1	3.9%	
Gram Stain Morphology			
Rods/bacilli	17	73.9%	
Cocco-bacilli	6	26.1%	

Organism present in specimen UC-11: *Proteus mirabilis.*

Specimen UC-12

Identification	***Labs***	***Percent***	***Performance***
Staphylococcus saprophyticus	19	63.3%	Not graded
Staph – coagulase neg.	2	6.7%	
Staphylococcus sp.	2	6.7%	
Staphylococcus aureus	2	6.7%	
Proteus mirabilis	2	6.7%	
Staphylococcus epidermidis	1	3.3%	
Escherichia coli	1	3.3%	
Enterococcus sp.	1	3.3%	

Organisms present in specimen UC-12: *Staphylococcus saprophyticus* and *Corynebacterium sp.* This is an ungraded challenge due to less than 80% participant consensus.

ANTIMICROBIAL SUSCEPTIBILIY TESTING

Specimen UC-11

	------Agar Diffusion------ Interpretative category data				------MIC------ Interpretative category data				
Antimicrobial	***Labs***	***S***	***I***	***R***	***Labs***	***S***	***I***	***R***	***Acceptable (%)***
Amikacin	4	4	-	-	7	7	-	-	100%
Amoxicillin/Clavulanate	4	3	-	1	6	5	-	1	89.5%
Ampicillin	3	3	-	-	9	8	-	1	95.0%
Ampicillin/Sublactam	3	3	-	-	6	6	-	-	93.8%
Aztreonam	3	3	-	-	3	3	-	-	100%
Carbenicillin	1	1	-	-	1	1	-	-	100%
Cefazolin	2	2	-	-	9	9	-	-	94.1%
Cefoperazone	1	1	-	-	-	-	-	-	100%
Cefotaxime	3	3	-	-	2	2	-	-	100%
Cefotetan	-	-	-	-	2	2	-	-	100%
Cefoxitin	-	-	-	-	3	3	-	-	100%
Ceftazidime	3	3	-	-	4	4	-	-	100%
Ceftriaxone	2	2	-	-	3	3	-	-	100%
Cefuroxime	1	1	-	-	5	5	-	-	100%
Cephalothin	2	1	-	1	3	3	-	-	92.3%
Ciprofloxacin	6	6	-	-	11	11	-	-	100%
Gentamicin	5	4	-	1	6	6	-	-	95.5%
Imipenem	1	1	-	-	8	7	-	1	94.1%
Levofloxacin	-	-	-	-	6	6	-	-	100%
Meropenem	-	-	-	-	2	2	-	-	100%
Nalidixic Acid	2	2	-	-	4	4	-	-	100%
Netilmicin	1	1	-	-	-	-	-	-	100%
Nitrofurantoin	4	-	-	4	7	1	-	6	90.0%
Norfloxacin	2	2	-	-	4	4	-	-	100%
Ofloxacin	-	-	-	-	3	3	-	-	100%
Oxacillin	-	-	-	-	1	-	-	1	100%
Penicillin-G	-	-	-	-	1	-	-	1	100%
Piperacillin	-	-	-	-	1	1	-	-	100%
Piperacillin/Tazobactam	-	-	-	-	2	2	-	-	100%
Rifampin	-	-	-	-	1	1	-	-	100%
Sulfamethoxazole	-	-	-	-	1	1	-	-	100%
Tetracycline	-	-	-	-	1	1	-	-	Not graded[1]
Ticarcillin	-	-	-	-	1	1	-	-	100%
Ticarcillin/Clavulnate	1	1	-	-	2	2	-	-	100%
Tobramycin	1	1	-	-	2	2	-	-	100%
Trimethoprim/Sulfamethoxazole	5	5	-	-	7	7	-	-	100%
Vancomycin	-	-	-	-	1	1	-	-	100%

Organism present in specimen UC-11: *Proteus mirabilis.*

[1] This is an ungraded challenge due to less than 80% participant consensus.

GC CULTURE

Specimen GC-11

Identification	***Labs***	***Percent***	***Performance***
Pos. for N. gonorrhoeae	14	46.7%	Not graded
Presp. N. gonorrhoeae, refer	7	23.3%	
No growth	5	16.7%	
Neg. for N. gonorrhoeae	4	13.3%	

This is an ungraded challenge due to less than 80% participant consensus.

Beta-lactamase Testing

Negative	7	70.0%
Positive	3	30.0%

Gram Stain	***Labs***	***Percent***	***Performance***
Gram negative	17	94.4%	Acceptable
Gram positive	1	5.6%	

Gram Stain Morphology	***Labs***	***Percent***
Diplococci	17	85.0%
Cocci in pairs	3	15.0%

Organism present in specimen GC-11: *Neisseria gonorrhoeae.*

DERMATOPHYTE SCREEN

Specimen DM-11

Identification	***Labs***	***Percent***	***Performance***
Dermatophyte absent	1	100%	Acceptable

Organisms present in specimen DM-11: *Penicillium species* and *Lactobacillus casei.*

Specimen DM-12

Identification	***Labs***	***Percent***	***Performance***
Dermatophyte present	1	100%	Acceptable

Organism present in specimen DM-12: *Microsporum audovinii.*

GRAM STAIN

Specimen GS-11

Identification	***Labs***	***Percent***	***Performance***
Gram positive	6	100%	Acceptable

Gram Stain Morphology

Cocci	4	66.7%
Cocci in paris	2	33.3%

Organism present in specimen GS-11: *Staphylococcus epidermidis.*

Specimen GS-12

Identification	***Labs***	***Percent***	***Performance***
Gram negative	5	83.3%	Acceptable
Gram positive	1	16.7%	

Gram Stain Morphology

Diplococci	5	83.3%
Cocci in pairs	1	16.7%

Organism present in specimen GS-12: *Neisseria gonorrhoeae.*

Specimen GS-13

Identification	***Labs***	***Percent***	***Performance***
Gram positive	3	50.0%	Not graded
Gram negative	3	50.0%	

Gram Stain Morphology

Rods/bacilli	6	100%

Organism present in specimen GS-13: *Lactobacillus sp.* This is an ungraded challenge due to less than 80% participant consensus.

Specimen GS-14

Identification	***Labs***	***Percent***	***Performance***
Gram negative	5	83.3%	Acceptable
Gram negative	1	16.7%	

Gram Stain Morphology

Rods/bacilli	6	100%

Organism present in specimen GS-14: *Escherichia coli.*

GRAM STAIN

Specimen GS-15

Identification	***Labs***	***Percent***	***Performance***
Gram positive	5	100%	Acceptable
Gram Stain Morphology			
Cocci	6	100%	

Organism present in specimen GS-15: *Streptococcus pyogenes.*

PARASITOLOGY

Specimen PA-11

Identification	***Labs***	***Percent***	***Performance***
Giardia lamblia	2	66.7%	Acceptable
Endolimax nana	1	33.3%	

Parasite present in specimen PA-11: *Giardia lamblia.*

Specimen PA-12

Identification	***Labs***	***Percent***	***Performance***
No parasite seen	1	33.3%	Acceptable
Giardia lamblia	1	33.3%	
Blastocystis hominis	1	33.3%	

Parasite present in specimen PA-12: No parasite seen.

Specimen PA-13

Identification	***Labs***	***Percent***	***Performance***
Schistosoma mansoni eggs	12	41.4%	Acceptable
No parasite seen	12	41.4%	
Trichuris trichiura eggs	1	3.5%	
Strongyloides sterco. larvae	1	3.5%	
Giardia lamblia	1	3.5%	
Fasciola hepatica eggs	1	3.5%	
Ascaris lumbricoides eggs	1	3.5%	

Parasite present in specimen PA-13: *Schistosoma mansoni eggs.*

PARASITOLOGY

Specimen PA-14

Identification	***Labs***	***Percent***	***Performance***
Ascaris lumbricoides eggs	28	49.1%	Acceptable
Trichuris trichiura eggs	27	47.4%	Acceptable
Schistosoma mansoni eggs	2	3.5%	

Parasites present in specimen PA-14: *Ascaris lumbricoides eggs* and *Trichuris trichiura eggs.*

Specimen PA-15

Identification	***Labs***	***Percent***	***Performance***
Plasmodium vivax	21	75.0%	Acceptable
Plasmodium sp., not falciparum	2	7.1%	Acceptable
Plasmodium sp., NOS	1	3.6%	Acceptable
Plasmodium ovale	2	7.1%	
Plasmodium falciparum	1	3.6%	
Plasmodium malariae	1	3.6%	

Parasites present in specimen PA-14: *Ascaris lumbricoides eggs* and *Trichuris trichiura eggs.*

SUMMARY OF ISOLATES FOUND IN THE 2003 MLE-A3 CULTURE SPECIMENS

Organism	ATCC Strain
Enterococcus faecalis	29212
Klebsiella pneumoniae	13883
Proteus mirabilis	12453
Staphylococcus epidermidis	14990
Pseudomonas aeruginosa	27853
Staphylococcus saprophyticus	35552
Lactobacillus casei	393
Streptococcus sp. Group B	12386
Corynebacterium sp.	49528
Citrobacter freundii	8090
Neisseria gonorrhoeae	19424
Gardnerella vaginalis	14018
Neisseria mucosa	19695
Streptococcus pyogenes	19615
Streptococcus pneumoniae	6305
Branhamella catarrhalis	25238
Haemophilus influenzae	10211
Neisseria meningitidis	13090

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