MICROBIOLOGY SECTION – MILWAUKEE HEALTH DEPARTMENT

M O N T H L Y R E P O R T

November 2007 Vol. 12, No. 11 **Ajaib Singh, D.V.M., Ph. D.**

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

Legionnaires Disease (October 2007)
No positive case(s) detected.

Pertussis (Whooping cough) October 2007
No positive case was detected.

Syphilis (October 2007)

Test	Number Positive	Test	Number Positive
RPR	3	TP-PA	9
VDRL	36	DARKFIELD	0

New Cases of Syphilis
The Wisconsin Division of Health has reported 6 new cases (early stages) of syphilis during September 2007 in Milwaukee. The median age of early syphilis cases is 25 years (range: 18 - 46 years). Morbidity distributions of the disease reported in this and the corresponding month of the previous year are as follows:

New Cases of Syphilis (September 2007 and September 2006)

Stage	Number of Cases	
	September 2007	September 2006
Primary syphilis	1	0
Secondary syphilis	1	1
Early latent	4	5
Late latent	1	1
Total	7	7

Gonorrhea (October 2007)

Number Tested	Decreased Susceptibility (DS) / Resistance (R) Antibiotics			
	Ciprofloxacin	Ceftriaxone	Spectinomycin	Azithromycin
90	2 I ; 6 R	0	0	2 DS

Gonorrhea from Other Sources (Aurora Consolidated Labs) October 2007

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

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

Organism	Site	Number Isolates	Organism	Site	Number Isolates
Ureaplasma urealyticum	Genital	2	*Mycoplasma hominis*	Genital	2

Enteric Parasites Identified (October 2007)

Age	Sex	Parasite	Number Cases
17	M	*Giardia lamblia* *Schistosoma mansoni* *Iodamoeba butschlii*	1
4	F	*Entamoeba coli* *Iodamoeba butschlii*	1
37	F	*Entamoeba coli*	1
4	F	*Entamoeba coli* *Iodamoeba butschlii*	1
11	F	*Schistosoma mansoni*	1
3	F	*Blastocystis hominis*	1
20	M	*Giardia lamblia*	1
4	F	*Giardia lamblia*	1
10	F	*Schistosoma mansoni* *Entamoeba coli*	1
27	M	*Blastocystis hominis*	1
8	F	*Entamoeba coli*	1
38	F	Hookworm	1
17	M	Hookworm	1
18	F	Hookworm	1
16	F	*Entamoeba coli*	1
55	F	*Giardia lamblia*	1
16	F	*Blastocystis hominis*	1
7	F	*Giardia lamblia*	1
52	M	*Entamoeba coli*	1
40	M	*Entamoeba* sp.	1
17	F	*Iodamoeba butschlii*	1
9	M	*Blastocystis hominis*	1
31	M	*Blastocystis hominis*	1
3	F	*Trichuris trichiura*	1
15m	M	*Giardia lamblia* *Entamoeba* sp.	1
49	M	*Endolimax nana*	1

Reference Cultures (October 2007)

Age	Sex	Source	Culture Identification
67	M	Stool	*Aeromonas caviae*
22	F	Blood	*Actinomyces odontolyticus*
31m	M	Stool	*Bacillus coagulans*
42	F	CSF	*Bacillus megaterium*
23	M	Blood	*Bacillus species* NOT *Bacillus anthracis*
23	M	Blood	*Bacillus species* NOT *Bacillus anthracis*
90	M	Blood	*Brevundimonas diminuta*
84	F	Urine	*Enterococcus* sp.
42	F	Urine	*Escherichia coli*
80	F	Urine	*Escherichia coli*
Unk.	Unk.	Kidney	*Escherichia coli*
84	M	Stool	*Escherichia coli* O157: H7
19	M	Stool	*Escherichia coli* O157: H7
17	F	Stool	*Escherichia coli* O157: H7
33	F	Stool	*Escherichia coli* O157: H7
12	F	Stool	*Escherichia coli* O157: H7
73	M	Stool	*Escherichia coli* O157: H7
85	M	Sputum	*Moraxella nonliquefaciens*
59	M	Sputum	*Neisseria meningitidis*
63	F	Stool	*Salmonella bovismorbificans*
63	F	Stool	*Salmonella bovismorbificans*
87	F	Urine	*Salmonella enterica* subspecies I
32m	M	Stool	*Salmonella ealing*
5	M	Stool	*Salmonella enteritidis*
62	M	Stool	*Salmonella enteritidis*
49	M	Stool	*Salmonella enteritidis*
53	F	Stool	*Salmonella enteritidis*
61	F	Stool	*Salmonella infantis*
61	F	Stool	*Salmonella infantis*
81	M	Urine	*Salmonella javiana*
48	M	Stool	*Salmonella kingston*
4	F	Stool	*Salmonella* Group B monophasic ‘i’
14m	F	Stool	*Salmonella* Group B monophasic ‘i’
49	M	Blood	*Salmonella* Group B monophasic ‘i’
24	M	Stool	*Salmonella* Group B monophasic ‘i’
29	F	Stool	*Salmonella oranienburg*
25	M	Urine	*Salmonella oranienburg*
48	F	Stool	*Salmonella typhimurium*
51	M	Bile	*Salmonella uganda*
27m	M	Stool	*Shigella sonnei*
8	F	Stool	*Shigella sonnei*

Age	Sex	Source	Culture Identification
33m	F	Stool	*Shigella sonnei*
4	F	Stool	*Shigella sonnei*
3	F	Stool	*Shigella sonnei*
15m	M	Stool	*Shigella sonnei*
9	F	Stool	*Shigella sonnei*
11	F	Stool	*Shigella sonnei*
5	F	Stool	*Shigella sonnei*
3	F	Stool	*Shigella sonnei*
50	F	Stool	*Shigella sonnei*
11	F	Stool	*Shigella sonnei*
5	M	Stool	*Shigella sonnei*
4	F	Stool	*Shigella sonnei*
7	M	Stool	*Shigella sonnei*
13	M	Stool	*Shigella sonnei*
25	F	Stool	*Shigella sonnei*
5	F	Stool	*Shigella sonnei*
5	F	Stool	*Shigella sonnei*
31	M	Stool	*Shigella sonnei*
6	F	Stool	*Shigella sonnei*
61	F	Stool	*Shigella sonnei*
20	F	Stool	*Shigella sonnei*

Bacterial Enteric Pathogens (October 2007)

Age	Sex	Pathogen	Age	Sex	Pathogen
8m	M	*Shigella sonnei*	21m	M	*Shigella sonnei*
29	F	*Shigella sonnei*	4	M	*Shigella sonnei*
14m	F	*Shigella sonnei*	3	M	*Shigella sonnei*
34	F	*Shigella sonnei*	6	M	*Shigella sonnei*
26m	M	*Shigella sonnei*	3	M	*Shigella sonnei*
19	M	*Shigella sonnei*			

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

Number Tested	Decreased Susceptibility (DS) / Resistance (R) Antibiotics					
	SXT	NOR	C	GM	AM	TE
34	25	0	0	0	31	0

AM = Ampicillin
C = Chloramphenicol
SXT = Sulfamethoxazole/trimethoprim
TE = Tetracycline
GM = Gentamicin
NOR = Norfloxacin

Laboratory Diagnosed Mycobacterial Infections in Wisconsin during September 2007

***Mycobacterium* species**		**Brown**	**Dane**	**Eau Claire**	**La Crosse**	**Marathon**	**Milwaukee**	**Outagamie**	**Racine**	**Rock**	**Sheboygan**	**Washara**	**Waukesha**	**Winnebago**	**Wood**	**TOTALS**
M. tuberculosis complex	Pulm						4		1							**5**
	Extra		1		1											**2**
Total *M. tuberculosis* complex			**1**	**0**	**1**	**0**	**4**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**7**
***M. avium* complex**			5				39	5					1	5	3	**58**
	Extra						3							1		**4**
M. gordonae	Pulm	2	3			2	13				1	1	1	1	1	**25**
	Extra					1	1									**2**
M. abscessus	Pulm						2									**2**
	Extra															**0**
M. chelonae	Pulm					1	2									**3**
	Extra	1			1		2								1	**5**
M. fortuitum group	Pulm			1			6	1							1	**9**
	Extra		1													**1**
M. kansasii	Pulm		1										1		1	**3**
	Extra															**0**
M. mucogenicum	Pulm						1									**1**
	Extra															**0**
M. xenopi	Pulm						3						1			**4**
	Extra															**0**
M. cookii	Pulm									1						**1**
TOTALS		**3**	**10**	**1**	**1**	**4**	**72**	**6**	**0**	**1**	**1**	**1**	**4**	**7**	**7**	**118**

Extra-Pulmonary Sources of Isolation:

M. tuberculosis Extra-pulmonary:	1 pleural, 1 mesenteric
M. avium complex Extra-pulmonary:	1 bone marrow, 1 mediastinal, 1 pleural space, 1 nasal
M. gordonae Extra-pulmonary:	1 lymph node, 1 abdominal abscess
Other *Mycobacterium* species	*M. chelonae*: 1 CSF, 2 scalp, 1 foot, 1 catheter site; *M. fortuitum* group: 1 buttock

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

Drug Resistance	**Number of Isolates**
Susceptible to all first-line drugs	6
Resistant to PZA, PZA indeterminant, or PZA pending	1 (PZA indeterminant)
TOTAL	**7**

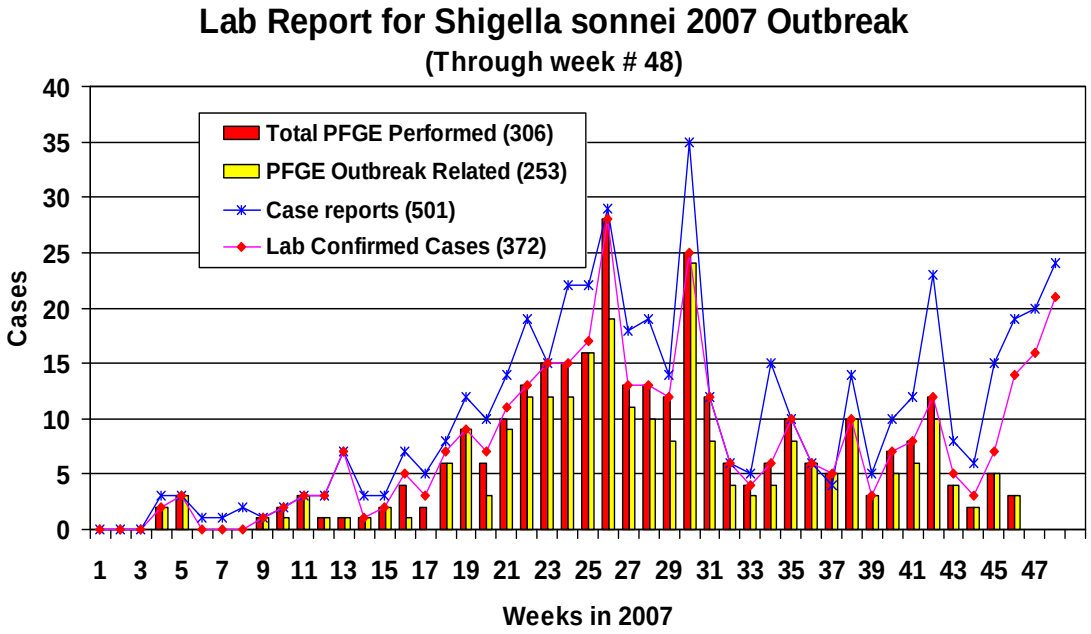
(*) Drugs tested: isoniazid = INH (0.2 ug/ml and 1.0 ug/ml), rifampin (1.0 ug/ml), ethambutol (5.0 ug/ml), and pyrazinamide = PZA (100 ug/ml)

City of Milwaukee Health Department Laboratory

Shigella sonnei 2007 Outbreak

For Week # 47 and 48 (11/19/07 to 11/30/07), MHD Laboratory has confirmed 30 stool samples positive for *Shigella sonnei*. PFGE was not performed on any of the isolates.

For the month of October 31/34, 25/34 and 0/34 isolates tested showed decreased susceptibility or resistance to ampicillin, sulfamethoxazole/trimethoprim (SXT), and norfloxicin, respectively.



SUMMARY OF CONFIRMED INFECTIONS

Virology & Molecular Diagnostic Section
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October 2007 data

Agent	No. of Isolates	Age	Sex	Specimen	Symptoms
Adenovirus and Rhinovirus	2	9 mo	F	NP Referred isolate	NA*
Coxsackie B1	1	10 day	M	NP Referred isolate	NA
Echovirus 3	1	6	F	Stool Referred isolate	NA
Echovirus 11	1	7	F	NP Referred isolate	NA
Echovirus 11	1	6 wk	F	NP Referred isolate	NA
Parechovirus 1 (formerly Echovirus 22)	1	4 mo	M	Colon swab	Autopsy
Rhinovirus	1	3	M	Trach Referred isolate	NA
Rhinovirus	2	19	F	NP Referred isolate	NA
Rhinovirus	1	4 mo	M	NP Referred isolate	NA
Varicella zoster virus	1	26	M	Buttock and scrotum	Vesicular rash
Varicella zoster virus	1	21	M	Axilla	Blisters
Herpes simplex, type 1	8				
Herpes simplex, type 2	15				

***NA – Not Available**

Agent	Method	Tested	Positive	% Positive
Chlamydia trachomatis	ProbeTec	818	96	11.7%
Neisseria gonorrhoeae	ProbeTec/GenProbe	1034	105	10.2%
Enterovirus	Real-time RT-PCR	33	0	0%
Influenza virus	Real-time RT-PCR	2	0	0%
Parechovirus	Real-time RT-PCR	1	1	100%
Adenovirus	Real-time PCR	2	0	0%
HSV	Real-time PCR	2	2	100%

Important News

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

1) Respiratory Syncytial Virus (RSV)
2) Adenovirus
3) Parainfluenza virus
4) Parechovirus

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