

# Health Protection Report

weekly report

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### ***Clostridium difficile* infection: how to deal with the problem – a board to ward approach**

Guidance on *Clostridium difficile* infection (CDI): how to deal with the problem – a board to ward approach is now available for consultation on the HPA website until 23 rd April 2008. The guidance on prevention and management of CDI has been updated by a subgroup of the Steering Group on Healthcare Associated Infections (SG-HCAI) at the request of the Department of Health (DH) and updates existing guidance published in 1994.

The revised guidelines are based on a comprehensive review of the literature and expert opinion and identify best practice and key recommendations for the NHS to ensure the control of CDI.

The guidance and details of how to submit your comments can be found at <http://www.hpa.org.uk/consultations/default.htm>

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### **Report on a national outbreak of Vero cytotoxin-producing *E. coli* O157**

The HPA's final report on a national outbreak of Vero cytotoxin-producing *Escherichia coli* O157 (VTEC) in June and July 2007 has recently been published [1]. The report confirmed the effectiveness of, and the need for, the current arrangements for response and investigation following such outbreaks.

The investigation initially concerned three cases of VTEC O157 identified over a two-day period by the Greater Manchester Health Protection Unit. Cases were subsequently identified in five English NHS regions and Wales [1, 2]. A case control study co-ordinated by the HPA's Local and Regional Services (LARS) Division and Food, Water and Environment (FWE) laboratories network indicated that a particular type of chicken and herb unleavened bread sandwich ('wrap'), supplied by a single supermarket chain, was the source of the outbreak. It was not, however, possible to determine how the contamination of the wraps occurred or to pinpoint a single ingredient source.

The success of the outbreak investigation illustrated the benefits of the FWE network's operation since there remains a risk that such fresh, ready-to-eat products may be infected with VTEC, even when strict production controls and processes are in place, as there were in this case, the report notes. No accepted best practice for the preparation of ready-to-eat salad and herb products was identified and the report recommends a review of the means of decontaminating such foodstuffs after they are harvested.

### **References**

1. Q Syed, on behalf of the Outbreak Control Committee. National outbreak of Vero cytotoxin-producing *Escherichia coli* O157 infection associated with lemon and coriander chicken wraps in England & Wales, June-July 2007. Manchester: HPA, 2008. Available at [http://www.hpa.org.uk/infections/topics\\_az/ecoli/O157/outbreak\\_01\\_07.pdf](http://www.hpa.org.uk/infections/topics_az/ecoli/O157/outbreak_01_07.pdf)

2. HPA. National outbreak of Vero cytotoxin-producing *E. coli* O157 VTEC infection, England and Wales: June to July 2007. Health Protection Report, [serial online] 2007 [cited 21 February 2008]; 1 (31): news. Available at <http://www.hpa.org.uk/hpr/archives/2007/hpr3107.pdf>.

## Confirmed measles, mumps and rubella cases in 2007: England and Wales

The number of cases of measles in England and Wales in 2007 (971 cases compared with 740 in 2006) was the highest recorded since the current surveillance began in 1995. Confirmed cases of both mumps (1442) and rubella (27) were lower than in 2006 (4381 and 32, respectively).

Of the measles cases, only around 20% (672/3310) of the notified cases tested by oral fluid were confirmed (a further 342 measles cases were confirmed by a method other than testing of oral fluid, see table). Similarly, 20% of notified mumps notifications that were tested (1062/5333) were confirmed compared to only 1% of rubella notifications.

Measles cases in 2007 were mainly associated with prolonged outbreaks in travelling and religious communities where vaccine uptake has been historically low. In addition, there have been numerous smaller outbreaks in nurseries and schools. Most outbreaks have been associated with wild type virus D4 genotype (MVs/Enfield.GBR/14.07). The majority of the measles cases (79%) were in children less than 15 years of age: 90 cases in those under one year, 312 cases in 1 to 4 year olds, 237 in 5 to 9 year olds and 128 cases in the 10 to 14 year age group.

During 2007, south east of England reported 73% of the cases: London region (424), South East (102), and East of England (159), although 136 and 62 cases have been reported from Yorkshire and Humberside and the East Midlands respectively. The remaining 88 cases were reported from the North West (31 cases), West Midlands (26 cases), Wales (13 cases), the North East (12 cases) and the South West (six cases).

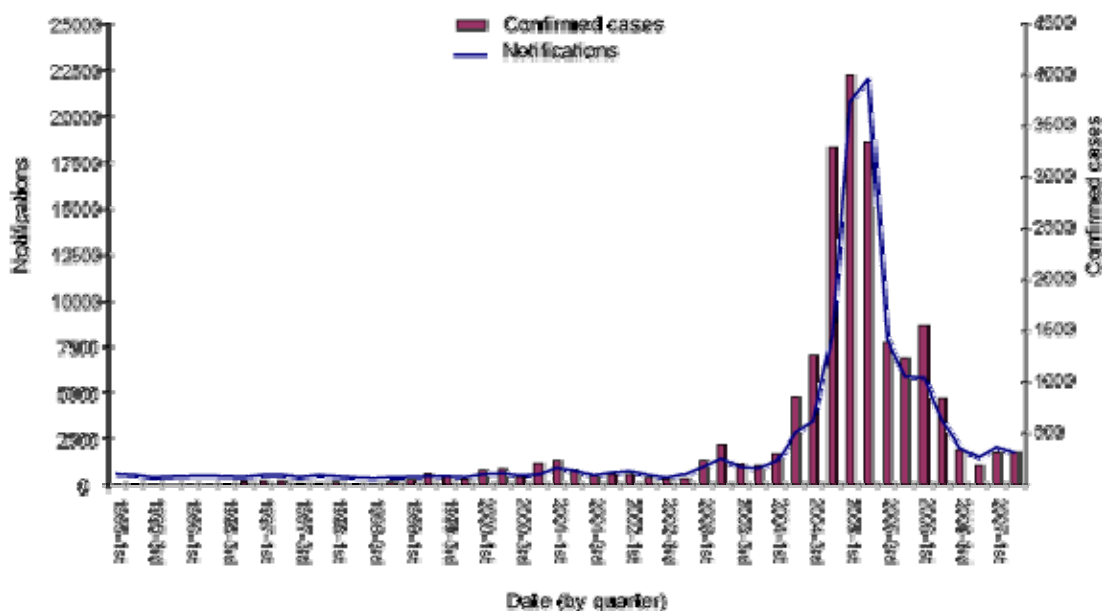
### Total confirmed cases of measles, mumps and rubella, and oral fluid IgM antibody tests in notified cases: weeks 1-52/2007

				Oral fluid IgM antibody positive results		Confirmed cases		
	Notified cases	Number tested	% tested	Total positive	Recently vaccinated	Oral fluid	Other tests	Total
<b>Measles</b>	3698	3310	90	672	44	628	343	<b>971</b>
<b>Mumps</b>	7274	5333	73	1062	14	1048	394	<b>1442</b>
<b>Rubella</b>	1100	909	83	12	3	9	18	<b>27</b>

The number confirmed cases of mumps fell from 4381 reported in 2006 to 1442 in 2007. The number of mumps cases confirmed in the last two quarters of 2007 was almost half of those in the first two quarters. Despite this decline (figure), the rate of diagnosis is still high in the age group born between 1980 and 1992, which accounted for 66% of all mumps cases. Only 157 cases were reported in children under 15. Cases were identified in all regions, with North West region having the largest number (246) and Wales having the fewest cases (15).

Only 27 rubella cases were confirmed in 2007. Most of these were aged between 20-29 years (14 cases). London reported 11 of the 27 cases. Five of the reported rubella infections were in women of child bearing age.

### Notified and confirmed mumps cases by quarter: England and Wales



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## **Department of Health good practice guide: Genitourinary medicine: 48-hour access**

The Department of Health has published a good practice guide for primary care trusts containing recommendations to help support genitourinary medicine clinics reach their 48-hour access targets by March 2008 [1]. The recommendations build on the 10 High Impact Changes for Genitourinary Medicine 48-hour Access (HIC) guidance published by the Department in December 2006 [2].

1. Genitourinary Medicine 48-hour Access: Getting to target and staying there, Best Practice Guidance, Department of Health, <http://www.dh.gov.uk/publications>.
2. [http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH\\_074104](http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_074104)

# Infection reports

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## Immunisation

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### Invasive meningococcal infections, England and Wales, laboratory reports: weeks 51-52/2007

	Method of diagnosis			Total reports 50-52/2007	Cumulative* total to week 52/2007
	CSF and blood Culture	Non- culture	Other sites		
Group A	–	–	–	–	1
B	22	29	3	54	1083
C	–	2	–	2	38
W135	2	–	–	2	32
X	–	–	–	–	1
Y	–	–	–	–	35
Z/29E	–	–	–	–	1
Ungroupable	–	–	–	–	2
Ungrouped	–	6	–	6	90
<b>Total</b>	<b>24</b>	<b>37</b>	<b>3</b>	<b>64</b>	<b>1283</b>

\* Combined CDSC and Meningococcal Reference Unit data: latex antigen, microscopy, polymerase chain reaction.

**Laboratory reports of *Haemophilus influenzae* by age and serotype, England and Wales: 4th quarter 2007 (2006)**

Type	Age					Total
	<1y	1-5y	5-14y	≥15y	nk	
b	3 (4)	13 (13)	– (4)	21 (16)	– (–)	<b>37 (37)</b>
nc	9 (6)	4 (5)	3 (4)	55 (55)	– (–)	<b>71 (70)</b>
a,e,f	1 (2)	– (5)	– (2)	11 (8)	– (–)	<b>12 (17)</b>
not typed	4 (2)	2 (3)	2 (3)	54 (2)	2 (1)	<b>64 (35)</b>
<b>Total</b>	<b>17 (14)</b>	<b>19 (26)</b>	<b>5 (13)</b>	<b>141 (105)</b>	<b>2 (1)</b>	<b>184 (159)</b>

Weeks 40-42

**Laboratory confirmed cases of measles, mumps and rubella, England and Wales : October to December 2007**

Data presented here is for the fourth quarter of 2007 (i.e. October to December 2007). Cases include those confirmed by oral fluid IgM antibody tests, PCR (polymerase chain reaction) and routine laboratory reports (table 1). Analyses are by date of onset. Regional breakdown figures relate to government office regions rather than regional health authorities (pre-April 2002 definitions).

Quarterly figures for cases confirmed by oral fluid antibody detection only, from 1995, are available from:

[http://www.hpa.org.uk/infections/topics\\_az/measles/data\\_not\\_confirmed.htm](http://www.hpa.org.uk/infections/topics_az/measles/data_not_confirmed.htm),

[http://www.hpa.org.uk/infections/topics\\_az/mumps/data\\_quarter.htm](http://www.hpa.org.uk/infections/topics_az/mumps/data_quarter.htm)

[http://www.hpa.org.uk/infections/topics\\_az/rubella/data\\_rub\\_not.htm](http://www.hpa.org.uk/infections/topics_az/rubella/data_rub_not.htm)

and annual total numbers of confirmed cases by health region and age from:

[http://www.hpa.org.uk/infections/topics\\_az/measles/data\\_reg\\_age.htm](http://www.hpa.org.uk/infections/topics_az/measles/data_reg_age.htm)

[http://www.hpa.org.uk/infections/topics\\_az/mumps/data\\_reg\\_age.htm](http://www.hpa.org.uk/infections/topics_az/mumps/data_reg_age.htm)

[http://www.hpa.org.uk/infections/topics\\_az/rubella/data\\_reg\\_age.htm](http://www.hpa.org.uk/infections/topics_az/rubella/data_reg_age.htm)

**Table 1: Total confirmed cases of measles, mumps and rubella, and oral fluid IgM antibody tests in notified cases: weeks 40-52/2007**

	Cases			Oral fluid IgM antibody positive results		Confirmed cases		
	Notified cases	Number Tested	% tested	Total Positive	Recently Vaccinated	Oral fluid	Other tests	Total
<b>Measles</b>	988	863	87	186	15	171	101	<b>272</b>
<b>Mumps</b>	2046	1520	74	193	2	191	131	<b>322</b>
<b>Rubella</b>	239	172	71	-	-	-	-	-

## Measles

Two hundred and seventy two cases of confirmed measles with onset dates in the fourth quarter of 2007 were reported, compared to 412 in the previous quarter [1]. The rate of confirmed measles amongst oral fluid samples tested is just below 20%, lower than 27% in the previous quarter. The majority of the cases were associated with a continuing outbreak in a religious community in North London (156 cases to date) which started in the second quarter of 2007 and spread to members of the same communities in Greater Manchester (16 cases) and Gateshead (10 cases) [2]. The outbreak in the travelling community that began in late March 2007 [3-5] is still ongoing. Fifty-seven cases in this quarter were confirmed by PCR alone and a further nine epidemiologically linked cases were identified.

Two hundred and twenty five cases (83%) were in children aged less than 15 years (39 less than one year; 93 aged one to four years; 54 aged five to nine years; and 39 aged 10 to 14 years); the remaining 47 cases were aged over 14 years (15-49 years). Seven of the cases in this quarter reported receiving measles-containing vaccines: one case had a single measles vaccine, five cases reported having one MMR vaccine and one case reported receiving two doses of MMR.

Cases were reported from all English regions (London 159, Yorkshire and the Humber 61, West Midlands 14, North West 11, North East 9, South East 7, East of England 7, East Midlands 3 and South West 1). No cases were identified in Scotland and Wales. The predominant measles genotype continues to be a D4 strain (MVs/Enfield.GBR/14.07). A distinctly different D4 strain was identified in one nursery cluster although no definite link to importation was established.

Only one report had a history of recent travel: the case that had been in contact with possible measles case in Barbados.

## Mumps

Three hundred and twenty-two cases of mumps with onset dates in the fourth quarter of 2007 were confirmed compared to 257 in the previous quarter [1]. Cases continue to be confirmed predominantly in those aged between 16 and 27 years (56%), known to be at highest risk due either to not having been routinely offered MMR vaccination in childhood, or having only received one dose (table 2).

**Table 2: Confirmed cases of mumps by age group and region, England and Wales: weeks 40-52/2007**

Country/Region	Age Group (years)							Total
	<1	1-4	5-9	10-14	15-19	20-24	≥25	
North East	–	–	–	3	17	21	10	<b>51</b>
North West	3	3	4	4	12	19	17	<b>62</b>
Yorkshire & Humber	–	–	1	5	9	10	18	<b>43</b>
East Midlands	–	1	–	2	6	8	19	<b>36</b>
West Midlands	–	1	1	–	7	2	10	<b>21</b>
East of England	–	–	1	1	5	10	14	<b>31</b>
London	1	1	3	1	–	2	8	<b>16</b>
South East	–	–	1	–	9	8	22	<b>40</b>
South West	–	–	–	–	3	1	8	<b>12</b>
Wales	–	–	–	–	–	2	1	<b>3</b>
Not known	–	1	–	–	1	1	4	<b>7</b>
<b>Total</b>	<b>4</b>	<b>7</b>	<b>11</b>	<b>16</b>	<b>69</b>	<b>84</b>	<b>131</b>	<b>322</b>

## Rubella

No cases of rubella were confirmed in the fourth quarter of 2007 in comparison to five cases in the third quarter [1].

## References

1. HPA. Laboratory confirmed cases of measles, mumps and rubella, England and Wales: July to September 2007. *Health Protection Report* [serial online] 2007 [cited 23 November 2007]; **1** (47): Immunisation. Available at <http://www.hpa.org.uk/hpr/archives/2007/hpr4707.pdf>
2. J Ashmore, S Addiman, R Cordery, H Maguire. Measles in North East and North Central London, England: a situation report. *Euro Surveill* 2007; 12(9). Available at <http://www.eurosurveillance.org/ew/2007/070920.asp#2>
3. HPA. Measles outbreak in the traveller community. *Health Protection Report HPR* [serial online] 2007 [cited 18 June 2007]; **1** (21):News. Available at <http://www.hpa.org.uk/hpr/archives/2007/hpr2107.pdf>
4. Cohuet S, Morgan O, Bukasa A, Heathcock R, White J, Brown K, et al. Outbreak of measles among Irish Travellers in England, March to May 2007. *Euro Surveill* 2007;12(6):E070614.1. Available at: <http://www.eurosurveillance.org/ew/2007/070614.asp#1>
5. HPA. Confirmed cases of measles in England and Wales – an update. *Health Protection Report* [serial online] 2007 [cited 18 September 2007]; **1** (35):News. Available at <http://www.hpa.org.uk/hpr/archives/2007/news2007/news3507.htm>.