



# CDR WEEKLY

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# News

Last updated: 14 September 2006 Volume 16, No.37

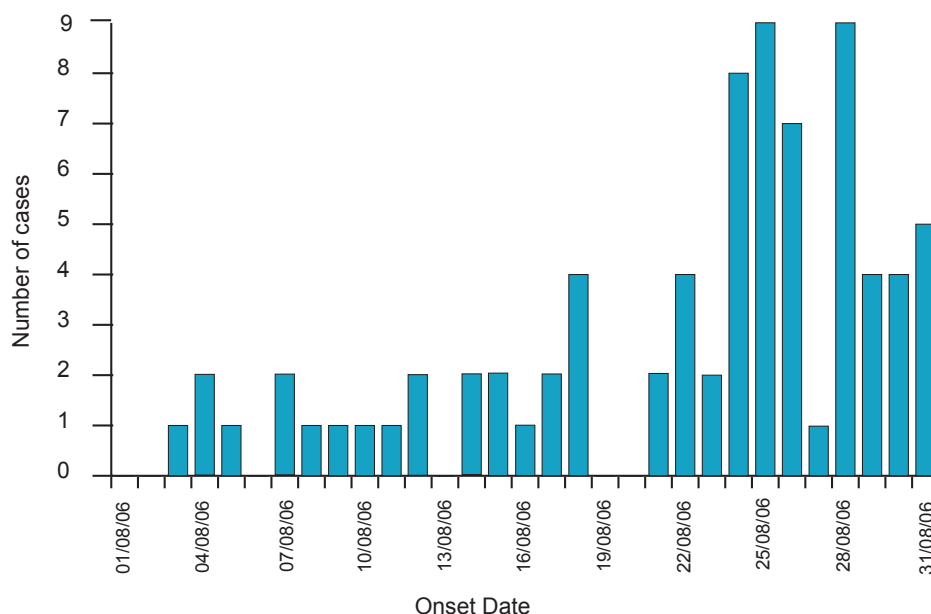
📌 National increase in cases of legionnaires' disease

📌 Mixed outbreak of legionnaires' disease and Pontiac fever associated with spa pool

## National increase in cases of legionnaires' disease

The Health Protection Agency is investigating a recent increase in the number of cases of legionnaires' disease. By 13 September, 143 cases had been reported to the National Surveillance Scheme for Legionnaires' Disease in residents of England and Wales with onset of illness since 1 August. Reports have been received from all regions in England and Wales (particularly the East Midlands, West Midlands, East and South East England regions [figure]) and include cases acquired in the United Kingdom (UK) and abroad. Ninety-seven of these cases are known to have become ill in August and 16 in September, and a further 30 are assumed to have become ill in August on the basis of the date of microbiological specimens. In August 2005, 63 cases were reported and 65 in September 2005. Thus the number of cases reported for August is more than double that for the same time one year ago (table).

**Figure Community and travel-UK cases of legionnaires' disease with onset in August 2006 (travel-abroad, and exposure category unknown excluded).**



**Table Cases of legionnaires' disease with onset in August 2006: English regions and Wales**

	Onset in August#	Total for year 2006 Jan-Aug	Total for year 2005 Jan-Aug
North East	3	7	7
Yorkshire and the Humber	9	32	26
East Midlands	24	39	18
East of England	14	29	12
London	12	28	40
South East	14	42	27
South West	7	15	17

West Midlands	19	32	26
North West	10	26	18
Wales	15	23	14
<b>England and Wales</b>	<b>127</b>	<b>273</b>	<b>205</b>

\* Includes cases with assumed onset in August by date of specimen.

It is possible that the recent rise is the result of a rise in the number of sporadic cases associated with warmer weather conditions. A request for information from collaborators in the European Working Group for Legionella Infections (EWGLI) has shown that a similar higher than usual rise in summer cases has also been observed in some northern European countries and is being attributed to the very warm weather conditions over the summer period.

Several small clusters of cases are being investigated in England and Wales but there is no suggestion of a national outbreak occurring. One outbreak with two cases of legionnaires' disease (included in figures above) and others of Pontiac fever (non-pneumonic legionellosis, not included in figures above) in the North East of England is described in a separate article [1]).

August and September are usually the months when most cases are reported each year. Although the absolute number of cases is higher for August this year, the proportion of travel and community cases for August 2006 is similar to that of August 2005. Sixteen per cent of the 98 cases with a known travel or exposure history are linked to travel abroad in August 2006, the same proportion as in August 2005. All other cases are UK acquired. The proportion of male to female cases (76% male in 2006 and 82% male in 2005) is similar but there is a higher proportion of cases under the age of 50 years and over the age of 70 years this August compared with last August, although not statistically significant. To date, six (5%) deaths have been reported since August 2006 but this number may rise as a consequence of follow-up reports (for 2005 as a whole, 28 (8%) of cases were reported to have died). Overall, the peak dates for onset of illness, excluding cases linked to travel abroad and those with unknown day of onset in August, were from 24 to 28 August (Figure). The onset dates for these cases by region show similar patterns in the East and West Midlands, and the East of England. In other regions, cases are spread throughout the month. The cases so far reported with date of onset in September are evenly spread between regions.

The HPA Centre for Infections (Cfi), through its Respiratory Diseases Department, Respiratory and Systemic Infection Laboratory (RSIL) and Water and Environmental Microbiology Reference Unit (WEMRU) in collaboration with Local and Regional Services, has convened a series of national teleconferences to ensure effective investigation of all cases and to collate and share information on the cases and clusters. Further cases, updated information on previously reported cases and reports of cluster investigations should be sent to the Respiratory Diseases Department at Cfi. RSIL is undertaking confirmatory testing on all positive urine antigen samples submitted and requests clinical material (for example sputum or other respiratory tract samples) for culture, PCR and epidemiological typing. In addition WEMRU is available to provide advice and assistance on environmental investigations and control of legionella.

## References

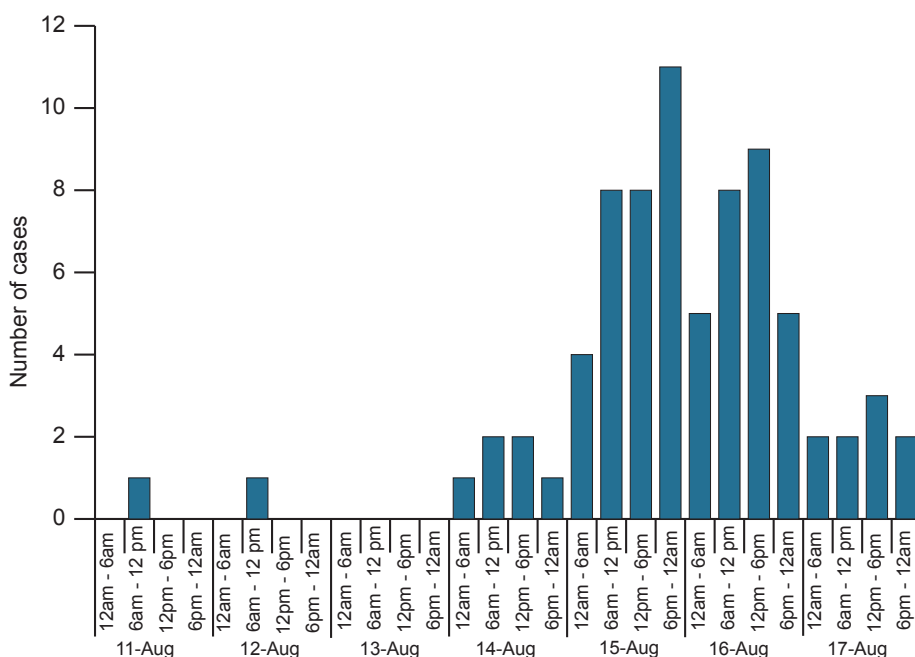
1. HPA. Mixed outbreak of legionnaires' disease and Pontiac fever associated with spa pool. Commun Dis Rep CDR Wkly [serial online] 2006 [accessed 14 September 2006]; 16 (36): news. Available at <<http://www.hpa.org.uk/cdr/archives/2006/cdr3706.pdf>>.

### Mixed outbreak of legionnaires' disease and Pontiac fever associated with spa pool

Staff from the North East Health Protection Unit are investigating a mixed outbreak of legionnaires' disease and Pontiac Fever associated with use of a spa pool at a local leisure club. Initial cases were reported to the unit on 21 August 2006, with cases reporting flu-like symptoms including fever, myalgia, headaches and nausea over the previous week.

Subsequent investigation and local media coverage has led to continuing reports of flu-like illness and in some cases hospital admission with pneumonia. Investigations have discovered two confirmed cases of legionnaires' disease, three confirmed cases of Pontiac fever and a further 73 probable cases of Pontiac fever who have symptoms and exposure pattern matching the confirmed cases (figure).

**Figure Onset date and time for confirmed and probable cases (n=78)  
(one case onset unknown, one case 21/8/06, and one case 26/8/06)**



Confirmed cases have tested positive on urinary antigen detection or initial serology for *Legionella pneumophila* serogroup 1. Paired serology is being undertaken for a small sample of the probable cases.

A further 92 people have reported symptoms following extensive local media coverage, and investigations are ongoing. Not all of these cases are expected to meet the case definition.

Incubation period for infection has been between 24 and 48 hours, with symptoms lasting three to five days. The two cases of legionnaires' disease were in hospital for four and 11 days; neither required intensive care. Two other cases have been hospitalised for one to two days each with symptoms consistent with Pontiac fever

Investigations revealed that all reported cases had been in the spa pool (or in very close proximity to it) over a period of at least seven days. Investigations into exact exposures are ongoing. There were no reports of illness in members who had used other facilities in the club.

The spa pool was voluntarily closed by the club when informed of the positive urinary antigen in one of the initial cases and the increasing numbers of club members reporting symptoms.

Water samples from the spa pool, the return flow from the massage jets and a short section of segmented pipe connected to mains water used to top-up the pool have all tested positive for *Legionella pneumophila* serogroup 1. Samples were also taken from the main swimming pool, shower in the changing rooms and the poolside shower and the condensate from the steam room. None of these have tested positive for legionella. Public health and health and safety investigations are ongoing. Plans are in place for a cohort study to provide further epidemiological information on the outbreak.

# Bacteraemia

Last updated: 14 September, Volume 16, No. 37

## *Pseudomonas* spp and *Stenotrophomonas maltophilia* in England, Wales, and Northern Ireland: 2000 to 2005

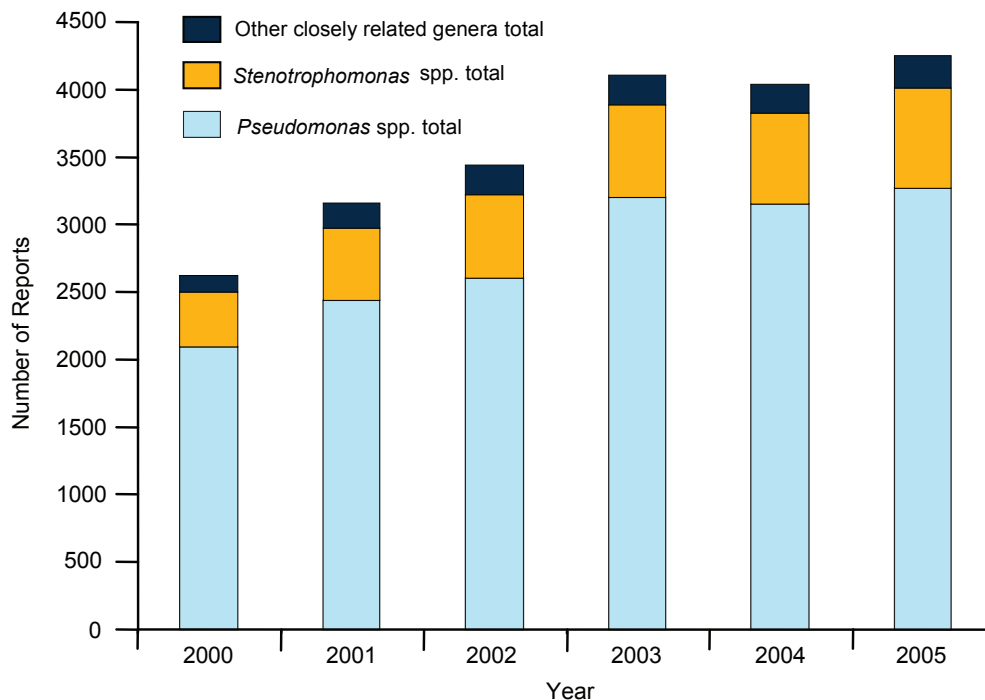
There has been 5.3% increase (table 1) in the total reports of *Pseudomonas* spp and *Stenotrophomonas* spp and other closely related genera bacteraemia reported via the voluntary surveillance scheme in 2005 (4253 reports), compared to 2004 (4038 reports). Reports of bacteraemia for 2005 are higher than those reported in 2000 (prior to the inclusion of laboratory reports from Northern Ireland in 2002). Data for 2000 to 2005 are provisional as of 6 September 2006 and the number of reports for *Pseudomonas* spp and *Stenotrophomonas* spp and related genera are expected to increase.

**Table 1** *Pseudomonas* spp and *Stenotrophomonas* spp and other closely related genera bacteraemia reports: 2000 to 2005\*

	2000	2001	2002†	2003	2004	2005
<i>Pseudomonas</i> spp total	2094	2437	2605	3203	3153	3272
<i>Stenotrophomonas</i> spp total	405	540	614	683	676	740
Other closely related genera total	123	180	225	220	209	241
<b>Total</b>	<b>2622</b>	<b>3157</b>	<b>3444</b>	<b>4106</b>	<b>4038</b>	<b>4253</b>

\*Data extracted 6 September 2006. †Data prior to 2002 does not include laboratory reports from Northern Ireland.

**Figure 1** *Pseudomonas* spp and *Stenotrophomonas* spp and other closely related genera bacteraemia reports: 2000 to 2005\*†



\*Data extracted 6 September 2006. †Data prior to 2002 does not include laboratory reports from Northern Ireland.

- The percentage of *Pseudomonas* bacteraemia reports identified to species level increased from 82% in 2000 to 86% in 2005.
- For *Pseudomonas aeruginosa*, there have been no significant changes in resistance rates reported for gentamicin (7%), ciprofloxacin (6%), imipenem (7%), and ceftazidime (6%) from 2000 to 2005. Data reported from 2000 for meropenem and piperacillin/tazobactam are difficult to interpret as fewer than three per cent of isolates were tested for these medications. However, there were no changes in resistance rates for either medication from 2001 to 2005.
- The percentage of *Pseudomonas aeruginosa* bacteraemia reports with susceptibility data increased from 63% in 2000 to 86% in 2005.
- For *Stenotrophomonas maltophilia*, there were increased resistances reported for gentamicin, ceftazidime and piperacillin/tazobactam from 2000 to 2005. However, as the number of reports are small (<500), these results may be biased by year-on-year changes in regional reporting, which is voluntary.
- The percentage of *Stenotrophomonas maltophilia* bacteraemia reports with susceptibility data increased from 51% in 2000 to 73% in 2005.
- In 2005, more men than women were reported to have had *Pseudomonas* spp bacteraemia, while an equal number of men and women were reported with *Stenotrophomonas* spp bacteraemia.
- The analyses presented are based on data extracted from our voluntary surveillance database on 6 September 2006 for the period 2000 to 2005. The data presented here differ in some instances from data in earlier publications due to the addition of late reports to the database.

**Further data tables and graphs about *Pseudomonas* spp and *Stenotrophomonas maltophilia* bacteraemia voluntary reports can be viewed at**

[http://www.hpa.org.uk/infections/topics\\_az/pseudomonas/epidata.htm](http://www.hpa.org.uk/infections/topics_az/pseudomonas/epidata.htm)