

MICROBIOLOGY DIVISION – MILWAUKEE HEALTH DEPARTMENT**MONTHLY REPORT**

March 2005 Vol. 10, No. 3

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MICROBIOLOGY REPORT: The March 2005 issue of Microbiology Monthly Report, Volume 10, presents the laboratory diagnosis of some of the infectious diseases, the reference microbiology work done in this laboratory during February 2005 and new cases of syphilis in Milwaukee during January 2005. Information on the laboratory diagnosed mycobacterial infections in Wisconsin during January is also included.

Legionnaires Disease (February 2005)

No positive case detected.

Pertussis (Whooping cough (February 2005)

Specimens from the city health centers were tested using culture and real-time PCR assays. No positive case was detected.

Syphilis (February 2005)

Test	Number Positive	Test	Number Positive
RPR	0	FTA-ABS	12
VDRL	33	DARKFIELD	0

New Cases (Syphilis)

The Wisconsin Division of Health has reported no new case of syphilis (early stages) during January 2005 in Milwaukee. Morbidity distributions of the disease reported in the corresponding month of the previous year are as follows:

New Cases of Syphilis (January 2005 and January 2004)

Stage	Number of Cases	
	January 2005	January 2004
Primary syphilis	0	1
Secondary syphilis	0	1
Early latent syphilis	0	4
Late latent syphilis	0	5
Total	0	11

Gonorrhea (MHD – February 2005)

Number Tested	Decreased Susceptibility (DS)/Resistance (R) to Antibiotics			
	Ciprofloxacin	Ceftriaxone	Spectinomycin	Azithromycin
47	1(R)	1(DS)	0	0

Gonorrhea from Other Sources (February 2005)

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

Isolates Other Than *N. gonorrhoeae* (February 2005)

Organism	Site	Number Isolates	Organism	Site	Number Isolates
<i>Ureaplasma urealyticum</i>	Genital	39	<i>Mycoplasma hominis</i>	Genital	8

Parasitic Enteric Pathogens (February 2005)

Age	Sex	Pathogen	Number Cases
21	F	<i>Giardia lamblia</i>	1
11*	M*	<i>Entamoeba coli</i>	1
		<i>Giardia lamblia</i>	
33	M	<i>Giardia lamblia</i>	1
19	F	<i>Giardia lamblia</i>	1
18mo	M	<i>Giardia lamblia</i>	1

* dual infection

Mycobacterial Infections (February 2005)

Mycobacteriology laboratory is being renovated and not operational at this time.

Reference Cultures (February 2005)

Age	Sex	Site/Specimen Source	Culture Identification
5	F	Urine	<i>Neisseria cinerea</i>
3	M	Stool	<i>Shewanella putrefaciens</i>
20	F	Urine	<i>Escherichia coli</i>

Bacterial Enteric Pathogens (February 2005)

Age	Sex	Pathogen	Age	Sex	Pathogen
7	F	<i>Shigella flexneri</i> B3	36	M	<i>Salmonella</i> subsp. IIIb; K: 1, 5
29	M	<i>Shigella flexneri</i> B2	92	F	<i>Salmonella typhimurium</i>
17	F	<i>Shigella flexneri</i> B3	28mo	M	<i>Salmonella java</i>
24mo	M	<i>Shigella sonnei</i>	12mo	F	<i>Salmonella urbana</i>
23mo	F	<i>Shigella flexneri</i> B4	77	F	<i>Salmonella saintpaul</i>
60	F	<i>Shigella flexneri</i> B2	12mo	M	<i>Salmonella</i> subsp. I
			65	M	<i>Salmonella enteritidis</i>
			65	F	<i>Salmonella lohbruegge</i>

Laboratory Diagnosed Mycobacterial Infections in Wisconsin during January 2005

<i>Mycobacterium</i> Species	Pulmonary or Extra-Pulmonary	County															
		Brown	Columbia	Dane	Dodge	Douglas	Eau Claire	Fond du Lac	Kenosha	La Crosse	Manitowoc	Milwaukee	Monroe	Outagamie	Portage	Racine	
<i>M. tuberculosis</i> complex	Pulm			1								3					
	Extra			1								1					
Total <i>M. tuberculosis</i> complex				2								4					
<i>M. avium</i> complex	Pulm	1		4			2			1		35		1	1	2	
	Extra			1								1					
<i>M. goodii</i>	Pulm	1		3					2	2		9	1			1	
	Extra																
<i>M. abscessus</i>	Pulm																
	Extra																
<i>M. chelonae</i>	Pulm											1					
	Extra											1					
<i>M. fortuitum</i> group	Pulm			1								2					
	Extra																
<i>M. kansasii</i>	Pulm	1															
	Extra																
<i>M. marinum</i>	Pulm																
	Extra											3					
<i>M. mucogenicum</i>	Pulm																
	Extra																
<i>M. xenopi</i>	Pulm																
	Extra																
Other species (listed below)	Pulm			1													
	Extra											1					
<i>Total Non-TB Mycobacteria</i>		3	0	10	0	0	2	0	2	3	0	53	1	1	1	3	0

Other *Mycobacterium* species and Sources of Isolation:

<i>M. gilvum</i>	sputum
<i>M. bovis</i> BCG	Urine
<i>M. bovis</i> BCG	scrotum

Extra-Pulmonary Sources of Isolation:

<i>M. tuberculosis</i> Extra-pulmonary:	1 finger, 1 paraspinal
<i>M. avium</i> complex Extra-pulmonary:	1 nasal, 1 lung
<i>M. gordonae</i> Extra-pulmonary:	
Other <i>Mycobacterium</i> species Extrapulmonary:	1 <i>bovis</i> BCG urine, 1 <i>chelonae</i> blood, 1 <i>marinum</i> hand, 1 <i>marinum</i> forearm, 1 <i>marinum</i> finger 1 <i>kansasii</i> synovia, 1 <i>bovis</i> BCG scrotum, 1 <i>abscessus</i> arm.

Wisconsin TB Isolations and Antibiotic Susceptibilities:

6 of TBC isolates reported by Wisconsin laboratories this month were from Wisconsin TB cases.

5 TBC isolates were susceptible to TB first-line drugs.

1 TBC isolate (*M. bovis*) was resistant to PZA.

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

SUMMARY OF CONFIRMED VIRUS INFECTIONS

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MILWAUKEE HEALTH DEPARTMENT

VIROLOGY DIVISION, G. SEDMAK, Ph.D. (414)286-3526

WEBSITE: www.milwaukee.gov/healthlab

**"We welcome any question or comments you have. Please see our
"Feedback" form on our website.**

VIRUS ISOLATION: WEEKS OF MARCH 9 TO APRIL 5, 2005

Patient	Symptoms	Specimen	Submitted	Virus
M 57 yr	A.R.D.	BAL	03/15/05	Influenza A
M	Cough, sore	Throat Swab	03/06/05	Influenza B

30 yr U.W.M.	throat, fever, headache			
F 23 mo	A.R.D.	NP Wash	03/01/05	Respiratory Syncytial Virus
M 9 yr	Respiratory	NP/MRC-5 Cells	03/22/05	Rhinovirus
M 14 yr	Respiratory	NP/MRC-5 Cells	03/22/05	Rhinovirus
M 12 mo	Diarrhea	Stool	03/17/05	Adenovirus
F 2 mo	Diarrhea	Stool	03/07/05	Adenovirus
M 20 mo	Diarrhea	Stool	03/29/05	Adenovirus by culture and Rotavirus by EIA
M 24 mo	Diarrhea	Stool	03/30/05	Rotavirus by EIA
M 3 wk	Infant death	Autopsy Colon Swab	03/21/05	Rotavirus by EIA
M 17 mo	Diarrhea	Stool	03/15/05	Rotavirus by EIA
F 27 yr	S.T.D.	Genital Swab	03/29/05	HSV (Type 2 CPE)
F 39 yr	Introitus lesions	Lesion Swab	03/28/05	HSV (Type 2 CPE)
F 25 yr	S.T.D.	Fourchette Lesion Swab	03/23/05	HSV (Type 2 CPE)
F 30 yr	S.T.D.	Clitoris Lesion Swab	03/23/05	HSV (Type 2 CPE)
F 21 yr	S.T.D.	Vulvar Lesion Swab	03/21/05	HSV (Type 2 CPE)
F 17 yr	S.T.D.	Vaginal Lesion Swab	03/18/05	HSV (Type 2 CPE)
F 26 yr	S.T.D.	Genital Lesion Swab	03/17/05	HSV (Type 2 CPE)
M 49 yr	S.T.D.	Penis Lesion Swab	03/15/05	HSV (Type 2 CPE)

SUMMARY OF CONFIRMED VIRUS INFECTIONS

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MILWAUKEE HEALTH DEPARTMENT

VIROLOGY DIVISION, G. SEDMAK, Ph.D. (414)286-3526

VIRUS ISOLATION: WEEKS OF MARCH 9 TO APRIL 5, 2005

Patient	Symptoms	Specimen	Submitted	Virus
M 21 yr	S.T.D.	Penis Lesion Swab	03/15/05	HSV (Type 2 CPE)
M 20 yr	S.T.D.	Penis Lesion Swab	03/14/05	HSV (Type 2 CPE)
M 19 yr	S.T.D.	Penis Lesion Swab	03/11/05	HSV (Type 2 CPE)
M 23 yr	Abdomen lesions	Lesion Swab	03/10/05	HSV (Type 2 CPE)
F 27 yr	S.T.D.	Vaginal Lesion Swab	03/11/05	HSV (Type 2 CPE)
F 23 yr	S.T.D.	Introitus Lesion Swab	03/09/05	HSV (Type 2 CPE)
F 36 yr	S.T.D.	Peri-anal Lesion Swab	03/07/05	HSV (Type 1 CPE)
F 28 yr	S.T.D.	Cervical Swab	03/23/05	Chlamydia trachomatis by culture

NOTE: See attachment for Chlamydia trachomatis testing summary for this lab for the period 1979 through 2004.

SEROLOGY:

Patient	Symptoms	Acute Serum Date	Viral Agent
F 46 yr	Pneumonia	02/15/05	Respiratory Syncytial Virus CF <8 → 128
F 51 yr	S.O.B.	02/24/05	Influenza A CF 16 → 128
M 56 yr	Pneumonia	03/15/05	Influenza A CF 128
F 42 yr	A.R.D.	03/10/05	Adenovirus CF 128



Gerald V. Sedmak, Ph.D.
Chief Virologist

GVS/kb

Summary of Annual Chlamydia Testing by the MHD Virus laboratory

Year	STD Clinic samples	CT +	% CT+	Non-Std clinic samples	CT+	% CT+	Total samples	Total CT+	% CT +
1979							175	4	2.3
1980							371	9	2.4
1981							482	8	1.7
1982							774	30	3.9
1983	537	78	14.5	839	17	20	1376	95	6.9
1984	958	159	16.6	1431	52	3.6	2389	211	8.8
1985	2194	428	19.5	1275	57	4.5	3469	485	14.0
1986	3277	663	20.2	2636	71	2.7	5913	734	12.4
1987	3689	883	23.9	3005	113	3.8	6694	996	14.9
1988	7601	1034	13.6	1412	17	1.2	9013	1051	9.4
1989	4450	461	10.4	1838	49	2.7	6288	510	8.1
1990	8820	1163	13.2	2081	135	6.5	10901	1298	11.9
1991	8629	1103	12.8	2176	171	7.9	10805	1274	11.8
1992	8717	966	11.1	2409	172	7.1	11126	1138	10.2
1993	7894	984	12.5	2015	169	8.4	9909	1153	11.6
1994	8019	933	11.6	1461	91	6.2	9480	1024	10.8
1995	7433	857	11.5	1325	53	4.0	8758	910	10.4
1996	6993	620	8.9	1501	25	1.7	8494	645	7.6
1997	5606	598	10.7	1153	47	4.1	6759	645	9.5
1998	5366	621	11.6	971	48	4.9	6337	669	10.5
1999	4521	477	10.6	1102	56	5.1	5623	533	9.5
2000	4667	706	15.1	672	56	8.3	5339	762	14.3
2001 All LCx	4955	792	16.0	911	85	9.3	5866	877	14.9
2002 All LCx	4376	718	16.4	3059	242	7.9	7435	960	12.9
2003 LCx/ BD	3923	585	14.9	1674	135	8.1	5597	720	12.9
2004	5358	818	15.3	3640	371	10.3	8998	1189	13.2

All BD									
Total	117983	15647	13.3	38586	2232	5.8	158371	17930	11.3

In 1979 started using McCoy cells for isolation of Chlamydia trachomatis. In 1988 Chlamydiazyme-EIA used for 6623 specimens 827+ (12.5%) and culture 978 specimens 207+(21.2%). 1988 total for STD Clinic, 7601 with 1039+(13.6%).

Notes: For 1999 three tests were used for diagnosis of Chlamydia trachomatis infections:

	MHD STD CLINIC			NON-STD CLINIC SAMPLES		
	Specimens	Positive	%Positive	Specimens	Positive	%Positive
GENPROBE	3406	385	11.3	554	42	7.6
CULTURE	204	29	14.2	548	14	2.6
OIA	911	63	6.9			
TOTAL	4521	477	10.6	1102	56	5.1

For 2000 two tests were used for diagnosis of Chlamydia trachomatis infections:

	MHD STD CLINIC			NON-STD CLINIC SAMPLES		
	Specimens	Positive	%Positive	Specimens	Positive	%Positive
GENPROBE	2230	246	11.0	379	21	5.5
LCx	2437	460	19.0	293	35	11.9
TOTAL	4667	706	15.1	672	56	8.3

For all samples (except for 1988) from 1979 through 1998 C. trachomatis diagnosis was performed by culture of the organism using McCoy cells with iodine staining.

From 1983 through 1987 basically all MHD STD Clinic samples were taken from males with NSU, which is why the culture isolation rate for this period is relatively high (~20%).

WISCONSIN VIROLOGY LABORATORY INFORMATION NETWORK

DATA FOR WEEK ENDING: March 26, 2005

Data represent laboratory testing, not physician diagnoses; data are provided by virology laboratories listed and collated by Wisconsin State Laboratory of Hygiene

Total Number of Viral Specimens Positive / Tested in Culture by Specimen Source	Respiratory 42 / 178	CNS 0 / 15	Enteric 1 / 23	Eye 0 / 2	Lesion 3 / 22	Other 0 / 27
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Reporting Laboratory & City	NUMBER OF VIRAL POSITIVES BY AGENT & (SPECIMEN SOURCE)																	
	Influenza			RSV	hMVN	Parainfluenza					Res p Unk	Rhin o	Adeno		Entero			VZ V
	A	B	Un k			1	2	3	4	Un k			(Resp)	(Othe r)	(Resp)	(CNS)	(Othe r)	
Bellin Hsp, Green Bay	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
St. Vincent Hsp, Green Bay	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gundersen Lutheran, LaCrosse	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
St. Mary’s Hsp Med Ctr, Madison	3	3	0	4	0	0	0	2	0	0	0	2	0	0	0	0	0	0
Wisconsin State Lab, Madison	1	1 0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Marshfield Labs, Marshfield	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Childrens Hsp, Milwaukee	1	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0
Milwaukee Hlth Dept, Milwaukee	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
United Dynacare, Milwaukee	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Medical Science Lab, Milwaukee	2	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
TOTAL	9	1 7	0	4	0	0	1	4	0	3	0	3	1	1	0	0	0	3

*24% of respiratory specimens were reported positive this week by culture. The number of respiratory specimens tested remained the same while the number positive **decreased**.

***Influenza:** Influenza detections continue to **decrease** in Wisconsin, the positive predictive values of rapid tests are moderate and declining.

***ILI Rates:** The Wisconsin Division of Public Health reported that influenza-like illness (ILI) rates **range from low to moderate** throughout the state during the week ending March 19, 2005.

***Wisconsin Virology Lab Reports:** The number of influenza A positives and influenza B positives **decreased** this week; the percentage of respiratory specimens that were positive for influenza **decreased** slightly to 15%.

***Rapid Test Sites:** The number of specimens tested, number positive and percentage positive for influenza A all **decreased** for the 6th consecutive week; the number positive for influenza B **decreased** this week.

***RSV:** The number of specimens positive and percentage positive by antigen detection **increased** slightly; the percent positive increased to 26%.

***Rotavirus:** The number of specimens tested and number positive by antigen detection **increased**; the percent positive has remained stable at 48-49%.