

MEDICAL LABORATORY EVALUATION

PARTICIPANT SUMMARY

2 • 0 • 0 • 6

Please see the corresponding US participant summary for any statistics not represented in this supplement.



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**International Data Supplement
MLE – M2**

Table of Contents

2006 Evaluation Criteria	3
Coagulation	
Prothrombin Time	4
International Normalized Ratio (INR)	5
Activated Partial Thromboplastin Time	6
Fibrinogen	7
Urinalysis	
Urinalysis Dipstick	8
Specific Gravity	8
pH	8
Protein	9
Glucose or Reducing Substance	9
Ketones.....	10
Bilirubin	10
Urobilinogen.....	11
Blood or Hemoglobin	11
Leukocyte Esterase	12
Nitrite	12
Microalbumin (Dipstick Only)	13
Urine hcG	13
Microbiology	
Antimicrobial Susceptibility Testing	14
Parasitology (PA Specimens)	15
Parasitology (FP Specimens)	16
Immunology	
Syphilis Serology	17
VDRL Slide	17
VDRL Slide (Titer).....	18
MHA-TP	18
FTA-ABS.....	18
RPR	19
RPR (Titer).....	19
Viral Markers	20
Anti-HBc.....	20
Anti-HIV	20
HAV	21
HBeAg	21
HBsAb.....	22
HBsAg.....	22
HCV	23
Chemistry	
Total Bilirubin	24
Neonatal Bilirubin	24
Blood Gases	25

2006 Evaluation Criteria

The evaluation criteria used in the 2006 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 consensus. A minimum percentage of participants must receive a passing score or the challenge is not evaluated due to lack of consensus. These percentages are listed below.

Antimicrobial Susceptibility Testing	80% Consensus
Microalbumin (Semi-Quantitative)	80% Consensus
Parasite Identification	80% Consensus
Syphilis Serology	80% Consensus
Urine Dipstick	80% Consensus
Urine hCG	80% Consensus
Viral Markers	80% Consensus

Quantitative

For quantitative procedures, a mean and standard deviation (SD) are calculated for each peer group consisting of 5 or more laboratories. Acceptable performance is established based 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 pages 39-40 under the heading "Acceptable Ranges for Quantitative Results."

Activated Partial Thromboplastin Time	\pm 15 percent
Bilirubin, Neonatal (Total)	\pm 0.4 mg/dL or 20% *
Bilirubin, Total	\pm 0.4 mg/dL or 20% *
Calcium, Ionized	\pm 3 SD
Chloride	\pm 5%
Fibrinogen	\pm 20 percent
pCO ₂	\pm 5 mmHg or 8% *
pH	\pm 0.04
pO ₂	\pm 3 SD
Potassium	\pm 0.5 mmol/L
Prothrombin Time	\pm 15 percent
Sodium	\pm 4.0 mmol/L
Specific Gravity	\pm 0.010

Urinalysis

URINALYSIS DIPSTICK–SPECIFIC GRAVITY

Specimen UA-2

<u>Method</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>
All Method	78	1.0152	0	0	1.015
Bayer Clinitek 50	3	-	-	-	1.015
Bayer Clinitek 500	14	1.0200	0	0	1.020
Bayer Clinitek Atlas	4	-	-	-	1.015
Bayer Reagent Strips	4	-	-	-	1.010
Roche (BMC) Chemstrips	21	1.0118	0	0	1.010
Roche (BMC) Mini UA	3	-	-	-	1.010
Roche Urisys	7	1.0167	0	0	1.017
Roche(BMC) SuperUA/ChemstripUA	4	-	-	-	1.010
UriScan Reagent Strips	4	-	-	-	1.015

URINALYSIS DIPSTICK–pH

Specimen UA-2

Participant Results

<u>Method</u>	<u>3.5 or less</u>	<u>4.0</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	-	-	-	-	-	-	52	27	1	-	-
Arkray Aution Jet	-	-	-	-	-	-	1	-	-	-	-
Arkray Aution Sticks	-	-	-	-	-	-	-	1	-	-	-
Bayer Clinitek 10 / 100	-	-	-	-	-	-	1	-	-	-	-
Bayer Clinitek 50	-	-	-	-	-	-	-	3	-	-	-
Bayer Clinitek 500	-	-	-	-	-	-	1	14	-	-	-
Bayer Clinitek Atlas	-	-	-	-	-	-	2	2	-	-	-
Bayer Clinitek Status	-	-	-	-	-	-	1	-	-	-	-
Bayer Reagent Strips	-	-	-	-	-	-	1	3	-	-	-
BioScan Reagent Strips	-	-	-	-	-	-	1	-	-	-	-
Quidel QuickVue UrinChek	-	-	-	-	-	-	-	-	1	-	-
Roche (BMC) Chemstrips	-	-	-	-	-	-	21	-	-	-	-
Roche (BMC) Criterion Analyzer	-	-	-	-	-	-	1	-	-	-	-
Roche (BMC) Mini UA	-	-	-	-	-	-	3	-	-	-	-
Roche Urisys	-	-	-	-	-	-	7	-	-	-	-
Roche(BMC) SuperUA/ChemstripUA	-	-	-	-	-	-	4	-	-	-	-
Thermo BioStar PocketChem UA	-	-	-	-	-	-	2	-	-	-	-
UriScan Reagent Strips	-	-	-	-	-	-	2	2	-	-	-

URINALYSIS DIPSTICK–PROTEIN QUALITATIVE

Specimen UA-2

Participant Results

<u>Method</u>	<u>Negative</u>	<u>Trace</u>	<u>30mg/dL (1+)</u>	<u>100 mg/dL (2+)</u>	<u>300-500mg/dL (3+)</u>	<u>≥1000mg/dL (4+)</u>
ALL METHODS	-	-	3	62	14	-
Arkray Aution Jet	-	-	-	1	-	-
Arkray Aution Sticks	-	-	-	1	-	-
Bayer Clinitek 10 / 100	-	-	-	1	-	-
Bayer Clinitek 50	-	-	-	-	3	-
Bayer Clinitek 500	-	-	-	13	2	-
Bayer Clinitek Atlas	-	-	-	2	2	-
Bayer Clinitek Status	-	-	-	-	1	-
Bayer Reagent Strips	-	-	-	1	3	-
BioScan Reagent Strips	-	-	-	1	-	-
Quidel QuickVue UrinChek	-	-	-	1	-	-
Roche (BMC) Chemstrips	-	-	-	20	1	-
Roche (BMC) Criterion Analyzer	-	-	-	1	-	-
Roche (BMC) Mini UA	-	-	-	3	-	-
Roche Urisys	-	-	-	4	2	-
Roche(BMC) SuperUA/ChemstripUA	-	-	-	4	-	-
Thermo BioStar PocketChem UA	-	-	1	-	-	-
UriScan Reagent Strips	-	-	-	3	-	-

URINALYSIS DIPSTICK–GLUCOSE OR REDUCING SUBSTANCE

Specimen UA-2

Participant Results

<u>Method</u>	<u>Negative</u>	<u>50-100 mg/dL (Trace)</u>	<u>150 mg/dL</u>	<u>250 mg/dL</u>	<u>500 mg/dL</u>	<u>1000 mg/dL</u>	<u>>1000 mg/dL</u>	<u>≥2000 mg/dL</u>
ALL METHODS	77	1	-	-	-	-	-	-
Arkray Aution Jet	1	-	-	-	-	-	-	-
Arkray Aution Sticks	1	-	-	-	-	-	-	-
Bayer Clinitek 10 / 100	1	-	-	-	-	-	-	-
Bayer Clinitek 50	3	-	-	-	-	-	-	-
Bayer Clinitek 500	15	-	-	-	-	-	-	-
Bayer Clinitek Atlas	4	-	-	-	-	-	-	-
Bayer Clinitek Status	1	-	-	-	-	-	-	-
Bayer Reagent Strips	4	-	-	-	-	-	-	-
BioScan Reagent Strips	1	-	-	-	-	-	-	-
Quidel QuickVue UrinChek	1	-	-	-	-	-	-	-
Roche (BMC) Chemstrips	21	-	-	-	-	-	-	-
Roche (BMC) Criterion Analyzer	1	-	-	-	-	-	-	-
Roche (BMC) Mini UA	3	-	-	-	-	-	-	-
Roche Urisys	7	-	-	-	-	-	-	-
Roche(BMC) SuperUA/ChemstripUA	3	-	-	-	-	-	-	-
Thermo BioStar PocketChem UA	2	-	-	-	-	-	-	-
UriScan Reagent Strips	3	1	-	-	-	-	-	-

URINALYSIS DIPSTICK–KETONES

Specimen UA-2

<u>Method</u>	<i>Participant Results</i>				
	<u>Negative</u>	<u>Trace (5 mg/dL)</u>	<u>Small (1+, 15 mg/dL)</u>	<u>Moderate (2+, 40 mg/dL)</u>	<u>Large (3+, 80 mg/dL)</u>
ALL METHODS	80	-	-	-	-
Arkray Aution Jet	1	-	-	-	-
Arkray Aution Sticks	1	-	-	-	-
Bayer Clinitek 10 / 100	1	-	-	-	-
Bayer Clinitek 50	3	-	-	-	-
Bayer Clinitek 500	15	-	-	-	-
Bayer Clinitek Atlas	4	-	-	-	-
Bayer Clinitek Status	1	-	-	-	-
Bayer Reagent Strips	4	-	-	-	-
BioScan Reagent Strips	1	-	-	-	-
Quidel QuickVue UrinChek	1	-	-	-	-
Roche (BMC) Chemstrips	21	-	-	-	-
Roche (BMC) Criterion Analyzer	1	-	-	-	-
Roche (BMC) Mini UA	3	-	-	-	-
Roche Urisys	7	-	-	-	-
Roche(BMC) SuperUA/ChemstripUA	4	-	-	-	-
Thermo BioStar PocketChem UA	2	-	-	-	-
UriScan Reagent Strips	4	-	-	-	-

URINALYSIS DIPSTICK–BILIRUBIN

Specimen UA-2

<u>Method</u>	<i>Participant Results</i>			
	<u>Negative</u>	<u>Small (1+)</u>	<u>Moderate (2+)</u>	<u>Large (3+)</u>
ALL METHODS	79	-	-	-
Arkray Aution Jet	1	-	-	-
Arkray Aution Sticks	1	-	-	-
Bayer Clinitek 10 / 100	1	-	-	-
Bayer Clinitek 50	3	-	-	-
Bayer Clinitek 500	15	-	-	-
Bayer Clinitek Atlas	4	-	-	-
Bayer Clinitek Status	1	-	-	-
Bayer Reagent Strips	4	-	-	-
BioScan Reagent Strips	1	-	-	-
Quidel QuickVue UrinChek	1	-	-	-
Roche (BMC) Chemstrips	21	-	-	-
Roche (BMC) Criterion Analyzer	1	-	-	-
Roche (BMC) Mini UA	3	-	-	-
Roche Urisys	7	-	-	-
Roche(BMC) SuperUA/ChemstripUA	3	-	-	-
Thermo BioStar PocketChem UA	2	-	-	-
UriScan Reagent Strips	4	-	-	-

URINALYSIS DIPSTICK–UROBILINOGEN

Specimen UA-2

Participant Results

<u>Method</u>	<u>0.2/Normal mg/dL</u>	<u>1.0 mg/dL</u>	<u>2.0 mg/dL</u>	<u>4.0 mg/dL</u>	<u>>8.0 mg/dL</u>
ALL METHODS	78	1	-	-	-
Arkray Aution Jet	1	-	-	-	-
Arkray Aution Sticks	1	-	-	-	-
Bayer Clinitek 10 / 100	1	-	-	-	-
Bayer Clinitek 50	3	-	-	-	-
Bayer Clinitek 500	15	-	-	-	-
Bayer Clinitek Atlas	4	-	-	-	-
Bayer Clinitek Status	1	-	-	-	-
Bayer Reagent Strips	3	1	-	-	-
BioScan Reagent Strips	1	-	-	-	-
Quidel QuickVue UrinChek	1	-	-	-	-
Roche (BMC) Chemstrips	21	-	-	-	-
Roche (BMC) Criterion Analyzer	1	-	-	-	-
Roche (BMC) Mini UA	3	-	-	-	-
Roche Urisys	7	-	-	-	-
Roche(BMC) SuperUA/ChemstripUA	3	-	-	-	-
Thermo BioStar PocketChem UA	2	-	-	-	-
UriScan Reagent Strips	4	-	-	-	-

URINALYSIS DIPSTICK–BLOOD/HEMOGLOBIN

Specimen UA-2

Participant Results

<u>Method</u>	<u>Negative</u>	<u>Trace</u>	<u>Small (1+)</u>	<u>Moderate (2+)</u>	<u>Large (3+)</u>
ALL METHODS	-	-	1	3	74
Arkray Aution Jet	-	-	-	-	1
Arkray Aution Sticks	-	-	-	-	1
Bayer Clinitek 10 / 100	-	-	-	-	1
Bayer Clinitek 50	-	-	-	-	3
Bayer Clinitek 500	-	-	-	-	15
Bayer Clinitek Atlas	-	-	-	-	4
Bayer Clinitek Status	-	-	-	-	1
Bayer Reagent Strips	-	-	-	-	4
BioScan Reagent Strips	-	-	-	-	1
Quidel QuickVue UrinChek	-	-	1	-	-
Roche (BMC) Chemstrips	-	-	-	-	21
Roche (BMC) Criterion Analyzer	-	-	-	-	1
Roche (BMC) Mini UA	-	-	-	-	3
Roche Urisys	-	-	-	-	6
Roche(BMC) SuperUA/ChemstripUA	-	-	-	-	3
Thermo BioStar PocketChem UA	-	-	-	1	1
UriScan Reagent Strips	-	-	-	1	3

URINALYSIS DIPSTICK–LEUKOCYTE ESTERASE

Specimen UA-2

Participant Results

<u>Method</u>	<u>Negative</u>	<u>Trace</u>	<u>Small (1+)</u>	<u>Moderate (2+)</u>	<u>Large (3+)</u>
ALL METHODS	79	-	-	-	-
Arkray Aution Jet	1	-	-	-	-
Arkray Aution Sticks	1	-	-	-	-
Bayer Clinitek 10 / 100	1	-	-	-	-
Bayer Clinitek 50	3	-	-	-	-
Bayer Clinitek 500	15	-	-	-	-
Bayer Clinitek Atlas	4	-	-	-	-
Bayer Clinitek Status	1	-	-	-	-
Bayer Reagent Strips	4	-	-	-	-
BioScan Reagent Strips	1	-	-	-	-
Quidel QuickVue UrinChek	1	-	-	-	-
Roche (BMC) Chemstrips	21	-	-	-	-
Roche (BMC) Criterion Analyzer	1	-	-	-	-
Roche (BMC) Mini UA	3	-	-	-	-
Roche Urisys	7	-	-	-	-
Roche(BMC) SuperUA/ChemstripUA	3	-	-	-	-
Thermo BioStar PocketChem UA	2	-	-	-	-
UriScan Reagent Strips	4	-	-	-	-

URINALYSIS DIPSTICK–NITRITE

Specimen UA-2

Participant Results

<u>Method</u>	<u>Negative</u>	<u>Positive</u>
ALL METHODS	78	-
Arkray Aution Jet	1	-
Arkray Aution Sticks	1	-
Bayer Clinitek 10 / 100	1	-
Bayer Clinitek 50	3	-
Bayer Clinitek 500	14	-
Bayer Clinitek Atlas	4	-
Bayer Clinitek Status	1	-
Bayer Reagent Strips	4	-
BioScan Reagent Strips	1	-
Quidel QuickVue UrinChek	1	-
Roche (BMC) Chemstrips	21	-
Roche (BMC) Criterion Analyzer	1	-
Roche (BMC) Mini UA	3	-
Roche Urisys	7	-
Roche(BMC) SuperUA/ChemstripUA	3	-
Thermo BioStar PocketChem UA	2	-
UriScan Reagent Strips	4	-

URINALYSIS –MICROALBUMIN (dipstick only)**Specimen UA-2***Participant Results*

<u>Method</u>	<u>Negative</u>	<u>10 mg/L(Pos)</u>	<u>20/30 mg/L</u>	<u>50 mg/L (+)</u>	<u>80 mg/L</u>	<u>100 mg/L (++)</u>	<u>150 mg/L</u>
ALL METHODS	1	-	-	1	3	1	-
Bayer Clinitek Microalbumin	-	-	-	1	-	-	-
Roche (BMC) Micral - 1 minute	-	-	-	-	1	-	-

URINALYSIS –URINE hCG**Specimen UA-2***Participant Results*

<u>Method</u>	<u>Sensitivity (mIU/mL)</u>	<u>Negative</u>	<u>Positive</u>
ALL METHOD	-		11
Acon Laboratories	-	-	2
bioMerieux VIKIA hCG-D	25	-	6

ANTIMICROBIAL SUSCEPTIBILITY TESTING

Specimen SUS-6

<u>Antimicrobial</u>	-----Agar Diffusion-----				-----MIC-----				<u>Acceptable (%)</u>
	<u>Interpretative category data</u>				<u>Interpretative category data</u>				
	<u>Labs</u>	<u>S</u>	<u>I</u>	<u>R</u>	<u>Labs</u>	<u>S</u>	<u>I</u>	<u>R</u>	
Amikacin	9	9	-	-	19	19	-	-	100%
Amoxicillin/Clavulanate	-	-	-	-	5	1	-	4	84.6%
Ampicillin	1	-	-	1	8	1	-	7	93.75%
Ampicillin/Sulbactam	4	-	-	4	9	-	-	9	100%
Aztreonam	6	6	-	-	6	5	-	1	94.74%
Carbenicillin	1	1	-	-	-	-	-	-	Not graded ¹
Cefazolin	-	-	-	-	8	-	-	8	100%
Cefepime	1	1	-	-	4	4	-	-	100%
Cefixime	-	-	-	-	1	1	-	-	Not graded ¹
Cefoperazone	2	2	-	-	1	1	-	-	100%
Cefotaxime	3	2	1	-	6	2	4	-	Not graded ¹
Cefoxitin	-	-	-	-	1	-	-	1	100%
Ceftazidime	10	9	-	1	18	15	2	1	90.91%
Ceftriaxone	4	2	-	2	12	2	7	3	Not graded ¹
Cefuroxime	1	-	-	1	7	-	-	7	100%
Cephalothin	2	-	-	2	6	-	-	6	100%
Ciprofloxacin	11	11	-	-	21	21	-	-	100%
Clindamycin	-	-	-	-	1	1	-	-	100%
Gentamicin	10	9	1	-	20	19	1	-	95.83%
Imipenem	5	5	-	-	19	19	-	-	100%
Levofloxacin	2	1	-	1	17	17	-	-	95.83%
Meropenem	3	2	-	1	7	7	-	-	93.33%
Methicillin	-	-	-	-	1	1	-	-	100%
Nalidixic Acid	2	-	-	2	-	-	-	-	100%
Nitrofurantoin	4	-	-	4	10	1	-	9	92.59%
Norfloxacin	3	3	-	-	8	8	-	-	100%
Ofloxacin	-	-	-	-	1	1	-	-	100%
Oxacillin	-	-	-	-	1	1	-	-	100%
Penicillin-G	-	-	-	-	1	1	-	-	100%
Piperacillin	1	1	-	-	13	11	1	1	91.30%
Piperacillin/Tazobactam	2	2	-	-	20	18	1	1	93.94%
Sulfamethoxazole	-	-	-	-	1	-	-	1	100%
Tetracycline	2	1	-	1	2	1	-	1	Not graded ¹
Ticarcillin	-	-	-	-	1	1	-	-	100%
Ticarcillin/Clavulanate	-	-	-	-	12	10	1	1	86.67%
Tobramycin	1	1	-	-	10	10	-	-	100%
Trimethoprim	1	-	-	1	1	-	-	1	100%
Trimethoprim/Sulfamethoxazole	2	-	-	2	11	1	-	10	95.45%
Vancomycin	-	-	-	-	1	1	-	-	100%

Organism present in specimen SUS-6: *Pseudomonas aeruginosa*.

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

PARASITOLOGY (PA Specimens)

Specimen PA-6

No participants reported PA-6.

Parasite present in specimen PA-6: *Giardia lamblia*.

Specimen PA-7

No participants reported PA-7.

Parasite present in specimen PA-7: *Dientamoeba fragilis*.

Specimen PA-8

<u>Identification</u>	<u>Labs</u>	<u>Percent</u>	<u>Performance</u>
Parasite larvae seen but no ID	1	100%	Acceptable

Parasite present in specimen PA-8: *Strongyloides stercoralis*.

Specimen PA-9

<u>Identification</u>	<u>Labs</u>	<u>Percent</u>	<u>Performance</u>
Hookworm	1	100%	Acceptable

Parasite present in specimen PA-9: Hookworm.

Specimen PA-10

<u>Identification</u>	<u>Labs</u>	<u>Percent</u>	<u>Performance</u>
Ascaris lumbricoides eggs	1	50.00%	Acceptable
Trichuris trichiura eggs	1	50.00%	

Parasite present in specimen PA-10: *Ascaris lumbricoides* eggs.

PARASITOLOGY (FP Specimens)

Specimen FP-6

<u>Identification</u>	<u>Labs</u>	<u>Percent</u>	<u>Performance</u>
Giardia lamblia	70	98.59%	Acceptable
Blastocystis hominis	1	1.41%	

Parasite present in specimen FP-6: *Giardia lamblia*.

Specimen FP-7

<u>Identification</u>	<u>Labs</u>	<u>Percent</u>	<u>Performance</u>
Hookworm	57	67.86%	Not graded
Blastocystis hominis	8	9.52%	
Taenia sp. Eggs	4	4.76%	
Entamoeba histolytica	3	3.57%	
Ascaris lumbricoides	3	3.57%	
Trichostrongylus sp. Eggs	2	2.38%	
Parasite egg seen but no ID	1	1.19%	
No parasite seen	1	1.19%	
Enterobius vermicularis eggs	1	1.19%	
Giardia lamblia	1	1.19%	
Schistosoma sp. eggs, NOS	1	1.19%	
Endolimax nana	1	1.19%	
Entamoeba coli	1	1.19%	

Parasites present in specimen FP-7: Hookworm, *Entamoeba coli* and unidentifiable parasite. This is an ungraded challenge due to questionable specimen integrity.

Specimen FP-8

<u>Identification</u>	<u>Labs</u>	<u>Percent</u>	<u>Performance</u>
Strongyloides stercoralis	67	95.71%	Acceptable
Parasite larva seen but no ID	2	2.86%	Acceptable
No parasite seen	1	1.43%	

Parasite present in specimen FP-8: *Strongyloides stercoralis*.

Specimen FP-9

<u>Identification</u>	<u>Labs</u>	<u>Percent</u>	<u>Performance</u>
Entamoeba coli	53	58.24%	Acceptable
Parasite seen but no ID	1	1.10%	Acceptable
Entamoeba histolytica	21	23.08%	
No parasite seen	4	4.40%	
Endolimax nana	3	3.30%	
Taenia sp. eggs	3	3.30%	
Giardia lamblia	2	2.20%	
Blastocystis hominis	2	2.20%	
Entamoeba hartmanni	1	1.10%	
Enterobius vermicularis eggs	1	1.10%	

Parasite present in specimen FP-9: *Entamoeba coli*. Specimen was double checked by vendor.

PARASITOLOGY (FP Specimens)

Specimen FP-10

<u>Identification</u>	<u>Labs</u>	<u>Percent</u>	<u>Performance</u>
Plasmodium falciparum	35	49.30%	Acceptable
Plasmodium sp., NOS	3	4.23%	Acceptable
No parasite seen	21	29.58%	
Plasmodium vivax	5	7.04%	
Babesia sp.	3	4.23%	
Leishmania sp.	2	2.82%	
Plasmodium sp., not falciparum	1	1.41%	
Pneumocystis carinii	1	1.41%	

Parasite present in specimen FP-10: *Plasmodium falciparum*.

Syphilis Serology—Qualitative: VDRL Slide

<u>Method</u>	Specimen SY-6			Specimen SY-7			Specimen SY-8		
	<u>Reactive</u>	<u>Weakly Reactive</u>	<u>Non-Reactive</u>	<u>Reactive</u>	<u>Weakly Reactive</u>	<u>Non-Reactive</u>	<u>Reactive</u>	<u>Weakly Reactive</u>	<u>Non-Reactive</u>
ALL METHODS	12	1	-	-	-	14	-	-	14
Becton Dickinson	1	-	-	-	-	1	-	-	1
BioBacter	2	-	-	-	-	3	-	-	3
SPINREACT	1	-	-	-	-	1	-	-	1
Wiener Lab	7	-	-	-	-	7	-	-	7

<u>Method</u>	Specimen SY-9			Specimen SY-10		
	<u>Reactive</u>	<u>Weakly Reactive</u>	<u>Non-Reactive</u>	<u>Reactive</u>	<u>Weakly Reactive</u>	<u>Non-Reactive</u>
ALL METHODS	12	-	1	13	-	-
Becton Dickinson	1	-	-	1	-	-
BioBacter	2	-	-	2	-	-
SPINREACT	1	-	-	1	-	-
Wiener Lab	7	-	-	7	-	-

Syphilis Serology—Quantitative: VDRL Slide Titer

<u>Specimen/Method</u>	<u>0 dils</u>	<u>1 dil</u>	<u>2 dils</u>	<u>4 dils</u>	<u>8 dils</u>	<u>16 dils</u>	<u>32 dils</u>	<u>>32 dils</u>
Specimen SY-6								
ALL METHODS	2	-	4	4	1	-	-	-
BioBacter	1	-	3	-	-	-	-	-
SPINREACT	-	-	-	1	-	-	-	-
Wiener Lab	1	-	1	3	1	-	-	-

Specimen SY-9

ALL METHODS	-	1	-	6	4	-	-	-
BioBacter	-	-	-	4	-	-	-	-
SPINREACT	-	-	-	-	1	-	-	-
Wiener Lab	-	1	-	2	3	-	-	-

Specimen SY-10

ALL METHODS	-	2	5	4	-	-	-	-
BioBacter	-	1	2	1	-	-	-	-
SPINREACT	-	-	1	-	-	-	-	-
Wiener Lab	-	1	2	3	-	-	-	-

Syphilis Serology—Qualitative: MHA-TP

<u>Method</u>	<u>Specimen SY-6</u>		<u>Specimen SY-7</u>		<u>Specimen SY-8</u>	
	<u>Reactive</u>	<u>Non-Reactive</u>	<u>Reactive</u>	<u>Non-Reactive</u>	<u>Reactive</u>	<u>Non-Reactive</u>
ALL METHODS	5	-	-	5	-	5
Human	1	-	-	1	-	1
Serodia	2	-	-	2	-	2
<u>Method</u>	<u>Specimen SY-9</u>		<u>Specimen SY-10</u>			
	<u>Reactive</u>	<u>Non-Reactive</u>	<u>Reactive</u>	<u>Non-Reactive</u>		
ALL METHODS	5	-	5	-		
Human	1	-	1	-		
Serodia	2	-	2	-		

Syphilis Serology—Qualitative: FTA-ABS (*Treponema pallidum* Antibodies)

<u>Method</u>	<u>Specimen SY-6</u>		<u>Specimen SY-7</u>		<u>Specimen SY-8</u>	
	<u>Reactive</u>	<u>Non-Reactive</u>	<u>Reactive</u>	<u>Non-Reactive</u>	<u>Reactive</u>	<u>Non-Reactive</u>
ALL METHODS	4	-	-	4	-	4
bioMerieux Vitek, Mini Vidas	1	-	-	1	-	1
<u>Method</u>	<u>Specimen SY-9</u>		<u>Specimen SY-10</u>			
	<u>Reactive</u>	<u>Non-Reactive</u>	<u>Reactive</u>	<u>Non-Reactive</u>		
ALL METHODS	4	-	4	-		
bioMerieux Vitek, Mini Vidas	1	-	1	-		

Syphilis Serology—Qualitative: RPR

<u>Method</u>	Specimen SY-6		Specimen SY-7		Specimen SY-8	
	<u>Reactive</u>	<u>Non-Reactive</u>	<u>Reactive</u>	<u>Non-Reactive</u>	<u>Reactive</u>	<u>Non-Reactive</u>
ALL METHODS	14	-	-	14	-	14
Abbott Syfacard-R	1	-	-	1	-	1
Becton Dickinson	1	-	-	1	-	1
bioMerieux Vitek, Mini Vidas	1	-	-	1	-	1
Human	1	-	-	1	-	1
Immunostics Inc.	1	-	-	1	-	1
Omega Diagnostics	4	-	-	4	-	4
SPINREACT	2	-	-	2	-	2

<u>Method</u>	Specimen SY-9		Specimen SY-10	
	<u>Reactive</u>	<u>Non-Reactive</u>	<u>Reactive</u>	<u>Non-Reactive</u>
ALL METHODS	14	-	14	-
Abbott Syfacard-R	1	-	1	-
Becton Dickinson	1	-	1	-
bioMerieux Vitek, Mini Vidas	1	-	1	-
Human	1	-	1	-
Immunostics Inc.	1	-	1	-
Omega Diagnostics	4	-	4	-
SPINREACT	2	-	2	-

Syphilis Serology—Quantitative: RPR (Titer)

<u>Specimen/Method</u>	<u>1</u>	<u>2</u>	<u>4</u>	<u>8</u>	<u>16</u>	<u>32</u>	<u>64</u>	<u>>64</u>
Specimen SY-6								
ALL METHODS	4	4	3	-	-	-	-	1
Abbott Syfacard-R	-	1	-	-	-	-	-	-
bioMerieux Vitek, Mini Vidas	-	1	-	-	-	-	-	-
Human	-	-	1	-	-	-	-	-
Omega Diagnostics	-	1	1	-	-	-	-	1
SPINREACT	1	1	-	-	-	-	-	-
Specimen SY-9								
ALL METHODS	1	2	6	2	-	-	-	1
Abbott Syfacard-R	-	-	1	-	-	-	-	-
bioMerieux Vitek, Mini Vidas	1	-	1	-	-	-	-	-
Human	-	-	1	-	-	-	-	-
Omega Diagnostics	-	-	1	1	-	-	-	1
SPINREACT	-	1	1	-	-	-	-	-
Specimen SY-10								
ALL METHODS	6	2	3	-	-	-	-	1
Abbott Syfacard-R	1	-	-	-	-	-	-	-
bioMerieux Vitek, Mini Vidas	2	-	-	-	-	-	-	-
Human	-	-	1	-	-	-	-	-
Omega Diagnostics	-	1	1	-	-	-	-	-
SPINREACT	1	1	-	-	-	-	-	-

Viral Markers – Anti-HBc

<u>Method</u>	Specimen VM-6		Specimen VM-7		Specimen VM-8	
	<u>Positive</u>	<u>Negative</u>	<u>Positive</u>	<u>Negative</u>	<u>Positive</u>	<u>Negative</u>
ALL METHODS	1	24	21	4	-	24
Abbott AxSYM	-	2	2	-	-	2
Abbott AxSYM - IgM	-	2	-	2	-	2
Abbott AxSYM - Total	-	8	7	1	-	8
Beckman ACCESS	-	1	1	-	-	1
Other IgM method	-	1	-	1	-	1
Roche Elecsys 1010/2010	-	3	3	-	-	3
VITROS Eci	-	4	4	-	-	4

<u>Method</u>	Specimen VM-9		Specimen VM-10	
	<u>Positive</u>	<u>Negative</u>	<u>Positive</u>	<u>Negative</u>
ALL METHODS	-	24	20	4
Abbott AxSYM	-	2	2	-
Abbott AxSYM - IgM	-	2	-	2
Abbott AxSYM - Total	-	8	8	-
Beckman ACCESS	-	1	1	-
Other IgM method	-	1	-	1
Roche Elecsys 1010/2010	-	3	3	-
VITROS Eci	-	4	4	-

Viral Markers – Anti-HIV

<u>Method</u>	Specimen VM-6		Specimen VM-7		Specimen VM-8	
	<u>Positive</u>	<u>Negative</u>	<u>Positive</u>	<u>Negative</u>	<u>Positive</u>	<u>Negative</u>
ALL METHODS	-	34	-	34	-	34
Abbott AxSYM	-	3	-	3	-	3
Abbott AxSYM - IgM	-	1	-	1	-	1
Abbott AxSYM - Total	-	10	-	10	-	10
Beckman ACCESS	-	1	-	1	-	1
bioMerieux Vitek, Mini Vidas	-	3	-	3	-	3
Roche Elecsys 1010/2010	-	7	-	7	-	7
VITROS Eci	-	2	-	2	-	2

<u>Method</u>	Specimen VM-9		Specimen VM-10	
	<u>Positive</u>	<u>Negative</u>	<u>Positive</u>	<u>Negative</u>
ALL METHODS	34	-	-	34
Abbott AxSYM	3	-	-	1
Abbott AxSYM - IgM	1	-	-	10
Abbott AxSYM - Total	10	-	-	1
Beckman ACCESS	1	-	-	3
bioMerieux Vitek, Mini Vidas	3	-	-	7
Roche Elecsys 1010/2010	7	-	-	2
VITROS Eci	2	-	-	3

Viral Markers – HAV

<u>Method</u>	Specimen VM-6		Specimen VM-7		Specimen VM-8	
	<u>Positive</u>	<u>Negative</u>	<u>Positive</u>	<u>Negative</u>	<u>Positive</u>	<u>Negative</u>
ALL METHODS	24	1	1	24	-	25
Abbott Architect	1	-	-	1	-	1
Abbott AxSYM	2	-	-	2	-	2
Abbott AxSYM - IgM	2	-	-	2	-	2
Abbott AxSYM - Total	5	-	-	5	-	5
bioMerieux Vidas - IgM	2	-	-	2	-	2
bioMerieux Vitek, Mini Vidas	1	-	-	1	-	1
Other IgM method	1	-	-	1	-	1
Roche Elecsys 1010/2010	5	-	-	5	-	5
VITROS ECI	2	-	1	1	-	2
	Specimen VM-9		Specimen VM-10			
ALL METHODS	-	25	15	9		
Abbott Architect	-	1	1	-		
Abbott AxSYM	-	2	2	-		
Abbott AxSYM - IgM	-	2	-	2		
Abbott AxSYM - Total	-	5	5	-		
bioMerieux Vidas - IgM	-	2	-	2		
bioMerieux Vitek, Mini Vidas	-	1	1	-		
Other IgM method	-	1	-	1		
Roche Elecsys 1010/2010	-	5	3	2		
VITROS ECI	-	2	-	2		

Specimen VM-6: Total and IgM are reactive

Specimen VM-7: Total is non-reactive.

Specimen VM-8: Total is non-reactive.

Specimen VM-9: Total is non-reactive.

Specimen VM-10: Total is reactive and IgM is non-reactive.

Viral Markers – HBeAg

<u>Method</u>	Specimen VM-6		Specimen VM-7		Specimen VM-8	
	<u>Positive</u>	<u>Negative</u>	<u>Positive</u>	<u>Negative</u>	<u>Positive</u>	<u>Negative</u>
ALL METHODS	-	13	-	13	-	13
Abbott AxSYM	-	1	-	1	-	1
Abbott AxSYM - Total	-	2	-	2	-	2
bioMerieux Vitek, Mini Vidas	-	2	-	2	-	2
Roche Elecsys 1010/2010	-	2	-	2	-	2
VITROS ECI	-	1	-	1	-	1
	Specimen VM-9		Specimen VM-10			
ALL METHODS	1	12	-	13		
Abbott AxSYM	-	1	-	1		
Abbott AxSYM - Total	-	2	-	2		
bioMerieux Vitek, Mini Vidas	-	2	-	2		
Roche Elecsys 1010/2010	-	2	-	2		
VITROS ECI	-	1	-	1		

Viral Markers – HBsAb

<u>Method</u>	Specimen VM-6		Specimen VM-7		Specimen VM-8	
	<u>Positive</u>	<u>Negative</u>	<u>Positive</u>	<u>Negative</u>	<u>Positive</u>	<u>Negative</u>
ALL METHODS	-	32	1	31	-	33
Abbott Architect	-	1	-	1	-	1
Abbott AxSYM	-	4	-	4	-	4
Abbott AxSYM - IgM	-	1	-	1	-	1
Abbott AxSYM - Total	-	5	-	5	-	5
Beckman ACCESS	-	1	-	1	-	1
Roche Elecsys 1010/2010	-	8	-	8	-	8
VITROS ECI	-	4	-	4	-	4
	Specimen VM-9		Specimen VM-10			
ALL METHODS	1	32	27	7		
Abbott Architect	-	1	1	-		
Abbott AxSYM	-	4	4	-		
Abbott AxSYM - IgM	-	1	1	-		
Abbott AxSYM - Total	-	5	5	-		
Beckman ACCESS	-	1	1	-		
Roche Elecsys 1010/2010	-	8	8	-		
VITROS ECI	-	4	4	-		

Viral Markers – Anti-HBsAg

<u>Method</u>	Specimen VM-6		Specimen VM-7		Specimen VM-8	
	<u>Positive</u>	<u>Negative</u>	<u>Positive</u>	<u>Negative</u>	<u>Positive</u>	<u>Negative</u>
ALL METHODS	-	36	36	-	1	35
Abbott Architect	-	1	1	-	-	1
Abbott AxSYM	-	2	2	-	-	2
Abbott AxSYM - IgM	-	2	2	-	-	2
Abbott AxSYM - Total	-	8	8	-	-	8
Beckman ACCESS	-	1	1	-	-	1
bioMerieux Vitek, Mini Vidas	-	1	1	-	-	1
Roche Elecsys 1010/2010	-	9	9	-	-	9
VITROS ECI	-	5	5	-	1	4
	Specimen VM-9		Specimen VM-10			
ALL METHODS	35	1	2	33		
Abbott Architect	1	-	-	1		
Abbott AxSYM	2	-	-	2		
Abbott AxSYM - IgM	2	-	-	2		
Abbott AxSYM - Total	8	-	2	6		
Beckman ACCESS	1	-	-	1		
bioMerieux Vitek, Mini Vidas	1	-	-	1		
Roche Elecsys 1010/2010	9	-	-	9		
VITROS ECI	5	-	-	5		

Viral Markers – HCV

<u>Method</u>	Specimen VM-6		Specimen VM-7		Specimen VM-8	
	<u>Positive</u>	<u>Negative</u>	<u>Positive</u>	<u>Negative</u>	<u>Positive</u>	<u>Negative</u>
ALL METHODS	-	30	-	30	-	30
Abbott AxSYM	-	3	-	3	-	3
Abbott AxSYM - IgM	-	2	-	2	-	2
Abbott AxSYM - Total	-	7	-	7	-	7
Bayer ADVIA Centaur	-	1	-	1	-	1
Dade Behring BEP 2000	-	1	-	1	-	1
Roche Elecsys 1010/2010	-	1	-	1	-	1
VITROS ECI	-	5	-	5	-	5
	Specimen VM-9		Specimen VM-10			
ALL METHODS	-	30	30	-		
Abbott AxSYM	-	3	3	-		
Abbott AxSYM - IgM	-	2	2	-		
Abbott AxSYM - Total	-	7	7	-		
Bayer ADVIA Centaur	-	1	1	-		
Dade Behring BEP 2000	-	1	1	-		
Roche Elecsys 1010/2010	-	1	1	-		
VITROS ECI	-	5	5	-		

Blood Gases – pH

<u>Method</u>	Specimen BG-6					Specimen BG-7				
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>
All Method	31	7.398	0.014	0.2	7.40	31	7.559	0.014	0.2	7.56
AVL OMNI	25	7.397	0.014	0.2	7.40	25	7.557	0.014	0.2	7.56
<u>Method</u>	Specimen BG-8					Specimen BG-9				
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>
All Method	31	6.873	0.020	0.3	6.87	31	7.149	0.010	0.1	7.15
AVL OMNI	25	6.875	0.020	0.3	6.87	25	7.148	0.010	0.1	7.15
<u>Method</u>	Specimen BG-10									
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>					
All Method	31	7.541	0.014	0.2	7.54					
AVL OMNI	25	7.541	0.014	0.2	7.54					

Blood Gases - pCO₂ (mmHg)

<u>Method</u>	Specimen BG-6					Specimen BG-7				
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>
All Method	30	45.43	1.60	3.5	45.3	31	24.20	1.08	4.5	23.9
AVL OMNI	24	45.41	1.38	3.0	45.0	25	24.23	1.16	4.8	23.8
<u>Method</u>	Specimen BG-8					Specimen BG-9				
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>
All Method	31	93.39	4.38	4.7	93.7	31	73.87	2.91	3.9	74.0
AVL OMNI	25	93.33	4.48	4.8	93.9	25	74.13	2.56	3.5	74.0
<u>Method</u>	Specimen BG-10									
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>					
All Method	29	24.22	0.66	2.7	24.2					
AVL OMNI	23	24.20	0.65	2.7	24.1					

Blood Gases - pO₂ (mmHg)

<u>Method</u>	Specimen BG-6					Specimen BG-7				
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>
All Method	30	103.64	11.16	10.8	107.6	31	144.94	19.59	13.5	148.5
AVL OMNI	24	103.48	11.62	11.2	107.6	25	143.99	19.14	13.3	147.2
<u>Method</u>	Specimen BG-8					Specimen BG-9				
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>
All Method	29	44.97	24.23	53.9	51.2	31	70.40	16.10	22.9	74.3
AVL OMNI	23	47.61	24.47	51.4	53.4	25	70.76	17.27	24.4	74.9
<u>Method</u>	Specimen BG-10									
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>					
All Method	31	134.59	13.97	10.4	134.9					
AVL OMNI	25	134.23	14.02	10.4	134.5					

Blood Gases - Ionized Calcium (mmol/L)

<u>Method</u>	<u>Specimen BG-6</u>					<u>Specimen BG-7</u>				
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>
All Method	9	1.837	1.454	79.1	1.12	9	0.881	0.712	80.8	0.54
AVL OMNI	9	1.837	1.454	79.1	1.12	9	0.881	0.712	80.8	0.54

Blood Gases - Chloride (mmol/L)

<u>Method</u>	<u>Specimen BG-6</u>					<u>Specimen BG-6</u>				
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>
All Method	10	97.9	2.8	2.8	99	10	122.3	3.2	2.6	124
AVL OMNI	9	97.7	2.8	2.9	98	9	122.1	3.3	2.7	123

<u>Method</u>	<u>Specimen BG-8</u>					<u>Specimen BG-9</u>				
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>
All Method	10	70.8	3.5	4.9	71	9	81.6	3.8	4.7	81
AVL OMNI	9	70.7	3.6	5.2	71	8	80.8	3.2	4.0	81

<u>Method</u>	<u>Specimen BG-10</u>				
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>
All Method	10	123.4	2.9	2.4	125
AVL OMNI	9	123.2	3.0	2.5	124

Blood Gases - Potassium (mmol/L)

<u>Method</u>	<u>Specimen BG-6</u>					<u>Specimen BG-6</u>				
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>
All Method	10	4.39	0.11	2.5	4.4	10	6.40	0.12	2.0	6.4
AVL OMNI	9	4.39	0.12	2.7	4.4	9	6.40	0.13	2.1	6.4

<u>Method</u>	<u>Specimen BG-8</u>					<u>Specimen BG-9</u>				
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>
All Method	10	9.37	0.19	2.1	9.4	10	5.92	0.08	1.3	5.9
AVL OMNI	9	9.34	0.19	2.0	9.4	9	5.92	0.08	1.4	5.9

<u>Method</u>	<u>Specimen BG-10</u>				
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>
All Method	10	1.63	0.14	8.7	1.7
AVL OMNI	9	1.61	0.14	8.5	1.6

Blood Gases - Sodium (mmol/L)

<u>Method</u>	<u>Specimen BG-6</u>					<u>Specimen BG-7</u>				
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>
All Method	10	134.2	2.1	1.6	135	10	158.7	3.1	1.9	161
AVL OMNI	9	134.4	2.1	1.5	135	9	159.0	3.1	1.9	161

<u>Method</u>	<u>Specimen BG-8</u>					<u>Specimen BG-9</u>				
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>
All Method	10	85.7	1.6	1.9	86	10	111.8	1.3	1.2	112
AVL OMNI	9	86.0	1.4	1.6	86	9	112.0	1.2	1.1	112

<u>Method</u>	<u>Specimen BG-10</u>				
	<u>Labs</u>	<u>Mean</u>	<u>SD</u>	<u>CV</u>	<u>Median</u>
All Method	10	160.9	3.3	2.0	163
AVL OMNI	9	161.3	3.2	2.0	163

Medical Laboratory Evaluation

2011 Pennsylvania Avenue, NW, Suite 800

Washington, DC 20006-1813

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

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