



Health Protection Report

weekly report

Volume 3 Number 35 Published on: 4 September 2009

Current News

- ▶ Revised publication schedule for mandatory MRSA bacteraemia and *Clostridium difficile* surveillance
- ▶ PVL-SA infections in England and Wales: 2005-2008 data and revised algorithm for referral of suspected cases
- ▶ Confirmed measles cases in England and Wales: update to end-July 2009
- ▶ Pandemic (H1N1) 2009 influenza: UK situation at 3 September 2009
- ▶ Agency website relaunch
- ▶ *Corrigendum*: Immunisation report in *HPR* 3(34), 28 August 2009

Infection Reports

Respiratory

- ▶ Laboratory reports of respiratory infections, England and Wales: weeks 32-35/2009

Chemical Hazards and Poisons

- ▶ The impact on health of emissions to air from municipal waste incinerators: updated position statement

News

Volume 3 Number 26 Published on: 3 July 2009

- ▶ Revised publication schedule for mandatory MRSA bacteraemia and *Clostridium difficile* surveillance
 - ▶ PVL-SA infections in England and Wales: 2005-2008 data and revised algorithm for referral of suspected cases
 - ▶ Confirmed measles cases in England and Wales: update to end-July 2009
 - ▶ Pandemic (H1N1) 2009 influenza: UK situation at 3 September 2009
 - ▶ Agency website relaunch
 - ▶ *Corrigendum*: Immunisation report in *HPR* 3(34), 28 August 2009
-

Revised publication schedule for mandatory MRSA bacteraemia and *Clostridium difficile* surveillance

Currently the HPA publishes data on MRSA bacteraemia and *Clostridium difficile* infection for NHS acute Trust hospitals in England on a quarterly basis, producing counts for a time period up to and including the previous quarter.

As of the 2 November 2009, the HPA will move to **monthly** reporting, with tables of counts published approximately two weeks after the prior month's data is signed off by Trust CEOs. The publication of counts in a more timely fashion will benefit those concerned with infection control and performance management from the Trust level through to the Department of Health.

On the first working week-day of each month the HPA will publish four tables showing 13 months of counts per acute Trust inclusive of the month covered in the last Trust sign off.

In summary, the four tables published will be:

1. Monthly MRSA bacteraemia counts by acute Trust
2. Monthly *C. difficile* counts by acute Trust (patients aged 2 years and over)
3. Monthly *C. difficile* counts by acute Trust (patients aged 65 years and over)
4. Monthly *C. difficile* counts by PCO (patients aged 2 years and over).

On an **annual** basis the HPA will publish a complete set of tables at the end of each financial year. The format/level of detail will be the same as currently published quarterly.

The HPA will produce a **quarterly** commentary on epidemiology trends based on the four tables produced monthly, but the current quarterly publication format will end with the forthcoming September publication.

Changes to the content or schedule of the HPA publications will be announced 60 days in advance.

The first monthly publication will be on the 2 November 2009 and on the first working week-day of the month thereafter. While the content will differ, the quarterly publication schedule will remain the same and the first of the new format commentaries will be published on 3 December 2009. The annual content for the financial year (f/y) 2009/10 will be published in June 2010. See table 1 for the publication schedule framework.

Table 1: Monthly, quarterly, and annual publications framework

Monthly		Quarterly commentary (in <i>Health Protection Report</i>)		Annual	
Publication date	Data period (13 months up to...)	Publication date	Data period (9 quarters up to...)	Publication date	Data period
2 November 2009	September 2009				
1 December 2009	October 2009	3 December 2009	Q3 2009		
4 January 2010	November 2009				
1 February 2010	December 2009				
1 March 2010	January 2010	19 March 2010	Q4 2009		
1 April 2010	February 2010				
3 May 2010	March 2010				
1 June 2010	April 2010	18 June 2010	Q1 2010		
1 July 2010	May 2010			16 July 2010	F/y 2009/10
2 August 2010	June 2010				
1 September 2010	July 2010	17 September 2010	Q2 2010		
1 October 2010	August 2010				
1 November 2010	September 2010				
1 December 2010	October 2010	17 December 2010	Q3 2010		

PVL-SA infections in England and Wales: 2005-2008 data and revised algorithm for referral of suspected cases

Since 2005, the HPA has undertaken an enhanced case ascertainment programme to monitor Panton-Valentine Leukocidin-positive *Staphylococcus aureus* (PVL-SA) in England and Wales and has published data annually on the number identified among cultures referred to the HPA Staphylococcus Reference Unit [1,2]. Provisional figures for 2007 were published in the *Health Protection Report* alongside updated guidance on the diagnosis and management of PVL-SA [2,3].

The table shows the finalised figures for the number of PVL-SA identified from 2005 to 2008. In each of the four years, the majority of PVL-SA remain susceptible to meticillin. Whilst the numbers show an upward trend, the most recent figures suggest the rate of increase may be slowing. What is not clear is whether the overall increase in PVL-SA is due to improved awareness and case recognition, allied to proactive close contact tracing, or whether it reflects a genuine increase in PVL-SA nationally. Systematic surveillance-based studies funded by DH will provide more robust data for monitoring trends to investigate the prevalence of PVL-SA in the community.

Table: Number of PVL-SA identified by the HPA's Staphylococcus Reference Unit

Year	No. (%) PVL-MSSA	No. (%) PVL-MRSA	Total PVL-SA	Relative increase year-on-year
2005	107 (48%)	117 (52%)	224	
2006	337 (68%)	159 (32%)	496	2.2-fold
2007	729 (60%)	477 (40%)	1206	2.4-fold
2008	1013 (58%)	724 (42%)	1738	1.4-fold

In 2005, the HPA's Staphylococcus Reference Unit invited laboratories to submit isolates of non-multi-resistant MRSA (in particular ciprofloxacin susceptible strains) in an effort to improve ascertainment of PVL-MRSA. Experience has shown that ciprofloxacin resistance is emerging in some strains of PVL-

MRSA identified in the UK [4,5] and only around 20% of quinolone-susceptible MRSA referred to SRU are PVL-positive, ie ciprofloxacin susceptibility among MRSA is not a specific predictor of PVL status.

Pending formal revision of the referral criteria, and in the light of these observations, we advocate a revised algorithm for referrals based on clinical syndrome rather than one based on susceptibility profiles. SRU therefore invites the referral of MSSA or MRSA for PVL-testing from patients with the following clinical features suggestive of PVL:

- boils or abscesses, especially where these are recurrent
- necrotising skin and soft tissue infections
- necrotising pneumonia, purpura fulminans or necrotising fasciitis
- isolates from close contacts of PVL cases (where the antibiogram corresponds with that of the PVL-SA found in the index case).

Suitable isolates should be forwarded for investigation to: Staphylococcus Reference Unit, Centre for Infections, HPA, 61 Colindale Avenue, London NW9 5HT [5], accompanied by the appropriate request forms (available at <http://www.hpa.org.uk/cfi/lhcai/services.htm#RequestForm>) which should be completed as fully as possible, including clinical information and antibiotic susceptibility data.

References

1. Community MRSA in England and Wales: definition through strain characterisation. *Communicable Disease Report* 2005; **15**(11) 17 March.
2. Health Protection Agency. *Diagnosis and management of PVL-SA infections in England and Wales: an update. Health Protection Report* 2008; **2**(33): news.
3. *Guidance on the diagnosis and management of PVL-associated Staphylococcus aureus infections (PVL-SA) in England.* HPA website:
4. Ellington MJ, Perry C, Ganner M, Warner M, McCormick Smith I, Hill RL, et al. Community Associated MRSA with the PVL toxin in England and Wales: Clinical and molecular epidemiology. *Eur J Clin Micro Inf Dis*, in press (DOI 10.1007/s10096-009-0757-x).
5. Staphylococcus Reference Unit, LHCAI. Contact Dr Angela Kearns (tel: 0208-3277227; e-mail: angela.kearns@hpa.org.uk).

Confirmed measles cases in England and Wales: update to end-July 2009

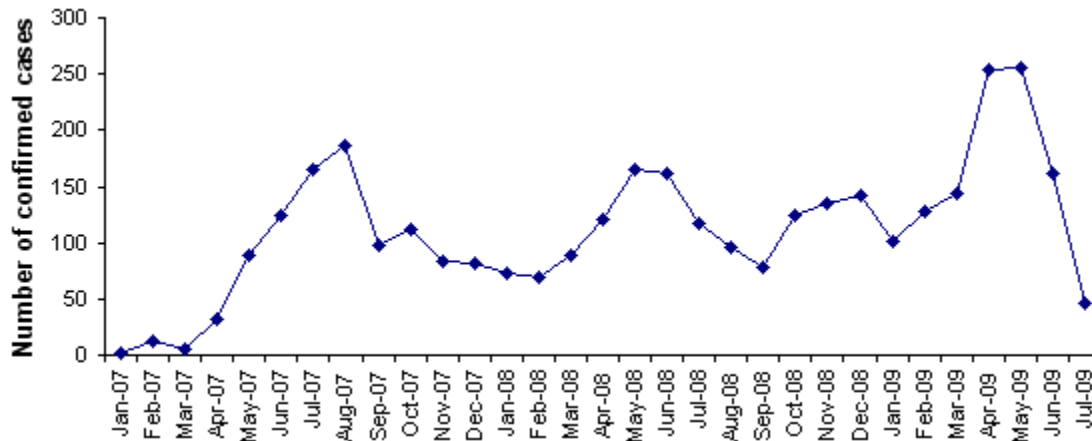
In July the number of laboratory-confirmed cases of measles in England and Wales declined for a second consecutive month to only 47 cases. This decline coincided with the school holidays and has also been observed in previous years (see figure).

Cases with onset dates in July decreased in all regions with three regions (North West, West Midlands, and South West) reporting no cases in this period. For the first month this year, London reported the highest number of cases.

Confirmed cases of measles by region and month of onset, England and Wales: January to July 2009

Month	Lond-on	East Mids	East of Engl'd	North East	North West	South East	South West	West Mid's	Wales	York & Humb	Total
Jan 09	37	8	5	1	8	20	3	13	–	7	102
Feb 09	41	–	3	–	3	52	1	23	–	5	128
Mar 09	20	3	7	2	26	48	3	12	21	2	144
Apr 09	22	7	11	49	26	63	12	22	40	1	253
May 09	25	13	24	44	11	49	11	18	47	15	257
Jun 09	29	9	20	17	4	35	9	4	30	5	162
July 09	15	6	1	3	–	5	–	–	13	4	47
Total 2009	189	46	71	116	78	272	39	92	151	39	1093

**Number of laboratory confirmed cases in England and Wales by month of onset:
January 2007 to July 2009**



The majority of confirmed cases this year have been in children and young adults aged 1 to 18 years (81%). This is the same group targeted by the MMR catch-up campaign announced by the Chief Medical Officer in August 2008. A regional breakdown of cases by age is available at: http://www.hpa.org.uk/web/HPAweb&HPAwebStandard/HPAweb_C/1223019390211.

Pandemic (H1N1) 2009 influenza: UK situation at 3 September 2009

The HPA Weekly National Influenza Report of 3 September 2009 (week 36) [1] has summarised the UK (and international) situation as follows:

- Pandemic influenza activity continued to decrease across most regions of the UK and in all age groups, while remaining at levels higher than expected for the time of year;
- Pandemic influenza activity continued to decrease across most regions of the UK and in all age groups while remaining at levels higher than expected for this time of year;
- In week 35 (week ending 30 August), GP consultation rates decreased in England and Northern Ireland but increased slightly in Wales and Scotland; however all rates were below the normal winter seasonal baseline thresholds (where defined);
- The National Pandemic Flu Service (NPFs) continued to issue antiviral drugs to people in England with an influenza-like illness who called or logged onto the internet site. There was a general decrease in the number of assessments, and antiviral collections, over the previous week;
- Interpretation of data to produce estimates on the number of new cases continues to be subject to a considerable amount of uncertainty with the move to NPFs. HPA modelling gave an estimate of 4500 (range 2500 – 10,000) new cases in England in week 35. The estimated number of new cases had decreased in all regions and age groups;
- The main influenza virus circulating in the UK continued to be the pandemic (H1N1) 2009 strain, with few influenza H1 (non-pandemic), H3 and B viruses detected through sentinel and non-sentinel surveillance. At 3 September 2009, in the UK, no pandemic viruses had been found to be resistant to the antiviral drugs oseltamivir or zanamivir;
- The majority of pandemic influenza cases continued to be mild. The cumulative number of deaths reported due to pandemic (H1N1) 2009 in the UK was 70. A total of 348 new patients were hospitalised with suspected pandemic influenza in week 35 (up to 8am Monday 31 August), a decrease of 65 from the previous week. The highest hospitalisation rates have consistently been in the under-5-year age group. Hospitalisation rates have remained fairly stable and low in recent weeks in all age groups;
- According to the European Centre for Disease Prevention and Control (ECDC), by 1 September, 2944 deaths due to pandemic influenza had been reported globally. This represents an increase of 13% from the previous week, compared to a 21% increase in the week previous to that. In week 34 Ireland, Northern Ireland and Norway reported medium levels of influenza activity while all other European countries reported low levels.

Schools advice

Advice relating to schools was expanded under the Advice for the Public section within the HPA website swine flu pages, including answers to frequently-asked questions and other guidance documents. Further information was published by the Department of Children, Schools and Families [2,3].

UK planning assumptions

Department of Health/Cabinet Office updated planning assumptions for the UK pandemic for the period up to May 2010 were circulated [4].

References

1. HPA. *Weekly National Influenza Report: week 36* (3 September 2009, PDF 111 KB), HPA website: www.hpa.org.uk/swineflu/surveillance&epidemiology.
2. HPA. Swine flu: Back to school advice: September 2009, <http://www.hpa.org.uk/HPA/Topics/InfectiousDiseases/InfectionsAZ/1244763940922/>.
3. Department of Children, Schools and Families. Human influenza pandemic: frequently asked questions, DCSF website: <http://www.teachernet.gov.uk/educationoverview/flupandemic>.
4. The Scottish Government. Swine flu: UK planning assumptions (3 September 2009, PDF 80 KB). See: www.scotland.gov.uk/.

Agency website relaunch

Changes to the design and information architecture of the Health Protection Agency website (www.hpa.org.uk), introduced on Wednesday 2 September, aim to improve accessibility and allow the content to be more speedily updated.

A change to the page layout should be noted: the left-hand navigation panel now displays the structure of the content at the level immediately below the page being viewed (except at the lowest level when it displays the content structure at the same level, ie it lists "sybling" pages).

HPR readers are invited to visit the new site and complete the online survey which can be accessed via the [HPA Website Feedback](#) link at the bottom of the home page. The HPR microsite (www.hpa.org.uk/hpr) is not affected and remains available via a link at the bottom left-hand corner of the home page.

Corrigendum: Immunisation report in HPR 3(34), 28 August 2009

A report on vaccine coverage in infants born to hepatitis-positive mothers in England was omitted from last Friday's bulletin (*Health Protection Report*, 3(34), 28 August 2009). The issue was re-published on 2 September, including the report, "Annual neonatal hepatitis B vaccine coverage data in England: 2006/07-2008/09". An amended PDF version of the entire issue can be downloaded at: <http://www.hpa.org.uk/hpr/archives/2009/hpr3409.pdf>.

Infection reports

Volume 3 Number 35 Published on: 4 September 2009

Respiratory

Laboratory reports of respiratory infections, England and Wales: weeks 32-35/2009

Data are recorded by week of report, but include only specimens taken in the last eight weeks (ie recent specimens).

Table 1. Reports of influenza infection made to CfI, by week of report: weeks 32-35/2009

Week	Week 32	Week 33	Week 34	Week 35	Total
Week ending	09/08/09	16/08/09	23/08/09	30/08/09	
Influenza A	147	110	56	64	377
Isolation	-	7	5	9	21
DIF	6	8	13	9	36
PCR	139	94	37	45	315
Other	2	1	1	1	5
Influenza B	-	1	-	2	3
Isolation	-	-	-	-	-
DIF	-	1	-	-	1
PCR	-	-	-	2	2
Other	-	-	-	-	-
Influenza (untyped)	-	-	-	-	-
Isolation	-	-	-	-	-
*DIF	-	-	-	-	-
PCR	-	-	-	-	-
†Other	-	-	-	-	-

DIF = Direct immunofluorescence.

'Other' = Antibody detection, Single high titre or Method not specified.

Table 2. Respiratory viral detections by any method (culture, direct immunofluorescence, PCR, four-fold rise in paired sera, single high serology titre, genomic, electron microscopy, other method, or other method unknown), by week of report: weeks 32-35/2009

Week	Week 32	Week 33	Week 34	Week 35	Total
Week ending	09/08/09	16/08/09	23/08/09	30/08/09	
Adenovirus*	29	74	31	31	165
Coronavirus	1	--	-	-	1
Parainfluenza†	48	68	30	37	183
Rhinovirus	71	86	47	24	228
Respiratory Syncytial Virus (RSV)	5	11	6	12	34

* Respiratory samples only. Excludes diagnoses made by electron microscopy (EM).

† Includes parainfluenza types 1, 2, 3, 4 and untyped

Table 3. Respiratory viral detections by age group: data for weeks 32-35/2009

Age group (years)	<1 year	1-4 years	5-14 years	15-44 years	45-64 years	≥65 years	Un-known	Total
Adenovirus*	33	54	14	42	17	4	1	165
Coronavirus	-	1	-	-	-	-	-	1
Influenza A	20	31	75	158	75	16	2	377
Influenza B	2	-	-	1	-	-	-	3
Parainfluenza†	46	48	11	34	18	22	4	183
Rhinovirus	66	47	18	49	26	21	1	228
Respiratory syncytial virus (RSV)	17	11	1	2	1	2	-	34

* Respiratory samples only.

† Includes parainfluenza types 1, 2, 3, 4 and untyped.

Table 4. Laboratory reports of infections associated with atypical pneumonia, by week of report: weeks 32-35/2009

Week	Week 32	Week 33	Week 34	Week 35	Total
Week ending	09/08/09	16/08/09	23/08/09	30/08/09	
<i>Coxiella burnetii</i>	1	-	-	-	1
Respiratory <i>Chlamydia</i> sp.*	-	-	3	1	4
<i>Mycoplasma pneumoniae</i>	16	23	5	7	51
Legionella sp.	23	20	15	15	73

* Includes *Chlamydia psittaci*, *Chlamydia pneumoniae*, and *Chlamydia* sp detected from blood, serum, and respiratory specimens.

Table 5a. Reports of Legionnaires' disease cases in England and Wales, by week of report: weeks 32-35/2009

Week	Week 32	Week 33	Week 34	Week 35	Total
Week ending	09/08/09	16/08/09	23/08/09	30/08/09	
Nosocomial	-	3	-	-	3
Community	13	13	9	9(1*)	44
Travel Abroad	7	1	6	2	16
Travel UK	3	3	-	4	10
Total	23	20	15	15	73
Male	18	16	14	14	62
Female	5	4	1	1	11

(*) Non-pneumonic case(s)

Seventy two cases were reported with pneumonia and one with non-pneumonic infection; 62 males aged 34-92yrs and 11 females aged 26-79yrs. Forty-four cases had community acquired infection and three cases acquired infection in hospital. Eight deaths were reported in six males aged between 52-85yrs and two females aged 46yrs and 79yrs.

Twenty six cases were travel associated: Austria/Belgium (1), Belgium / Netherlands/United Kingdom (1), Cruise (1), Dominican Republic (1), France (3), Germany (1), Greece (2), Portugal (1), Spain (3), United Kingdom (10) and United States of America (2).

Table 5b Reports of Legionnaires' disease cases by region of report in England and Wales: weeks 32-35/2009

Region/country	Nosocomial	Community	Travel abroad	Travel UK	Total
North East	–	–	1	–	1
Yorks & Humber	–	2	2	1	5
East Midlands	–	4	3	3	10
East of England	–	7	1	–	8
London	–	5(1*)	–	–	5
South East	3	10	3	2	18
South West	–	1	1	–	2
West Midlands	–	3	1	2	6
North West	–	6	3	1	10
Wales	–	6	–	1	7
Other	–	–	1	–	1
Total	3	44	16	10	73

Chemical Hazards and Poisons

Volume 3 Number 35 Published on: 4 September 2009

The impact on health of emissions to air from municipal waste incinerators: updated position statement

The Health Protection Agency has reviewed research undertaken to examine the suggested links between emissions from municipal waste incinerators and effects on health and has updated the relevant position statement [1].

While it is not possible to rule out adverse health effects from modern, well-regulated municipal waste incinerators with complete certainty, any potential damage to the health of those living close-by is likely to be very small, if detectable. This view is based on detailed assessments of the effects of air pollutants on health and on the fact that modern and well managed municipal waste incinerators make only a very small contribution to local concentrations of air pollutants. The Committee on Carcinogenicity of Chemicals in Food, Consumer Products and the Environment has reviewed recent data and has concluded that there is no need to change its previous advice, namely that any potential risk of cancer due to residency near to municipal waste incinerators is exceedingly low and probably not measurable by the most modern techniques. Since any possible health effects are likely to be very small, if detectable, studies of public health around modern, well managed municipal waste incinerators are not recommended.

Reference

1. HPA. The impact on health of emissions to air from municipal waste incinerators (position statement) (PDF, 121 KB). September 2009. Downloadable from the Agency website via [Products & Services](#) › [Chemicals & Poisons](#) › [Environment](#) › [Waste](#).
