



Public Health  
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# Laboratory confirmed cases of invasive meningococcal infection in England: April to June 2020

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In England, the national Public Health England (PHE) Meningococcal Reference Unit (MRU) confirmed 29 cases of invasive meningococcal disease (IMD) between April and June 2020 [1]. IMD cases were 76% lower during these 3 months compared to 121 cases in the equivalent period in 2019 (Table 1). This low number of confirmed cases was observed across all capsular groups and ages.

The COVID-19 pandemic and the implementation of social distancing measures and lockdown across the UK from the 23 of March 2020 has had a significant impact on the spread and detection of other infections including IMD.

The age distribution of meningococcal capsular groups causing IMD is summarised in table 2, with capsular group B (MenB) accounting for 76% (22/29) of all cases, followed by 4 cases of MenW, 2 cases of MenC and 1 ungrouped/ungroupable case. There were no confirmed IMD cases in children aged between 5 and 9 years and teenagers aged between 15 and 19 years.

There were 22 MenB cases confirmed between April and June 2020, 67% lower than the equivalent period in 2019 (67 cases). MenW cases were 88% lower (4 cases) than the number of cases confirmed in the same time period in 2019 (32 cases). In this quarter, there were 2 confirmed cases of MenC compared to 9 cases in the previous year (Table 1). There were no cases confirmed with MenY disease compared to 12 cases in the equivalent period in 2019. One ungrouped/ungroupable case was confirmed in this quarter.

Between April and June 2020, MenB was responsible for the majority of IMD cases in children aged less than 5 years of age (9/12, 75%), with 2 confirmed cases of MenW and 1 ungrouped/ungroupable confirmed case in this age group.

MenB also accounted for 73% of cases in individuals aged between 20 and 64 years and for 75% of cases in adults aged 65 years or more (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. Vaccine coverage estimates for infant MenB immunisation across England was 92.8% for 2 doses at 12 months of age and 89.3% for the booster dose by 24 months of

age (evaluated between January and March 2020) [3]. The MenB schedule 2-dose infant priming schedule plus booster at one year has shown sustained protection against MenB disease for at least 2 years and led to a 75% reduction in observed versus expected MenB disease in age groups that were fully eligible for vaccination [4].

Of the 4 MenW cases confirmed between April and June 2020, 2 were aged less than 1 year and 2 were aged 45 years or older.

The earlier increase in MenW cases, which has been previously reported [5], led to the introduction of MenACWY conjugate vaccine to the national immunisation programme in England [6,7]. Targeted catch-up with MenACWY vaccine began in August 2015 at which time it also replaced the existing time-limited MenC 'freshers' vaccination programme. MenC vaccine was also directly substituted with MenACWY vaccine in the routine adolescent school programme (school year 9 or 10) from autumn 2015.

Coverage for the first cohorts to be routinely offered MenACWY vaccine in schools from September 2015 and evaluated up to the end August 2019 was 88% (Year 9 in 2018/2019) and 86.7% (Year 10) [8].

The impact of the MenACWY teenage and the MenB infant vaccination programmes continues to be monitored. Assessment of the infant MenB programme [4,10] and of MenACWY vaccination in the 2015 school leaver cohort have been published [11].

All teenage cohorts remain eligible for opportunistic MenACWY vaccination until their 25th birthday and it continues to be important that these young people are encouraged to be immunised, particularly if they are entering higher education Institutions.

**Table 1: Invasive meningococcal disease in England by capsular group and laboratory testing method: April to June 2019 and 2020**

Capsular groups~	CULTURE AND PCR		CULTURE ONLY		PCR ONLY		Total	
	2019	2020	2019	2020	2019	2020	2019	2020
B	14	5	21	6	32	11	67	22
C	1	1	5	1	3	0	9	2
W	10	0	19	0	3	4	32	4
Y	2	0	8	0	2	0	12	0
Other*	0	0	0	0	1	1	1	1
Total	27	6	53	7	41	16	121	29

~No cases of group A, E and Z were confirmed during the periods summarised in the table.

\* Other includes ungrouped /ungroupable (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 4 genogroups [B, C, W and Y] routinely tested for).

**Table 2. Invasive meningococcal disease in England by capsular group and age group at diagnosis: April to June 2020**

Age groups	Capsular Group~					Total	%
	B	C	W	Y	Other*		
<1 year	5	0	2	0	0	7	24.1
1-4 years	4	0	0	0	1	5	17.2
5-9 years	0	0	0	0	0	0	-
10-14 years	2	0	0	0	0	2	6.9
15-19 years	0	0	0	0	0	0	-
20-24 years	3	0	0	0	0	3	10.3
25-44 years	3	1	0	0	0	4	13.8
45-64 years	2	1	1	0	0	4	13.8
65+ years	3	0	1	0	0	4	13.8
Total	22	2	4	0	1	29	

~No cases of group A, E, Y and Z were confirmed during the periods summarised in the table.

\* Other includes ungrouped/ungroupable (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 4 genogroups [B, C, W and Y] routinely tested for).

## References

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