



# CDR WEEKLY

*the Communicable Disease Report Weekly*

**Current Issue:** Volume 16 Number 33 **Published on:** 17 August 2006

## NEWS STORIES:

- ▾ Cluster of Vero cytotoxin-producing *E. coli* O157 (VTEC O157) cases linked to home paddling pools
- ▾ Update on *Salmonella* Enteritidis phage type 13a associated with attendees of a charity event

## INFECTION REPORTS

### Bacteraemia

- ▾ *Staphylococcus aureus* bacteraemia: voluntary reporting in England, Wales, and Northern Ireland: January to December 2005

### Healthcare Associated Infections:

- ▾ Voluntary surveillance of *Clostridium difficile* in England, Wales, and Northern Ireland, 2005

## DIARY

- ▾ *Health Protection* 2006
- ▾ *Microbe* 2006
- ▾ Developments in diagnostic technologies

---

## CDR SUBSCRIPTION:

To subscribe to CDR Weekly, email us at: [cdr@hpa.org.uk](mailto:cdr@hpa.org.uk)

## News

Last updated: 17 August 2006 Volume 16, No.33 (PDF file, KB)

- 📄 Cluster of Vero cytotoxin-producing *E. coli* O157 (VTEC O157) cases linked to home paddling pools
- 📄 Update on *Salmonella* Enteritidis phage type 13a associated with attendees of a charity event

---

### Cluster of Vero cytotoxin-producing *E. coli* O157 (VTEC O157) cases linked to home paddling pools

A cluster of five cases (four children and one adult) of Vero cytotoxin-producing *E. coli* O157 (VTEC O157) with links to home paddling pools was identified in Greater Manchester in June 2006.

Investigation by Greater Manchester Health Protection Unit and the local environmental health department revealed that the initial source of exposure may have been that the index case (one of the children) had been playing in a local brook and had fallen in during the ten days prior to the onset of symptoms. The common epidemiological link for the remaining children was that they had all shared home paddling pools with the index case while the index case was still symptomatic with diarrhoea. The adult case was the parent of one of the affected children. Exclusion criteria for nurseries and schools were applied as per national guidance. Three of the children were admitted to hospital with haemolytic uraemic syndrome (HUS) but all appear to have made a good recovery.

Isolates from all cases were confirmed as being phage type (PT) 21/28 with genes for Vero cytotoxin 2. This is the most common VTEC O157 type in the UK. Comparison of the isolates from the four children by the Laboratory of Enteric Pathogens using pulsed field gel electrophoresis showed that three had indistinguishable profiles and one had a profile clearly related to this.

Levels of chlorination in domestic water supplies are typically not sufficient to disinfect a home paddling pool. Although the reported occurrence of such events appears to be uncommon, key public health messages which may help reduce the risk of similar events include:

- anyone with symptoms suggestive of an infective gastrointestinal illness should not use paddling pools/swimming pools whilst symptomatic and for two weeks after resolution of symptoms
- home paddling pools should be emptied on a daily basis and thoroughly cleaned and dried after use
- pools should be covered if left out overnight
- appropriate footwear should be worn when going over outdoor areas to and from pools

---

### Update on *Salmonella* Enteritidis phage type 13a associated with attendees of a charity event

Further to the report in *CDR Weekly* of 27 July 2006 (1), 25 cases of *Salmonella* Enteritidis phage type (PT) 13a have been identified by the Laboratory of Enteric Pathogens, Colindale among attendees of an outdoor charity event which was held in Hertsmere, Hertfordshire on 18 June 2006. There have also been six further cases of presumptive salmonella infection among attendees for whom specimens were not available. No food from the event was available for microbiological examination.

A case-control study was undertaken. A list of attendees was supplied by the event organiser. A postal questionnaire was sent to all individuals known to have been ill (n=52) and a random selection of individuals not known to be ill (n=213). One hundred and ninety nine individuals completed questionnaires (overall response rate 75%). There were 49 cases (confirmed and probable) and 128 controls (2.6 controls per case). A similar number of individuals attended the morning and afternoon sessions.

The odds ratio for having diarrhoea was statistically significantly raised for individuals who ate egg mayonnaise rolls and for individuals who drank apple juice. In a multivariable logistic regression model (including age, sex, and attending the afternoon session), eating egg mayonnaise rolls

(OR=34.13, 95%CI 10.47 to 111.25) and drinking apple juice (OR=16.06, 3.48 to 74.21) remained risk factors. There was weak statistical evidence ( $p=0.0384$ ) to suggest that the risk of diarrhoea after eating egg mayonnaise rolls was greater in the afternoon (OR=151.6, 15.5 to 1486.1) than in the morning (OR=11.9, 2.7 to 52.5).

The statistical findings from this investigation suggest that the most likely source of illness due to *S. Enteritidis* PT13a was egg mayonnaise rolls.

#### **References**

1. HPA. *Salmonella* Enteritidis phage type 13a associated with attendees of a charity event . *Commun Dis Rep CDR Wkly* [serial online] 2006 [accessed 16 August 2006]; **16** (30): news. Available at <<http://www.hpa.org.uk/cdr/archives/2006/cdr3006.pdf>>.

## Bacteraemia

Last updated: 17 August, Volume 16, No. 33

### Staphylococcus aureus bacteraemia: voluntary reporting in England, Wales, and Northern Ireland: January to December 2005

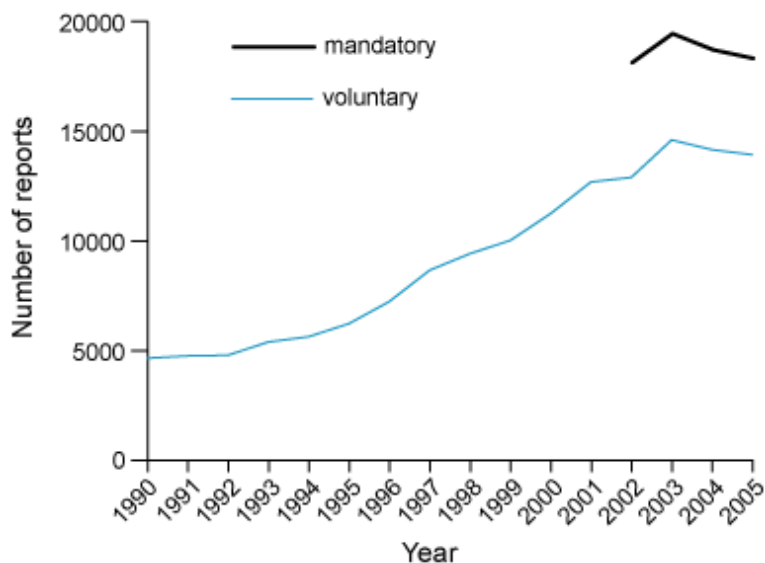
A total of 15,136 *Staphylococcus aureus* bacteraemia were reported in England (13,931), Wales (682), and Northern Ireland (523) through the voluntary reporting scheme in 2005. This is a 3% decrease on the total number of *S. aureus* bacteraemia reported via the voluntary scheme in 2004. Reports for 2005 are provisional as of 19 June 2006 and are expected to increase due to late reporting.

The proportion of *S. aureus* that is methicillin-resistant has remained at approximately 40% for the past seven years.

In general, men have a higher rate of *S. aureus* bacteraemia than women. In men the highest methicillin resistant *S. aureus* (MRSA) and methicillin sensitive *S. aureus* (MSSA) bacteraemia rates are seen in the 75 years and over age group, for women the highest MRSA bacteraemia rate is observed in the 75 years and over age group but the highest MSSA rate is observed in the under 1 year age group.

Overall, in the last three years there have been approximately 30% fewer *S. aureus* reports received via the voluntary scheme compared to the mandatory scheme (figure). However, the proportion received via the two schemes varies across regions.

Figure *S. aureus* bacteraemia reports received via the voluntary and mandatory surveillance schemes in England: 1990 to 2005



Further data tables and graphs about *S. aureus* bacteraemia voluntary reports can be viewed at [http://www.hpa.org.uk/infections/topics\\_az/staphylo/staphylo\\_voluntary\\_reports.htm](http://www.hpa.org.uk/infections/topics_az/staphylo/staphylo_voluntary_reports.htm)

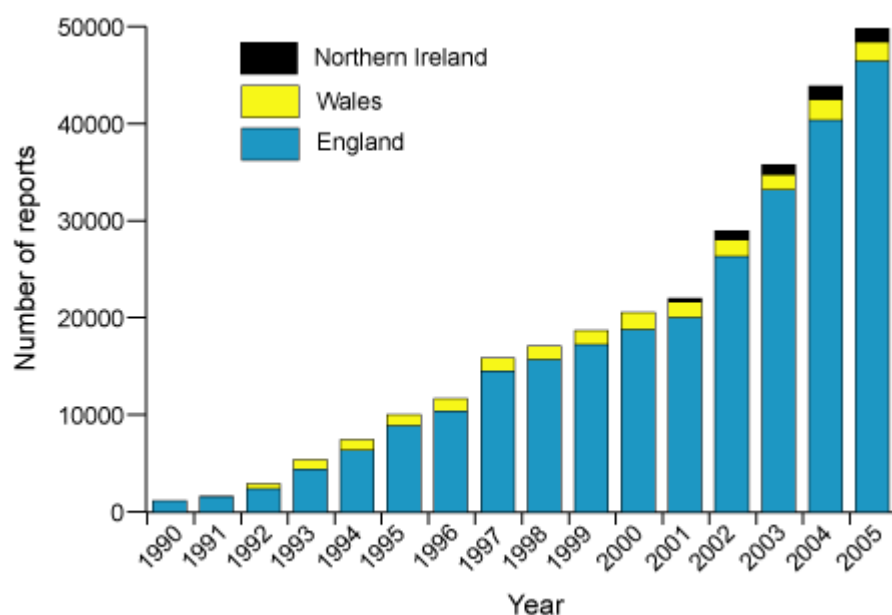
## Healthcare associated Infections

Last updated: 17 August 2006, Volume 16, No. 33

### Voluntary surveillance of *Clostridium difficile* in England, Wales, and Northern Ireland, 2005

In 2005, there were 49,850 reports of *Clostridium difficile*, comprising 46,501 from England, 1,939 from Wales, and 1,410 from N. Ireland. There was a 13.5% increase in the number of *C. difficile* positive faecal samples reported to the HPA in 2005 compared to 2004. These data confirm that the number of laboratory reports of *C. difficile* in people of all ages has increased every year since 1990 (figure).

**Figure Reports of *Clostridium difficile* isolated from faecal specimens under the voluntary reporting scheme in England, Wales, and Northern Ireland: 1990-2005\***



\* Northern Ireland reports included from 2001 only

Over 83% of all laboratory samples reported were in people aged 65 years and over. *C. difficile* reports have increased at the same rate in people aged 45 to 64 years and 65 to 74 years (11%), but have increased at a higher rate in people aged 75 years and over (15%) (table).

**Table Numbers and proportions of total voluntary reports of *Clostridium difficile* in different age groups in England, Wales, and Northern. Ireland: 2004-2005**

Age group	Number reports 2004 (% of total reports)	Number reports 2005 (% of total reports)	Percent change in numbers of reports 2004-2005*
<1 year	191 (0.4%)	168 (0.3%)	-12%
1-4 years	172 (0.4%)	150 (0.3%)	-13%
5-9 years	54 (0.1%)	63 (0.1%)	+17%
10-14 years	63 (0.1%)	88 (0.2%)	+40%
15-44 years	1980 (4.5%)	2160 (4.3%)	+9%
45-64 years	4751 (10.8%)	5260 (10.6%)	+11%
65-74 years	8047 (18.3%)	8941 (17.9%)	+11%
≥75 years	28,363 (64.6%)	32,572 (65.3%)	+15%
Unspecified	282 (0.6%)	448 (0.9%)	+59%
<b>Total</b>	<b>43,903 (100%)</b>	<b>49,850 (100%)</b>	<b>+14%</b>

\*negative figure indicates a decreasing proportion, positive figure an increasing proportion

The *C. difficile* rate was higher in women than men, though in people aged from 65 to 74 years, rates were higher in men. Less than 0.001% of reports contained information on antimicrobial susceptibility, probably reflecting the fact that diagnoses are made by toxin detection, culture now being relatively unusual.

Although the relative impact of increased ascertainment and increased number of cases is difficult to evaluate, the increase in laboratory reports strongly suggests that the public health impact of *C. difficile* infection remains important and may be increasing. This has also been highlighted by figures from the DH's mandatory surveillance of *C. difficile* in England, which were published recently. Nevertheless, the results of this voluntary and mandatory surveillance are not directly comparable. Voluntary surveillance includes data on all age groups and from Wales and N. Ireland. Its main value is in showing trends over a longer time period, comparisons between the three countries and information on the antimicrobial susceptibility of the isolate and age and sex of affected patients.

The complete data report, including data tables and graphs, can be viewed on the HPA website at [http://www.hpa.org.uk/infections/topics\\_az/clostridium\\_difficile/c\\_diff\\_voluntary\\_reports.htm](http://www.hpa.org.uk/infections/topics_az/clostridium_difficile/c_diff_voluntary_reports.htm) .

## Diary of events

---

### **Health Protection 2006**

Health Protection 2006 is the Health Protection Agency's three day showcase conference for scientific excellence and best practice in health protection, attended by around 1000 health professionals and scientists from a variety of disciplines, sharing knowledge and expertise.

The full conference programme focusing on new scientific research and developments, includes four concurrent tracks of sessions, plenary address, lecture, breakfast and lunchtime discussion sessions and an extensive poster exhibition with conducted poster rounds - all combining to provide a unique opportunity to update knowledge and further understanding of key health protection topics.

For full information visit the conference website at <<http://www.healthprotectionconference.org/>>.

---

### **Microbe 2006**

*Microbe 2006* is a four day conference for Biomedical Scientists and related healthcare professionals who specialise in Microbiology and Infectious Diseases, which will be held at Ranmoor House, Sheffield, from 7 to 10 September 2006

The lecture programme is spread across four days and includes the following topics: The Future of Microbiology, Brucella – New Aspects of an Old Disease, Viral Haemorrhagic Viruses, BSAC update, *Cl. difficile* Testing, STI's, and The GRASP Project.

Delegate Fees are:

Full-time Delegates £159 (Thurs-Sun)

Weekend Delegates £120 (Fri-Sun)

Day Delegates £15-£35 (depending on day attended)

More details can be found on the website at [http:// www.microbe.org.uk](http://www.microbe.org.uk) , or email: [contact-us@microbe.org.uk](mailto:contact-us@microbe.org.uk), or by telephoning the Booking Secretary, Steve Taylor, on 01246 512270.

---

### **Developments in diagnostic technologies: microbiological sleuthing in the 21st Century**

The Association of Clinical Microbiologists is holding a meeting *Developments in diagnostic technologies: microbiological sleuthing in the 21st Century*, on Friday 6 October 2006 at the Manchester Royal Infirmary. Speakers are from HPA centres in Newcastle, Colindale in London and Manchester and from Imperial College, London, with topics including DNA detection technologies, proteomics and sequence-based typing. Offered papers and posters are invited from trainees (CSs and SpRs), closing date Friday 8 September. Prizes available for best poster and oral presentation. The meeting is CPD accredited by both the Institute of Biomedical Scientists and the Royal College of Pathologists.

Fees are:

ACM members £25;

IBMS members £45;

Non-ACM/IBMS members £50.

For registration and offered papers contact: Dr M Kaye, Microbiology Department., Princess Royal Hospital, Apley Castle, Telford TF1 6TF; email: [Moira.Kaye@rsh.nhs.uk](mailto:Moira.Kaye@rsh.nhs.uk).