



Health Protection Report

weekly report

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Latest results of HPA study on vCJD-related abnormal prion proteins in extracted tonsils 2008/09

In 2004, the Health Protection Agency launched the National Anonymous Tissue Archive (NATA) to determine prevalence of asymptomatic vCJD in the population by looking for the prion protein associated with vCJD in extracted tonsils. The tonsils are one of the sites in the body where, once infected, vCJD prions can accumulate (other sites include the spleen, appendix, lymph nodes, spinal cord and brain).

Awareness of the prevalence of vCJD in the population is important to determine the level of public health risk and to limit the impact of infection or plan healthcare interventions for people who may develop the disease.

Newly published results from the study [1, 2] suggest there may be fewer undetected asymptomatic cases of vCJD in the population than were previously expected.

The survey will eventually collect and analyse 100,000 samples of discarded tonsil tissue but no evidence of the abnormal prion protein has been found in any of the 63,000 tonsil samples analysed to date.

When the archive was established it was estimated that up to 50 of the 100,000 samples could contain the abnormal prion protein.

References

1. Prevalence of disease related prion protein in anonymous tonsil specimens in Britain: a cross-sectional opportunistic survey, J Clewley et al, *BMJ* 2009; 338: b1442.
 2. "Latest research into prevalence of vCJD consistent with findings of existing studies" (HPA press release, 22 May 2009). HPA website: National Press Releases.
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Publication schedule for MRSA and *Clostridium difficile* quarterly reporting

In conjunction with the Department of Health, the Health Protection Agency has agreed dates for the next four quarterly MRSA bacteraemia and *Clostridium difficile* (*C. difficile*) publications (see table 1). It has also been agreed that both data sets will be published simultaneously (rather than “decoupled” as they have been for the past three quarters [1]).

In addition, from quarter two 2009 (period covered: April-June 2009) onwards, a quicker turnaround time for the production of quarterly reports is to be implemented (ie data will be extracted the next working day after each Trust signs off its data). As a result, there will be no opportunity for data changes after sign-off. It is therefore imperative that all data are complete and accurate on the HCAI Data Capture system prior to the sign-off dates outlined below.

Table 1. Schedule for production and publication of MRSA and *C. difficile* quarterly reports

| Quarterly tables affected | Period covered | Sign-off | Data extracted | Data published |
|---|----------------|----------|----------------|----------------|
| All (MRSA bacteraemia/ <i>C. difficile</i> /Primary Care Organisation) | Jan-March 09 | 15 April | 1 May | 18 June |
| | April-June 09 | 15 July | 16 July | 10 Sept |
| | July-Sept 09 | 15 Oct | 16 Oct | 3 Dec |
| | Oct-Dec 09 | 15 Jan | 18 Jan* | March 2010** |

* This is the next working day after 15 January

** The day of publication of fourth quarter data will be announced in due course.

References

1 Accelerated publication schedule for MRSA bacteraemia data, *Health Protection Report* [serial online] 2009; **2**(33): news, 15 August 2008.

Epidemiology and risks of tick-borne Lyme borreliosis

The HPA has released provisional epidemiological data on Lyme disease in England and Wales in 2008 [1] and issued a seasonal warning about the potential risk of tick bites that may be associated with some outdoor activities [2].

There were 813 reported cases of Lyme disease (Lyme borreliosis) in 2008, a slight increase compared with 794 cases in 2007, according to the provisional epidemiological data. As in previous years, the majority of cases were acquired in the UK. Over half the reports were from the southern counties of England, especially the South East and South West health regions, a pattern reflected in reports in previous years. The age groups with the highest number of cases were the 25-44 and 45-64 year age groups, probably reflecting the ages of visitors to areas where the infected ticks are endemic.

Case numbers have increased annually since 2003, due in part to an increase in awareness and improvements in reporting and case ascertainment. In recent years, migrants from central and eastern European countries (regions with high prevalence of Lyme borreliosis) have also contributed to higher incidence of infection identified (but not necessarily acquired) in the UK. Infections contracted abroad increased significantly in 2007: nearly one fifth of all infections being acquired overseas, particularly from central and eastern Europe and southern Scandinavia.

Many of the infections, which are more likely to occur during late spring, early summer and autumn, are contracted while people are participating in outdoor activities such as walking, mountain biking, trekking or camping. Areas which tend to be more affected include Exmoor, the New Forest, the Lake District, Yorkshire Moors, and other National Parks, although smaller wooded and heathland areas in many other parts of the country can also harbour infected ticks. Any habitat, large or small, in which ticks are present should be regarded as having a potential risk, although not every tick infested area has a high risk of Lyme borreliosis, and most ticks do not carry the bacteria.

Further information

Information about Lyme borreliosis and tick bite prevention is available at:
www.hpa.org.uk/infections/topics_az/zoonoses/lyme_borreliosis/default.htm.

References

1. "Lyme borreliosis in England and Wales: 2007 and 2008" (epidemiological data), 20 May 2009. HPA website: Lyme borreliosis/Lyme disease.
2. "Panning a trip outdoors as the weather warms up?" (HPA press release, 20 May 2009). HPA website: National Press Releases.

Influenza A/H1N1 ('swine-lineage'): UK situation at 22 May 2009

On Friday 22 May, the number of confirmed and possible cases of swine-lineage influenza A/H1N1 in the United Kingdom was 117, broken down by region as follows [1]:

| Region | Total confirmed cases, 22 May |
|------------------------|-------------------------------|
| East of England | 11 |
| East Midlands | 2 |
| London | 65 |
| North East | 1 |
| North West | 6 |
| South East | 11 |
| South West | 3 |
| West Midlands | 7 |
| Yorkshire & Humberside | - |
| Total England | 106 |
| Northern Ireland | 1 |
| Scotland | 10 |
| Wales | - |
| TOTAL UK | 117 |

One hundred and sixty nine cases were under laboratory investigation in the UK. (The figure for cases under investigation changes on a daily basis as some of those under assessment are discounted and new are added. This figure was correct at the time stated.)

Travel advice

The HPA issued a reminder to travellers about the importance of taking simple health precautions against swine influenza when travelling abroad during the half term school break. It noted the situation in the 41 countries, recommended that travellers should check the Foreign and Commonwealth Office for information specific to the country they were visiting, advised travellers to follow general infection control practices and gave information on what travellers should do if they become ill while travelling or on their return journey [2].

Mexican situation update

In light of new information showing a reduced prevalence of swine flu and hospital admissions in Mexico, reflected in the recently revised travel advice from the Foreign and Commonwealth Office - which no longer advises against all but essential travel to Mexico - the Agency has reviewed its policy of Health Protection Agency staff meeting all flights from Mexico.

HPA staff will no longer continue to routinely meet flights from Mexico. Leaflets and posters produced by the Health Protection Agency, the Department of Health and the UK Borders Agency giving general advice on swine flu will continue to be made available for returning travellers at all ports of entry. Contact tracing of individuals deemed to be at risk of swine flu following a flight will be carried out on the basis of risk, as is the case for all other communicable diseases.

A report on the development of the swine influenza outbreak in Mexico has been posted on the Agency website [3].

HPA guidance

Some of the key guidance documents available on the HPA website were updated or supplemented during the past week, including the following:

- the swine flu case definition (version 2.0, updated 9 May) unchanged [4], has been supplemented by proposals for a Classification of Swine Flu Cases that would provide a common terminology for use in describing individual cases [5];
- "Algorithm S5" for health professionals on the management of returning travellers was updated [6];
- practical advice for health professionals investigating individuals with possible swine influenza infection was updated [7];
- "Algorithm P5" for health professionals on the management of suspected cases was updated [8];
- advice on exclusion from schools and workplaces [9] was supplemented by further guidance for boarding schools [10]; and
- information for the media on face masks and related information for health professionals was supplemented by special advice relating to aerosol generating procedures in healthcare environments [11].

Further information

A daily update on the number of confirmed cases in the UK, and the number under laboratory investigation, is published on the Swine Influenza pages of the Agency website at (www.hpa.org.uk/swineflu), where there are links to specific areas dedicated to information for the general public, healthcare professionals, and the press and media.

References and links

1. 'Update on confirmed swine flu cases' (HPA press release, 22 May 2009). HPA website: National Press Releases
2. 'Swine flu: travel advice for the half term break' (HPA press release, 21 May 2009). HPA website: National Press Releases.
3. 'Mexican situation update', (HPA press release, 21 May 2009). HPA website: National Press Releases.
4. Swine flu case definition (version 2.0, updated 9 May), available from the Swine Influenza Information for Health Professionals pages on the Agency website.
5. Classification of Swine Influenza Cases (19 May), available from the Swine Influenza Information for Health Professionals pages on the Agency website.
6. Algorithm for the management of suspected cases of swine influenza (returning travellers and visitors from countries affected by swine influenza A/H1N1 or contacts) (version S5, updated 16 May), available from the Swine Influenza Information for Health Professionals pages on the Agency website.
7. Standard practical advice for investigating individuals with possible swine influenza infection (version 3, updated 16 May), available from the Swine Influenza Information for Health Professionals pages on the Agency website.
8. Actions and post exposure prophylaxis for close contacts of probable or confirmed human case(s) of swine influenza A/H1N1 (version P5, updated 16 May 2009), available from the Swine Influenza Information for Health Professionals pages on the Agency website.
9. Advice on exclusion from schools and workplaces (updated 7 May 2009), available via the Swine Influenza public advice pages.
10. Managing a flu-like illness in a boarding school during the current swine flu outbreak (version 2, 21 May 2009). available from the Swine Influenza Information for Health Professionals pages on the Agency website
11. The use of personal protective equipments (PPE) by healthcare workers in close contact with possible, probable and confirmed cases of swine flu during the pre and pandemic phases (15 May 2009), available via the Swine Influenza Information for Health Professionals pages.

Infection reports

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Immunisation

- ▶ **Invasive meningococcal infections, England and Wales: laboratory reports, weeks 01-13/2009**
 - ▶ **Laboratory confirmed cases of measles, mumps and rubella, England and Wales: January to March 2009 quarter**
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Invasive meningococcal infections, England and Wales: laboratory reports, weeks 01-13/2009

| | Method of diagnosis | | | | | | Cumulative* totals to week: | |
|--------------|-----------------------|------------|-------------|------------|-------------|-----------|-----------------------------|------------|
| | CSF and blood Culture | | Non-culture | | Other sites | | | |
| | 2009 | 2008 | 2009 | 2008 | 2009 | 2008 | 13/2009 | 13/2008 |
| Group A | – | 1 | – | – | – | – | – | 1 |
| B | 138 | 149 | 205 | 189 | 12 | 10 | 355 | 348 |
| C | 3 | 5 | 1 | 1 | – | – | 4 | 6 |
| W135 | 6 | 6 | 2 | – | – | – | 8 | 6 |
| X | – | – | – | – | 1 | – | 1 | – |
| Y | 13 | 7 | 4 | – | 2 | – | 19 | 7 |
| Z/29E | – | 2 | – | – | – | – | – | 2 |
| Ungroupable | – | 1 | – | – | – | – | – | 1 |
| Ungrouped | – | – | 9 | 22 | – | 1 | 9 | 23 |
| Total | 160 | 171 | 221 | 212 | 15 | 11 | 396 | 394 |

* Source: Health Protection Agency Meningococcal Reference Unit.

Laboratory confirmed cases of measles, mumps and rubella, England and Wales: January to March 2009 quarter

Data presented here are for the first quarter of 2009 (ie January to March 2009). Cases include those confirmed by oral fluid IgM antibody tests, PCR, and routine laboratory reports (table 1). Analyses are by date of onset. Regional breakdown figures relate to Government Office Regions.

Quarterly figures for cases confirmed by oral fluid antibody detection only from 1995, and annual total numbers of confirmed cases by region and age are available from:

<http://www.hpa.org.uk/webw/HPAweb&Page&HPAwebAutoListName/Page/1191942172799?p=119194217279>

<http://www.hpa.org.uk/webw/HPAweb&Page&HPAwebAutoListName/Page/1191942172913?p=1191942172913>

<http://www.hpa.org.uk/webw/HPAweb&Page&HPAwebAutoListName/Page/1191942172140?p=1191942172140>.

Table 1 Total confirmed cases of measles, mumps and rubella, and oral fluid IgM antibody tests in notified cases: weeks 01-13/2009

| | Cases | | | Oral fluid IgM antibody results | | Confirmed cases | | |
|---------|----------|--------|------|---------------------------------|---------------------|-----------------|------------|-------------|
| | Notified | Tested | % | Total positive | Recently vaccinated | Oral fluid | Other test | Total |
| Measles | 1781 | 1689 | 98.4 | 333 | 22 | 311 | 71 | 382 |
| Mumps | 4876 | 3331 | 68.3 | 1668 | 26 | 1642 | 49 | 1691 |
| Rubella | 384 | 339 | 88.3 | 3 | – | 3 | 2 | 5 |

Measles

Three hundred and eighty-two cases of confirmed measles with onset dates in the first quarter of 2009 were reported, compared to 404 cases in the fourth quarter of 2008 [1]. The overall proportion of oral fluid samples tested in this period that were confirmed measles positive is 18%, lower than the average proportion positive for 2008 (24.8%).

There was an increase in the number of confirmed cases in London (98), compared to the fourth quarter of 2008 (66). The South East region reported the most cases (121), although West Midlands (50) and North West (40) regions continued to identify cases associated with outbreaks in travelling communities, primary and secondary schools as well as nurseries [2,3]. In the rest of England and Wales, cases were observed across all age groups and in a variety of settings including nurseries, primary and secondary schools. Confirmed measles cases were identified in all English regions and in Wales (South East 121, London 98, West Midlands 50, North West 40, Wales 22, Yorkshire and the Humber 15, East of England 14, East Midlands 11, South West 7 and North East 4).

Almost 90% of the cases reported in this quarter were in individuals aged less than 19 years (30 cases aged under one year; 110 aged 1 to 4 years; 93 aged 5 to 9 years; 75 aged 10 to 14 years; 33 aged 15-18 years); the remaining 42 cases were aged between 19 and 67 years. Seventeen cases reported receiving a measles containing vaccine; 14 had one dose of the MMR vaccine and three had had two doses. A vaccination history was confirmed from GP records for all but two of the cases.

In the period January to March 2009, no individuals with confirmed infection were known to have travelled abroad or to have been in contact with anyone who had been abroad.

Mumps

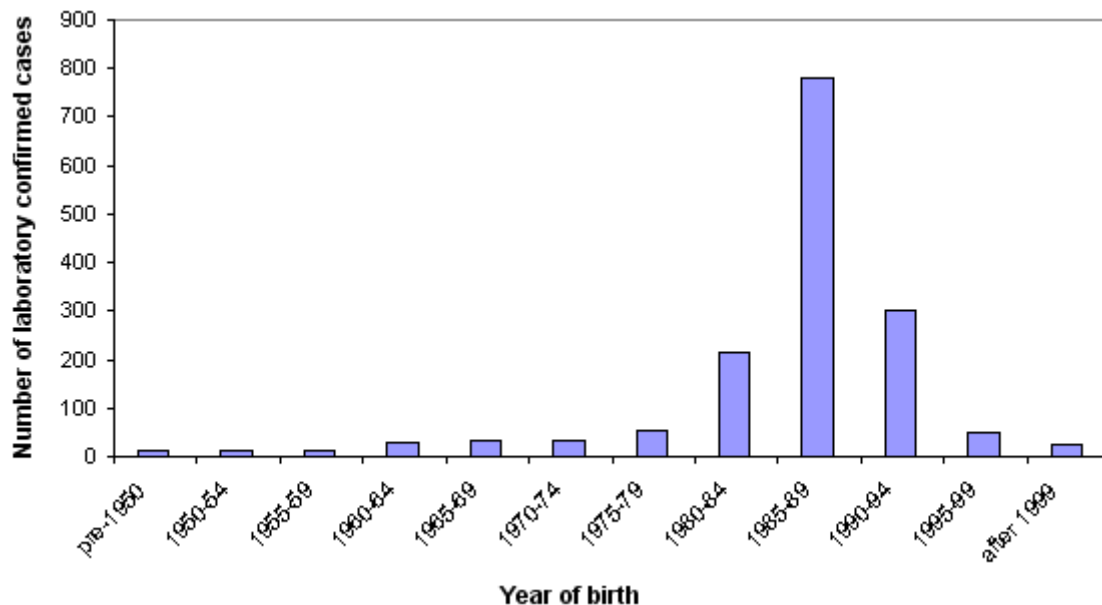
One thousand, six hundred and ninety-one confirmed mumps cases with onset dates in the first quarter of 2009 were reported, an increase of more than twice that reported in the last quarter of 2008 (695 cases) [1,4]. Cases continue to be confirmed predominantly in individuals born between 1980 and 1990 (75%) (figure), the cohort 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 1-13 /2009

| Region | Age Group | | | | | | | | Total |
|-----------------|-----------|-----------|-----------|-----------|------------|------------|------------|-----------|--------------|
| | <1 | 1-4 | 5-9 | 10-14 | 15-19 | 20-24 | ≥25 | NK | |
| North East | – | 2 | – | – | 14 | 28 | 20 | – | 64 |
| North West | – | 3 | 2 | 19 | 91 | 101 | 58 | 2 | 276 |
| Yorks. & Humber | – | – | – | 11 | 67 | 79 | 25 | 2 | 184 |
| East Midlands | – | – | – | 4 | 48 | 38 | 16 | 1 | 107 |
| West Midlands | – | 2 | – | 1 | 32 | 43 | 14 | 1 | 93 |
| East of England | – | 1 | 1 | 8 | 48 | 55 | 28 | 1 | 142 |
| London | – | 3 | 5 | 10 | 26 | 58 | 42 | 1 | 145 |
| South East | – | 2 | 3 | 1 | 88 | 138 | 68 | – | 300 |
| South West | – | 1 | 2 | 8 | 98 | 134 | 70 | 3 | 316 |
| Wales | – | – | – | 6 | 17 | 17 | 12 | – | 52 |
| Not known | – | – | 1 | 3 | 3 | 5 | – | – | 12 |
| Total | – | 14 | 14 | 71 | 532 | 696 | 353 | 11 | 1691* |

* Due to delays in reporting and testing, this is a provisional total and is expected to increase.

Figure. Number of laboratory confirmed mumps cases in England and Wales: first quarter 2009 by year of birth



Rubella

Five cases of rubella were confirmed in the first quarter of 2009, compared to seven in the previous quarter. Two of the cases are known to be associated with travel abroad, while the remaining three had no known exposure. Two cases were children under 10 years of age and two were adult women.

References

1. HPA. Laboratory confirmed cases of measles, mumps and rubella, England and Wales: October to December 2008. *Health Protection Report HPR* [serial online] 2009 [cited 27 February 2009]; **3**(8): immunisation. Available at:<http://www.hpa.org.uk/hpr/archives/2009/hpr0809.pdf>.
2. Confirmed measles cases in England and Wales, January 2008 to February 2009. *Health Protection Report HPR* [serial online] 2009 [cited 3 April 2009]; **3**(13): news. Available at: <http://www.hpa.org.uk/hpr/archives/2009/news1309.htm#msls0902>.
3. Confirmed measles cases in England and Wales – an update to end-March 2009 . *Health Protection Report HPR* [serial online] 2009 [cited 1 May 2009]; **3**(17): news. Available at: <http://www.hpa.org.uk/hpr/archives/2009/hpr0809.pdf>.
4. Mumps increase in university students. *Health Protection Report HPR* [serial online] 2009 [cited 13 March 2009]; **3**(10): news. Available at: <http://www.hpa.org.uk/hpr/archives/2009/hpr1009.pdf>.

Chemicals

Chemical Hazards and Poisons Report – issue 14

Events at sea are a theme of the current issue of Chemical Hazards and Poisons Report which includes a review of maritime chemical incidents reported off Britain 's coastline between 2004 and 2008. Two particular incidents that required detailed assessment of public health and environmental consequences are the subject of separate articles:

- a post-mortem on the grounding of the MSC Napoli off the coast of Dorset in January 2007;
- a description of the detailed risk assessment carried out prior to the venting of ethylene from a gas carrier in the Humber estuary in January 2008.

Other articles in the new edition are concerned with:

- the investigation of an outbreak of skin rashes that occurred in a school in Scotland;
- an incident involving nickel in drinking water in London;
- a fire at a commercial composting site in Surrey;
- recent health protection issues in hospitals in Merseyside;
- an assessment of the "health costs" of poor housing; and
- a summary of the provisions and scope of the EU REACH Regulation on chemical substances.

An online searchable index for the CHAP Report is now available covering main articles published in past issues.

All documents are available at:

<http://www.hpa.org.uk/web/HPAweb&Page&HPAwebAutoListNameDesc/Page/1158945066435>.