

**MICROBIOLOGY SECTION – MILWAUKEE HEALTH DEPARTMENT**

**MONTHLY REPORT**

March 2007 Vol. 12, No. 3

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**MICROBIOLOGY REPORT:** The March 2007 issue of Microbiology Monthly Report, Volume 12, presents the laboratory diagnosis of some of the infectious diseases, the reference microbiology work done in this laboratory during February 2007 and new cases of syphilis in Milwaukee during January 2007. Information on the laboratory diagnosed mycobacterial infections in Wisconsin during January is also included.

**Legionnaires Disease (February 2007)**

No positive case was detected.

**Pertussis (Whooping cough) February 2007**

No positive case was detected.

**Syphilis (February 2007)**

Test	Number Positive	Test	Number Positive
RPR	1	TP-PA	3
VDRL	15	DARK FIELD	0

**New Cases of Syphilis**

The Wisconsin Division of Health has reported 9 new cases (early stages) of syphilis during January, 2007 in Milwaukee. The median age of early syphilis cases is 28.0 years (range: 20-51 years). Morbidity distributions of the disease reported in this and the corresponding month of the previous year are as follows:

**New Cases of Syphilis (January 2007 and January 2006)**

Stage	Number of Cases	
	January 2007	January 2006
Primary syphilis	0	1
Secondary syphilis	3	1
Early latent	6	2
Late latent	1	1
Total	10	5

**Gonorrhea (February 2007)**

Number Tested	Decreased Susceptibility (DS) / Resistance (R) Antibiotics			
	Ciprofloxacin	Ceftriaxone	Spectinomycin	Azithromycin
47	0	0	0	0

**Gonorrhea from Other Sources (Aurora Consolidated Labs) February 2007**

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

#### Isolates Other Than *N. gonorrhoeae* (February 2007)

Organism	Site	Number Isolates	Organism	Site	Number Isolates
<i>Ureaplasma urealyticum</i>	Genital	10	<i>Mycoplasma hominis</i>	Genital	3

#### Parasitic Enteric Pathogens (February 2007)

Age	Sex	Pathogen	Number Cases
34 mo	M	<i>Entamoeba coli</i>	1
13 yr	F	<i>Giardia lamblia</i>	1

#### Mycobacterial infections (February 2007)

Age	Sex	Test Results			Identification
		Sputum Smear	Culture	DNA Probe	
54 yr	F	-	+	N.D.	<i>M. xenopi</i>
59 yr*	M*	-	+	N.D.	<i>M. xenopi</i>
		-	+	+	<i>M. avium complex</i>
52 yr*	F*	-	+	N.D.	<i>M. xenopi</i>
		-	+	+	<i>M. avium complex</i>
		-	+	N.D.	<i>M. fortuitum group</i>
72 yr	M	-	+	+	<i>M. avium complex</i>
28 yr	M	-	+	+	<i>M. avium complex</i>
69 yr	M	Not done	+	+	<i>M. tuberculosis</i>
74 yr	M	Not done	+	+	<i>M. avium complex</i>
84 yr	M	Not done	+	+	<i>M. avium complex</i>

\* Triple infection

#### Reference Cultures (February 2007)

Age	Sex	Site/Specimen Source	Culture Identification
77 yr	M	Wound	<i>Citrobacter koserii</i>
41 yr	F	Left hand	<i>Staphylococcus aureus</i>
62 yr	F	BAL	<i>Actinomyces species</i>
61 yr	M	Stool	<i>Aeromonas hydrophila</i>
56 yr	F	Blood	<i>Bacillus circulans</i>
2 mo	M	Blood	<i>Neisseria meningitidis serogroup B</i>
25 yr	F	Blood	<i>Bacillus species, NOT anthracis</i>
42 yr	M	Urine	<i>Pseudomonas alcaligenes</i>
38 yr	F	Nares	<i>Moraxella nonliquefaciens</i>
16 yr	F	Urine	<i>Escherichia coli</i>
31 yr	F	Blood	<i>Bacillus species, Not anthracis</i>
4 mo	M	Nasal	<i>Moraxella nonliquefaciens</i>
41 yr	F	Left hand	<i>Acinetobacter species</i>
74	M	Blood	<i>Bacillus species Not anthracis</i>

**Bacterial Enteric Pathogens (February 2007)**

<b>Age</b>	<b>Sex</b>	<b>Pathogen</b>	<b>Age</b>	<b>Sex</b>	<b>Pathogen</b>
6 yr	M	<i>Shigella sonnei</i>	22 yr	F	<i>Salmonella enteritidis</i>
3 yr	F	<i>Shigella flexneri type 2</i>	29 yr	M	<i>Salmonella oranienburg</i>
7 yr	M	<i>Shigella sonnei</i>	63 yr	M	<i>Salmonella braenderup</i>
9 mo	F	<i>Shigella sonnei</i>	56 yr	M	<i>Salmonella enteritidis</i>
			28 yr	M	<i>Salmonella enteritidis</i>
43 yr	F	<i>Salmonella enteritidis</i>	28 yr	M	<i>Salmonella typhimurium</i>
40 yr	M	<i>Salmonella enteritidis</i>	22 yr	M	<i>Salmonella enteritidis</i>
51 yr	M	<i>Salmonella enteritidis</i>	63 yr	M	<i>Salmonella braenderup</i>

Laboratory Diagnosed Mycobacterial Infections in Wisconsin during January 2007

Mycobacterium species		Brown	Dane	Eau Claire	Fond du Lac	Forest	Kenosha	La Crosse	Marathon	Milwaukee	Outagamie	Racine	Rock	Sheboygan	Washington	Waukesha	Winnebago	Wood	TOTAL	
<i>M. tuberculosis</i>	Pulm	1						1		3										5
	Extra																			0
<b>Total <i>M. tuberculosis</i> Co</b>		<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>
<i>M. avium</i> (Co)	Pulm	1	6	1		1		2		53	2	3	1			2	5	2		79
	Extra		1																	1
<i>M. goodii</i>	Pulm		7	1	1		1			7		3	1			2	1			24
	Extra																			0
<i>M. abscessus</i>	Pulm								1	1										2
	Extra																			0
<i>M. chelonae</i>	Pulm			1						1					1					3
	Extra		1							6							1	2		10
<i>M. fortuitum</i> group	Pulm									11										11
	Extra									1										1
<i>M. kansasii</i>	Pulm																			0
	Extra																			0
<i>M. marinum</i>	Pulm																			0
	Extra		1													1				2
<i>M. mucogenicum</i>	Pulm									5										5
	Extra			1						2										3
<i>M. xenopi</i>	Pulm									7										7
	Extra																			0
<i>Mycobacterium</i> species	Pulm									1										1
<i>M. chelonae</i>	Pulm															1				1
<i>M. conspicuum</i>	Pulm									1										1
<i>M. lentiflavum</i>	Pulm												1							1
<i>M. terrae</i> complex	Pulm									1										1
<b>TOTALS</b>		<b>1</b>	<b>16</b>	<b>4</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>97</b>	<b>2</b>	<b>6</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>6</b>	<b>7</b>	<b>4</b>	<b>153</b>	

**Extra-Pulmonary Sources of Isolation:**

<i>M. tuberculosis</i> Extra-pulmonary:	
<i>M. avium</i> complex Extra-pulmonary	1 stool
Other <i>Mycobacterium</i> species	<i>M. chelonae</i> : 1 orbital implant, 1 throat, 2 skin, 2 scalp, 1 chest, 1 arm, 1 contact lens solution, 1 foot; <i>M. fortuitum</i> group: 1 thigh; <i>M. marinum</i> : 1 wrist, 1 finger; <i>M. mucogenicum</i> : 1 hand, 2 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	2
Multi-drug resistant	1*
Susceptibility testing pending	2
<b>TOTAL</b>	<b>5</b>

\*Isolate was resistant to both concentrations of INH, Ethambutol, and Rifampin.

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](http://www.milwaukee.gov/healthlab) **March 2006 ISSUE # 1215**

**February 2007 Data**

<b>Agent</b>	<b>No. of Isolates</b>	<b>Age</b>	<b>Sex</b>	<b>Specimen</b>	<b>Symptoms</b>
Adenovirus	1	21	F	Throat	Sore throat, fever, headache, lymphadenopathy
Adenovirus	1	5	M	Stool Referred isolate	N/A
Influenza A (H1)	1	10 mo	F	NP Referred isolate	N/A
Influenza A (H1)	1	22	F	NP Referred isolate	N/A
Influenza A (H1)	1	36	F	NP Referred isolate	N/A
Influenza A (H1)	1	11	F	NP Referred isolate	N/A
Influenza A (H1)	1	43	F	NP Referred isolate	N/A
Influenza A (H1)	1	22	F	Throat	URI, cough, fever, headache, sore throat
Influenza A (H1)	1	3 mo	F	NP	Autopsy
Influenza A (H1)	1	39	M	NP Referred isolate	N/A
Influenza A (H1)	1	40	F	NP Referred isolate	N/A
Influenza A (H1)	1	26	F	Throat	ARD, URI, cough, fever, headache
Influenza A (H1)	1	19	F	NP Referred isolate	N/A
Influenza A (H1)	1	15 mo	F	NP Referred isolate	N/A
Influenza A (H1)	1	35	F	NP Referred isolate	N/A
Influenza A (H1)	1	20	F	Throat	URI, cough, fever
Influenza A (H3)	1	19	F	Throat	Cough, headache, fever, myalgias
Influenza A (H3)	1	20	F	Throat	URI, cough, nausea, myalgias, sore throat
Influenza A (H3)	1	18	M	Throat	Sore throat, cough, fever, headache,
Influenza A (H3)	1	20	F	Throat	ARD, cough, fever, headache
Influenza A (H3)	1	18	M	Throat	Cough
Influenza A (H3)	1	68	F	NP Referred isolate	N/A

Influenza A (H3)	1	19	M	Throat	Cough, fever, myalgias
Influenza A (H3)	1	18	M	Throat	Fever, headache, sore throat
Influenza A (H3)	1	19	F	Throat	Cough, fever, sore throat
Influenza A (H3)	1	22	M	Throat	URI, cough, fever
Influenza A (H3)	1	24	M	Throat	URI, fever
Influenza A (H3)	1	21	F	Throat	ARD, URI, cough, sore throat
Influenza A (H3)	1	21	M	Throat	ARD, fever, headache
Influenza A (H3)	1	22	M	Throat	URI, cough, fever, sore throat, headache
Influenza A (H3)	1	20	F	Throat	Cough, fever, myalgias
Influenza A (H3)	1	22	M	Throat	ARD, URI, cough, fever
Influenza A (H3)	1	29	M	Throat	Cough, sore throat, fever, headache, bronchitis
Influenza A (H3)	1	20	M	Throat	ARD, cough, fever
Influenza B	1	20	F	NP Referred isolate	N/A
Influenza B	1	21	F	Throat	Fever, headache, cough, sore throat
Influenza B	1	24	M	Throat	Fever, headache, cough, sore throat
Rhinovirus	1	9 mo	M	NP Referred isolate	N/A
Rhinovirus	1	19	F	Throat	Sore throat, fever, headache, myalgias
Rhinovirus	1	9 mo	F	NP Referred isolate	N/A
Rhinovirus	1	27 mo	F	NP Referred isolate	N/A
Trichomonads	1	17	F	Labia	STD
Herpes simplex, type 1	11				
Herpes simplex, type 2	9				
*N/A – Not Available					

Agent	Method	Tested	Positive	% Positive
<i>Chlamydia trachomatis</i>	ProbeTec	543	83	15.3%
<i>Neisseria gonorrhoeae</i>	ProbeTec/GenProbe	696	82	11.7%
Mumps virus	EIA	35	0	0%
Respiratory Syncytial virus	Real-time RT-PCR	5	0	0%
Influenza virus	Real-time RT-PCR	100	42	42%
Norovirus	Real-time RT-PCR	7	2	28.5%
Herpes Simplex Virus	Real-time PCR	8	5	62.5%

## Important News

### The following new Real-time PCR-based tests are now being offered by the City laboratory:

- 1) Norovirus (Geno-groups GI & GII: Single/Duplex assay) – Please call the Lab prior to submission
- 2) Influenza (Subtypes A – H1, H3, H5) and B (Single, Duplex and/or Multiplex assay)
- 3) Mumps Virus (Duplex assay)
- 4) *Bordetella pertussis/parapertussis* (single and/or duplex assay)
- 5) Herpes Simplex Virus (HSV Type 1 & 2: Multiplex assay)
- 6) Enterovirus (Duplex assay)
- 7) Respiratory Syncytial virus (RSV duplex assay)

### Test Method Change:

The City Lab has changed confirmatory Syphilis testing from the FTA-ABS test to the TPPA test as of August 1, 2006.

### Discontinuation of Tests:

As of November 1, 2006, the City Lab will no longer offer the complement fixation test.



Sanjib Bhattacharyya, PhD.  
Chief Molecular Scientist

The City of Milwaukee Health Department is pleased to inform you that Dr. Sanjib Bhattacharyya has assumed the duties of the former Chief Virologist, Dr. Gerald Sedmak. Dr. Bhattacharyya, Chief Molecular Scientist will be working with our virology staff who have a combined total of over 70 years experience in clinical virology.

Sincerely,



M. Stephen Gradus, Ph.D., ABMM  
Laboratory Director