



Infection report

Volume 10 Number 21 Published on 1 July 2016

Laboratory confirmed reports of invasive meningococcal disease in England: January to March 2016

In England, the national Public Health England (PHE) Meningococcal Reference Unit (MRU) confirmed 272 cases of invasive meningococcal disease (IMD) between January and March 2016 [1]. IMD cases were 3% lower this quarter than the 279 cases confirmed in the equivalent quarter in 2015 (table 1).

The distribution of meningococcal capsular groups causing IMD by age is summarised in table 2, with capsular group B (MenB) accounting for 53% (143/272) of all cases, followed by MenW (n=71, 26%), MenY (n=35, 13%) and MenC (n=17, 6%). The number of cases of MenW IMD confirmed in the third quarter of the 2015/16 epidemiological year (running 1 July, in one year, to 30 June the following year) were similar to the number of cases confirmed during the same period in 2014/15 (71 and 69 respectively), MenY decreased by 24% from 46 to 35 cases. MenB cases decreased from 151 in the third quarter of 2014/15 to 143 cases (5% decrease) in the same period of 2015/16 and the number of MenC cases was increased by 70% from 10 in the third quarter of 2014/15 to 17 in the same period in 2015/16. During the first three quarters of 2015/16, there were no reported cases for capsular groups A, X and Z/E (table 1) in England.

In the first quarter of 2016 MenB was responsible for the majority of IMD cases in infants (23/29, 79%) and toddlers (43/49, 88%) but, as expected, contributed to a lower proportion of cases in older age groups (table 2). The introduction of a routine national MenB immunisation programme for infants was announced in June 2015 [2] with immunisation of infants starting from 1 September 2015. Preliminary vaccine coverage estimates for those eligible for infant Meningococcal B immunisation are 95.5% for one dose and 87.9% for two doses by six months of age (evaluated at the end of April 2016) [3].

Capsular groups other than MenB were more prevalent in older age groups (table 2). Fourteen percent of the 71 MenW cases in the first quarter of 2016 were in children under five years with 45% in adults aged 65+ years, 21% aged 45-64 years and 11% in 15-24 year-olds. The increase in MenW cases, which has been previously reported [4,5], led to the introduction of MenACWY conjugate vaccine to the national immunisation programme in England [6,7]. MenACWY vaccine replaced the existing time-limited 'freshers' programme from August 2015 and was directly substituted for MenC vaccine in the routine adolescent schools programme (school year 9 or 10) from Autumn 2015. In addition a catch-up campaign is being implemented offering MenACWY vaccine to all adolescents aged 14 to 18 years (to school year 13 in the 2014/15 academic year); 2015 school leavers (aged 17/18) were prioritised for the first phase of the catch-up.

It is too early following the introduction of both of these new vaccination programmes to assess their impact on IMD.

Table 1. Invasive meningococcal disease in England by capsular group and laboratory testing method: January – March (Q1), 2016

Capsular groups~	CULTURE AND PCR		CULTURE ONLY		PCR ONLY		Total		Cumulative Total	
	2015	2016	2015	2016	2015	2016	2015	2016	2014/15	2015/16#
	Q1	Q1	Q1	Q1	Q1	Q1	Q1	Q1	Q3-Q4 (2014) /Q1 (2015)	Q3-Q4 (2015) /Q1 (2016)
B	41	27	42	24	68	92	151	143	317	341
C	3	3	4	9	3	5	10	17	25	32
W	7	14	49	48	13	9	69	71	134	160
Y	5	10	36	22	5	3	46	35	70	73
Ungrouped*	0	0	0	0	1	4	1	4	3	7
Ungroupable*	0	0	2	2	0	0	2	2	3	5
Total	56	54	133	105	90	113	279	272	552	618

2015/16 epidemiological year (running from 01/07/2015 to 30/06/2016).

~ No cases of groups A, X or Z/E were confirmed during the periods summarised in the table.

* Ungroupable refers to invasive clinical meningococcal isolates that were non-groupable, while ungrouped cases refers to culture-negative but PCR screen (ctrA) positive and negative for the four genogroups [B, C, W and Y] routinely tested for.

Table 2: Invasive meningococcal disease in England by capsular group and age group at diagnosis: January – March (Q1), 2016

Age groups	Capsular Group~										Total		2015/16# Total to date	
	B		C		W		Y		Other*		Q1		Q3-Q4 (2015) /Q1 (2016)	
	Total	%	Total	%	Total	%	Total	%	Total	%	Total	%	Total	%
<1 year	23	16.1	–	–	5	7.0	–	–	1	16.7	29	10.7	89	14.4
1-4 years	43	30.1	–	–	5	7.0	–	–	1	16.7	49	18.0	135	21.8
5-9 years	15	10.5	2	11.8	3	4.2	5	14.3	–	–	25	9.2	43	7.0
10-14 years	5	3.5	2	11.8	–	–	–	–	–	–	7	2.6	14	2.3
15-19 years	17	11.9	1	5.9	4	5.6	3	8.6	1	16.7	26	9.6	64	10.4
20-24 years	7	4.9	–	–	4	5.6	1	2.9	1	16.7	13	4.8	35	5.7
25-44 years	10	7.0	6	35.3	3	4.2	3	8.6	2	33.3	24	8.8	41	6.6
45-64 years	11	7.7	1	5.9	15	21.1	6	17.1	–	–	33	12.1	70	11.3
>=65 years	12	8.4	5	29.4	32	45.1	17	48.6	–	–	66	24.3	127	20.6
Total	143		17		71		35		6		272		618	

2015/16 epidemiological year (running from 01/07/2015 to 30/06/2016).

~ No cases of groups A, X or Z/E were confirmed during the periods summarised in the table.

* Other includes Ungroupable and Ungrouped.

References

1. Data source: Public Health England Meningococcal Reference Unit, Manchester.
2. PHE and NHS England (June 2015). [Introduction of MenB immunisation for infants.](#)
3. [PHE \(2016\). HPR 10\(18\), 26 May 2016.](#)
4. [PHE \(2016\). HPR 9\(7\), 27 February 2015.](#)
5. “Freshers told, ‘It’s not too late’ for meningitis C vaccine”, PHE press release, 27 November 2014. <https://www.gov.uk/government/news/freshers-told-its-not-too-late-for-meningitis-c-vaccine>
6. PHE and NHS England (June 2015). [Meningococcal ACWY conjugate vaccination \(MenACWY\).](#)
7. <https://www.gov.uk/government/collections/meningococcal-acwy-menacwy-vaccination-programme>