



Infection report

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Laboratory confirmed reports of invasive meningococcal disease in England: October to December 2015

In England, the national Public Health England (PHE) Meningococcal Reference Unit (MRU) confirmed 235 cases of invasive meningococcal disease (IMD) between October and December 2015 [1]. IMD cases were 32% higher this quarter than the 178 cases confirmed in the equivalent quarter in 2014 (table 1).

The distribution of meningococcal capsular groups causing IMD by age is summarised in table 2, with capsular group B (MenB) accounting for 57% (134/235) of all cases, followed by MenW (n=62, 26%), MenY (n=25, 11%) and MenC (n=10, 4%). The 62 cases of MenW IMD confirmed in the second quarter of the 2015/16 epidemiological year (running 1 July, in one year, to 30 June the following year) were 51% higher than the 41 cases confirmed during the same period in 2014/15, similarly MenY increased by 56% from 16 to 25 cases. MenB cases increased from 107 in the second quarter of 2014/15 to 134 cases (25% increase) in the same period of 2015/16 and the number of MenC cases was relatively stable with 11 and 10 cases respectively. During the first two quarters of 2015/16, there were no reported cases for capsular groups A, X and Z/E (table 1) in England.

In quarter four of 2015 MenB was responsible for the majority of IMD cases in infants (26/36, 72%) and toddlers (47/56, 84%) 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. Provisional first vaccine coverage estimates for the new MenB immunisation programme for England are published in this issue of *HPR* with high uptake reported [3].

Capsular groups other than MenB were more prevalent in older age groups (table 2). Sixteen percent of the 62 MenW cases were in children under five years with 34% in adults aged 65+ years, and 24% 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: October - December (Q4), 2015

Capsular groups~	CULTURE AND PCR		CULTURE ONLY		PCR ONLY		Total		Cumulative Total#	
	2014	2015	2014	2015	2014	2015	2014	2015	2014/15	2015/16
	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q3-Q4	Q3-Q4
A	–	–	–	–	–	–	–	–	–	–
B	30	31	25	24	52	79	107	134	166	197
C	1	4	6	3	4	3	11	10	15	16
W	7	10	23	43	11	9	41	62	64	88
Y	2	7	12	15	2	3	16	25	24	38
Ungrouped*	–	–	–	–	2	–	2	–	2	3
Ungroupable*	–	–	–	4	–	–	1	4	1	5
Total	40	52	67	89	71	94	178	235	272	347

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

~ No cases of groups 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: October - December (Q4), 2015

Age groups	Capsular Group~										Total		2015/16# Total to date	
	B		C		W		Y		Other*		Q4		Q3 - Q4	
	Total	%	Total	%	Total	%	Total	%	Total	%	Total	%	Total	%
<1 year	26	19	1	10	6	19	2	8	1	25	36	15	61	18
1-4 years	47	35	1	10	4	13	2	8	2	50	56	24	86	25
5-9 years	11	8	1	10	1	3	–	–	–	–	13	6	18	5
10-14 years	3	2	1	10	–	–	1	4	1	25	6	3	7	2
15-19 years	12	9	1	10	8	25	2	8	–	–	23	10	37	11
20-24 years	9	7	–	–	7	22	2	8	–	–	18	8	22	6
25-44 years	1	1	3	30	4	13	1	4	–	–	9	4	17	5
45-64 years	14	10	1	10	11	34	6	24	–	–	32	14	38	11
>=65 years	11	8	1	10	21	66	9	36	–	–	42	18	61	18
Total	134		10		62		25		4		235		347	

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.
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3. [PHE \(2016\). HPR 10\(8\), 26 February 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.
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