

Wisconsin Mycobacteriology Laboratory Network Data Report | 2017

There were 49 new Report-Verified Cases of Tuberculosis in Wisconsin in 2017. 40 Wisconsin patients had culture-confirmed tuberculosis with susceptibility testing performed.

Number of Wisconsin Patients with New Isolations of *Mycobacterium tuberculosis* complex:

County of Residence	Bayfield	Brown	Dane	Jefferson	Kenosha	La Crosse	Marathon	Milwaukee	Outagamie	Portage	Price	Racine	Waukesha	Winnebago	TOTALS
Pulmonary	0	1	5	1	2	2	1	9	2	1	1	2	1	1	29
Extra-pulmonary	1	1	1	0	0	2	1	3	0	0	0	0	2	0	11
Totals	1	2	6	1	2	4	2	12	2	1	1	2	3	1	40

(*)Extra-Pulmonary sources of isolation: 4 lymph node, 1 pleural, 2 urine, 1 back abscess, 1 pelvic fluid, 1 pancreas, 1 peritoneal

<i>M. tuberculosis</i> complex First-Line Drug Susceptibility Testing [§]	
Susceptible to all first-line drugs	30
Resistant to INH (0.2 ug/ml) only	1
Resistant to both INH concentrations	2
Resistant to rifampin only	2
Resistant to ethambutol only	0
PZA resistant	2*
PZA indeterminate	2
poly-resistant	1 (INH 0.2 and PZA)
Multi-drug resistant (MDR) [#]	0
non-viable, unable to perform	0
TOTAL	40

(§)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.

(*) One of these isolates was also tested by CDC, with a result of PZA susceptible.

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Continued	Barron	Brown	Chippewa	Dane	Eau Claire	Fond du Lac	Juneau	Kenosha	La Crosse	Marathon	Milwaukee	Outagamie	Portage	Racine	Sauk	Sheboygan	Washington	Waukesha	Wood	
<i>M. llatzerense</i>											1									1
<i>M. malmoense</i>											1									1
<i>M. mantenii</i>											1									1
<i>M. marinum</i>				1							4	1								6
<i>M. mucogenicum</i>									1		1									2
<i>M. mucogenicum</i> group				1		1					22	2								26
<i>M. nebraskense</i>	1								1											2
<i>M. neoaurum</i>				1					1		2	1								5
<i>M. neoaurum/bacteremicum</i>											1									1
<i>M. paraffinicum</i>				1				2												3
<i>M. parascrofulaceum</i>				1																1
<i>M. peregrinum</i>				16						1	11									28
<i>M. porcinum</i>				2						10	4			1						17
<i>M. septicum</i>					1	1														2
<i>M. simiae</i>				1																1
<i>M. simiae</i> complex				1				1												2
<i>M. smegmatis</i>			1																	1
<i>M. szulgai</i>											1	1								2
<i>M. terrae</i> complex					1						1									2
<i>M. thermoresistibile</i>			1																	1
<i>M. xenopi</i>				7							12									19
Other Mycobacteria											2	1								3
Totals	3	24	2	226	20	30	1	20	36	39	943	80	9	2	2	1	23	1	15	1477

Table 1. Mycobacteria Groups and Complexes

Name	Species within group or complex (This list may not be exhaustive.)
<i>M. avium</i> complex ¹	<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 ¹	<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 ¹	<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 ³	<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 ¹	<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.