

BACTERIOLOGY PROFICIENCY TESTING PROGRAM

General Category

January 13, 2004

This report summarizes the results of the proficiency test administered January 13, 2004 to laboratories in the General Bacteriology category.

If you have any questions or comments, please contact either: Mrs. Deborah Baker
Dr. Wendy Archinal
Dr. Ronald Limberger

Phone: (518) 474-4177
Email: bacti@wadsworth.org

TABLE OF CONTENTS

	<u>Page</u>
General Information on the Bacteriology PT Program	1
Notes of Interest	3
Participating Laboratory Statistics / Grade Distribution	5
Answer Key	7
Referee Laboratory Results	9
Critique	
Specimen No. 1	11
Specimen No. 2	13
Specimen No. 3	15
Specimen No. 4	19
Antibiotic Susceptibility Results	21
Specimen No. 5	27
<i>Chlamydia</i> Specimen	29
Direct Antigen Detection	31
Summary of Results Reported by Participating Laboratories	33

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 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. 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; 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%.

Notes of Interest

Discontinuation of CSF antigen proficiency test sample

Due to problems in obtaining quality test samples, the upcoming May 2004 proficiency test will be the last one to contain a sample for CSF antigen testing. Therefore, laboratories performing this test will need to implement a twice-yearly quality assurance program to fulfill the requirements specified in Quality Assurance Standard 8 of the New York State Health Department Laboratory Standards.

JANUARY 13, 2004 TEST EVENT

Number of Participating Laboratories:

Receiving specimens 249
Returning results 248 (99.6%)

Grade Distribution		
Score	Number	Percent
100	201	81.0
90 - 99	22	8.9
80 - 89	16	6.5
70 - 79	3	1.2
60 - 69	4	1.6
< 60	2	0.8

BACTERIOLOGY - GENERAL
JANUARY 13, 2004
ANSWER KEY

Specimen No. 1 - Stool (Pathogens Only)

Yersinia enterocolitica

Specimen No. 2 – Urine (ALL Organisms)

Staphylococcus saprophyticus

Specimen No. 3 – Abscess - Aerobic / Anaerobic (All Organisms Reported)

No anaerobic organisms

Alcaligenes faecalis

Staphylococcus aureus

Specimen No. 4 – Sputum (Pathogens Only) and Antibiotic Susceptibility

Streptococcus pneumoniae

Susceptibility of *S. pneumoniae* to: Ceftriaxone – Susceptible
Vancomycin - Susceptible

Specimen No. 5 – Blood (All Organisms)

Listeria monocytogenes

***Chlamydia* Specimen**

Negative for *Chlamydia trachomatis*

Direct Antigen Detection

A (Throat)

Positive for Group A *Streptococcus*

B (CSF)

Positive for Group B *Streptococcus*

C (Genital)

Negative for Group B *Streptococcus*

REFEREE LABORATORY RESULTS

Specimen Number	Referee Laboratory Responses	Percent*
1	<i>Yersinia enterocolitica</i>	100
2	<i>Staphylococcus saprophyticus</i>	100
3	No anaerobic organisms	100
	<i>Alcaligenes faecalis</i>	100
	<i>Staphylococcus aureus</i>	100
4	<i>Streptococcus pneumoniae</i>	100
5	<i>Listeria monocytogenes</i>	100

* Based on responses of 10 referee laboratories

Specimen Number 1 - Stool (Pathogens Only)

This simulated stool specimen contained *Yersinia enterocolitica*. All referee laboratories identified this organism. Of the participating laboratories that culture stool specimens for *Yersinia*, 83% identified *Yersinia enterocolitica* from this specimen. Additionally, 20 laboratories (9%) reported '*Yersinia enterocolitica* group' and 9 laboratories (4%) reported '*Yersinia* species'.

Additional organisms included in this specimen as normal flora were *Escherichia coli* and *Citrobacter freundii*.

Methods of identification used by laboratories reporting:

Yersinia enterocolitica

bioMerieux Vitek API 20E	58
bioMerieux Vitek GNI+	51
Dade Behring MicroScan	32
Two or more test systems	28
bioMerieux Vitek GNI	8
bioMerieux Vitek ID-GNB	7
Biolog MicroLog Gram Negative	2
Conventional biochemicals	2
Remel RapID ONE	2
BBL Enterotube II	1
bioMerieux Vitek API Rapid 20E	1
TOTAL	192

***Yersinia enterocolitica* group**

Dade Behring MicroScan	16
BBL Crystal Enteric / Nonfermenter	3
bioMerieux Vitek ID-GNB	1
TOTAL	20

Do not process stool specimens 14

***Yersinia* species**

Vitek GNI+	4
bioMerieux Vitek API 20E	3
bioMerieux Vitek GNI	1
bioMerieux Vitek ID-GNB	1
TOTAL	9

No enteric pathogens found 6

Do not test for Yersinia 3

Alcaligenes faecalis 1

Shigella boydii

bioMerieux Vitek API 20E	1
<i>Staphylococcus saprophyticus</i>	1
<i>Yersinia enterocolitica</i> serogroup O:8	1

Specimen No. 2 – Urine (All Organisms)

This simulated urine specimen contained a pure culture of *Staphylococcus saprophyticus*. All referee laboratories identified this organism as did 88% of participating laboratories that process urine cultures. An additional 9% of participants (23 laboratories) reported ‘Coagulase negative *Staphylococcus*’.

Staphylococcus saprophyticus accounts for approximately 10% to 15% of cases of acute community-acquired, uncomplicated urinary tract infections.¹ Specifically, it is most likely to be isolated from young, sexually active female outpatients. Species-level identification of this organism is important because, unlike other coagulase-negative staphylococci, this organism is pathogenic when isolated from symptomatic individuals, even in numbers <10⁵ cfu/ml.²

¹ Ronald, A. 2002. The etiology of urinary tract infection: traditional and emerging pathogens. The American Journal of Medicine. 113(1A):14S-18S.

² Rupp, ME and GL Archer. 1994. Coagulase negative staphylococci: pathogens associated with medical progress. Clinical Infectious Diseases. 19: 231-245.

Methods of identification used by laboratories reporting:

Staphylococcus saprophyticus

Dade Behring MicroScan	63
bioMerieux Vitek GPI	45
Two or more test methods	38
Conventional biochemicals	36
bioMerieux Vitek API Staph	10
Murex Staphaurex	10
bioMerieux Vitek ID-GPC	5
BBL Staphyloslide	4
BBL Crystal Gram Positive	2
Biolog MicroLog Gram Positive	1
bioMerieux Vitek RAPIDEC Staph	1
bioMerieux ID 32 Staph	1
Cathra Autoreader	1
Lifesign Staph Latex	1
TOTAL	218

Coagulase negative Staphylococcus

Conventional biochemicals	8
Murex Staphaurex	5
BBL Staphyloslide	4
Two or more test methods	2
bioMerieux Vitek GPI	1
Dade Behring MicroScan	1
Fisher SureVue Color Staph	1
Remel BactiStaph	1

TOTAL	23
Do not process urine cultures	1
Gram positive cocci	1
Novobiocin-resistant Coagulase negative Staph	1
Presumptive <i>Staphylococcus saprophyticus</i> Two or more test methods	1
<i>Staphylococcus not aureus</i> bioMerieux Vitek Slidex Staph	1
<i>Staphylococcus xylosus</i> bioMerieux Vitek GPI	1
<i>Yersinia enterocolitica</i> Vitek GNI+	1

Specimen No. 3 – Abscess - Aerobic/Anaerobic (All Organisms)

This simulated abscess specimen was indicated for both aerobic and anaerobic culture. No anaerobic organisms were present in this specimen, and this was authenticated by 100% of the referee laboratories and by approximately 98% of participants. Two aerobic organisms were present: *Alcaligenes faecalis* and *Staphylococcus aureus*.

Alcaligenes faecalis was identified by all referee laboratories and by approximately 82% of the participating laboratories that process abscess specimens. An additional 12% of these laboratories identified the isolate as *Alcaligenes* species. Seven laboratories reported *Alcaligenes odorans*, a previous designation of *A. faecalis*. Although these laboratories received credit for this response, they should be aware that *Alcaligenes odorans* is no longer contemporary nomenclature.

Staphylococcus aureus was identified by all referee laboratories and by 98% of participants that processed this specimen.

Laboratory responses – anaerobic result:	
No anaerobes isolated	226
Do not culture for anaerobes	13
Do not process abscess specimens	2
No <i>Bifidobacterium</i> isolated	2
Anaerobic gram positive bacilli	1
<i>Prevotella disiens</i>	
Dade Behring MicroScan Rapid Anaerobe	1
<i>Prevotella melaninogenica</i>	
Remel RapID ANA II	1
<i>Propionibacterium</i> species	
bioMerieux Vitek API 20A	1
<i>Veillonella</i> species	
Test method not indicated	1

Methods of identification used by laboratories reporting:***Alcaligenes faecalis***

bioMerieux Vitek GNI+	69
bioMerieux Vitek API 20NE	40
Two or more test methods	39
Dade Behring MicroScan	23
bioMerieux Vitek GNI	7
Conventional biochemicals	7
Remel RapID NF Plus	7
bioMerieux Vitek API 20E	5
Test method not indicated	2
BBL Crystal Enteric / Nonfermenter	1
Difco Pasco	1
TOTAL	201

Alcaligenes species

Dade Behring MicroScan	15
bioMerieux Vitek API 20E	3
bioMerieux Vitek API 20NE	3
Two or more test methods	3
bioMerieux Vitek GNI	2
bioMerieux Vitek GNI+	2
BBL Oxi/Ferm II	1
Remel RapID NH	1
TOTAL	30

Alcaligenes odorans

Dade Behring MicroScan	4
bioMerieux Vitek API 20E	1
bioMerieux Vitek GNI+	1
Two or more test methods	1
TOTAL	7

Gram negative bacillus 4

Do not process abscess specimens 2

Gram negative bacilli (nonfermenter) 1

Nonfermentative gram negative rod not *P. aeruginosa* 1

Not reported 1

Yersinia enterocolitica

Two or more test methods 1

Methods of identification used by laboratories reporting:

Staphylococcus aureus

Dade Behring MicroScan	54
Conventional biochemicals	48
Murex Staphaurex	43
Two or more test methods	26
BBL Staphyloslide	23
bioMerieux Vitek GPI	20
Remel BactiStaph	11
bioMerieux API Staph	3
Fisher SureVue Color Staph	3
Sanofi Diagnostics Pasteur Pastorex Staph-Plus	3
Test method not indicated	2
BBL Crystal Gram Positive	1
bioMerieux Vitek Slidex Staph	1
LifeSign Staph Latex	1
Pro-Lab Diagnostics Prolex Staph Latex	1
TOTAL	240

Coagulase positive *Staphylococcus*

Murex Staphaurex	2
bioMerieux Vitek Slidex Staph	1
Dade Behring MicroScan	1
Remel BactiStaph	1
TOTAL	5

Do not process abscess specimens 2

Citrobacter freundii 1

Additional organisms reported in Specimen 3:

<i>Pantoea agglomerans</i>	1
<i>Citrobacter freundii</i>	1
<i>Escherichia coli</i>	1

Specimen No. 4 – Sputum (Pathogens Only) and Antibiotic Susceptibility

The pathogenic organism included in this simulated sputum specimen was *Streptococcus pneumoniae*. All referee laboratories correctly identified *S. pneumoniae* as did more than 99% of participating laboratories that processed this specimen. The main method of identification used was optochin susceptibility often in conjunction with bile solubility. Background flora in this specimen was composed of *Neisseria sicca*, *Kocuria kristenae* and *Staphylococcus hominis*. Antimicrobial susceptibility testing was indicated for this organism with ceftriaxone and vancomycin. This isolate was susceptible to both antibiotics.

Of the laboratories that tested ceftriaxone, all of the referee and 95% of the participating laboratories reported *S. pneumoniae* as susceptible to this antibiotic. It is of concern to note that 19 laboratories reported that they tested ceftriaxone by disk diffusion when there are no NCCLS interpretive guidelines for disk diffusion testing of *Streptococcus pneumoniae* with ceftriaxone. NCCLS standards state that in vitro activity of amoxicillin, ampicillin, cefepime, cefotaxime, ceftriaxone, cefuroxime, ertapenem, imipenem, and meropenem is best tested by an MIC method. The oxacillin screening test is useful in detecting penicillin resistance. Isolates of *S. pneumoniae* that produce an oxacillin zone of ≥ 20 mm are susceptible to penicillin and can be considered susceptible to several antibiotics, including those listed above. However, those isolates of pneumococci with oxacillin zones of ≤ 19 mm may be susceptible or intermediate to penicillin and cannot automatically be considered resistant to meropenem, ceftriaxone or cefotaxime. These antibiotics must be tested by an MIC method.¹ The isolate included in this sample produced an oxacillin zone of ≤ 19 mm, indicating possible resistance. However, MIC testing revealed that the isolate was susceptible to ceftriaxone.

All referee and participating laboratories which tested vancomycin reported that this isolate of *S. pneumoniae* was susceptible. For those laboratories that tested this antibiotic using disk diffusion, NCCLS guidelines indicate that testing be performed using Mueller Hinton agar with 5% sheep blood and incubation at 35°C in 5% CO₂ for 20-24 hours.¹ Several participating laboratories reported deviations from this protocol including improper incubation conditions (7 laboratories), improper length of incubation (6 laboratories) and improper media (3 laboratories). Additionally, 8 laboratories reported using NCCLS guidelines that are at least 3 years old. It is imperative that laboratories obtain the current version of NCCLS guidelines since these are continually revised and updated.

To date, there have not been any isolates of pneumococci which are intermediate or resistant to vancomycin. However, isolates have been documented that demonstrate tolerance to vancomycin. Antibiotic tolerance is defined as the ability of an organism to remain viable but not multiply in the presence of a particular bactericidal antibiotic. When the antibiotic is removed, the multiplication of the organism resumes. A study published in 2001 found that 3% of the 116 strains of pneumococci tested demonstrated tolerance to vancomycin.² In 2003, a study found one of seven clinical isolates of *S. pneumoniae* tested to exhibit vancomycin tolerance.³

¹ National Committee for Clinical Laboratory Standards, 2004. Performance Standards for Antimicrobial Susceptibility Testing; Fourteenth Informational Supplement, M100-S14. National Committee for Clinical Laboratory Standards, Wayne, PA.

² Henriques Normark, B et al. 2001. Clinical Isolates of *Streptococcus pneumoniae* that exhibit tolerance of vancomycin. *Clinical Infectious Diseases*. 32:552-558.

³ Hidalgo, M et al. 2003. Tolerance to vancomycin in a multiresistant, Columbian isolate of *Streptococcus pneumoniae*. *Journal of Antimicrobial Chemotherapy*. 52: 300-302.

Methods of identification used by laboratories reporting:

Streptococcus pneumoniae

Conventional biochemicals	169
Two or more testing methods	24
bioMerieux Vitek GPI	18
Dade Behring MicroScan	8
BBL Pneumoslide	6
bioMerieux Vitek API 20 Strep	5
Boule Diagnostics Phadebact <i>Streptococcus</i>	2
Remel RapID STR	2
BBL Crystal Gram Positive	1
bioMerieux Vitek ID-GPC	1
Dade Behring MicroScan Rapid Gram Positive	1
Murex Streptex	1
TOTAL	238

Do not process sputum specimens **9**

Gram positive cocci **1**

Additional organisms reported in Specimen 4:

<i>Moraxella catarrhalis</i>	3
<i>Staphylococcus aureus</i>	1

Results of Antimicrobial Susceptibility testing - *S. pneumoniae* with CEFTRIAXONE

Result	Method	MIC (µg/ml)	Zone diam. (mm)
Susceptible (141)	AB Biodisk E-test (66)	0.032 (2)	
		0.047 (5)	
		0.06 (2)	
		0.064 (20)	
		0.094 (17)	
		0.1 (1)	
		0.12 (1)	
		0.125 (11)	
		0.19 (1)	
		0.25 (1)	
		<=0.5 (1)	
		0.94 (2)	
		Not indicated (2)	
		Dade Behring MicroStrep (35)	<0.03 (2)
	<=0.03 (2)		
	0.06 (9)		
	<=0.25 (19)		
	0.25 (3)		
	Disk diffusion (15)*		26 (1)
			29 (1)
			30 (1)
			32 (2)
			34 (2)
			35 (1)
			36 (2)
			38 (1)
			39 (1)
			41 (1)
			42 (1)
	Dade Behring MicroScan (8)	0.06 (2)	
		<0.25 (1)	
		<=0.25 (5)	
	B-D Pasco (8)	<0.12 (2)	
		<=0.12 (6)	
	Trek Sensititre (4)	<=0.06 (1)	
		0.06 (1)	
		<=0.25 (1)	
		0.25 (1)	
	bioMerieux Vitek (2)	<=0.06	
	Agar Dilution (1)	0.5 (1)	
	F.A.S. Panel (1)	<=0.25 (1)	
MIC (1)	0.06 (1)		

Ceftriaxone not tested (76)			
Susceptibility testing not performed on <i>S. pneumoniae</i> (13)			
Do not process sputum cultures (9)			
Resistant (4)	Disk diffusion (4)		0 (2)
			32 (2)
No result (2)			
Intermediate (1)	AB Biodisk E-test (1)	0.75 (1)	
Do not perform susceptibility testing on sputum specimens (1)			
No antimicrobial susceptibility testing performed (1)			

Number of laboratories reporting each result indicated in ()

* No NCCLS guidelines for disk diffusion testing of *S. pneumoniae* with ceftriaxone

Results of Antimicrobial Susceptibility testing – *S. pneumoniae* with VANCOMYCIN

Result	Method	MIC (µg/ml)	Zone diam. (mm)	
Susceptible (192)	Disk diffusion (96)		20 (7)	
			21 (2)	
			22 (10)	
			23 (9)	
			24 (10)	
			25 (16)	
			26 (14)	
			27 (6)	
			28 (7)	
			29 (3)	
			30 (3)	
			32 (5)	
			34 (2)	
			49 (1)	
		Not indicated (1)		
		AB Biodisk E-test (37)	0.19 (2)	
			0.25 (11)	
			0.30 (1)	
			0.38 (8)	
			<0.5 (1)	
			<=0.5 (1)	
			0.5 (10)	
			0.75 (1)	
			<=1.0 (1)	
			Not indicated (1)	
		Dade Behring MicroStrep (34)	0.06 (3)	
			<=0.12 (17)	
			0.12 (11)	
			<=0.25 (1)	
			0.25 (1)	
		Not indicated (1)		
		Dade Behring MicroScan (9)	0.06 (1)	
			<0.12 (1)	
			<=0.12 (3)	
			0.12 (2)	
			<=0.25 (1)	
		0.25 (1)		
		B-D Pasco (8)	<0.25 (2)	
			<=0.25 (6)	
		Trek Sensititre (4)	<=0.12 (1)	
			0.12 (1)	
			<=0.25 (1)	
		0.25 (1)		

	Agar dilution (1)	1.0 (1)	
	bioMerieux Vitek (1)	<=1.0 (1)	
	F.A.S. Panel (1)	<=1.0 (1)	
	MIC (1)	0.12 (1)	
Vancomycin not tested (30)			
Susceptibility testing not performed on <i>S. pneumoniae</i> (13)			
Do not process sputum cultures (9)			
Do not perform susceptibility testing on sputum specimens (1)			
No antimicrobial susceptibility testing performed (1)			
No result reported (1)			
No interpretation of MIC/zone diameter (1)			

Number of laboratories reporting each result indicated in ()

Antibiotic Susceptibility Results - Participating & Referee Labs <i>Streptococcus pneumoniae</i>				
	Ceftriaxone		Vancomycin	
	Referee ^a	Participant ^b	Referee ^a	Participant ^b
Susceptible	7	134	8	184
Intermediate	0	1	0	0
Resistant	0	4	0	0
Not Tested ^c	3	73	2	28
Do not process source ^d	0	9	0	9
No result reported	0	2	0	1
No interpretation of MIC/zone	0	0	0	1
Not performed on organism ^e	0	13	0	13
Not performed on source ^f	0	1	0	1
No susceptibility testing done ^g	0	1	0	1

^aReferee Laboratories (10 labs total)

^bOther Participating Laboratories (238 labs total)

^cAntibiotic not tested / reported for this organism

^dDo not process specimen source

^eDo not perform antimicrobial susceptibility testing on this organism

^fDo not perform susceptibility testing on specimen source

^gNo antimicrobial susceptibility testing performed

Specimen No. 5 – Blood (All Organisms)

This simulated blood culture contained *Listeria monocytogenes*. All referee laboratories correctly identified this organism as did 92% of participating laboratories that process blood cultures. An additional 6% reported ‘*Listeria species*’.

Methods of identification used by laboratories reporting:

Listeria monocytogenes

Conventional biochemicals	53
Dade Behring MicroScan	53
Two or more testing methods	45
bioMerieux Vitek GPI	30
bioMerieux Vitek API Coryne	21
Remel RapID STR	7
bioMerieux Vitek API 20 Strep	3
Dade Behring MicroScan Rapid Gram Positive	2
bioMerieux Vitek GNI+	2
BBL Crystal Gram Positive	1
Biolog MicroLog Gram Positive	1
Gen-Probe AccuProbe <i>L. monocytogenes</i>	1
Remel RapID CB Plus	1
TOTAL	220

Listeria species

bioMerieux Vitek GPI	4
Conventional biochemicals	4
Remel RapID CB Plus	2
Two or more testing methods	2
bioMerieux Vitek API 20 Strep	1
Dade Behring MicroScan	1
TOTAL	14

Do not process blood cultures 10

Bacillus species, not anthracis

Conventional biochemicals	1
---------------------------	---

Gram positive rods 1

Listeria seeligeri

Conventional biochemicals	1
---------------------------	---

Presumptive *Listeria species*

Conventional biochemicals	1
---------------------------	---

Additional organisms reported in Specimen 5:

Citrobacter freundii

1

Escherichia coli

1

Chlamydia – cervical swab for direct testing

This simulated cervical swab was appropriate for laboratories that test for *Chlamydia* using direct testing methods but was not suitable for culture. Of the participating laboratories that tested this specimen, all reported it as negative for *Chlamydia trachomatis*.

Test kits used by laboratories reporting this specimen as:

Negative for *Chlamydia trachomatis*

Gen-Probe PACE 2	64
Becton-Dickinson Probe Tec	15
Roche Diagnostics AMPLICOR CT/NG	8
bioMerieux Vitek VIDAS	6
Gen-Probe Aptima Combo 2	6
Roche Diagnostics COBAS	5
Beckman Coulter Access <i>Chlamydia</i> EIA	3
No test method indicated	2
Behring (Syva) MicroTrak <i>Chlamydia</i> EIA	1
Digene Hybrid Capture hc2 CT/NG	1
Polymerase chain reaction	1
Trinity Biotech MicoTrak II <i>Chlamydia</i> EIA	1
Wampole MicroTrak II <i>Chlamydia</i> EIA	1
TOTAL	114

Direct Antigen Detection

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*. Of the participating laboratories that processed this specimen, 98.7% reported it as positive.

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

Abbott Signify Strep A	14
B-D Q Test Strep	11
Thermo BioStar Aceava Strep A	8
Thermo BioStar Strep A OIA Max	7
Quidel Quick Vue + Strep A	6
B-D Directigen Grp A Strep	4
B-D Link 2 Strep A	3
Fisher Healthcare Sure-Vue Strep A	3
Diagnostic Products Corporation PathoDx Strep A	2
Genzyme OSOM Ultra Strep A	2
Lifesign Status AccuStrep A	2
Quidel Quick Vue Inline Strep A	2
Test method not indicated / incomplete info	2
Applied Biotech Signify Strep A	1
Applied Biotech SureStep Strep A	1
Beckman-Coulter Icon Fx Strep A	1
Meridian Diagnostics ImmunoCard Stat Strep A	1
Remel RIM A.R.C. Strep A	1
Polymedco PolyStat Strep A	1
Sacks Medical Corporation RefuAH Strep A	1
Wampole Clearview Strep A	1
TOTAL	74

Negative for Group A *Streptococcus*

Beckman-Coulter Icon Fx Strep A	1
---------------------------------	---

Specimen B - Source: CSF

This specimen was positive for Group B Streptococcal antigen. All of the participating laboratories that tested this specimen correctly reported it as positive for Group B *Streptococcus*.

Important Note: The May, 2004 proficiency test will be the last one to contain a sample for CSF antigen testing. Therefore, laboratories performing this test will need to implement a twice-yearly quality assurance program to fulfill the requirements specified in Quality Assurance Standard 8 of the New York State Health Department Laboratory Standards.

Test kits used by laboratories reporting Specimen B as:

Positive for Group B *Streptococcus*

Murex Wellcogen Bacterial Antigen test	27
B-D Directigen Meningitis Combo test	21
TOTAL	48

Specimen C – Source: Genital

This specimen was negative for Group B Streptococcus. All of the participating laboratories that tested this specimen correctly reported it as negative for Group B *Streptococcus*.

Test kits used by laboratories reporting Specimen C as:

Negative for Group B *Streptococcus*

Thermo BioStar Strep B OIA	7
GenProbe AccuProbe Group B <i>Streptococcus</i> *	1
Test method not indicated / incomplete info	1
TOTAL	9

*Proficiency test samples for direct detection are not appropriate for this testing method, which is a culture confirmation test.

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>
SPECIMEN NUMBER 1		
<i>Yersinia enterocolitica</i>	192	77.4
<i>Yersinia enterocolitica</i> group	20	8.1
Do not process stool specimens	14	5.6
<i>Yersinia</i> species	9	3.6
No enteric pathogens found	6	2.4
Do not test for <i>Yersinia</i>	3	1.2
<i>Alcaligenes faecalis</i>	1	0.4
<i>Shigella boydii</i>	1	0.4
<i>Staphylococcus saprophyticus</i>	1	0.4
<i>Yersinia enterocolitica</i> serogroup O:8	1	0.4

SPECIMEN NUMBER 2		
<i>Staphylococcus saprophyticus</i>	218	87.9
Coagulase negative <i>Staphylococcus</i>	23	9.3
Do not process urine cultures	1	0.4
Gram positive cocci	1	0.4
Novobiocin-resistant Coagulase negative Staph	1	0.4
Presumptive <i>Staphylococcus saprophyticus</i>	1	0.4
<i>Staphylococcus not aureus</i>	1	0.4
<i>Staphylococcus xylosus</i>	1	0.4
<i>Yersinia enterocolitica</i>	1	0.4

SPECIMEN NUMBER 3		
No anaerobes isolated	226	91.1
Do not culture for anaerobes	13	5.2
Do not process abscess specimens	2	0.8
No Bifidobacterium isolated	2	0.8
Anaerobic gram positive bacilli	1	0.4
<i>Prevotella disiens</i>	1	0.4
<i>Prevotella melaninogenica</i>	1	0.4
<i>Propionibacterium</i> species	1	0.4
<i>Veillonella</i> species	1	0.4
<i>Alcaligenes faecalis</i>	201	81.0
<i>Alcaligenes</i> species	30	12.1
<i>Alcaligenes odorans</i>	7	2.8
Gram negative bacillus	4	1.6
Do not process abscess specimens	2	0.8
Gram negative bacilli (nonfermenter)	1	0.4
Nonfermentative gram negative rod not <i>P. aeruginosa</i>	1	0.4
Not reported	1	0.4
<i>Yersinia enterocolitica</i>	1	0.4

<i>Staphylococcus aureus</i>	240	96.8
Coagulase positive <i>Staphylococcus</i>	5	2.0
Do not process abscess specimens	2	0.8
<i>Citrobacter freundii</i>	1	0.4

SPECIMEN NUMBER 4

<i>Streptococcus pneumoniae</i>	238	96.0
Do not process sputum specimens	9	3.6
Gram positive cocci	1	0.4

SPECIMEN NUMBER 5

<i>Listeria monocytogenes</i>	220	88.7
<i>Listeria</i> species	14	5.6
Do not process blood cultures	10	4.0
<i>Bacillus</i> species, not <i>anthracis</i>	1	0.4
Gram positive rods	1	0.4
<i>Listeria seeligeri</i>	1	0.4
Presumptive <i>Listeria</i> species	1	0.4

CHLAMYDIA SPECIMEN

Negative for <i>Chlamydia trachomatis</i>	114	100.0
---	-----	-------

DIRECT ANTIGEN SPECIMEN

A. Positive for Group A <i>Streptococcus</i>	74	98.7
Negative for Group A <i>Streptococcus</i>	1	1.3
B. Positive for Group B <i>Streptococcus</i>	48	100.0
C. Negative for Group B <i>Streptococcus</i>	9	100.0