

# Wisconsin Mycobacteriology Laboratory Network Data Report | 2016

There were 39 new Report-Verified Cases of Tuberculosis in Wisconsin in 2016. 34 Wisconsin patients had culture-confirmed tuberculosis with susceptibility testing performed.

Number of Wisconsin Patients with New Isolations of *Mycobacterium tuberculosis* complex<sup>β</sup>:

<i>M. tuberculosis</i> complex	Brown	Dane	Fond du Lac	Iron	Juneau	Kenosha	Marathon	Milwaukee	Racine	Waupaca	Winnebago	TOTALS
	Pulmonary	1	1	1	1		1	3	11	1	1	
Extra-Pulmonary*		6			1			4	1		1	13
<b>TOTALS</b>	<b>1</b>	<b>7</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>15</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>34</b>

(β) This table shows the county in which the patient is receiving treatment for tuberculosis.

(\*)Extra-Pulmonary sources of isolation: 7 lymph node, 2 urine, 1 neck aspirate, 1 blood, 1 bone marrow, 1 lumbar disc biopsy

<i>M. tuberculosis</i> complex First-Line Drug Susceptibility Testing <sup>§</sup>	
Susceptible to all first-line drugs	24
Resistant to INH (0.2 ug/ml) only	2
Resistant to both INH concentrations	1
Resistant to rifampin only	0
Resistant to ethambutol only	0
PZA resistant	3
PZA indeterminate	2
poly-resistant	2 (INH and PZA)*
Multi-drug resistant (MDR) #	0
non-viable, unable to perform	
<b>TOTAL</b>	

(§)TB First-Line Drugs tested: isoniazid (INH) 0.2 and 1.0 ug/ml, rifampin 1.0 ug/ml, ethambutol 5.0 ug/ml, pyrazinamide (PZA) 100 ug/ml.

(#) MDR = resistant to at least INH and rifampin.

(\*) PZA resistance confirmation testing by CDC only confirmed one of these isolates as resistant to PZA



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Continued	Brown	Dane	Green	Eau Claire	Fond du Lac	Juneau	Kenosha	La Crosse	Marathon	Marinette	Milwaukee	Outagamie	Portage	Racine	Sauk	Shawano	Sheboygan	Washington	Waukesha	Winnebago	Wood	Totals
<i>M. nonchromogenicum</i>											1											1
<i>M. peregrinum</i>		13									13	1										27
<i>M. phocaicum</i>		1																				1
<i>M. porcinum</i>									3		5						1					9
<i>M. saskatchewanense</i>	1																					1
<i>M. scrofulaceum</i>		1										1										2
<i>M. septicum</i>		1							1		1											3
<i>M. shimoidei</i>																					1	1
<i>M. simiae</i>		1																			1	2
<i>M. szulgai</i>		1									1							1				3
<i>M. terrae</i>																					1	1
<i>M. terrae</i> complex		1							1		1											3
<i>M. xenopi</i>		2									17								1			20
Other Mycobacteria									1		3											4
<b>Totals</b>	<b>27</b>	<b>190</b>	<b>1</b>	<b>28</b>	<b>26</b>	<b>1</b>	<b>17</b>	<b>23</b>	<b>34</b>	<b>1</b>	<b>974</b>	<b>72</b>	<b>11</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>5</b>	<b>29</b>	<b>14</b>	<b>2</b>	<b>45</b>	<b>1504</b>

**Table 1. Mycobacteria Groups and Complexes**

Name	Species within group or complex (This list may not be exhaustive.)
<i>M. avium</i> complex <sup>1</sup>	<i>avium</i> subsp. <i>avium</i> , <i>avium</i> subsp. <i>silvaticum</i> , <i>avium</i> subsp. <i>paratuberculosis</i> , <i>avium</i> subsp. <i>hominissuis</i> , <i>intracellulare</i> , <i>chimaera</i> , <i>colombiense</i> , <i>vulneris</i> , <i>marseillense</i> , <i>timonense</i> , <i>bouchedurhonense</i> .
<i>M. chelonae-abscessus</i> group <sup>1</sup>	<i>chelonae</i> , <i>immunogenum</i> , <i>abscessus</i> subsp. <i>abscessus</i> , <i>abscessus</i> subsp. <i>bolletii</i> , <i>massiliense</i> , <i>salmoniphilum</i> , ( <i>franklinii</i> , proposed)
<i>M. fortuitum</i> group <sup>1</sup>	<i>fortuitum</i> , <i>peregrinum</i> , <i>senegalense</i> , <i>setense</i> , <i>septicum</i> , <i>porcinum</i> , <i>houstonense</i> , <i>boenickei</i> , <i>brisbanense</i> , <i>neworleansense</i> , <i>alvei</i> , ( <i>conceptionense</i> , proposed)
<i>M. mucogenicum-phocaicum</i> group	<i>mucogenicum</i> , <i>aubagnense</i> , <i>phocaicum</i>
<i>M. terrae</i> complex <sup>3</sup>	<i>terrae</i> , <i>arupense</i> , <i>engbaekii</i> , <i>hiberniae</i> , <i>kumamotonense</i> , <i>nonchromogenicum</i> , <i>senuense</i>
<i>M. tuberculosis</i> complex <sup>1</sup>	<i>tuberculosis</i> , <i>bovis</i> , <i>bovis BCG</i> , <i>africanum</i> , <i>caprae</i> , <i>microti</i> , <i>canetti</i> , <i>pinnipedii</i> , <i>mungi</i>

**References:**

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2. McNeil M. and Brown J. 1994. The medically important Aerobic Actinomycetes: epidemiology and microbiology. *Clin Microbiol Rev.* 7(3):357-417.
3. Tortoli et al. 2013. Survey of 150 strains belonging to the *Mycobacterium terrae* complex and description of *Mycobacterium engbaekii* sp. nov., *Mycobacterium heraklionsense* sp. nov., and *Mycobacterium longobardum* sp. nov. *Int J Syst Evol Microbiol.* 63: 401-411.
4. Tortoli et al. 2011. *Mycobacterium europaeum* sp. nov., a scotochromogenic species related to the *Mycobacterium simiae* complex. *Int J Syst Evol Microbiol.* 61: 1606-1611.