

MICROBIOLOGY SECTION – MILWAUKEE HEALTH DEPARTMENT

MONTHLY REPORT

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MICROBIOLOGY REPORT: The February 2008 issue of the Microbiology Monthly Report, Volume 13, presents the laboratory diagnosis of some of the infectious diseases, the reference microbiology work done in this laboratory during January 2008 and new cases of syphilis in Milwaukee during December 2007. Information on the laboratory diagnosed mycobacterial infections in Wisconsin during December is also included.

Legionnaires Disease (January 2008)

Patient		Test		
Age	Sex	Urine Antigen	Culture	DFA
61 yr	M	+	ND	ND

ND = Not done

Pertussis (Whooping cough) January 2008

No positive case(s) detected.

Syphilis (January 2008)

Test	Number Positive	Test	Number Positive
RPR	1	TP-PA	12
VDRL	41	DARKFIELD	0

New Cases of Syphilis

The Wisconsin Division of Health has reported 12 new cases (early stages) of syphilis during December 2007 in Milwaukee. The median age of early syphilis cases is 40.5 years (range: 14-49 years). Morbidity distributions of the disease reported in this and the corresponding month of the previous year are as follows:

New Cases of Syphilis (December 2007 and December 2006)

Stage	Number of Cases	
	December 2007	December 2006
Primary syphilis	1	1
Secondary syphilis	5	1
Early latent	6	4
Late latent	0	0
Total	12	6

Gonorrhea (January 2008)

Number Tested	Decreased Susceptibility (DS) / Resistance (R) Antibiotics			
	Ciprofloxacin	Ceftriaxone	Spectinomycin	Azithromycin
58	9 R	0	0	0

Gonorrhea from Other Sources (Aurora Consolidated Labs) January 2008

Number Tested	Decreased Susceptibility (DS) / Resistance (R) Antibiotics			
	Ciprofloxacin	Ceftriaxone	Spectinomycin	Azithromycin
3	1 R	0	0	0

Isolates Other Than *N. gonorrhoeae* (January 2008)

Organism	Site	Number Isolates	Organism	Site	Number Isolates
<i>Ureaplasma urealyticum</i>	Genital	3	<i>Mycoplasma hominis</i>	Genital	1

Enteric Parasites Identified (January 2008)

Age	Sex	Pathogen	Number Cases
19	M	<i>Blastocystis hominis</i>	1
16	M	<i>Blastocystis hominis</i>	1
19	M	<i>Blastocystis hominis</i>	1
26	M	<i>Blastocystis hominis</i>	1
21	F	<i>Blastocystis hominis</i> <i>Endolimax nana</i>	1
51	F	<i>Trichuris trichiura</i>	1
19	M	<i>Trichuris trichiura</i>	1
20	F	<i>Trichuris trichiura</i>	1

Mycology (January 2008)

Age	Sex	Pathogen	Number Cases
11	M	<i>Blastomyces dermatitidis</i>	1
44	M	<i>Blastomyces dermatitidis</i>	1

Mycobacterial Infections (January 2008)

Age	Sex	Test Results			Identification
		Sputum Smear	Culture	DNA Probe	
47	F	-	+	+	<i>M. avium</i> complex
43	F	-	+	+	<i>M. avium</i> complex
		-	+	+	<i>M. tuberculosis</i>
28	M	-	+	+	<i>M. avium</i> complex
		-	+	+	<i>M. gordonae</i>
58	F	-	+	+	<i>M. avium</i> complex
44	M	+	+	+	<i>M. avium</i> complex
33	M	-	+	+	<i>M. avium</i> complex
24	M	-	+	+	<i>M. avium</i> complex
48	F	-	+	+	<i>M. avium</i> complex
31	M	+	+	+	<i>M. tuberculosis</i>

Reference Cultures (January 2008)

Age	Sex	Source	Culture Identification
46	M	Wound	<i>Agrobacterium radiobacter</i>
5 wk	F	Blood	<i>Bacillus cereus</i>
80	M	Sputum	<i>Corynebacterium striatum</i>
48	F	Blood	<i>Enterococcus faecium</i>
70	F	Blood	<i>Exiguobacterium</i> species
19	F	Urine	<i>Escherichia coli</i>
5	F	Ear	<i>Moraxella nonliquefaciens</i>
22	F	Genital	<i>Neisseria gonorrhoeae</i>
22	M	Urethra	<i>Neisseria gonorrhoeae</i>
25	M	Urethra	<i>Neisseria gonorrhoeae</i>
34m	M	Stool	<i>Salmonella braenderup</i>
34m	M	Stool	<i>Salmonella braenderup</i>
71	F	Urine	<i>Salmonella enterica</i> subspecies I (<i>enterica</i>)
27	F	Stool	<i>Salmonella enteritidis</i>
15m	M	Stool	<i>Salmonella enteritidis</i>
54	F	Stool	<i>Salmonella enteritidis</i>
68	F	Urine	<i>Salmonella farmsen</i>
90	F	Urine	<i>Salmonella give</i>
91	F	Stool	<i>Salmonella hadar</i>
48	M	Blood	<i>Salmonella newport</i>
48	M	Wound	<i>Salmonella newport</i>
28	M	Stool	<i>Salmonella oranienburg</i>
56	M	Stool	<i>Salmonella panama</i>
22	F	Stool	<i>Salmonella saintpaul</i>
23	M	Blood	<i>Salmonella stanleyville</i>
12	M	Stool	<i>Salmonella monophasic 'i'</i>
26	F	Urine	<i>Salmonella thompson</i>
4m	M	Stool	<i>Salmonella typhimurium</i>
3	M	Urine	<i>Salmonella typhimurium</i>
3	F	Stool	<i>Shigella sonnei</i>
3	M	Stool	<i>Shigella sonnei</i>
4	F	Stool	<i>Shigella sonnei</i>
12m	F	Stool	<i>Shigella sonnei</i>
8	F	Stool	<i>Shigella sonnei</i>
4	F	Stool	<i>Shigella sonnei</i>
16m	F	Stool	<i>Shigella sonnei</i>
28	M	Stool	<i>Shigella sonnei</i>
25	F	Stool	<i>Shigella sonnei</i>
6	M	Stool	<i>Shigella sonnei</i>
23m	F	Stool	<i>Shigella sonnei</i>
3	F	Stool	<i>Shigella sonnei</i>

Age	Sex	Source	Culture Identification
27	F	Stool	<i>Shigella sonnei</i>
24m	F	Stool	<i>Shigella sonnei</i>
18m	M	Stool	<i>Shigella sonnei</i>
10	F	Stool	<i>Shigella sonnei</i>
8	F	Stool	<i>Shigella sonnei</i>
51	F	Stool	<i>Shigella sonnei</i>
19	F	Stool	<i>Shigella sonnei</i>
20	F	Stool	<i>Shigella sonnei</i>

Bacterial Enteric Pathogens (January 2008)

Age	Sex	Pathogen	Age	Sex	Pathogen
8	M	<i>Shigella sonnei</i>	5	M	<i>Shigella sonnei</i>
6	F	<i>Shigella sonnei</i>	10	F	<i>Shigella sonnei</i>
26	F	<i>Shigella sonnei</i>	5	M	<i>Shigella sonnei</i>

Antimicrobial Susceptibility of *Shigella sonnei* Associated with 2007-08 Outbreak (January 2008)

Number Tested	Decreased Susceptibility (DS) / Resistance (R) Antibiotics					
	SXT	NOR	C	GM	AM	TE
26	21	0	0	0	21	0

* Intermediate susceptibility

AM = Ampicillin

C = Chloramphenicol

SXT = Sulfamethoxazole/trimethoprim

TE = Tetracycline

GM = Gentamicin

NOR = Norfloxacin

Laboratory Diagnosed Mycobacterial Infections in Wisconsin during December 2007

<i>Mycobacterium</i> species		Brown	Dane	Eau Claire	Kenosha	La Crosse	Marathon	Milwaukee	Outagamie	Portage	Racine	Washington	Waukesha	Winnebago	Wood	TOTALS
<i>M. tuberculosis</i> complex	Pulm															0
	Extra												1			1
Total <i>M. tuberculosis</i> complex		0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
<i>M. avium</i> complex	Pulm	2	2		1	1		34	3				2	4	5	54
	Extra	1						3								4
<i>M. gordonae</i>	Pulm		3					8		1	1	1		1		15
	Extra															0
<i>M. chelonae</i>	Pulm	2		1										1	3	7
	Extra							1							2	3
<i>M. fortuitum</i> group	Pulm		2	1	1		1	3							2	10
	Extra							1								1
<i>M. marinum</i>	Pulm															0
	Extra		2										2			4
<i>M. mucogenicum</i>	Pulm															0
	Extra							3								3
<i>M. xenopi</i>	Pulm							3								3
	Extra															0
<i>M. smegmatis</i> group	Extra														1	1
Totals		5	9	2	2	1	1	56	3	1	1	1	4	6	13	105

Extra-Pulmonary Sources of Isolation:

<i>M. tuberculosis</i> Extra-pulmonary:	1 cervical lymph node
<i>M. avium</i> complex Extra-pulmonary:	1 stool, 1 blood, 1 brain, 1 finger
Other <i>Mycobacterium</i> species	<i>M. chelonae</i> : 2 foot, 1 eye; <i>M. fortuitum</i> group: 1 breast; <i>M. marinum</i> : 1 finger, 1 hand, 2 skin; <i>M. mucogenicum</i> : 3 blood; <i>M. smegmatis</i> group: abdominal wound

M. tuberculosis complex First-Line Drug Susceptibility Testing*:

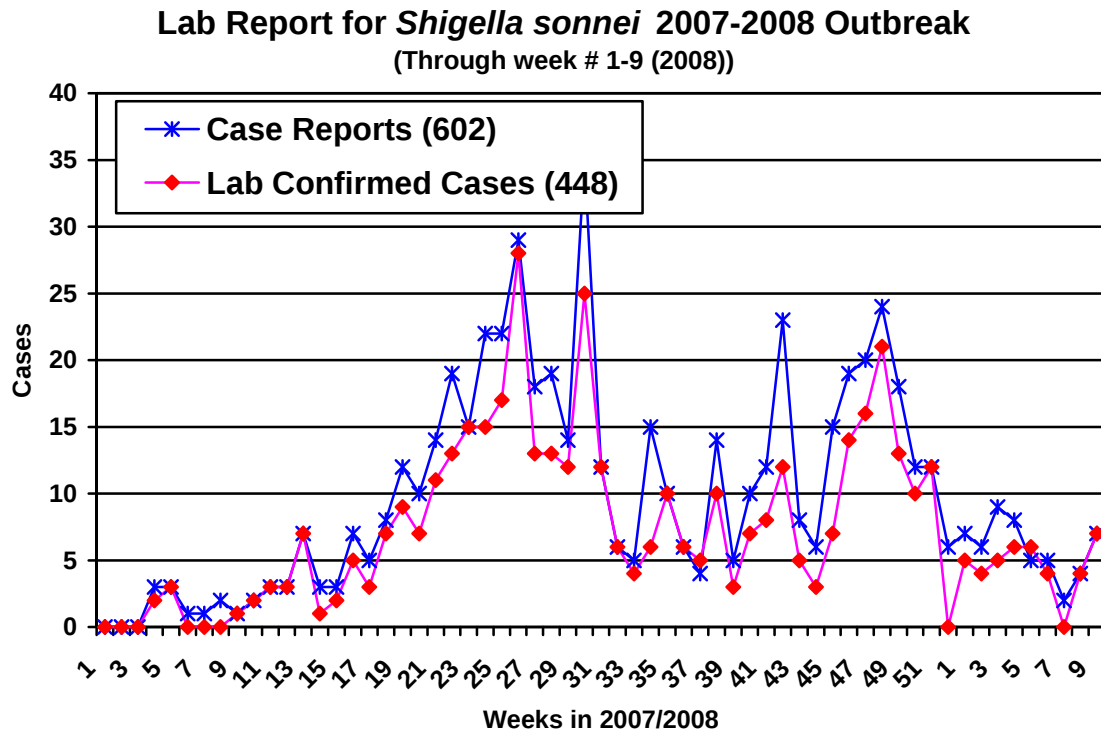
Drug Resistance	Number of Isolates
Susceptible to all first-line drugs	1
TOTAL	1

(*) Drugs tested: isoniazid = INH (0.2 ug/ml and 1.0 ug/ml), rifampin (1.0 ug/ml), ethambutol (5.0 ug/ml), and pyrazinamide = PZA (100 ug/ml).

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

Shigella sonnei 2007-2008 Outbreak Update for week # 1-9 (01/01/08 – 02/29/08)

Shigella cases have decreased but continue to be above the baseline of cases seen prior to the beginning of the outbreak. The MHD Laboratory has confirmed 41 stool samples positive for *Shigella sonnei* in weeks 1-9. Most isolates continue to be resistant to both ampicillin and sulfamethoxazole/trimethoprim.



SUMMARY OF CONFIRMED INFECTIONS

Virology & Molecular Diagnostic Section
City of Milwaukee Health Department Laboratory
(414) 286-3526

WEBSITE: www.milwaukee.gov/healthlab February 2008 ISSUE # 1226

January 2008 Data

Agent	No. of Isolates	Age	Sex	Specimen	Symptoms
Cytomegalovirus	1	6 mo	F	Lung tissue	Autopsy
Influenza A (H1)	1	21	F	Throat	Cough, sore throat, abdominal pain, fever, headache
Influenza A (H1)	1	43	F	NP Referred isolate	NA
Influenza A (H3)	1	22	F	Throat	Cough
Influenza A (H3)	1	19	F	Throat	Cough, fever
Influenza A (H3)	1	34	F	NP	NA
Influenza A (H3)	1	21	F	Throat	Cough, fever
Influenza A (H3)	1	67	M	NP Referred isolate	NA
Influenza A (H3)	1	56	M	NP Referred isolate	NA
Influenza A (H3)	1	22	F	Throat	Cough, sore throat, fever
Influenza A (H3)	1	20		Throat	For Influenza
Respiratory syncytial virus	1	7 wks	M	Lung tissue	Autopsy
Respiratory syncytial virus	1	6 mo	M	NP	Autopsy
Rhinovirus	1	14 mo	F	NP Referred isolate	NA
Varicella zoster virus	1	20	F	Abdomen swab	Abdominal lesion
Trichomonads	2	18	F	Cervix Vulva	For STD (Also positive for Herpes, type 1)
Herpes simplex, type 1	9				
Herpes simplex, type 2	8				

Agent	Method	Tested	Positive	% Positive
<i>Chlamydia trachomatis</i>	ProbeTec	719	88	12.2%
<i>Neisseria gonorrhoeae</i>	ProbeTec/GenProbe	920	82	8.9%
Respiratory syncytial virus	Real-time RT-PCR	5	2	40.0%
Enterovirus	Real-time RT-PCR	2	0	0%
Influenza virus	Real-time RT-PCR	50	14	28.0%
Parainfluenza viruses	Real-time RT-PCR	1	0	0%
Adenovirus	Real-time PCR	6	0	0%
Varicella zoster virus	Real-time PCR	2	1	50.0%
Herpes simplex virus	Real-time PCR	2	1	50.0%



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Chief Molecular Scientist

Influenza Laboratory Surveillance in Milwaukee:

The City Lab reports 75 influenza cases for the 2007-2008 season through the end of February 2008: 53 A (H3), 6 A (H1), 9 (B) and 7 pending. For the week ending February 23, 25 specimens tested yielded 10 A(H3), 1 A(H1) and 4(B).

Cases are identified by PCR within 24 hours and confirmed by culture.

Norovirus Outbreaks

The Department and Laboratory continue to investigate Norovirus (formerly Norwalk virus) outbreaks in a variety of group/institutional settings. (see attached).

Steve Gradus, Ph.D., ABMM

A handwritten signature in black ink, appearing to read 'mjb', followed by a long, sweeping horizontal line.