

# **BACTERIOLOGY PROFICIENCY TESTING PROGRAM**

## **General Category**

**May 7, 2002**

This report summarizes the results of the proficiency test administered May 7, 2002 to laboratories in the General Bacteriology category.

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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. Failure of 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 90% 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. Sample vials are subjected to extensive quality control testing in our laboratory during preparation and storage.

**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 and 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 HCFA 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 strict adherence to HCFA 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. The minimum passing grade for each test event is 80%.

**MAY 7, 2002 TEST EVENT**

**Number of Participating Laboratories**  
**Receiving specimens            258**  
**Returning results                256 (99.2%)**

Grade Distribution		
Score	Number	Percent
100	200	78.1
90 - 99	5	2.0
80 - 89	43	16.8
70 - 79	1	0.4
60 - 69	6	2.3
<60	1	0.4



**BACTERIOLOGY - GENERAL**  
**MAY 7, 2002**  
**ANSWER KEY**

**Specimen No. 1 - Stool (Pathogens Only)**

*Vibrio parahaemolyticus*

**Specimen No. 2 – Cervix (Pathogens Only)**

No Pathogens

**Specimen No. 3 – Empyema Fluid - Aerobic / Anaerobic (All Organisms Reported)**

*Fusobacterium nucleatum* (not authenticated)

*Prevotella intermedia* (not authenticated)

*Staphylococcus aureus*

**Specimen No. 4 – Blood (All Organisms Reported) and Antibiotic Susceptibility**

*Streptococcus pneumoniae*

Susceptibility of *S. pneumoniae* to: Cefotaxime - Susceptible  
Erythromycin - Susceptible

**Specimen No. 5 – Throat (Pathogens Only)**

*Arcanobacterium haemolyticum*

**Direct Antigen Detection**

A (Throat)

Positive for Group A *Streptococcus*

B (CSF)

Negative for bacterial antigens



## REFEREE LABORATORY RESULTS

Specimen Number	Referee Laboratory Responses	Percent *
1	<i>Vibrio parahaemolyticus</i>	100
2	No Pathogens	100
3	<i>Fusobacterium nucleatum</i>	70
	No anaerobes isolated	20
	<i>Fusobacterium nucleatum/necrophorum</i>	10
	<i>Prevotella intermedia</i> not reported	90
	<i>Prevotella intermedia</i>	10
	<i>Staphylococcus aureus</i>	100
4	<i>Streptococcus pneumoniae</i>	100
5	<i>Arcanobacterium haemolyticum</i>	100

\* Based on responses of 10 referee laboratories



## ***Specimen Number 1 - Stool (Pathogens Only)***

This simulated stool specimen contained *Vibrio parahaemolyticus*. This organism was identified by all referee laboratories and by 94.6% of participants which identify *Vibrio* sp. from stool specimens.

### **Methods of identification used by laboratories reporting:**

#### ***Vibrio parahaemolyticus***

bioMerieux Vitek API 20E	63
bioMerieux Vitek GNI	58
Dade Behring MicroScan	35
bioMerieux Vitek (unspecified)	26
Two or more systems	18
API 20NE	8
BBL Crystal	7
Conventional biochemicals	3
Biolog	1
bioMerieux Vitek API E	1
bioMerieux Vitek ANI	1
No information given	1
OxyFerm	1
Pasco BD	1
Remel Rapid NF Plus	1
<b>TOTAL</b>	<b>225</b>

### **Other responses:**

**Do not process stool cultures** 14

#### ***Vibrio* species**

bioMerieux Vitek GNI	3
Dade Behring MicroScan	3
bioMerieux Vitek API 20E	2
<b>TOTAL</b>	<b>8</b>

**Do not test for *Vibrio*** 5

**No Enteric Pathogens** 3

#### ***Shigella* species**

API 20E 1



## ***Specimen No. 2 – Cervix (Pathogens Only)***

This simulated cervical specimen did not contain any pathogenic organisms. The organisms included in this specimen were *Neisseria lactamica*, *Staphylococcus hominis* and *Lactobacillus rhamnosus*. All referee laboratories and approximately 85% of participants which processed this specimen reported that this specimen was negative for pathogens. An additional 3% screen only for *Neisseria gonorrhoeae* and reported that the specimen was negative for this organism.

However, approximately 10% of laboratories that processed this specimen reported the presence of *Gardnerella vaginalis*. This report most likely arises from a misidentification of *Lactobacillus rhamnosus*. Colony morphology of this isolate and gram stain were inconsistent with that of *Gardnerella vaginalis*. After one day of incubation, colonies of *L. rhamnosus* are easily visible, appearing small and gray-white whereas colonies of *G. vaginalis* only appear as pinpoint growth. On gram stain, the cells appear as thin, chaining gram positive bacilli. By comparison, a gram stain of *G. vaginalis* shows small gram-variable rods. This organism produced a positive result for the hippurate hydrolysis test, but this result must be considered in conjunction with the gram stain and colony morphology.

<b>No pathogens</b>	<b>212</b>
<b><i>Gardnerella vaginalis</i></b>	
IDS Rapid NH	10
Conventional	5
Dade Behring MicroScan HNID	4
Vitek NHI	3
bioMerieux Vitek API Coryne	2
<b>TOTAL</b>	<b>24</b>
<b>No <i>Neisseria gonorrhoeae</i></b>	<b>8</b>
<b>Do not process genital cultures</b>	<b>6</b>
<b><i>Staphylococcus aureus</i></b>	
Conventional biochemicals	3
Sure Vue Color Staph ID	1
<b>TOTAL</b>	<b>4</b>
<b><i>Listeria grayi/murrayi</i></b>	
API Coryne	1
<b><i>Staphylococcus saprophyticus</i></b>	
BBL GP Crystal	1



### ***Specimen No. 3 – Empyema Fluid - Aerobic/Anaerobic (All Organisms)***

This simulated empyema fluid sample contained *Fusobacterium nucleatum*, *Prevotella intermedia* and *Staphylococcus aureus*. Unfortunately, neither *F. nucleatum* nor *P. intermedia* were authenticated so these organisms were not graded. Laboratory results for these organisms appear on pages 14 - 17.

Nineteen percent of participating laboratories that processed this specimen for anaerobic culture were unable to isolate either *Fusobacterium nucleatum* or *Prevotella intermedia*. This extremely poor performance requires serious investigation on the part of these laboratories. Only thirty-two laboratories, or 13% of those that processed this specimen, identified both anaerobic organisms.

Laboratories that were unable to isolate either or both of these organisms should carefully evaluate their culture protocols. Due to the heavy growth of *Staphylococcus aureus* on the anaerobic plates, careful examination was required to detect the anaerobic colonies. After 2-3 days incubation, pinpoint colonies of *Fusobacterium nucleatum* were visible. This organism was present in an almost equal quantity to the *S. aureus*. Black colonies of *Prevotella intermedia* appeared in the first quadrant after 4 days incubation. Laboratories that incubate anaerobic cultures for only 48 hours may have missed these organisms. It is recommended that primary anaerobic plates be incubated for at least 7 days.<sup>1</sup>

<sup>1</sup> Jousimies-Somer, HR, Summanen, PH, Finegold, S. Bacteroides, Porphyromonas, Prevotella, Fusobacterium and Other Anaerobic Gram-Negative Rods and Cocci., p. 695. In PR Murray, EJ Baron, MA Tenover and RH Tenover (eds.), Manual of Clinical Microbiology, 7<sup>th</sup> edition. Washington, DC: American Society for Microbiology. 1999.

***Specimen 3 continued - Fusobacterium nucleatum***

*Fusobacterium nucleatum* was identified by 70% of the referee laboratories and by 60% of participants that processed this specimen for anaerobic culture.

**Participating laboratory results and methods of identification:**

***Fusobacterium nucleatum***

IDS Rapid ANA II	61
Vitek ANI	25
bioMerieux Vitek API 20A	19
Dade Behring MicroScan	11
bioMerieux Vitek API AN-IDENT	10
Vitek bioMerieux (not further specified)	4
Conventional biochemicals	4
No information given	3
Two or more systems	2
Sceptor	1
16s RNA sequencing	1
BBL Anaerobe Crystal	1
<b>TOTAL</b>	<b>142</b>

**Other responses:**

***Fusobacterium nucleatum* not isolated** 57

***Fusobacterium* species**

IDS Rapid ANA II	13
bioMerieux Vitek API 20A	4
Vitek ANI	3
BBL Crystal	1
Conventional biochemicals	1
Dade Behring MicroScan	1
Two or more systems	1
<b>TOTAL</b>	<b>24</b>

**Do not perform anaerobic cultures** 12

***Fusobacterium necrophorum***

IDS Rapid ANA II	4
BBL Crystal	1
Two or more	1
Vitek ANI	1
<b>TOTAL</b>	<b>7</b>

**Do not process empyema fluid** 6

*Specimen 3 – continued*

**Anaerobic gram negative bacilli / rod 5**

*Fusobacterium. necrophorum/nucleatum*  
bioMerieux Vitek API 20A 2

*Fusobacterium varium*  
IDS Rapid ANA II 1

\*\*\*\*\*

***Prevotella intermedia***

*Prevotella intermedia* was identified by only 10% of referee laboratories and by 17% of participating laboratories.

**Participating laboratory results and methods of identification:**

***Prevotella intermedia* not isolated 182**

***Prevotella intermedia***  
IDS Rapid ANA II 25  
Vitek ANI 6  
bioMerieux Vitek API An-IDENT 3  
bioMerieux Rapid ID 32A 2  
bioMerieux Vitek API 20A 2  
16s RNA Sequencing 1  
Sceptor 1  
**TOTAL 40**

**Do not perform anaerobic cultures 12**

**Do not process empyema fluids 6**

***Prevotella. corporis***  
bioMerieux ANI 1  
Rapid ANA II 1  
**TOTAL 2**

***Prevotella melanogenica***  
bioMerieux Vitek API An-IDENT 1  
IDS RapID ANA II 1  
**TOTAL 2**

**Anaerobic gram negative bacillus 1**

**Anaerobic gram negative coccobacillus 1**

<b><i>Bacteroides intermedia</i></b> bioMerieux Vitek API 20A	1
<b><i>Bacteroides melanogenicus ss. intermedius</i></b> bioMerieux Vitek API 20A	1
<b><i>Bacteroides species</i></b> bioMerieux Vitek API 20A	1
<b>Black pigmented anaerobic gram negative rod</b>	1
<b>Pigmented <i>Prevotella</i> species</b> Conventional biochemicals	1
<b><i>Porphyromonas species</i></b> Conventional biochemicals	1
<b><i>Prevotella disiens</i></b> BBL Crystal	1
<b><i>Prevotella intermedia/disiens</i></b> bioMerieux Vitek API 20A	1
<b><i>Prevotella nigrescens/intermedia</i></b> Conventional biochemicals	1
<b><i>Veillonella parvula</i></b> bioMerieux Vitek ANI	1

***Specimen 3 – continued - Staphylococcus aureus***

*Staphylococcus aureus* was identified by all referee laboratories and by 98% of participants that process this specimen type. The remaining 2% of participating laboratories reported this organism as Coagulase-positive *Staphylococcus*.

**Methods of identification used by laboratories reporting *Staphylococcus aureus*:**

Conventional biochemicals	79
Dade Behring MicroScan	56
Murex Staphaurex	44
BBL Staphyloslide	17
bioMerieux Vitek GPI	16
bioMerieux Vitek (not further specified)	9
Remel BactiStaph	8
bioMerieux Vitek Slidex	5
Accu-Staph	4
bioMerieux Vitek API STAPH	4
No information given	3
BBL Crystal	1
Binding Site Staph latex kit	1
Pastorex Staph Plus	1
Prolex Staph latex	1
Sure Vue Color Staph ID	1
<b>TOTAL</b>	<b>250</b>

**Other reports:**

**Do not process empyema specimens** 6

Additional organisms reported in Specimen 3:

*Escherichia coli*

*Peptostreptococcus prevotii*

*Ralstonia picketii*



## ***Specimen No. 4 – Blood (All Organisms) and Antibiotic Susceptibility***

This simulated urine specimen contained *Streptococcus pneumoniae*. All referee laboratories and 99% of the participating laboratories that process blood cultures correctly identified this organism.

Antibiotic susceptibility testing was indicated for this specimen. This isolate of *Streptococcus pneumoniae* was susceptible to cefotaxime and erythromycin. Results of susceptibility testing on this organism can be found on pages 21 to 23. As most laboratories noted, susceptibility of *S. pneumoniae* to cefotaxime can only be determined by a MIC method. However, some laboratories tested cefotaxime by disk diffusion and reported an interpretation. This is incorrect since NCCLS standards do not contain interpretive guidelines for cefotaxime zone diameters when testing *S. pneumoniae*. Laboratories should also be familiar with the latest version of NCCLS Table 2G-M7, MIC Interpretive Standards for *S. pneumoniae*. This table now provides two sets of interpretive guidelines for both cefotaxime and ceftriaxone when testing isolates of either meningitis or nonmeningitis origin.

NCCLS guidelines specify the following testing conditions for disk diffusion testing of *S. pneumoniae*: use of Mueller Hinton agar supplemented with 5% Sheep Blood, incubated at 35° in 5% CO<sub>2</sub> for 20-24 hours. Although most laboratories that performed disk diffusion testing reported following the correct testing conditions, there were still several alarming improper parameters listed. Five laboratories (4.5%) reported that they incubated the plates in aerobic conditions instead of 5% CO<sub>2</sub>. Additionally, there were two reports of CO<sub>2</sub> levels in the 8-10% range. Eight laboratories (7.5%) reported that they incubated the plates for only 16- 18 hours. It is imperative that laboratories obtain a copy of the most recent NCCLS guidelines and adhere to all specified testing conditions. The NCCLS website ([www.nccls.org](http://www.nccls.org)) contains information regarding new publications and ordering information, including a new electronic document delivery system.

NCCLS. Performance Standards for Antimicrobial Susceptibility Testing; Twelfth Informational Supplement. M100-S12, Vol 22, No. 1. NCCLS, Wayne, PA, 2002.

**Methods of identification used by laboratories reporting *Streptococcus pneumoniae*:**

Conventional biochemicals	152
bioMerieux Vitek GPI	28
Dade Behring MicroScan	25
BBL Pneumoslide	16
bioMerieux Vitek API 20 STREP	8
bioMerieux Vitek (not further specified)	7
Phadebact Pneumococcus Test	4
BBL Crystal	2
Remel Rapid Strep	2
Two or more systems	1
No information given	1
<b>TOTAL</b>	<b>246</b>

**Other responses:**

**Do not process blood cultures** 9

**Alpha-hemolytic *Streptococcus*** 1

Additional organisms reported in Specimen 4:

*Staphylococcus aureus* 1

**Results of Antibiotic Susceptibility Testing of *Streptococcus pneumoniae* with:  
CEFOTAXIME**

<b>Result</b>	<b>Method</b>	<b>MIC (µg/ml)</b>	<b>Zone diameter (mm)</b>
<b>Cefotaxime not tested (117)</b>			
<b>Susceptible (109)</b>	E-test (57)	0.064 (7)	
		0.09 (1)	
		0.094(10)	
		0.1 (1)	
		0.12 (1)	
		0.125 (28)	
		0.19 (3)	
		0.25 (1)	
		0.38 (2)	
		<0.5 (1)	
		0.64 (1)	
		0.94 (1)	
	Dade Behring Microstrep (25)	<0.03 (1)	
		0.06 (10)	
		0.12 (12)	
		0.25 (1)	
		No MIC (1)	
	Kirby-Bauer (7)		Not given (2)
			35 (1)
			37 (1)
			40 (2)
			45 (1)
	Pasco MIC (7)	<0.12 (2)	
		<=0.12 (4)	
		0.25 (1)	
	Dade Behring MicroScan (3)	0.06 (1)	
		0.12 (1)	
		No MIC (1)	
	Sensititre (2)	0.5 (1)	
		<=4 (1)	
	Vitek (2)	<=0.06 (1)	
		0.12 (1)	
	Agar dilution (1)	0.5 (1)	
F.A.S. MIC (1)	<=0.25		
MIC (1)	0.06 (1)		
PML (1)	<=0.25		
Trek Diagnostics (1)	0.25 (1)		
No method indicated (1)	0.06 (1)		
<b>Do not perform susceptibility testing on <i>S. pneumoniae</i> (18)</b>			
<b>Do not process blood cultures (9)</b>			
<b>Intermediate (1)</b>	E-test (1)	0.125 (1)	
<b>Resistant (1)</b>	Kirby-Bauer (1)		32 (1)
<b>No result (1)</b>			

**ERYTHROMYCIN**

<b>Result</b>	<b>Method</b>	<b>MIC (µg/ml)</b>	<b>Zone diameter (mm)</b>	
<b>Susceptible (191)</b>	Kirby-Bauer (107)		>21 (1)	
			22 (2)	
			23 (1)	
			24 (1)	
			25 (3)	
			26 (8)	
			27 (16)	
			28 (13)	
			29 (13)	
			30 (17)	
			31 (6)	
			32 (7)	
			33 (6)	
			35 (3)	
			36 (1)	
			39 (2)	
			40 (2)	
			Not given (5)	
			E-test (32)	0.032 (1)
		0.047 (1)		
		0.064 (3)		
		0.094 (6)		
		0.12 (1)		
		0.125 (13)		
		0.168 (1)		
		0.19 (4)		
		0.25 (1)		
		1.5 (1)		
		Dade Behring Microstrep (29)	<0.03 (8)	
			<=0.03 (7)	
			0.03 (1)	
			0.06 (10)	
			0.6 (1)	
			No MIC (2)	
		Pasco MIC (7)	<0.06 (2)	
			<=0.06 (4)	
			0.06 (1)	
		Dade Behring MicroScan (4)	<0.03 (1)	
			0.06 (1)	
			<0.25 (1)	
			No MIC (1)	
		Sensititre (2)	<=0.12 (1)	
			0.25 (1)	
		Trek Diagnostics (2)	<=0.12 (1)	
			<0.25 (1)	
		Vitek (2)	<=0.06 (2)	
		No method indicated (2)	0.03 (1)	
	0.125 (1)			
	Agar dilution (1)	0.25 (1)		
	F.A.S. MIC (1)	<=0.25 (1)		
	MIC (1)	0.03 (1)		
	PML (1)	<=0.25		
<b>Do not test erythromycin (36)</b>				
<b>Do not perform susceptibility testing on <i>S. pneumoniae</i> (18)</b>				
<b>Do not process blood cultures (9)</b>				
<b>Intermediate (1)</b>	Dade Behring Microstrep (1)	0.5 (1)		
<b>Resistant (1)</b>	E-test	1.5 (1)		

Antibiotic Susceptibility Results – Participating & Referee Laboratories  
*Streptococcus pneumoniae*

Antibiotic	Susceptible		Intermediate		Resistant		Not Tested <sup>c</sup>		Do not process source <sup>d</sup>		No result reported		Not Performed <sup>e</sup>	
	R <sup>a</sup>	P <sup>b</sup>	R	P	R	P	R	P	R	P	R	P	R	P
Cefotaxime	4	105	0	1	0	1	6	111	0	9	0	1	0	18
Erythromycin	7	184	0	1	0	1	3	33	0	9	0	0	0	18

<sup>a</sup> Referee Laboratories (10 labs total)

<sup>b</sup> Other Participating Laboratories (246 labs total)

<sup>c</sup> Antibiotic not tested / reported for this organism

<sup>d</sup> Do not process specimen source

<sup>e</sup> Do not perform antimicrobial susceptibility testing for this organism



## ***Specimen No. 5 – Throat (Pathogens Only)***

This simulated throat specimen contained *Arcanobacterium haemolyticum*. All referee laboratories reported this organism, as did 81% of participating laboratories that processed this specimen.

*Arcanobacterium haemolyticum* was first included in our proficiency test challenge in April 1999. The specimen source was again a simulated throat specimen. At that point, only 60% of participants identified this organism and recognized it as a pathogen in throat cultures. The critique from April 1999 contains a significant amount of information regarding the role of *A. haemolyticum* as a cause of pharyngitis as well as information regarding the identification of this organism.

Approximately 7% of participants reported that this specimen was negative for pathogens. Most of these laboratories do not screen throat specimens for *A. haemolyticum*, a documented cause of pharyngitis in the adolescent and young adult population. Therefore, a report of ‘No Pathogens’ is incorrect and misleading to the physician. Laboratories that screen throat specimens for selected pathogens should only report the specimen as negative for those organisms instead of a blanket report of “No Pathogens” so that physicians will know which organisms have been ruled out.

Bacteriology Proficiency Testing Program General Summary Analysis, April 20, 1999. New York State Department of Health, Wadsworth Center.

### **Methods of identification used by laboratories reporting *Arcanobacterium haemolyticum*:**

Conventional biochemicals	98
bioMerieux Vitek API CORYNE	63
Remel Rapid CB Plus	16
bioMerieux Vitek ANI	14
bioMerieux Vitek GPI	6
bioMerieux Vitek API 20A	2
bioMerieux Vitek API (unspecified)	2
bioMerieux Vitek API 20E	1
bioMerieux Vitek API 20C	1
BBL Crystal	1
Dade Behring MicroScan HNID	1
Two or more systems	1
<b>TOTAL</b>	<b>206</b>

### **Other responses:**

**No pathogens** 17

### ***Arcanobacterium* species**

Conventional biochemicals	4
bioMerieux Vitek API (unspecified)	1

No information given	1
bioMerieux Vitek GPI	1
<b>TOTAL</b>	<b>7</b>
<b>No Group A <i>Streptococcus</i></b>	<b>5</b>
<b>No Beta-hemolytic <i>Streptococcus</i></b>	<b>5</b>
<b>Do not process throat cultures</b>	<b>3</b>
<b>Beta hemolytic <i>Streptococcus</i> not Group A or B</b>	<b>2</b>
<b>Gram positive beta hemolytic rods</b>	<b>2</b>
<b>Gram positive bacillus</b>	<b>2</b>
<i>Actinobacter hemolyticum</i>	
bioMerieux Vitek API 20E	1
<i>Arcanobacterium pyogenes</i>	
Remel Rapid NH	1
<b>Bacillus</b>	<b>1</b>
<b>Beta hemolytic gram positive bacillus</b>	<b>1</b>
<b>Beta hemolytic <i>Streptococcus</i> not Group A</b>	<b>1</b>
<b>Beta hemolytic <i>Streptococcus</i> Group B</b>	
PathoDx DX	1
<i>Corynebacterium haemolyticum</i>	
bioMerieux Vitek API CORYNE	1

## ***Direct Antigen Detection Specimen***

All participating laboratories which perform direct antigen testing received either a simulated throat swab to be tested for Group A *Streptococcus* or a simulated CSF to be tested for bacterial antigens. Information provided in the Bacteriology Questionnaire was used to determine which type of specimen to send to each laboratory.

### **Specimen A - Source: Throat for Group A *Streptococcus***

This specimen was positive for Group A *Streptococcus*. All participating laboratories that processed this specimen reported it as positive.

#### **Test kits used by laboratories reporting Specimen A as: Positive for Group A *Streptococcus***

Becton-Dickinson Directigen 1-2-3 Grp A Strep	10
Abbott Signify Strep A	9
Thermo BioStar Strep A OIA	5
Fisher Sure-Vue Strep A	4
Pacific Biotech Cards Q.S. Strep A	4
Beckman-Coulter Icon Fx Strep A	2
Becton-Dickinson Link 2 Strep A	2
GenProbe Group A Strep	2
Lifesign Status AccuStrep A	2
Thermo BioStar Aceava Strep A	2
No test system indicated	2
Applied Biotech SureStep Strep A	1
Beckman-Coulter Icon DS Strep A	1
DPC Rapid Strep A	1
OSOM Strep A	1
Quidel Quick Vue	1
RIM A.R.C. Strep A Test	1
Wampole Clearview Strep A	1
<b>TOTAL</b>	<b>51</b>

### ***Specimen B - Source: CSF***

This specimen was negative for bacterial antigens. Of the participating laboratories that tested this specimen, 92% reported it as negative. Those laboratories which obtained false positive results for this specimen should carefully evaluate their protocol, with special consideration to interpretation of agglutination reactions.

#### **Test kits used by laboratories reporting Specimen B as Negative for bacterial antigens:**

Murex Wellcogen Bacterial Antigen kit	36
B-D Directigen Meningitis Combo test	35
No test system indicated	1
<b>TOTAL</b>	<b>72</b>

#### **Other responses:**

##### ***Haemophilus influenzae b***

B-D Directigen Meningitis Combo test	4*
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##### **Negative for Group B *Streptococcus***

B-D Directigen Meningitis Combo test	1
--------------------------------------	---

##### ***Neisseria meningitidis B/E. coli K1***

B-D Directigen Meningitis Combo test	1
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\*Among laboratories reporting that this specimen was positive for *H. influenzae b*, no common lot number was used. Each laboratory indicated a different lot number.

#### **Note:**

The inclusion of specimens for direct antigen testing does not reflect any endorsement by the New York State Department of Health of use of these tests in the clinical laboratory.

## BACTERIAL IDENTIFICATION BY PARTICIPATING LABORATORIES

	<u>Number Reported</u>	<u>%</u>
<b>SPECIMEN NUMBER 1</b>		
<i>Vibrio parahaemolyticus</i>	225	87.9
Do not process stool cultures	14	5.5
<i>Vibrio</i> species	8	3.1
Do not test for <i>Vibrio</i>	5	1.9
No Enteric Pathogens	3	1.2
<i>Shigella</i> species	1	0.4

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<b>SPECIMEN NUMBER 2</b>		
No pathogens	212	82.8
<i>Gardnerella vaginalis</i>	24	9.4
No <i>Neisseria gonorrhoeae</i>	8	3.1
Do not process genital cultures	6	2.3
<i>Staphylococcus aureus</i>	4	1.6
<i>Listeria grayi/murrayi</i>	1	0.4
<i>Staphylococcus saprophyticus</i>	1	0.4

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<b>SPECIMEN NUMBER 3</b>		
<i>Fusobacterium nucleatum</i>	142	55.5
<i>Fusobacterium nucleatum</i> not isolated	57	22.3
<i>Fusobacterium</i> species	24	9.4
Do not perform anaerobic cultures	12	4.7
<i>Fusobacterium necrophorum</i>	7	2.7
Do not process empyema fluid	6	2.3
Anaerobic gram negative bacilli / rod	5	1.9
<i>Fusobacterium. necrophorum/nucleatum</i>	2	0.8
<i>Fusobacterium varium</i>	1	0.4
<i>Prevotella intermedia</i> not isolated	182	71.1
<i>Prevotella intermedia</i>	40	15.6
Do not perform anaerobic cultures	12	4.7
Do not process empyema fluids	6	2.3
<i>Prevotella corporis</i>	2	0.8
<i>Prevotella melanogenica</i>	2	0.8
Anaerobic gram negative bacillus	1	0.4
Anaerobic gram negative coccobacillus	1	0.4
<i>Bacteroides intermedia</i>	1	0.4
<i>Bacteroides melanogenicus ss. intermedius</i>	1	0.4
<i>Bacteroides</i> species	1	0.4
Black pigmented anaerobic gram negative rod	1	0.4

Pigmented <i>Prevotella</i> species	1	0.4
<i>Porphyromonas</i> species	1	0.4
<i>Prevotella disiens</i>	1	0.4
<i>Prevotella intermedia/disiens</i>	1	0.4
<i>Prevotella nigrescens/intermedia</i>	1	0.4
<i>Veillonella parvula</i>	1	0.4
<i>Staphylococcus aureus</i>	250	97.7
Do not process empyema specimens	6	2.3

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**SPECIMEN NUMBER 4**

<i>Streptococcus pneumoniae</i>	246	96.1
Do not process blood cultures	9	3.5
Alpha-hemolytic <i>Streptococcus</i>	1	0.4

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**SPECIMEN NUMBER 5**

<i>Arcanobacterium haemolyticum</i>	206	80.4
No pathogens	17	6.6
<i>Arcanobacterium</i> species	7	2.7
No Group A <i>Streptococcus</i>	5	1.9
No Beta-hemolytic <i>Streptococcus</i>	5	1.9
Do not process throat cultures	3	1.2
Beta hemolytic <i>Streptococcus</i> not Group A or B	2	0.8
Gram positive beta hemolytic rods	2	0.8
Gram positive bacillus	2	0.8
<i>Actinobacter hemolyticum</i>	1	0.4
<i>Arcanobacterium pyogenes</i>	1	0.4
Bacillus	1	0.4
Beta hemolytic gram positive bacillus	1	0.4
Beta hemolytic <i>Streptococcus</i> not Group A	1	0.4
Beta hemolytic <i>Streptococcus</i> Group B	1	0.4
<i>Corynebacterium haemolyticum</i>	1	0.4

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**DIRECT ANTIGEN SPECIMEN**

A. Positive for Group A <i>Streptococcus</i>	51	100.0
B. Negative for bacterial antigens	72	92.3
<i>Haemophilus influenzae</i> b	4	5.1
Negative for Group B <i>Streptococcus</i>	1	1.3
<i>Neisseria meningitidis</i> B/ <i>E. coli</i> K1	1	1.3