



## Infection report

Volume 9 Number 45 Published on 18 December 2015

### Laboratory confirmed reports of invasive meningococcal disease in England: July to September 2015

In England, the national Public Health England (PHE) Meningococcal Reference Unit (MRU) confirmed 114 cases of invasive meningococcal disease (IMD) between July and September 2015 [1]. IMD cases were 20% higher this quarter than the 95 cases confirmed in the equivalent quarter in 2014 (table 1). There were 173 cases confirmed in April to June 2015 [2].

The distribution of meningococcal capsular groups causing IMD by age is summarised in Table 2, with capsular group B (MenB) accounting for 57% (65/114) of all cases, followed by MenW (n=26, 23%), MenY (n=13, 11%) and MenC (n=6, 5%). The 26 cases of MenW IMD confirmed in the first quarter of the 2015/16 epidemiological year (running 1 July one year to 30 June the following year) was similar to the 24 cases confirmed during the same period in 2014/15, whilst MenY increased by 62.5% from 8 to 13 cases. MenB cases increased from 59 in the first quarter of 2014/15 to 65 cases (10% increase) in the same period of 2015/16 and the number of MenC cases increased from 4 to 6 cases (50% decrease). During the first quarter of 2015/16, there were no reported cases for capsular groups A, X and Z/E (Table 1) in England.

In quarter three of 2015 MenB was responsible for the majority of IMD cases in infants (16/25, 64%) and toddlers (23/31, 74%) 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 [3] with immunisation of infants starting from 1 September 2015.

Capsular groups other than MenB were more prevalent in older age groups (Table 2). However, 42% of the 26 MenW cases were in children under 5 years with 35% in adults aged 65+ years, and 23% 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] and accounted for 23% (n=26) of all cases in 2015 Q3 compared to 25% (n=24) in 2014 Q3. 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); 2015 school leavers (aged 17/18) have been prioritised for the first phase of the catch-up. It is too early following the introduction 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: July - September (Q3), 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
	Q3	Q3	Q3	Q3	Q3	Q3	Q3	Q3	Q1	Q1
A	0	0	0	0	0	0	0	0	0	0
B	18	19	20	13	21	33	59	65	59	65
C	1	2	1	2	2	2	4	6	4	6
W	1	5	21	20	2	1	24	26	24	26
Y	1	2	7	10	0	1	8	13	8	13
Ungrouped*	0	0	0	0	0	3	0	3	0	3
Ungroupable*	0	0	0	1	0	0	0	1	0	1
<b>Total</b>	<b>21</b>	<b>28</b>	<b>49</b>	<b>46</b>	<b>25</b>	<b>40</b>	<b>95</b>	<b>114</b>	<b>95</b>	<b>114</b>

# 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: July - September (Q3), 2015**

Age groups	Capsular Group~										Total		2015/16# Total to date	
	B		C		W		Y		Other*		Q3		Q3	
	Total	%	Total	%	Total	%	Total	%	Total	%	Total	%	Total	%
<1 year	16	(25)	0	-	6	(6)	1	(8)	2	(50)	25	(22)	25	(22)
1-4 years	23	(35)	0	-	5	(5)	1	(8)	2	(50)	31	(27)	31	(27)
5-9 years	5	(8)	0	-	0	-	0	-	0	-	5	(4)	5	(4)
10-14 years	1	(2)	0	-	0	-	0	-	0	-	1	(1)	1	(1)
15-19 years	4	(6)	0	-	5	(5)	5	(38)	0	-	14	(12)	14	(12)
20-24 years	3	(5)	0	-	1	(1)	0	-	0	-	4	(4)	4	(4)
25-44 years	5	(8)	4	(67)	0	-	0	-	0	-	9	(8)	9	(8)
45-64 years	3	(5)	1	(17)	0	-	2	(15)	0	-	6	(5)	6	(5)
>=65 years	5	(8)	1	(17)	9	(9)	4	(31)	0	-	19	(17)	19	(17)
<b>Total</b>	<b>65</b>		<b>6</b>		<b>26</b>		<b>13</b>		<b>4</b>		<b>114</b>		<b>114</b>	

# 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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