

Protecting and improving the nation's health

Laboratory reports of Mycoplasma pneumoniae infection made to CIDSC from PHE and NHS laboratories in England and Wales: <u>January to June</u> 2018.

Background

These analyses are based on laboratory reports of *Mycoplasma pneumoniae* from January to March 2018 in England and Wales (EW), extracted from Public Health England's (PHE) voluntary surveillance database Second Generation Surveillance System (SGSS), with data from the past five full years shown for comparison and context.

Laboratory reports included were limited to the following methods and samples:

- Serological methods: on blood, serum or plasma
- Nucleic acid amplification testing (NAAT), including polymerase chain reaction (PCR): on blood, serum, plasma, throat, nose/nasal, bronchial, upper respiratory tract, broncho-alveolar lavage (BAL), alveolar, naso-pharyngeal aspirate (NPA), endotracheal aspirate, trachea or sputum

The data presented here may differ from those in earlier publications, due to the inclusion of late reports, for instance.

Rates of laboratory detection were calculated using mid-year resident population estimates for the respective year [1]. Geographical analyses were based on location of the reporting laboratory.

It is recommended that results from serological analyses are interpreted with caution, as NAAT methods are considered to produce a more robust indication of acute infection.

Table 1: Cases of M. pneumoniae reported, by NAAT methods.

Year	Cases		Gender		Overall annual rate of detection/million	
		Male	Female	Unknown	population	
2013	8	4	4	0	0.14	
2014	52	29	23	0	0.91	
2015	161	78	83	0	2.78	
2016	241	119	122	0	4.12	
2017	65	35	30	0	1.11	
2018*	33	17	16	0	-	

^{*}Includes data up to the end of June 2018 only

Table 2: Cases of *M. pneumoniae* reported, by serological methods.

Year	Cases		Gender		Overall annual rate of detection/million	
		Male	Female	Unknown	population	
2013	462	230	230	2	8.11	
2014	377	182	193	2	6.57	
2015	417	210	206	1	7.20	
2016	462	232	226	4	7.91	
2017	485	248	235	2	8.30	
2018*	194	96	96	2	-	

^{*}Includes data up to the end of June 2018 only

Table 3: Cases of *M. pneumoniae* by age group, reported by NAAT methods.

Year	Number of cases per age group in years (%)							
I C ai	0-4	5-9	10-14	15-44	45-64	65+	Unknown	cases
2013	2	0	1	3	2	0	0	0
	(25.0)	(0.0)	(12.5)	(37.5)	(25.0)	(0.0)	(0.0)	8
2014	20	9	0	19	3	1	0	52
	(38.5)	(17.3)	(0.0)	(36.5)	(5.8)	(1.9)	(0.0)	
2015	53	17	6	58	16	11	0	161
	(32.9)	(10.6)	(3.7)	(36.0)	(9.9)	(6.8)	(0.0)	101
2016	76	22	7	103	27	6	0	241
	(31.5)	(9.1)	(2.9)	(42.7)	(11.2)	(2.5)	(0.0)	
2017	17	4	5	22	13	4	0	65
	(26.2)	(6.2)	(7.7)	(33.8)	(20.0)	(6.2)	(0.0)	
2018*	16	1	1	10	3	2	0	33
	(48.5)	(3.0)	(3.0)	(30.3)	(9.1)	(6.1)	(0.0)	

^{*}Includes data up to the end of June 2018 only

Table 4: Cases of *M. pneumoniae* by age group, reported by serological methods.

Voor	Number of cases per age group in years (%)							
Year	0-4	5-9	10-14	15-44	45-64	65+	Unknown	cases
2013	33	54	41	151	102	81	0	462
	(7.1)	(11.7)	(8.9)	(32.7)	(22.1)	(17.5)	(0.0)	402
2014	27	36	27	152	60	74	1	277
	(7.2)	(9.5)	(7.2)	(40.3)	(15.9)	(19.6)	(0.3)	377
2015	26	49	32	162	87	60	1	417
	(6.2)	(11.8)	(7.7)	(38.8)	(20.9)	(14.4)	(0.2)	417
2016	38	47	42	181	81	69	4	462
	(8.2)	(10.2)	(9.1)	(39.2)	(17.5)	(14.9)	(0.9)	402
2017	51	69	59	158	76	72	0	485
	(10.5)	(14.2)	(12.2)	(32.6)	(15.7)	(14.8)	(0.0)	
2018*	15	28	14	62	38	37	0	194
	(7.7)	(14.4)	(7.2)	(32.0)	(19.6)	(19.1)	(0.0)	194

^{*}Includes data up to the end of June 2018 only

Acknowledgements

This report is only made possible by the weekly contributions from microbiology colleagues in laboratories across England and Wales.

Information is available to the public about the specific work that PHE do and why we require information about people's health. It also explains who we sometimes share the information with, how we protect the information we use, and what the public's options are with regards to any information we may hold about them.

(https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/421854/PHE_fair_processing_notice.pdf).

References

1. Office for National Statistics (ONS) mid-year population estimates for England and Wales, http://www.ons.gov.uk/ons/rel/pop-estimate/population-estimates-for-uk-england-and-wales--scotland-and-northern-ireland/index.html.

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Published August 2018



PHE supports the UN Sustainable Development Goals



Figure 1: Laboratory detection of *M. pneumoniae* in England and Wales (3-weekly moving average) January 2010 to June 2018.

