









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News

Last updated: **20 November 2003**
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Cluster of cases of tetanus in injecting drug users in England

Five cases of tetanus have been reported in injecting drug users (IDUs) since July 2003. Of these, four were reported in November. Four of the five cases are in females aged between 20 and 26 years. So far, all cases survived. A sixth female IDU with trismus on admission to accident and emergency (A&E) was reported with onset in week 46. This last case died of a respiratory arrest, and so far no microbiological confirmation of tetanus is available. Most tetanus cases are, however, clinically diagnosed, with only 14% of 175 cases between 1984 and 2000 being microbiologically confirmed. The geographical distribution of the six cases reported, so far, is displayed in the figure below. Considering that the five most recent cases were reported during the past two weeks, and the relatively widespread geographical distribution, more cases of tetanus in IDUs are expected. Increased awareness is therefore extremely important.

Figure UK Geographical distribution of six tetanus cases



Tetanus in IDUs has rarely been reported in the United Kingdom (UK), in contrast to reports from the United States (US) where IDUs accounted for between 15% and 18% of tetanus cases between 1995 and 2000 (1). Only two of the 175 tetanus cases identified in England and Wales, through enhanced surveillance between 1984 and 2000, were known to be IDUs (2). Both of these cases had multiple skin lesions at needle puncture sites. Potential sources for tetanus infection in IDUs are contaminated drugs, paraphernalia, and contaminated skin. Intramuscular and subcutaneous drug use, in particular, are associated with tetanus infections in IDUs (3).

The vaccination status of all the cases is not yet available. Vaccination coverage in the UK has, however, been good for many years (80-96% for those aged 2 years and completing a primary course since 1979) and most cases would be expected to have received some vaccination in the past. Even fully vaccinated individuals require additional protection through tetanus immunoglobulin for wounds that are especially tetanus prone because they are heavily contaminated, or are puncture wounds (4).

In 2000, an outbreak of serious illness and death occurred among IDUs in Scotland, Ireland, and England, associated with *Clostridium novyi* infection, a particular supply of heroin, and a particular method of preparation and injection (subcutaneous and/or intramuscular injection). A total of 108 cases and 44 deaths was reported in this outbreak (5,6). Female IDUs were shown to be at increased risk, possibly due to the higher prevalence of subcutaneous or intramuscular injection. Some common factors may also be shared with cases of botulism in IDUs reported in 2000 and 2002 (7-9).

Most diagnoses of tetanus are made on clinical grounds alone, and early recognition and treatment with wound debridement, antimicrobials including agents reliably active against anaerobes such as metronidazole, and tetanus immunoglobulin, can be life saving. It is important that IDUs, drug workers, and clinicians are aware of early symptoms. Clinicians in A&E, microbiologists, general physicians, and intensive care workers should have a low threshold for considering a diagnosis of tetanus in an IDU. A common first sign of tetanus in adults is abdominal rigidity and stiffening in the jaw until it is locked in position (trismus) (3). This is followed by frequent and painful spasms, progressing in severity and becoming accompanied by dysphagia, increasing respiratory embarrassment and, in the most severe cases, autonomic neurological dysfunction. The overall case fatality ratio in the most recent UK series, which included all age groups and all types of wound, was 29% (2). Case fatality ratio in IDUs has been reported at 18% in the US (1). Early treatment with tetanus immunoglobulin may be life saving.

Primary prevention through changing drug practises, in a similar way to that suggested in the outbreak in IDUs in 2000, includes smoking heroin rather than injecting <<http://www.iduoutbreak.abelgratis.com/>> or <http://www.hpa.org.uk/infections/topics_az/injectingdrugusers/advice.htm>. Consultants in Communicable Disease Control (CCDC) are advised to cascade this information to drug action teams in order to reach IDUs with information about primary prevention and early diagnosis.

Laboratory evidence in support of a clinical diagnosis may be obtained by demonstrating low level or absent antibody to tetanus immunoglobulin. Such tests may be undertaken locally, according to availability, or referred to Robert George, Director, Respiratory and Systemic Infection Laboratory, Health Protection Agency Specialist and Reference Division CPHL, HPA Colindale tel: 020 8200 4400 ext 4222, from whom further advice on the microbiological diagnosis of tetanus may be obtained. Tetanus immunoglobulin is available from Bio Products Laboratory tel: 020 8258 2200 (with an out-of-hours service).

Tetanus is a notifiable disease by law and should be reported on suspicion of the diagnosis to the proper officer, normally the local CCDC. Enhanced surveillance of tetanus is carried out by the HPA Communicable Disease Surveillance Centre. Please report cases to Susan Hahné, Joanne White, or Natasha Crowcroft, tel: 020 8200 6868 ext 4238, 4446, or 4437 respectively.

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- 9.CDSC. Wound botulism in an injecting drug user in London. *Commun Dis Rep CDR Wkly* 2000; **10**(20):177,180<<http://www.hpa.org.uk/cdr/CDR00/cdr2000.pdf>>. 

Advice on current influenza vaccine and recommendations on immunisation of children

A recent meeting of the Joint Committee Vaccination and Immunisation (JCVI) was convened at three days notice to discuss current policy for influenza vaccination. The Committee unanimously supported current immunisation policy as appropriate, although better uptake should be sought in younger high-risk groups. The Committee agreed that the current vaccine is expected to offer some cross protection against the Fujian-like strain and should give good protection against the virus strains in the vaccine, and that more information on the burden of disease is required before any decision on a change in policy can be made. The Committee agreed to meet again in the spring 2004 to review this information.

The minutes of this meeting will be published on the Department of Health website <<http://www.doh.gov.uk/jcvi/index.htm>>. Some of the main points concluded in the minutes are:

Likely efficacy of the vaccine — it was agreed that the vaccine should give good protection against the virus strains in the vaccine, and that it is also likely to give significant if not complete, protection against the new H3N2 strain. It is the best protection for those aged 65 years and over and in at-risk groups.

Illness in children – the group concluded that the current level of reported deaths in children was not unexpected, but the situation should be monitored closely.

Policy for immunising children – after reviewing all available information, the policy of immunising high-risk infants and children aged over 6 months is endorsed. None of the evidence reviewed suggests this advice would have been different if reviewed before this year's influenza season started.

For the latest update on the current influenza activity in the UK, please see the *HPA national weekly influenza report*, which is published every Wednesday week throughout the influenza season at <http://www.hpa.org.uk/infections/topics_az/influenza/flu.htm>.

Related Links

HPA. Influenza update - winter 2003/2004. *Commun Dis Rep CDR Wkly* [serial online] 2003 [cited 20 November 2003]; **13**(40): news. Available at <<http://www.hpa.org.uk/cdr/PDFfiles/2003/cdr4003.pdf>>.

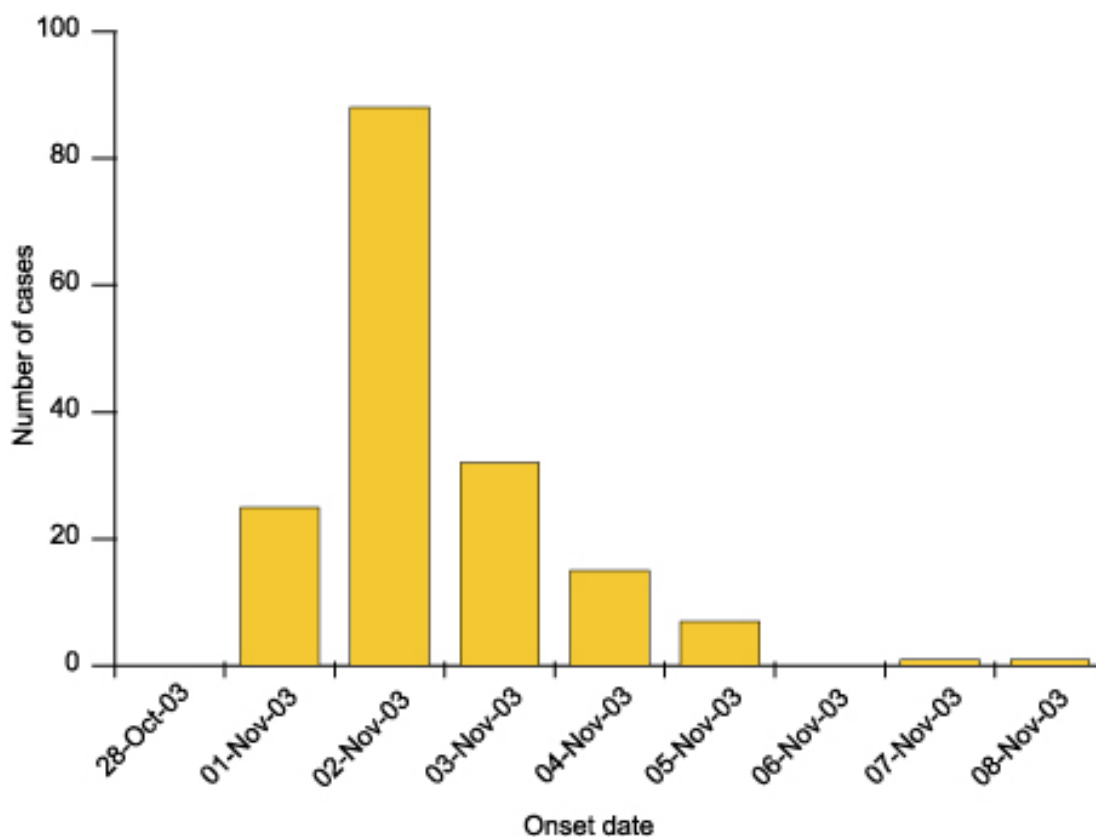
HPA. Early influenza activity 2003/2004. *Commun Dis Rep CDR Wkly* [serial online] 2003 [cited 20 November 2003]; **13**(42): news. Available at <<http://www.hpa.org.uk/cdr/PDFfiles/2003/cdr4203.pdf>>.

HPA. Current influenza activity in the United Kingdom. *Commun Dis Rep CDR Wkly* [serial online] 2003 [cited 20 November 2003]; 13(45): news. Available at <<http://www.hpa.org.uk/cdr/PDFfiles/2003/cdr4503.pdf>>.

Outbreak of *Salmonella* Enteritidis phage type 56 in Bradford

There have been about 320 cases of gastroenteritis associated with an outbreak of *Salmonella* Enteritidis in Bradford in early November 2003. One hundred and three of the isolates have been identified, so far, as phage type 56 by the Health Protection Agency's Laboratory of Enteric Pathogens (LEP). Bradford Hospitals NHS Trust played a central role in identifying the outbreak and about 20% of cases were admitted to hospital. To date, 206 of these cases have been followed up to determine clinical details and food histories. The epidemic curve is consistent with an exposure over a relatively short period of time (figure).

Figure Number of cases by onset date



Sixty per cent of reported cases were young adults aged between 16 and 30 years, 83% were of Pakistani ethnicity, and 70% were male. There is good evidence linking the outbreak to a restaurant and immediate steps were taken by environmental health officers to minimise the risk to the public. The outbreak continues to be investigated by the Health Protection Agency and the environmental health officers of Bradford Metropolitan council.

This is the second major outbreak of *S. Enteritidis* PT56 infection since the phage type was first identified by the LEP in autumn 2002. An outbreak involving 129 cases associated with a Chinese restaurant in Durham was reported in June 2003 (1).

References

- 1.HPA. Outbreak of Salmonella Enteritidis Phage Type 56 in Durham. *Commun Dis Rep CDR Wkly* [serial online] 2003 [cited 20 November 2003]; 13(27): news. Available at <<http://www.hpa.org.uk/cdr/PDFfiles/2003/cdr2703.pdf>>.

Hepatitis B vaccination a priority for local prison health delivery plans

Action towards implementing hepatitis B vaccination in all establishments receiving prisoners into custody was specified as

an investment priority in the guidance issued in September 2003 on developing local prison health delivery plans (1). Communicable disease, in general, remains a modernisation priority area. Local prison health development plans are expected to demonstrate how existing and new resources will deliver health gain in this and other areas.

Current plans are expected to be sufficiently advanced by late November 2003 to inform upcoming financial planning rounds. Prison governors and Primary Care Trust chief executives have lead responsibility for developing and managing the implementation of local prison health delivery plans for the period between 2004/5 and 2005/6. Planning arrangements for prison health should be fully integrated and mainstreamed within local NHS and prison service planning arrangements from 2006/7.

Consultants in communicable disease control should give consideration to reviewing the communicable disease section of the local prison health development plan. If the local prison is one that receives prisoners into custody, special attention should be given to ways in which the hepatitis B vaccination programme might be strengthened.

References

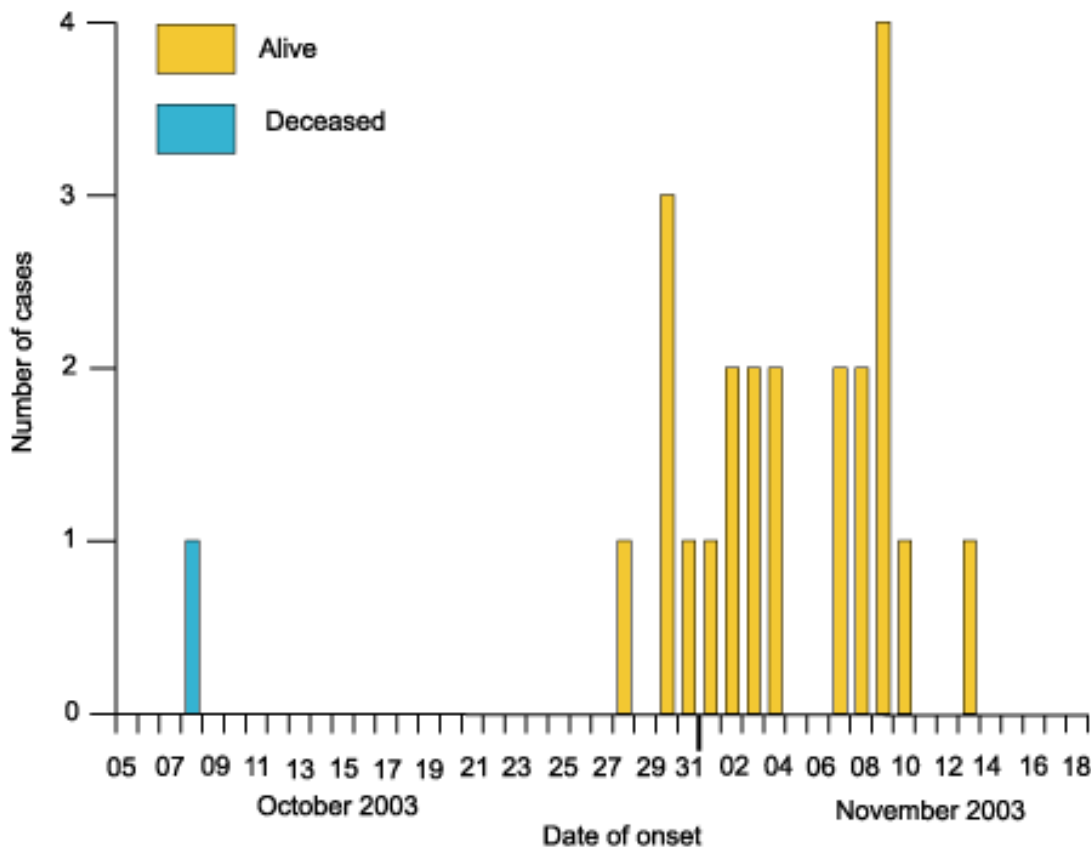
- 1. Department of Health and HM Prison Service. *Guidance on developing local prison health delivery plans*. London: Department of Health, September 2003. Available at <<http://www.doh.gov.uk/prisonhealth/deliveryplans.pdf>>

Legionnaires' disease in Hereford



There are now 24 confirmed cases of legionnaires' disease (eighteen males, six females) aged from 36 to 91 years (median age 59.5 years) associated with an outbreak in Hereford. Dates of onset of illness range from 8 October to 13 November (figure). One male aged 76 years has died. Cooling towers and other aerosol generating equipment are being sampled and treated.

Figure Outbreak of legionnaires' disease in Hereford : number of cases by date of onset*



*1 case of unknown onset date

Twenty cases live in Hereford City (one temporary resident), one lives in Herefordshire, one in Gloucestershire, and two in Wales.

The outbreak is being investigated by the Hereford and Worcestershire Health Protection Unit, in association with environmental health officers of Herefordshire Council, the Hereford Hospitals NHS Trust, and the Water and Environmental Microbiology Division of the Health Protection Agency.

A number of hypotheses are being tested. At the time of writing, data appear to favour the hypotheses that a tower in a cider production plant (Bulmers HP) was the source, but microbiological and epidemiological studies are continuing.

Any cases of legionnaires' disease with onset since 1 October 2003 who have visited Hereford in the 14 days before onset should be reported to David Kirrage: tel 01432 344 344 as well as to the HPA Communicable Disease Surveillance Centre.



New combined report on HIV and sexually transmitted infections in the United Kingdom to be released

The Health Protection Agency in association with SCIEH, DHSS&PS Northern Ireland, Communicable Disease Surveillance Centre Wales, and the Unlinked Anonymous Surveys Steering Group will launch the first annual combined report on HIV and sexually transmitted infections (STIs) in the United Kingdom (UK) on Monday 24 November 2003. The report covers 2002 UK data for HIV, STIs, and behaviours among selected at-risk population sub-groups. It also contains information on progress against the goal and aims of the English sexual health and HIV strategy. Copies of the report as well as information on world AIDS day 2003 should be available, in PDF format, at http://www.hpa.org.uk/infections/topics_az/hiv_and_sti/default.htm from 12:00 on 24 November 2003.

Bacteraemia

Last updated: **27 November 2003**
Next update due: **18 December 2003**

Uncommon pathogens involved in bacteraemia. England, Wales, and Northern Ireland: 2002

Uncommon pathogens involved in bacteraemia. England, Wales, and Northern Ireland: 2002

This review covers reports from laboratories in England, Wales, and Northern Ireland of clinical specimens taken in 2002 and concerns bacteria identified from blood samples. The reports were made to the Health Protection Agency's Communicable Disease Surveillance Centre under the voluntary reporting scheme, which reports both community-acquired and hospital-acquired bacteraemias. This report covers uncommon pathogens involved in bacteraemias, which are defined as organisms from genera with fewer than 50 bacteraemia reports in 2002.

Some of these voluntary reports provide further details such as a recent travel history, use of an intravascular line, or a history of recent surgery. Due to the small number of reports of uncommon pathogens, these data are not examined further in this report.

Seven hundred and fifty-seven reports were made of uncommon pathogens in 63 genera. Of the uncommon pathogens, *Burkholderia* spp, *Gemella* spp, and *Prevotella* spp were the most frequently reported. A full list of all genera with fewer than 50 reports in 2002 is given in table 1.

Table 1

Genus	Reported bacteraemias		
	2002	2001	2000
<i>Abiotrophia</i> spp	11	5	15
<i>Abiotrophia defectiva</i>	3	–	–
<i>Abiotrophia adjacens</i>	7	–	–
<i>Achromobacter</i> spp*	5	3	6
<i>Actinobacillus</i> spp	5	5	
<i>Actinomyces</i> spp	6	1	2
<i>Arcanobacterium</i> spp	5	2	5
<i>Bartonella</i> spp	30	–	–
<i>Bartonella henselae</i>	11	–	–
<i>Bifidobacterium</i> spp	2	1	2
<i>Bordetella</i> spp	16	2	3
<i>Bordetella pertussis</i>	12	–	–
<i>Borrelia</i> spp	1	10	8
<i>Borrelia burgdorferi</i>	1	–	–

<i>Branhamella (Moraxella) spp</i>	2	1	4
<i>Brevibacterium spp</i>	11	7	6
<i>Brevundimonas spp</i>	18	16	20
<i>Brevundimonas diminuta</i>	6	–	–
<i>Brevundimonas vesicularis</i>	12	–	–
<i>Brucella spp</i>	26	3	1
<i>Brucella abortus</i>	13	–	–
<i>Brucella melitensis</i>	1	–	–
<i>Burkholderia spp</i>	45	15	24
<i>Burkholderia cepacia</i>	45	–	–
<i>Capnocytophaga spp</i>	5	8	2
<i>Cardiobacterium spp</i>	2	1	1
<i>Cedecea spp</i>	1	–	–
<i>Chromobacterium spp</i>	6	4	4
<i>Chromobacterium violaceum</i>	5	–	–
<i>Chryseobacterium spp</i>	28	30	17
<i>Chryseobacterium indologenes</i>	21	–	–
<i>Chryseobacterium meningosepticum</i>	7	–	–
<i>Chryseomonas spp</i>	28	–	23
<i>Coxiella spp</i>	28	13	–
<i>Coxiella burnetii</i>	28	–	–
<i>Dermabacter spp</i>	2	1	–
<i>Eikenella spp</i>	5	2	4
<i>Empedobacter spp</i>	1	1	–
<i>Erwinia spp</i>	1	1	3
<i>Erysipelothrix spp</i>	1	3	2
<i>Eubacterium spp</i>	12	10	9
<i>Eubacterium lentum</i>	8	–	–
<i>Flavimonas spp</i>	34	16	14
<i>Flavobacterium spp</i> †	17	13	16
<i>Gardnerella spp</i>	2	2	4
<i>Gardnerella vaginalis</i>	2	–	–
<i>Gemella spp</i>	49	–	38
<i>Gemella haemolysans</i>	14	–	–
<i>Gemella morbillorum</i>	28	–	–
<i>Hafnia spp</i>	21	43	26
<i>Hafnia alvei</i>	21	–	–
<i>Kingella spp</i>	4	3	2
<i>Kluyvera spp</i>	22	20	14
<i>Kluyvera ascorbata</i>	1	–	–
<i>Lactobacillus spp</i>	30	25	30
<i>Lactobacillus acidophilus</i>	2	–	–
<i>Lactobacillus rhamnosus</i>	1	–	–
<i>Lactococcus spp</i>	27	22	29
<i>Lactococcus lactis</i>	8	–	–

<i>Lactococcus cremoris</i>	13	–	–
<i>Leclercia</i> spp	1	1	1
<i>Legionella</i> spp	3	2	14
<i>Leptospira</i> spp	11	3	–
<i>Leptospira icterohaemorrhagiae</i>	2	–	–
<i>Leptotrichia</i> spp	3	2	2
<i>Leuconostoc</i> spp	15	20	11
<i>Myroides</i> spp	2	–	–
<i>Nocardia</i> spp	2	2	–
<i>Oligella</i> spp	1	1	–
<i>Pediococcus</i> spp	2	1	1
<i>Peptococcus</i> spp	12	17	14
<i>Porphyromonas</i> spp	1	2	3
<i>Porphyromonas asaccharolytica</i>	1	–	–
<i>Prevotella</i> spp	47	46	28
<i>Prevotella bivia</i>	1	–	–
<i>Prevotella buccae</i>	3	–	–
<i>Prevotella intermedia</i>	1	–	–
<i>Prevotella loescheii</i>	4	–	–
<i>Prevotella melaninogenica</i>	8	–	–
<i>Prevotella oralis</i>	13	–	–
<i>Rahnella</i> spp	7	3	6
<i>Ralstonia</i> spp	9	7	6
<i>Rhodococcus</i> spp	9	6	5
<i>Rhodotorula</i> spp	4	–	4
<i>Rothia</i> spp	2	–	–
<i>Shewanella</i> spp	3	3	2
<i>Shigella</i> spp	1	5	5
<i>Sphingobacterium</i> spp	4	2	1
<i>Sphingobacterium multivorum</i>	1	–	–
<i>Sphingomonas</i> spp	24	26	35
<i>Sphingomonas paucimobilis</i>	23		
<i>Stomatococcus</i> spp	5	–	4
<i>Streptobacillus</i> spp	1	2	2
<i>Streptobacillus moniliformis</i>	1	–	–
<i>Veillonella</i> spp	14	9	11
<i>Vibrio</i> spp	4	3	1
<i>Weeksella</i> spp	3	1	4
<i>Yersinia</i> spp	18	9	14
<i>Yersinia enterocolitica</i>	14	–	–

* Some species are now members of *Alcaligenes* and *Ochrobactrum* genera

†Some species are now part of the *Chrysobacterium*, *Myroides* and *Sphingobacterium* genera

Ninety-four (12%) of these reports were associated with more than one pathogen, *ie*, polymicrobial bacteraemias (see table 2). Many of the reported genera are not uncommon pathogens, but are usually responsible for other diseases rather than

bacteraemia, eg, *Shigella* spp, while others are rare pathogens such as *Empedobacter* spp

Table 2 Uncommon pathogens involved in polymicrobial bacteraemias. England, Wales, and Northern Ireland: 2002

Genus	Reported bacteraemias	Polymicrobial bacteraemias (%)
<i>Abiotrophia</i> spp	11	1 (9)
<i>Achromobacter</i> spp	5	1(20)
<i>Actinomyces</i> spp	6	1(17)
<i>Arcanobacterium</i> spp	5	2 (40)
<i>Bordetella</i> spp	16	1 (6)
<i>Branhamella</i> spp	2	1 (50)
<i>Brevibacterium</i> spp	11	3 (27)
<i>Burkholderia</i> spp	45	6 (13)
<i>Chryseobacterium</i> spp	28	9 (32)
<i>Dermabacter</i> spp	2	1 (50)
<i>Eubacterium</i> spp	12	2 (17)
<i>Flavimonas</i> spp	34	7 (21)
<i>Flavobacterium</i> spp	17	4 (24)
<i>Kingella</i> spp	4	1 (25)
<i>Kluyvera</i> spp	22	8 (36)
<i>Lactobacillus</i> spp	30	14 (47)
<i>Lactococcus</i> spp	27	6 (22)
<i>Leuconostoc</i> spp	15	5 (33)
<i>Nocardia</i> spp	2	1 (50)
<i>Peptococcus</i> spp	12	2 (17)
<i>Prevotella</i> spp	47	8 (17)
<i>Rahnella</i> spp	7	1 (14)
<i>Rhodococcus</i> spp	9	2 (22)
<i>Shewanella</i> spp	3	1 (33)
<i>Sphingomonas</i> spp	24	3 (13)
<i>Streptobacillus</i> spp	1	1 (100)
<i>Veillonella</i> spp	14	1 (7)
<i>Yersinia</i> spp	18	1 (6)

A number of bacteraemias were reported due to organisms such as *Leptospira* spp, *Borrelia* spp, and *Yersinia* spp. As it is unusual for these organisms to result in bacteraemias, the data were further investigated and it was apparent that serum samples for antibody detection might have been entered as blood samples. For example, there were 39 reports of *Borrelia burgdorferi* in 2002, but only one of these was identified by blood culture. Thirteen reports of *Leptospira* bacteraemias were made in the same period, 12 of which were identified by antibody detection, rather than culture. The number of reports entered in table 1 for these organisms represents only those samples that have been entered as detected from a blood sample by culture. This adjustment has not been applied to the figures for the years 2000 and 2001. This will be further investigated in the near future.

Discussion

The purpose of this review is to cover the unusual bacterial genera that have not been discussed in the other bacteraemia reports in the *CDR Weekly* tin 2003. Although these bacteria only account for a very small proportion (approximately 1 to 2%) of the total number of bacteraemia reports, they can be associated with important clinical consequences. For example, some of the genera, such as *Cardiobacterium* spp, *Eikenella* spp, and *Kingella* spp can be associated with endocarditis (1).

These reports should reflect clinically significant disease. It can be difficult, however, to distinguish true clinical bacteraemias,

and contamination of cultures can lead to the diagnosis of a pseudobacteraemia (2, 3). For example, nine reports of *Ralstonia pickettii* bacteraemias were made under the voluntary reporting scheme. This is, however, a rare bacteraemia (4) and this organism has previously been identified as a source of pseudobacteraemias, suggesting further investigation may be recommended (5). Molecular tools and techniques have improved the detection of the more unusual bacteria from blood, and such methods have allowed the identification of new agents of severe disease such as endocarditis, although the nature of these methods requires that great care must be taken to avoid reporting contaminants (1, 5, 6).

A large number of reports indicated that the patient had an underlying condition likely to predispose them to infection, for example, they were immunocompromised. Some of the rare bacteraemias have also been associated in the literature with certain treatment regimens, for example *Y. enterocolitica* and *Y. pseudotuberculosis* have been associated with high iron levels in patients undergoing haemodialysis (3, 7).

Two reports indicated endocarditis, one due to *Gemella* spp and one due to *Abiotrophia defectiva*. In addition, a number of reports stated that the bacteraemia was due to a hospital-acquired infection, and other reports had comments that would suggest a nosocomial infection, for example, the use of intravenous lines or recent surgery.

It is of interest that many of the bacteraemias reported here are associated with another, concomitant, bacteraemia, *ie*, many of these bacteraemias are polymicrobial. Some of the species reported here are very rarely responsible for bacteraemias and such infections usually occur in the immunocompromised patient (6), or patient with predisposing injury (1). The identification of an unusual bacterium in blood should lead to a consideration of the possibility of contamination of the sample, or the consideration of possible underlying disease resulting in an immunocompromised status (3).



As noted above, a number of reports for certain organisms referred to antibody detection, rather than blood culture. This is of concern as it may lead to an exaggeration of the number of bacteraemia reports. Reports of *Borrelia* spp, *Leptospira* spp, and *Yersinia* spp made in 2002 have been adjusted in this report and we intend to investigate this further, in the near future.

This is the second time that these uncommon genera have been reported in *CDR Weekly* and feedback is welcome. If confirmation of unusual bacterial pathogens is required, further information can be obtained from the Laboratory of Healthcare Associated Infection, Specialist and Reference Microbiology Division, Colindale, London.

Acknowledgements

These reports would not be possible without regular contributions from microbiology colleagues in laboratories across England, Wales, and Northern Ireland, without which there would be no surveillance data. Feedback is always welcome – please send comments to Andrew Pearson, via email, at <andrew.pearson@hpa.org.uk>. The support of colleagues within the Health Protection Agency, Specialist and Reference Microbiology Division, in particular, is valued in the preparation of these reports.

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Diary

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