

MICROBIOLOGY SECTION – MILWAUKEE HEALTH DEPARTMENT

MONTHLY REPORT

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MICROBIOLOGY REPORT: The December 2006 issue of Microbiology Monthly Report, Volume 11, presents the laboratory diagnosis of some of the infectious diseases, the reference microbiology work done in this laboratory during November 2006 and new cases of syphilis in Milwaukee during October 2006. Information on the laboratory diagnosed mycobacterial infections in Wisconsin during October is also included.

Legionnaires Disease (November 2006)

No positive case detected.

Pertussis (Whooping cough) November 2006

No positive case detected.

Syphilis (November 2006)

Test	Number Positive	Test	Number Positive
RPR	1	TP-PA	15
VDRL	26	DARK FIELD	1

New Cases of Syphilis

The Wisconsin Division of Health has reported 3 new cases (early stages) of syphilis during October 2006 in Milwaukee. The median age of early syphilis cases is 35.0 years (range: 21-37 years). Morbidity distributions of the disease reported in this and the corresponding month of the previous year are as follows:

New Cases of Syphilis (October 2006 and October 2005)

Stage	Number of Cases	
	October 2006	October 2005
Primary syphilis	0	0
Secondary syphilis	1	1
Early latent	2	3
Late latent	1	3
Total	4	7

Gonorrhea (November 2006)

Number Tested	Decreased Susceptibility (DS) / Resistance (R) Antibiotics			
	Ciprofloxacin	Ceftriaxone	Spectinomycin	Azithromycin
63	6 (R)	0	0	2 (DS)

Gonorrhea from Other Sources (Aurora Consolidated Labs) November 2006

Number Tested	Decreased Susceptibility (DS) / Resistance (R) Antibiotics			
	Ciprofloxacin	Ceftriaxone	Spectinomycin	Azithromycin
3	0	0	0	0

Isolates Other Than *N. gonorrhoeae* (November 2006)

Organism	Site	Number Isolates	Organism	Site	Number Isolates
<i>Ureaplasma urealyticum</i>	Genital	6	<i>Mycoplasma hominis</i>	Genital	2

Parasitic Enteric Pathogens (November 2006)

Age	Sex	Pathogen	Number Cases
9 yr	F	<i>Entamoeba coli</i>	1
11 yr	F	<i>Entamoeba coli</i>	1
22 mo	F	<i>Giardia lamblia</i>	1
		<i>Ascaris lumbricoides</i>	
15 mo	M	<i>Giardia lamblia</i>	1
3 yr	M	<i>Giardia lamblia</i>	1
65 yr	F	<i>Giardia lamblia</i>	1
33 yr	M	<i>Giardia lamblia</i>	1
		<i>Blastocystis hominis</i>	
		<i>Entamoeba histolytica/dispar</i>	

Mycobacterial infections (November 2006)

Age	Sex	Test Results			Identification
		Sputum Smear	Culture	DNA Probe	
45	F	-	+	+	<i>M. avium complex</i>

Reference Cultures (November 2006)

Age	Sex	Source	Culture Identification
87 yr	F	Stool	Escherichia coli
40 yr	M	Bronchial Brush	Actinomyces sp
55 yr	M	Leg	Bacillus sp NOT anthracis
58 yr	M	Blood	<i>Lactobacillus sp</i>
20 yr	M	Throat	<i>Neisseria meningitidis</i>
59 yr	M	Urine	<i>Stenotrophomonas maltophilia</i>
69 yr	F	Blood	<i>Roseomonas gilardii</i>
20 yr	M	Throat	<i>Neisseria meningitidis</i>
21 yr	M	Throat	<i>Neisseria meningitidis</i>
32 yr	F	Blood	<i>Isolate NOT B. anthracis</i>
75 yr	F	Lung mass	<i>Bacillus coagulans</i>
29 yr	M	Wound	<i>Acinetobacter sp</i>

Bacterial Enteric Pathogens (November 2006)

Age	Sex	Pathogen	Age	Sex	Pathogen
54 yr	M	<i>Salmonella enteritidis</i>	27 yr	F	<i>Salmonella muenchen</i>
26 yr	M	<i>Salmonella enteritidis</i>	28 mo	M	<i>Salmonella oranienburg</i>
4 yr	M	<i>Salmonella enteritidis</i>	28 mo	M	<i>Salmonella oranienburg</i>
10 mo	F	Salmonella enterica subsp I	28 mo	M	<i>Salmonella oranienburg</i>
20 yr	F	<i>Salmonella enterica subsp IIIb</i>			
64 yr	F	Salmonella newport	42 yr	F	Shigella sonnei
42 yr	F	Salmonella newport			

Laboratory Diagnosed Mycobacterial Infections in Wisconsin during October 2006

<i>Mycobacterium</i> species		Brown	Dane	Eau Claire	Fond du Lac	Kenosha	Milwaukee	Outagamie	Racine	Rock	Waukesha	Winnebago	Wood	TOTALS
M. tuberculosis complex	Pulm		1				3							4
	Extra						4							4
Total M. tuberculosis complex		0	1	0	0	0	7	0	0	0	0	0	0	8
M. avium complex	Pulm	1	4			1	61	1	2	1	3		3	77
	Extra		1											1
<i>M. goodii</i>	Pulm	4			1	1	13	1	1			3	2	26
	Extra													0
<i>M. abscessus</i>	Pulm					1	2						1	4
	Extra													0
<i>M. chelonae</i>	Pulm					1								1
	Extra													0
<i>M. fortuitum</i> group	Pulm			1			2	1						4
	Extra	1						1						2
<i>M. kansasii</i>	Pulm		1				1						1	3
	Extra													0
<i>M. marinum</i>	Pulm													0
	Extra													0
<i>M. mucogenicum</i>	Pulm						3							3
	Extra						3							3
<i>M. xenopi</i>	Pulm						5							5
	Extra													0
<i>M. terrae</i> complex												1		1
TOTALS		6	6	1	1	4	90	4	3	1	3	4	7	130

Extra-Pulmonary Sources

<i>Mycobacterium</i> species	Extra-pulmonary Site of Isolation
M. tuberculosis complex	1 neck, 1 bone marrow, 1 lymph node, 1 pleural
M. avium complex	1 cheek
other <i>Mycobacterium</i> species	<i>M. fortuitum</i> : 1 tissue; <i>M. fortuitum</i> group: 1 urine; <i>M. mucogenicum</i> : 3 blood

Antibiotic Susceptibilities: TB First-Line Drugs tested: isoniazid=INH (0.2 ug/ml and 1.0 ug/ml), rifampin (1.0 ug/ml), ethambutol (5.0 ug/ml), pyrazinamide=PZA (100 ug/ml)

Drug Resistance	Number of Isolates
Susceptible to all first-line drugs	6
Resistant to INH (0.2 ug/ml) only	1
Resistant to PZA, PZA indeterminate, or PZA pending	1*
TOTAL	8

- isolate resistant to PZA was identified as *M. bovis*

Note: Seven *M. tuberculosis* isolates are from Wisconsin patients and one from an Illinois patient

Source: Mycobacteriology Laboratory Network Data Report, Wisconsin State Laboratory of Hygiene, Madison, WI.

SUMMARY OF CONFIRMED INFECTIONS
Virology & Molecular Diagnostic SECTION

City of Milwaukee Health Department Laboratory
(414) 286-3526

WEBSITE: www.milwaukee.gov/healthlab December 2006 ISSUE # 1212

November 2006 Data

Agent	# Isolates	Age	Sex	Specimen	Symptoms
Parainfluenza 3	1	6 mo	M	Lung swab	Autopsy
Parainfluenza 3	1	29 yr	M	Throat	URI, sore throat Vomiting, fever, headache
Rhinovirus	1	18 yr	F	NP Referred isolate	N/A
Rhinovirus	1	43 yr	M	NP Referred isolate	N/A
Rhinovirus	1	17 mo	F	NP Referred isolate	N/A
Rhinovirus	1	6 yr	M	NP Referred isolate	N/A
Rhinovirus	1	5 mo	F	NP Referred isolate	N/A
Rhinovirus	1	20 mo	F	NP Referred isolate	N/A
Herpes Simplex, type 1	5				
Herpes Simplex, type 2	9				

*N/A – Not Available

	Method	Tested	Positive	% Positive
<i>Chlamydia trachomatis</i>	ProbeTec	570	71	12.5%
<i>Neisseria gonorrhoeae</i>	ProbeTec/GenProbe	762	100	13.1%
Mumps	EIA	35	0	0%
Mumps	Real-time RT-PCR	6	0	0%
HSV typing I and II	Real-time PCR	1	0	0%
Influenza A and B	Real-time RT-PCR	20	0	0%
Norovirus	Real-time RT-PCR	9	2	22.22%

Please note the following new tests are now being offered by the City laboratory using Real-time PCR (SmartCycler) assays:

- 1) **Norovirus (Geno-groups GI & GII: Single/Duplex RT-PCR assay)**
We are currently accepting both non-outbreak and outbreak-related samples for PCR (Please contact lab)
- 2) **Influenza (Subtypes A – H1, H3, H5) and B (Single, Duplex and/or Multiplex RT-PCR)**
- 3) **Mumps (Duplex RT-PCR assay)**
- 4) ***Bordetella pertussis/parapertussis* (Single/Duplex assay)**
- 5) **Herpes Simplex Virus (HSV Type 1 & 2: Multiplex assay)**
- 6) **Enterovirus (RT-PCR assay)**
- 7) **The City Lab has changed confirmatory Syphilis testing from the FTA-ABS test to the TPPA test as of August 1, 2006.**
- 8) **NEW: As of November 1, 2006, the City Lab will no longer offer the complement fixation test.**