

MICROBIOLOGY SECTION – MILWAUKEE HEALTH DEPARTMENT

MONTHLY REPORT

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Ajaib Singh, D.V.M., Ph. D.

MICROBIOLOGY REPORT: The December 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 November 2007 and new cases of syphilis in Milwaukee during October 2007. Information on the laboratory diagnosed mycobacterial infections in Wisconsin during October is also included.

Legionnaires Disease (November 2007)

Patient		Test		
Age	Sex	Urine Antigen	Culture	DFA
67	M	+	ND	ND

ND = Not done

Pertussis (Whooping cough) November 2007

No positive case was detected.

Syphilis (November 2007)

Test	Number Positive	Test	Number Positive
RPR	1	TP-PA	17
VDRL	30	DARKFIELD	0

New Cases of Syphilis

The Wisconsin Division of Health has reported 8 new cases (early stages) of syphilis during October 2007 in Milwaukee. The median age of early syphilis cases is 21 years (range: 16-36 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 2007 and October 2006)

Stage	Number of Cases	
	October 2007	October 2006
Primary syphilis	1	0
Secondary syphilis	3	1
Early latent	4	2
Late latent	0	1
Total	8	4

Gonorrhea (November 2007)

Number Tested	Decreased Susceptibility (DS) / Intermediate (I)/ Resistance (R) Antibiotics			
	Ciprofloxacin	Ceftriaxone	Spectinomycin	Azithromycin
61	2 I ; 5 R	0	0	2 DS

Gonorrhea from Other Sources (Aurora Consolidated Labs) November 2007

Number Tested	Decreased Susceptibility (DS)/ Intermediate (I)/ Resistance (R)Antibiotics			
	Ciprofloxacin	Ceftriaxone	Spectinomycin	Azithromycin
5	1 I ; 1 R	0	0	0

Isolates Other Than *N. gonorrhoeae* (November 2007)

Organism	Site	Number Isolates	Organism	Site	Number Isolates
<i>Ureaplasma urealyticum</i>	Genital	0	<i>Mycoplasma hominis</i>	Genital	0

Enteric Parasites Identified (November 2007)

Age	Sex	Parasite	Number of Cases
13	FM	<i>Giardia lamblia</i>	1
17	M	<i>Entamoeba coli</i> <i>Endolimax nana</i>	1
9	F	<i>Entamoeba coli</i> <i>Giardia lamblia</i>	1
11	M	<i>Giardia lamblia</i>	1
4	F	<i>Giardia lamblia</i>	1
27m	M	<i>Ascaris lumbricoides</i>	1
19	M	<i>Entamoeba coli</i>	1
33	F	<i>Entamoeba coli</i>	1
37	F	<i>Giardia lamblia</i>	1
20	F	<i>Entamoeba coli</i>	1
58	F	<i>Entamoeba coli</i>	1
6	F	<i>Giardia lamblia</i>	1
24	F	<i>Blastocystis hominis</i>	1

Reference Cultures (November 2007)

Age	Sex	Source	Culture Identification
25	F	Surface wound	<i>Bacillus</i> sp.
83	F	Urine	<i>Bifidobacterium</i> sp.
43	M	Stool	<i>Campylobacter coli</i>
43	F	Stool	<i>Campylobacter coli</i>
52	M	Urine	<i>Escherichia coli</i>
52	M	Urine	<i>Escherichia coli</i>
35	F	Genital	<i>Neisseria gonorrhoeae</i>
16	F	Genital	<i>Neisseria gonorrhoeae</i>
14	F	Vagina	<i>Neisseria gonorrhoeae</i>
24	M	Urethra	<i>Neisseria gonorrhoeae</i>
41	F	Cervix	<i>Neisseria gonorrhoeae</i>
21	F	Cervix	<i>Neisseria gonorrhoeae</i>
27	M	Throat	<i>Neisseria meningitidis</i>

Age	Sex	Source	Culture Identification
31m	M	Stool	<i>Pseudomonas aeruginosa</i>
13	F	Stool	<i>Salmonella enteritidis</i>
5	F	Stool	<i>Salmonella enteritidis</i>
58	F	Stool	<i>Salmonella enteritidis</i>
6m	M	Stool	<i>Salmonella heidelberg</i>
40	F	Stool	<i>Salmonella java</i>
4	M	Stool	<i>Salmonella javiana</i>
29	F	Stool	<i>Salmonella</i> Group B monophasic 'i'
85	F	Stool	<i>Salmonella poona</i>
16	F	Stool	<i>Salmonella thompson</i>
16	F	Stool	<i>Salmonella thompson</i>
14	M	Stool	<i>Salmonella typhimurium</i>
27m	M	Stool	<i>Shigella flexneri</i> type 2
32m	F	Stool	<i>Shigella sonnei</i>
15	F	Stool	<i>Shigella sonnei</i>
4	M	Stool	<i>Shigella sonnei</i>
3	F	Stool	<i>Shigella sonnei</i>
4	M	Stool	<i>Shigella sonnei</i>
27	F	Stool	<i>Shigella sonnei</i>
24	F	Stool	<i>Shigella sonnei</i>
3	F	Stool	<i>Shigella sonnei</i>
5	M	Stool	<i>Shigella sonnei</i>
25	F	Stool	<i>Shigella sonnei</i>
33	F	Stool	<i>Shigella sonnei</i>
6	M	Stool	<i>Shigella sonnei</i>
6	M	Stool	<i>Shigella sonnei</i>
6	F	Stool	<i>Shigella sonnei</i>
4	M	Stool	<i>Shigella sonnei</i>
31m	M	Stool	<i>Shigella sonnei</i>
3	M	Stool	<i>Shigella sonnei</i>
15m	F	Stool	<i>Shigella sonnei</i>
28m	M	Stool	<i>Shigella sonnei</i>
3	F	Stool	<i>Shigella sonnei</i>
77	M	Stool	<i>Shigella sonnei</i>
15m	M	Stool	<i>Shigella sonnei</i>
33m	F	Stool	<i>Shigella sonnei</i>
16m	M	Stool	<i>Shigella sonnei</i>
9	F	Stool	<i>Shigella sonnei</i>
5	M	Stool	<i>Shigella sonnei</i>
3	M	Stool	<i>Shigella sonnei</i>
17	F	Stool	<i>Shigella sonnei</i>
58	M	Stool	<i>Shigella sonnei</i>

Age	Sex	Source	Culture Identification
3	F	Stool	<i>Shigella sonnei</i>
6	F	Stool	<i>Shigella sonnei</i>
28	M	Stool	<i>Shigella sonnei</i>
12	M	Stool	<i>Shigella sonnei</i>
19m	F	Stool	<i>Shigella sonnei</i>
33	M	Stool	<i>Shigella sonnei</i>
6	F	Stool	<i>Shigella sonnei</i>
22m	M	Stool	<i>Shigella sonnei</i>
12	F	Stool	<i>Shigella sonnei</i>
30m	F	Stool	<i>Shigella sonnei</i>
5	F	Stool	<i>Shigella sonnei</i>
10	M	Stool	<i>Shigella sonnei</i>
30	F	Stool	<i>Shigella sonnei</i>
15	F	Stool	<i>Shigella sonnei</i>
44	F	Stool	<i>Shigella sonnei</i>
31	F	Stool	<i>Shigella sonnei</i>
51	F	Stool	<i>Shigella sonnei</i>
20	F	Stool	<i>Shigella sonnei</i>
50	F	Bronchial brushing	<i>Streptomyces</i> sp.
74	M	Blood	<i>Streptomyces bovis</i>

Bacterial Enteric Pathogens (November 2007)

Age	Sex	Pathogen	Age	Sex	Pathogen
7	F	<i>Shigella sonnei</i>	26	F	<i>Shigella sonnei</i>
10	F	<i>Shigella sonnei</i>	6	F	<i>Shigella sonnei</i>
27m	M	<i>Shigella sonnei</i>	29	F	<i>Shigella sonnei</i>
60	M	<i>Shigella sonnei</i>			

Antimicrobial Susceptibility of *Shigella sonnei* Associated with 2007 Outbreak (November 2007)

Number Tested	Resistance (R) Antibiotics					
	SXT	NOR	C	GM	AM	TE
54	24	1	1	1*	32	1

* Intermediate susceptibility

AM = Ampicillin

C = Chloramphenicol

SXT = Sulfamethoxazole/trimethoprim

TE = Tetracycline

GM = Gentamicin

NOR = Norfloxacin

Laboratory Diagnosed Mycobacterial Infections in Wisconsin during October 2007

<i>Mycobacterium</i> species		Ashland	Brown	Dane	Eau Claire	Kenosha	La Crosse	Manitowoc	Marathon	Milwaukee	Outagamie	Racine	Rock	Waukesha	Winnebago	Wood	TOTALS
<i>M. tuberculosis</i> complex	Pulm				1					2					1		4
	Extra	1								1				1			3
Total <i>M. tuberculosis</i> complex		1	0	0	1	0	0	0	0	3	0	0	0	1	1	0	7
<i>M. avium</i> complex	Pulm			4		2	1	2	1	55		1		2	5	2	75
	Extra						1			2						1	4
<i>M. gordonae</i>	Pulm		1	7	3					12			3		3		29
	Extra						1										1
<i>M. abscessus</i>	Pulm									3							3
	Extra																0
<i>M. chelonae</i>	Pulm																0
	Extra									1							1
<i>M. fortuitum</i> group	Pulm			1						2							3
	Extra									2						1	3
<i>M. kansasii</i>	Pulm									1						1	2
	Extra																0
<i>M. marinum</i>	Pulm																0
	Extra							1									1
<i>M. mucogenicum</i>	Pulm									3					1		4
	Extra									1							1
<i>M. xenopi</i>	Pulm		1							4						1	6
	Extra																0
<i>Mycobacterium</i> species	Pulm									1							1
<i>M. pulveris</i>	Extra		1														1
<i>M. smegmatis</i> group	Pulm									2							2
<i>M. scrofulaceum</i>	Pulm												1				1
TOTALS		0	3	12	3	2	3	3	1	89	0	1	4	2	9	6	138

<i>M. tuberculosis</i> Extra-pulmonary:	1 urine, 1 chest-thoracentesis, 1 chest-drainage
<i>M. avium</i> complex Extra-pulmonary:	1 stool, 1 blood, 1 abscess, 1 neck
<i>M. gordonae</i> Extra-pulmonary:	1 peritoneal fluid
Other <i>Mycobacterium</i> species:	<i>M. chelonae</i> : 1 scalp; <i>M. fortuitum</i> group: 2 abdomen, 1 sinus; <i>M. marinum</i> : 1 finger; <i>M. mucogenicum</i> : 1 blood; <i>M. pulveris</i> : 1 peritoneal

Extra-Pulmonary Sources of Isolation:

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

Drug Resistance	Number of Isolates
Susceptible to all first-line drugs	5
Resistant to both INH concentrations	1
Multi-drug resistant	1 [§]
TOTAL	7

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

(§) Isolate was resistant to all first-line drugs tested.

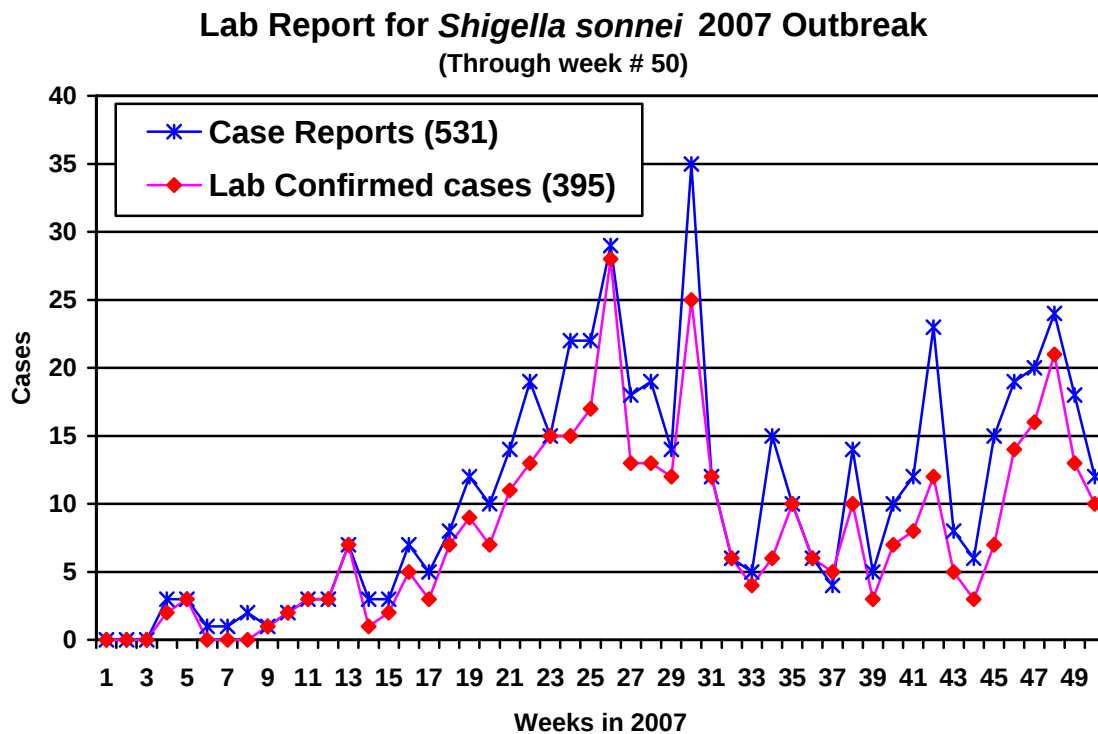
Source: Mycobacteriology Laboratory Network Data Report, Wisconsin State Laboratory of Hygiene, Madison, WI

City of Milwaukee Health Department Laboratory

Shigella sonnei 2007 Outbreak Update for week # 49 and 50 (12/03/07 – 12/14/07)

The MHD Laboratory has confirmed 23 stool samples positive for *Shigella sonnei*. For the month of November, 2007, 54 isolates were tested for antimicrobial susceptibility with resistance to the following drugs shown below:

<u>Drug</u>	<u>No. Resistant</u>
Sulfamethoxazole/Trimethoprim	24
Norfloxacin	1
Chloramphenicol	1
Ampicillin	32
Tetracycline	1
Gentamycin	1 (Intermediate resistance)



SUMMARY OF CONFIRMED INFECTIONS

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

Website: www.milwaukee.gov/healthlab December 2007 ISSUE # 1224

November 2007 Data

Agent	No. of Isolates	Age	Sex	Specimen	Symptoms
Adenovirus	1	25	M	NP	Respiratory
Coxsackie A9	1	5	F	Stool Referred isolate	NA*
Coxsackie B4 Parechovirus 1	1 1	2 mo	M	Colon swab	Autopsy
Echovirus 11	1	12 mo	F	NP Referred isolate	NA
Echovirus 11	1	27 mo	F	Stool Referred isolate	NA
Echovirus 25	1	5 mo	M	Lung swab	Autopsy
Parainfluenza 1	1	39	M	Throat	Cough
Parainfluenza 2	1	20	F	Throat	URI, cough, sore throat, fever, headache
Parainfluenza 2	1	3	F	Buccal swab	r/o Mumps
Parechovirus 1	1	4 mo	M	Colon swab	Autopsy
Herpes simplex, type 1	6				
Herpes simplex, type 2	10				

*NA – Not Available

Agent	Method	Tested	Positive	% Positive
<i>Chlamydia trachomatis</i>	ProbeTec	679	98	14.4%
<i>Neisseria gonorrhoeae</i>	ProbeTec/GenProbe	909	91	10.0%
Respiratory syncytial virus	Real-time RT-PCR	4	2	50%
Mumps virus	Real-time RT-PCR	2	0	0%
Enterovirus	Real-time RT-PCR	35	6	17.1%
Influenza virus	Real-time RT-PCR	31	0	0%
Parainfluenza virus	Real-time RT-PCR	6	3	50%
Parechovirus	Real-time RT-PCR	2	2	100%
HSV	Real-time PCR	3	1	33%
Adenovirus	Real-time PCR	5	0	0%

Important News

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

- 1) Respiratory syncytial virus
- 2) Adenovirus
- 3) Parainfluenza virus
- 4) Parechovirus



Sanjib Bhattacharyya, Ph.D.
Chief Molecular Scientist