BACTERIOLOGY PROFICIENCY TESTING PROGRAM

Comprehensive Category

January 19, 2016

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Bacteriology Proficiency Testing Program
GENERAL INFORMATION

The Bacteriology Proficiency Testing Program. Three proficiency testing events are given annually, each consisting of a minimum of five specimens. In order to successfully complete a test event, participating laboratories must achieve a score of 80% or greater. Unsuccessful performance in the testing program is defined as a score of less than 80% on two of three consecutive test events.

Authentication. The presence and identity of the organism(s) in each specimen must be confirmed by at least 80% of the referee or participating laboratories. Referee laboratories are selected from New York State participating laboratories (located throughout the State) with acceptable and reproducible levels of performance.

Grading System. Laboratories are to process proficiency test specimens in the same manner as patient specimens. Thus, laboratories are responsible for identifying test isolates to the same level as performed on patient isolates. If your laboratory speciates an organism on special request, then you must also speciate it in the proficiency test; consider speciation to have been requested on all reportable isolates. In addition, laboratories are not responsible for culturing any test samples from specimen sources which they do not process. Information regarding your laboratory's reporting protocol was provided to us in the questionnaire previously distributed to all laboratories. Any changes in reporting protocol must be received by our office prior to the mailout date for proficiency testing for that information to be considered in grading.

Our testing format is in compliance with Center for Medicare & Medicaid Services guidelines as specified in the regulations of CLIA '88. One-half of our samples require identification of all organisms present. The other half requires that only the pathogenic organism(s) be reported. We recognize the potential for any organism to be pathogenic depending on the clinical condition of the patient. However, our samples are designed so that only well-established pathogens should be reported. Tests are graded in adherence to CMS guidelines, as specified in the regulations of CLIA '88. Each of the specimens receives a score as determined by the following formula:

$$(a + b)/(c + d + e) \times 100\%$$

a = # correct identifications
b = # correct antibiotic susceptibility results (if applicable)
c = # possible identifications
d = # possible antibiotic susceptibility results (if applicable)
e = # additional organisms reported
Grades for each sample are then averaged to determine the final grade for this testing event.

Disclaimer
The use of brand and/or trade names in this report does not constitute an endorsement of the products on the part of the Wadsworth Center or the New York State Department of Health.

Notes of Interest

Proficiency Testing Participation
Beginning with the first proficiency test event of 2016 laboratories holding NYS permits were allowed to participate in either the NYS PT program or an equivalent PT program administered by another provider.

Reminder
Proficiency test samples must be handled just like patient samples, to the extent possible. If you perform testing using one system on patient samples DO NOT use additional systems on proficiency samples. Several laboratories are reporting the use of multiple systems/methods to identify organisms or perform susceptibility tests. Unless you are using multiple systems on patient samples you must not do so on proficiency samples.

Online Instructions and Worksheets
The instructions and worksheets for Bacteriology proficiency testing are available at the New York State Department of Health, Wadsworth Center website at http://www.wadsworth.org/regulatory/clep/pt/categories. This address has changed so be sure to bookmark it for future use.

Contact information
Please make sure that CLEP has the correct email addresses for your laboratory contact people. On occasion we need to notify you of an issue with a sample and this is done by email.

Bacteriology Questionnaires
Please update your questionnaire whenever there is a change in your laboratory's reporting policy. Proficiency test results are graded in accordance with information on the questionnaire so be certain that this information is accurate. If your questionnaire indicates that your laboratory reports an organism to the species level then you must report to the species level on the proficiency test to receive credit. If you need a copy of your questionnaire for review, please contact our office at 518-474-4177 or email us at BactiPTP@health.ny.gov. **Grades will not be revised due to incorrect information on the questionnaire.**

Clinical Laboratory Standards Institute
Please review the new CLSI recommendations to optimize detection and reporting of antimicrobial resistance. The latest guidelines were published in January 2016.

Samples for Remediation
We maintain a limited number of samples for remediation purposes. If your laboratory had difficulty isolating or identifying the organisms in a sample you can contact us after the event for additional samples. Contact us either by email or phone and provide your PFI number and the sample(s) needed. They will be shipped to you within a week.

New email address
The Bacteriology proficiency testing program has a new email address – BactiPTP@health.ny.gov

January 2016 Test Event

Number of Participating Laboratories: 80

Grade Distribution		
Score	**Number**	**Percent**
100%	67	64
90 – 99%	3	4
80 – 89%	10	13

BACTERIOLOGY - COMPREHENSIVE
September 8, 2015

ANSWER KEY

Specimen Number 1 - Stool (Pathogens only)
Campylobacter coli (any *Campylobacter* accepted)

Specimen Number 2 – CSF (All organisms)
Haemophilus influenzae

Specimen Number 3 – Blood - Aerobic / Anaerobic (All organisms)
Staphylococcus aureus

Specimen Number 4 –Sputum (Pathogens only) and Antibiotic Susceptibility
Klebsiella pneumoniae
Susceptibility to: Imipenem – resistant
Ertapenem – resistant

Specimen Number 5 – Throat (Pathogens only)
Streptococcus, group A (*S. pyogenes*)

***Chlamydia* Direct Detection – Urine/Cervix**
Positive for *Chlamydia trachomatis*

Group A *Streptococcus* Direct Antigen Detection - Throat
Positive for Group A *Streptococcus*

Specimen Number 1 - Stool (Pathogens Only)

Accepted responses – *Campylobacter coli, Campylobacter jejuni, Campylobacter* species
Other organisms included: *Escherichia coli, Serratia marcescans*

Results reported for specimen # 1

Result	**Method Used**	**# Labs**
Campylobacter species	Conventional biochemicals	31
	bioMerieux Vitek 2 NH	4
	Siemens (Dade Behring) Negative Combo - any panel	1
Campylobacter jejuni	Conventional biochemicals	16
	bioMerieux Vitek 2 GN	1
Campylobacter coli	bioMerieux Vitek 2 NH	4
	Conventional biochemicals	2
	bioMerieux VITEK MS	1
No enteric pathogens isolated		13
Specimen source not tested		7

Specimen Number 2 – CSF (All organisms)

Accepted response –*Haemophilus influenzae*

Results reported for specimen # 2

Result	Method Used	# Labs
Haemophilus influenzae	Remel RapID NH	25
	bioMerieux Vitek 2 NH	14
	Siemens (Dade Behring) MicroScan HNID	13
	bioMerieux API NH	10
	Conventional biochemicals	6
	BD BBL *Haemophilus* ID Quad	2
	bioMerieux Vitek MS Plus	2
	Remel *Haemophilus* ID (HID I) Quad Plate	1
	MALDI-TOF (unspecified)	1
Haemophilus influenzae b	Siemens (Dade Behring) MicroScan HNID	1
Specimen source not tested		5

Specimen Number 3 – Blood - Aerobic/Anaerobic (All organisms)

Accepted responses - *Staphylococcus aureus*

Results reported for specimen # 3

Result	Method Used	# Labs
Staphylococcus aureus	Siemens (Dade Behring) Positive Combo - any panel	31
	bioMerieux Vitek 2 GP	18
	Conventional biochemicals	12
	Remel Staphaurex	6
	bioMerieux API Staph	2
	Pro-Lab Diagnostics Prolex Staph latex	1
	Remel BactiStaph	1
	BD Phoenix Gram Positive ID	1
	bioMerieux Vitek MS Plus	1
	bioMerieux Vitek MS	1
Staphylococcus, coagulase positive	MALDI-TOF (unspecified)	1
Specimen source not tested		5

Additional organisms reported		
Propionibacterium acnes	bioMerieux Vitek 2 ANC	1
Staphylococcus species	Siemens (Dade Behring) Positive Combo - any panel	1
Staphylococcus aureus	bioMerieux Vitek MS	2

Specimen Number 4 – Sputum (Pathogens only) and Antibiotic susceptibility

Accepted response – *Klebsiella pneumoniae*
Imipenem – resistant
Ertapenem – resistant

Results reported for specimen # 4

Result	Method Used	# Labs
Klebsiella pneumoniae	Siemens (Dade Behring) Negative Combo - any panel	34
	bioMerieux Vitek 2 GN	27
	bioMerieux API 20E	9
	MALDI-TOF (unspecified)	1
	bioMerieux Vitek MS	1
	bioMerieux Vitek MS Plus	1
	BD Phoenix Gram Negative ID	1
	bioMerieux API Rapid 20E	1
	Remel RapID ONE	1
Serratia marcescens	bioMerieux API 20E	1
Specimen source not tested		3

Susceptibility testing results

Imipenem				
Result	**Method Used**	**# Labs**	**zone**	**mic**
Resistant	MicroScan	27		>8
		1		>=8
	bioMerieux Vitek 2	18		>=16
		1		=8
		1		>=8
	E-test	2		>32
		1		=24
		1		=32
		1		Not given
	BD Phoenix	1		>8
	Disk diffusion	2	0	
		1	13	
		1	6	
		1	9	
		1	8	
Susceptible	Disk diffusion	1	27	
No Interpretation		1		
Test not performed		18		
Ertapenem				
Resistant	MicroScan	25		>4
		4		>1
		1		>=4
	bioMerieux Vitek 2	22		>=8
		1		>8
		1		=8
	E-test	2		=32
		1		>8
		1		Not given
	BD Phoenix	1		>1
	Disk diffusion	2	6	
		1	0	
Test not performed		18		

Specimen Number 5 – Throat (Pathogens only)

Accepted response – *Streptococcus*, group A (S. *pyogenes*)
Other organisms included: *Lactobacillus* species*, Streptococcus mitis*

Results reported for specimen # 5

Result	Method Used	# Labs
Streptococcus, group A (*S. pyogenes*)	Conventional biochemicals	23
	Remel Streptex	19
	BD BBL Streptocard	12
	DPC PathoDX Strep Grouping	9
	bioMerieux Vitek 2 GP	7
	Siemens (Dade Behring) Positive Combo - any panel	5
	boiMerieux Vitek MS	1
	bioMerieux Vitek MS Plus	1
	bioMerieux API 20 Strep	1
	ardy Diagnostics Streppro	1
	Remel PathoDx	1

Chlamydia – Urine/cervical swab for Direct Detection Methods

This sample could be tested as a urine or a cervical swab in transport media. It was provided to laboratories that test for *Chlamydia* using molecular detection methods. This sample was not suitable for laboratories performing antigen detection for *Chlamydia* or *Chlamydia* culture.

This sample was positive for *Chlamydia trachomatis* and was reported as such by 100% of the participating laboratories that tested this specimen.

Test kits used by laboratories processing this specimen

Method Used	**# Labs**
Gen-Probe Aptima Combo 2	14
Cepheid Xpert CT/NG	10
BD ProbeTec ET CT or CT/GC	8
Roche Diagnostics COBAS AMPLICOR CT/NG	1
BD Viper System	1
Abbott RealTime CT/NG assay	1

Group A Streptococcus – Throat Swab for Direct Detection Methods

This simulated throat swab was provided to all laboratories that process specimens for Group A *Streptococcus* using direct detection techniques.

This specimen was reported as positive for Group A *Streptococcus* by 100% of the participating laboratories that processed it.

Test kits used by laboratories processing this specimen

Method Used	# Labs
Sekisui (Genzyme) OSOM Ultra Strep A	9
BD Chek Group A Strep	8
Acceava Strep A	7
Cardinal Health SP Brand Strep A Dipstick	5
BD Directigen EZ Strep A	3
Meridian Bioscience ImmunoCard STAT Strep A	3
Clearview Exact Strep A Dipstick	3
Fisher Sure-Vue Strep A Lateral Flow Test	3
Signify Strep A Dipstick	2
Fisher Sure-Vue Signature Strep A Test	2
Quidel QuickVue + Strep A	1
BD Veritor System For Rapid Detection of Group A Strep	1
Stanbio QuStick Strep A Rapid Strip Test	1
Alere BinaxNow Strep A Card	1
Sekisui (Genzyme) OSOM Strep A Test	1
SureVue Signature Strep A	1
Beckman Coulter Icon SC Strep A	1
Beckman Coulter Icon DS Strep A	1

BACTERIAL IDENTIFICATION BY PARTICIPATING LABORATORIES

Sample/Report	**# Labs**	**%**
SPECIMEN NUMBER 1 (Stool)		
Campylobacter species	36	49.3
Campylobacter jejuni	17	23.3
Campylobacter coli	6	8.2
No enteric pathogens isolated	13	17.8
Specimen source not tested	7	
SPECIMEN NUMBER 2 (CSF)		
Haemophilus influenzae	74	98.7
Haemophilus influenzae b	1	1.3
Specimen source not tested	5	
SPECIMEN NUMBER 3 (Blood)		
Staphylococcus aureus	74	98.7
Staphylococcus, coagulase positive	1	1.3
Specimen source not tested	5	
SPECIMEN NUMBER 4 (Sputum)		
Klebsiella pneumoniae	76	98.7
Serratia marcescens	1	1.3
Specimen source not tested	3	
SPECIMEN NUMBER 5 (Throat)		
Streptococcus, group A (*S. pyogenes*)	80	100

***CHLAMYDIA* – DIRECT DETECTION (Urine/cervical swab)**		
Result	**# Labs**	**%**
Positive for *Chlamydia trachomatis*	35	100
GROUP A *STREPTOCOCCUS* - DIRECT DETECTION (Throat)		
Positive for Group A *Streptococcus*	53	100