

**MICROBIOLOGY DIVISION – MILWAUKEE HEALTH DEPARTMENT**

**MONTHLY REPORT**

September 2005 Vol. 10, No. 9

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

**MICROBIOLOGY REPORT:** The September 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 August 2005 and new cases of syphilis in Milwaukee during July 2005. Information on the laboratory diagnosed mycobacterial infections in Wisconsin during July is also included.

**Legionnaires Disease (August 2005)**

| Patient |     | Test          |         |     |
|---------|-----|---------------|---------|-----|
| Age     | Sex | Urine Antigen | Culture | DFA |
| 62yr    | M   | +             | ND      | ND  |
| 68yr    | M   | +             | ND      | ND  |
| 45yr    | M   | +             | ND      | ND  |

ND = Not done.

**. Pertussis (Whooping cough (August 2005)**

No positive case detected.

**Syphilis (August 2005)**

| Test | Number Positive | Test      | Number Positive |
|------|-----------------|-----------|-----------------|
| RPR  | 2               | FTA-ABS   | 17              |
| VDRL | 45              | DARKFIELD | 0               |

**New Cases (Syphilis)**

The Wisconsin Division of Health has reported 7 new cases (early stages) of syphilis during July 2005 in Milwaukee. The median age of early syphilis cases is 44 years (range:29-77 years). Morbidity distributions of the disease reported in this and the corresponding month of the previous year are as follows:

**New Cases of Syphilis (July 2005 and July 2004)**

| Stage                 | Number of Cases |           |
|-----------------------|-----------------|-----------|
|                       | July 2005       | July 2004 |
| Primary syphilis      | 0               | 0         |
| Secondary syphilis    | 4               | 0         |
| Early latent syphilis | 3               | 1         |
| Late latent syphilis  | 4               | 2         |
| Total                 | 11              | 3         |

### Gonorrhea ( MHD – August 2005)

| Number Tested | Decreased Susceptibility (DS)/Resistance (R) to Antibiotics |             |               |              |
|---------------|-------------------------------------------------------------|-------------|---------------|--------------|
|               | Ciprofloxacin                                               | Ceftriaxone | Spectinomycin | Azithromycin |
| 138           | 3 (IR)                                                      | 0           | 0             | 0            |

Ir = intermediate Resistance

### Gonorrhea from Other Sources (August 2005)

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

### Isolates Other Than *N. gonorrhoeae* (August 2005)

| Organism                      | Site    | Number Isolates | Organism                  | Site    | Number Isolates |
|-------------------------------|---------|-----------------|---------------------------|---------|-----------------|
| <i>Ureaplasma urealyticum</i> | Genital | 33              | <i>Mycoplasma hominis</i> | Genital | 7               |

### Parasitic Enteric Pathogens (August 2005)

| Age | Sex | Pathogen                         | Number Cases |
|-----|-----|----------------------------------|--------------|
| 19  | F   | <i>Entamoeba coli</i>            | 1            |
| 18  | F   | <i>Giardia lamblia</i>           | 1            |
| 8   | F   | <i>Hymenolepis nana</i>          | 1            |
| 12  | F   | <i>Hymenolepis nana</i>          | 1            |
| 5   | M   | <i>Giardia lamblia</i>           | 1            |
| 63  | M   | <i>Strongyloides stercoralis</i> | 1            |
| 41  | F   | <i>Cryptosporidium sp</i>        | 1            |
| 15  | F   | <i>Blastocystis hominis</i>      | 1            |
| 13* | F*  | <i>Giardia lamblia</i>           | 1            |
|     |     | <i>Endolimax nana</i>            |              |
| 14  | F   | <i>Giardia lamblia</i>           | 1            |
| 7   | F   | <i>Giardia lamblia</i>           | 1            |
| 12* | M*  | <i>Giardia lamblia</i>           | 1            |
|     |     | <i>Blastocystis hominis</i>      |              |
| 18* | M*  | <i>Giardia lamblia</i>           | 1            |
|     |     | <i>Strongyloides stercoralis</i> |              |
|     |     | <i>Blastocystis hominis</i>      |              |
| 5   | F   | <i>Giardia lamblia</i>           | 1            |
| 7   | M   | <i>Giardia lamblia</i>           | 1            |
| 6   | F   | <i>Giardia lamblia</i>           | 1            |
| 26* | F*  | <i>Giardia lamblia</i>           | 1            |
|     |     | <i>Entamoeba coli</i>            |              |
| 3   | F   | <i>Giardia lamblia</i>           | 1            |
| 5*  | F*  | <i>Entamoeba coli</i>            | 1            |
|     |     | <i>Endolimax nana</i>            |              |
| 4*  | M*  | <i>Giardia lamblia</i>           | 1            |
|     |     | <i>Endolimax nana</i>            |              |

\*Dual infection

### Mycobacterial infections (August 2005)

| Age & sex | Test results |         |           | Identification          |
|-----------|--------------|---------|-----------|-------------------------|
|           | Sputum smear | Culture | DNA probe |                         |
| 18M*      | +            | +       | +         | <i>M. tuberculosis</i>  |
|           | +            | +       | +         | <i>M. avium</i> complex |

\*Dual infection

### Reference Cultures (August 2005)

| Age  | Sex | Site/Specimen Source | Culture Identification                        |
|------|-----|----------------------|-----------------------------------------------|
| 45   | F   | Blood                | <i>Methylobacterium</i> sp                    |
| 26mo | F   | Stool                | <i>Bacillus cereus</i>                        |
| 76   | M   | Blood                | <i>Bacillus cereus</i>                        |
| 73   | M   | Blood                | <i>Corynebacterium</i> sp                     |
| 53   | F   | Stool                | <i>Citrobacter</i> sp                         |
| 54   | M   | Blood                | <i>Streptococcus mitis</i> sp/gp              |
| 81   | M   | Blood                | <i>Aeromonas veronii</i> biovar <i>sobria</i> |
| 5    | M   | Stool                | <i>Escherichia coli</i> O157:H7               |
| 52   | F   | Stool                | <i>Escherichia coli</i> O157:H7               |
| 6    | F   | Stool                | <i>Escherichia coli</i> O157:H7               |

### Bacterial Enteric Pathogens (August 2005)

| Age  | Sex | Pathogen                        | Age   | Sex | Pathogen                               |
|------|-----|---------------------------------|-------|-----|----------------------------------------|
| 7    | M   | <i>Shigella sonnei</i>          | 31    | F   | <i>Salmonella</i> group B monophasic i |
| 60   | F   | <i>Shigella sonnei</i>          | 5mo   | F   | <i>Salmonella</i> freetown             |
| 31mo | F   | <i>Shigella sonnei</i>          | 45    | F   | <i>Salmonella</i> montevideo           |
| 8    | F   | <i>Shigella sonnei</i>          | 32    | M   | <i>Salmonella</i> typhimurium          |
| 24   | M   | <i>Shigella flexneri</i> type 2 | 63    | M   | <i>Salmonella</i> enteritidis          |
| 45   | M   | <i>Shigella sonnei</i>          | 19    | F   | <i>Salmonella</i> thompson             |
|      |     |                                 | 30    | F   | <i>Salmonella</i> newport              |
|      |     |                                 | 17mo  | M   | <i>Salmonella</i> thompson             |
|      |     |                                 | 52    | M   | <i>Salmonella</i> minnesota            |
|      |     |                                 | 10    | F   | <i>Salmonella</i> typhimurium          |
|      |     |                                 | 25    | M   | <i>Salmonella</i> typhi                |
|      |     |                                 | 23    | F   | <i>Salmonella</i> group B monophasic i |
|      |     |                                 | 18mo  | M   | <i>Salmonella</i> enteritidis          |
|      |     |                                 | 54    | M   | <i>Salmonella</i> enteritidis          |
|      |     |                                 | 7days | F   | <i>Salmonella</i> derby                |
|      |     |                                 | 5     | F   | <i>Salmonella</i> muenchen             |

Laboratory Diagnosed Mycobacterial Infections in Wisconsin during July 2005

| <i>Mycobacterium</i> species                |       | Brown | Dane | Eau Claire | Kenosha | La Crosse | Milwaukee | Outagamie | Portage | Racine | Rock | Washara | Waukesha | Winnebago | Wood | TOTAL |
|---------------------------------------------|-------|-------|------|------------|---------|-----------|-----------|-----------|---------|--------|------|---------|----------|-----------|------|-------|
| <i>M. tuberculosis</i> complex              | Pulm  |       |      |            |         |           | 3         |           |         |        |      | 1       |          |           |      | 4     |
|                                             | Extra |       |      |            |         | 1         | 2         |           | 1       |        |      |         |          |           |      | 4     |
| <b>Total <i>M. tuberculosis</i> complex</b> |       |       |      |            |         | 1         | 5         |           | 1       |        |      | 1       |          |           |      | 8     |
|                                             |       |       |      |            |         |           |           |           |         |        |      |         |          |           |      |       |
| <i>M. avium</i> complex                     | Pulm  | 3     | 1    | 1          | 2       |           | 41        |           |         | 6      |      |         | 2        | 1         | 2    | 59    |
|                                             | Extra |       |      |            |         |           | 2         |           |         |        |      |         |          |           |      | 2     |
| <i>M. gordonae</i>                          | Pulm  |       | 1    |            |         | 1         | 21        |           | 1       |        |      |         | 1        | 4         |      | 29    |
|                                             | Extra |       |      |            |         |           |           |           |         |        |      |         |          |           |      | 0     |
| <i>M. abscessus</i>                         | Pulm  |       |      |            |         |           | 1         |           |         |        |      |         |          |           |      | 1     |
|                                             | Extra |       |      |            |         |           |           |           |         |        |      |         |          |           |      | 0     |
| <i>M. chelonae</i>                          | Pulm  |       |      |            |         |           |           | 1         |         |        |      |         |          |           |      | 1     |
|                                             | Extra |       |      |            |         |           |           |           |         |        |      |         |          |           |      | 0     |
| <i>M. fortuitum</i> group                   | Pulm  |       |      |            |         |           | 6         |           |         |        | 1    |         |          |           |      | 7     |
|                                             | Extra |       |      |            |         |           | 2         |           |         |        |      |         |          |           |      | 2     |
| <i>M. kansasii</i>                          | Pulm  |       |      |            |         |           | 1         |           |         |        |      |         |          |           |      | 1     |
|                                             | Extra |       |      |            |         |           |           |           |         |        |      |         |          |           |      | 0     |
| <i>M. marinum</i>                           | Pulm  |       |      |            |         |           |           |           |         |        |      |         |          |           |      | 0     |
|                                             | Extra |       | 1    |            |         |           |           |           |         |        | 1    |         |          |           |      | 2     |
| <i>M. mucogenicum</i>                       | Pulm  |       | 2    |            |         |           | 6         |           |         |        |      |         |          | 1         |      | 9     |
|                                             | Extra |       |      |            |         |           | 1         |           |         |        |      |         |          |           |      | 1     |
| <i>M. xenopi</i>                            | Pulm  |       |      |            |         |           | 4         |           |         |        |      |         |          |           |      | 4     |
|                                             | Extra |       |      |            |         |           |           |           |         |        |      |         |          |           |      | 0     |
| <i>M. fortuitum</i> complex                 | Pulm  |       |      |            |         | 1         |           |           |         |        |      |         |          |           |      | 1     |
| <i>M. chelonae-abscessus</i>                | Pulm  |       |      |            |         | 1         |           |           |         |        |      |         |          |           |      | 1     |
|                                             | Extra |       |      |            |         | 1         |           |           |         |        |      |         |          |           |      | 1     |
| <b>TOTALS</b>                               |       | 3     | 5    | 1          | 2       | 4         | 85        | 1         | 1       | 6      | 2    | 0       | 3        | 6         | 2    | 121   |

**Extra-Pulmonary Sources of Isolation:**

|                                          |                                                                                                                                               |
|------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| <i>M. tuberculosis</i> Extra-pulmonary:  | 1 lymph node, 1 stool, 1 urine (bovis), 1 CSF                                                                                                 |
| <i>M. avium</i> complex Extra-pulmonary: | 2 blood                                                                                                                                       |
| <i>M. gordonae</i> Extra-pulmonary:      |                                                                                                                                               |
| Other <i>Mycobacterium</i> species       | 1 <i>marinum</i> skin, 2 <i>fortuitum</i> group blood, 1 <i>mucogenicum</i> stool, 1 <i>marinum</i> forearm, 1 <i>chelonae-abscessus</i> hand |

**Wisconsin TB Isolations and Antibiotic Susceptibilities:**

Six of TBC isolates reported by Wisconsin laboratories this month were from Wisconsin TB cases. 2 isolates were from Illinois patients.

Four isolates were susceptible to all TB first-line drugs tested.

1 isolate was resistant to INH, rifampin, and ethambutol but susceptible to PZA.

1 isolate (*M. bovis*) was not tested for TB drug susceptibilities.

2 Illinois isolates were not tested for TB drug susceptibilities.

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

## **SUMMARY OF CONFIRMED VIRUS INFECTIONS**

**ISSUE # 1198 PAGE ONE**

**MILWAUKEE HEALTH DEPARTMENT**

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

**WEBSITE: [www.milwaukee.gov/healthlab](http://www.milwaukee.gov/healthlab)**

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

### **VIRUS ISOLATION: WEEKS OF August 23<sup>rd</sup> through September 12, 2005**

| <b>Patient</b> | <b>Symptoms</b>       | <b>Specimen</b>        | <b>Submitted</b> | <b>Virus</b>         |
|----------------|-----------------------|------------------------|------------------|----------------------|
| M<br>4 mo      | Aseptic<br>Meningitis | CSF/RMK Cells          | 08/23/05         | Coxsackievirus<br>B5 |
| M<br>25 yr     | Aseptic<br>Meningitis | CSF/RMK Cells          | 08/23/05         | Coxsackievirus<br>B5 |
| F<br>2 wks     | No Information        | CSF/MRC-5<br>Cells     | 09/02/05         | Echovirus 3          |
| M<br>2 mo      | Infant death          | Autopsy Colon<br>Swab  | 08/24/05         | Echovirus 18         |
|                |                       | Autopsy Lung<br>Tissue | 08/24/05         | Echovirus 18         |
| F<br>26 mo     | No Information        | Stool/RMK<br>Cells     | 08/30/05         | Echovirus 25         |

---

**NOTE: Enterovirus cases 2005 to date:**

**1 x coxA4 ; 1 x coxA20; 9 x coxB5; 1 x echo 3; 6 x echo 18; 1 x echo 25  
Total cases = 19**

**Same time 2004**

**Total cases = 9**

**Also, for a Milwaukee area sewage sample collected August 30, 2005, a large increase in MPN/L of infectious units of enteroviruses, (2943 MPN/L) was detected when compared to July titer of 371 MPN/L. The two most frequently detected sewage enteroviruses in August sewage were Coxsackievirus B5 (1606 MPN/L) and Echovirus 6 (1070 MPN/L). Echovirus 25 was also detected in August sewage.**

|            |              |                      |          |                     |
|------------|--------------|----------------------|----------|---------------------|
| M<br>47 yr | A.R.D        | NP/MRC-5<br>Cells    | 09/02/05 | Rhinovirus          |
| M<br>24 mo | A.R.D        | NP/MRC-5<br>Cells    | 08/30/05 | Rhinovirus          |
| M<br>2 wks | A.R.D.       | NP Swab              | 08/29/05 | Rhinovirus          |
| M<br>8 mo  | Infant death | Autopsy NP<br>Swab   | 08/25/05 | Rhinovirus          |
| F<br>2 mo  | Diarrhea     | Stool                | 08/23/05 | Rotavirus           |
| M<br>65 yr | Leukemia     | Bone Marrow          | 081805   | Cytomegalovirus     |
| F<br>23 yr | S.T.D        | Vulva Lesion<br>Swab | 09/07/05 | HSV (type 1<br>CPE) |

**SUMMARY OF CONFIRMED VIRUS INFECTIONS****ISSUE # 1198 PAGE TWO****MILWAUKEE HEALTH DEPARTMENT****VIROLOGY DIVISION, G. SEDMAK, Ph.D. (414)286-3526****VIRUS ISOLATION: WEEKS OF August 23<sup>rd</sup> Through September 12, 2005**

| <b>Patient</b> | <b>Symptoms</b> | <b>Specimen</b>         | <b>Submitted</b> | <b>Virus</b>        |
|----------------|-----------------|-------------------------|------------------|---------------------|
| M<br>40 yr     | S.T.D.          | Penis Lesion<br>Swab    | 09/07/05         | HSV (Type 2<br>CPE) |
| M<br>14 mo     | Oral Lesion     | Mouth Swab              | 09/06/05         | HSV (Type 1<br>CPE) |
| F<br>22 yr     | S.T.D.          | L-Labia Lesion<br>Swab  | 09/02/05         | HSV (Type 2<br>CPE) |
| M<br>32 yr     | S.T.D.          | Penis Lesion<br>Swab    | 09/02/05         | HSV (Type 2<br>CPE) |
| M<br>26 yr     | S.T.D.          | Penis Lesion<br>Swab    | 09/02/05         | HSV (Type 2<br>CPE) |
| F<br>21 yr     | S.T.D.          | L-Labia Lesion<br>Swab  | 08/29/05         | HSV (Type 2<br>CPE) |
| F<br>18 yr     | S.T.D.          | Vagina Lesion<br>Swab   | 09/01/05         | HSV (Type 2<br>CPE) |
| F<br>19 yr     | S.T.D.          | Perineum<br>Lesion Swab | 08/29/05         | HSV (Type 2<br>CPE) |
| F<br>64 yr     | Genital Lesion  | Vaginal Swab            | 08/23/05         | HSV (Type 2<br>CPE) |
| F<br>23 yr     | S.T.D.          | Labia Lesion<br>Swab    | 08/22/05         | HSV (Type 2<br>CPE) |
| M<br>32 yr     | S.T.D.          | Penis Lesion<br>Swab    | 08/22/05         | HSV (Type 1<br>CPE) |
| F<br>27 yr     | S.T.D.          | Vagina Lesion<br>Swab   | 08/22/05         | HSV (Type 2<br>CPE) |
| F<br>18 yr     | S.T.D.          | Cervix Swab             | 08/30/05         | Trichomonads        |

**SEROLOGY:**

| Patient |        | Symptoms | Acute Serum Date | Viral Agent           |
|---------|--------|----------|------------------|-----------------------|
| M       | A.R.D. |          | 08/04/05         | Mycoplasma pneumoniae |
| 20 yr   |        |          |                  | CF 1:64               |
| M       | A.R.D. |          | 07/29/05         | Mycoplasma pneumoniae |
| 77 yr   |        |          |                  | CF 1:64               |



Gerald V. Sedmak, Ph.D  
Chief Virologist

GVS:cms