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CDR WEEKLY



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Tuberculosis in a nursery in South London

Pulmonary smear positive tuberculosis has been diagnosed in a staff member at a nursery school in South London in March 2001. Thirty children aged from 2 to 5 years attend the school. Close contacts of the case have been screened for tuberculosis. In addition, children at the school, who may have been exposed to the risk of infection, have also been screened. Active tuberculosis has been diagnosed in three of the children. Sixteen children with positive tuberculin skin tests but without evidence of active disease are being offered preventative treatment (chemoprophylaxis). Clinical assessment is continuing in a further five children. Screening has subsequently been extended to include children who were in contact with the staff member during the past year. The management of the incident is being overseen by Merton, Sutton, and Wandsworth Health Authority.

Salmonella typhimurium DT 69

The PHLS Laboratory of Enteric Pathogens (LEP) has confirmed 19 cases of *Salmonella typhimurium* DT 69 since the end of April 2001. This is normally an extremely uncommon pathogen. Prior to this there had been no laboratory-confirmed infections caused by this pathogen in England and Wales since January 1998. The Scottish Salmonella Reference Laboratory have also recently confirmed two cases of infection. Cases are distributed over a wide area from The Shetland Isles to Devon and from the West of Wales to East Anglia. The age range is seven to 54 years, but most of the cases are young adults. Eleven cases are female and eight are male. A European alert has been communicated through the ENTERNET system. The Gastrointestinal Diseases Division of CDSC is conducting an epidemiological investigation in collaboration with the Scottish Centre for Infection and Environmental Health.

Bacteraemia reporting

This week's *Staphylococcus aureus* bacteraemia report in the [bacteraemia section](#) shows good results arising from the increased interest and emphasis on health care associated infection and antimicrobial resistance (1,2). Probably as a result of enhancing surveillance, there has been an increase both in reports and the completeness of reporting of methicillin susceptibility with particularly high completeness in the West Midlands, where 100% completeness of methicillin susceptibility reporting has been achieved, and in Eastern Region ([figure 1](#)). The bacteraemia presentations in the *CDR Weekly* are under further development and CDSC is actively seeking suggestions as to how they can be improved further. Comments should be directed to Georgia Duckworth, lead on healthcare-associated infection and antimicrobial resistance in CDSC (email: gduckworth@phls.org.uk).

1. Standing Medical Advisory Committee Sub-Group on Antimicrobial Resistance. *The path of least resistance*. London: Department of Health, 1998.

2. National Audit Office. *Report by the Comptroller and Auditor General. The management and control of hospital acquired infection in acute NHS trusts in England*. London: The Stationery Office, 2000.

United Kingdom Zoonoses Report

The second annual Zoonoses Report has been published by the Ministry of Agriculture Fisheries and Food (MAFF), the Scottish Executive Rural Affairs Department, National Assembly for Wales Agriculture Department, the Department of Agricultural and Rural Development Northern Ireland, and the Department of Health. The PHLS and SCIEH had considerable input into the volume, indeed the overall editor for the volume was the deputy director at SCIEH. The report makes available data on the prevalence of zoonoses in humans, animals, and food in the United Kingdom in a single volume. Zoonoses are defined by the World Health Organization as diseases and infections, which are transmitted naturally between vertebrate animals and man. Although the report does not deal with all zoonoses, the more important ones are covered in some detail while others that occur infrequently, or

are associated with certain occupations or activities, are mentioned only briefly.

The report is divided into four main sections:

- Sources of data
- Major food and water-borne zoonoses including campylobacter, salmonella, Vero cytotoxin producing *E. coli* O157, and cryptosporidium
- Notifiable zoonotic diseases of animals including bovine tuberculosis, brucellosis anthrax, rabies, and bovine spongiform encephalopathy. These are notifiable when occurring in animals, but not necessarily humans
- Other zoonoses

The five appendices list various categories of disease and suggest further reading.

Feedback on the report is welcomed and should be sent to Tim Ford at t.ford@ahvg.maff.gsi.gov.uk by Friday 1 June 2001.

Zoonoses report: United Kingdom 1999 is available from the MAFF animal health website at <www.maff.gov.uk/animalh/diseases/zoo1999.pdf>

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Staphylococcus aureus bacteraemia: England and Wales January to March 2001

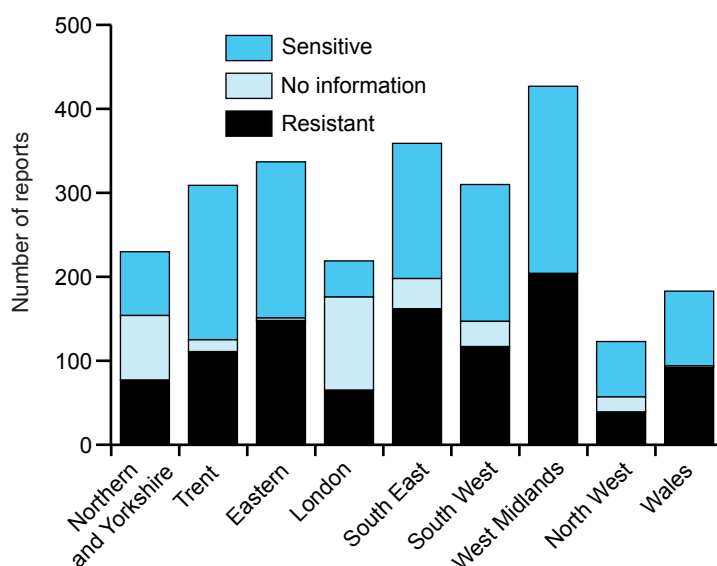
Laboratories in England and Wales reported 2497 *Staphylococcus aureus* bacteraemias to the PHLS Communicable Disease Surveillance Centre during the first quarter of 2001, compared with 2374 in the same period last year, an increase of 5% (table, figure 1) (1). The highest number of reports in the quarter was received from the West Midlands (427, compared with 419 in 2000), followed by the South East with 359 reports, while the North West had the lowest number of reports, 123. The overall rate of reports for England and Wales over the quarter was 4.7 per 100,000 population, similar to the rate for the same period last year (4.5 per 100,000). Rates ranged from 1.9/100,000 in the North West to 8.0/100,000 in the West Midlands (figure 2). This marks a fall in the rate in the North West, from 3.4 /100,00 in 2000. Rates rose in Northern and Yorkshire and the South West, from 2.2 to 3.6 and from 4.6 to 6.3/100,000 respectively (1).

Table Methicillin resistance data in *Staphylococcus aureus* bacteraemia reports: English health regions and Wales, weeks 1 to 13 2001

	Resistant (%) a	Sensitive (%) b	No information (%) c	Total d
North and Yorkshire	77 (33)	76 (33)	77 (33)	230
Trent	111 (36)	184 (60)	14 (5)	309
Eastern	148 (44)	186 (55)	3 (1)	337
London	65 (30)	43 (20)	111 (51)	219
South East	162 (45)	161 (45)	36 (10)	359
South West	117 (38)	163 (53)	30 (10)	310
West Midlands	204 (48)	223 (52)	- (-)	427
North West	39 (32)	66 (54)	18 (15)	123
Wales	92 (50)	89 (49)	2 (1)	183
England and Wales	1015 (41)	1191 (48)	291 (12)	2497

* provisional data; a+b+c=d

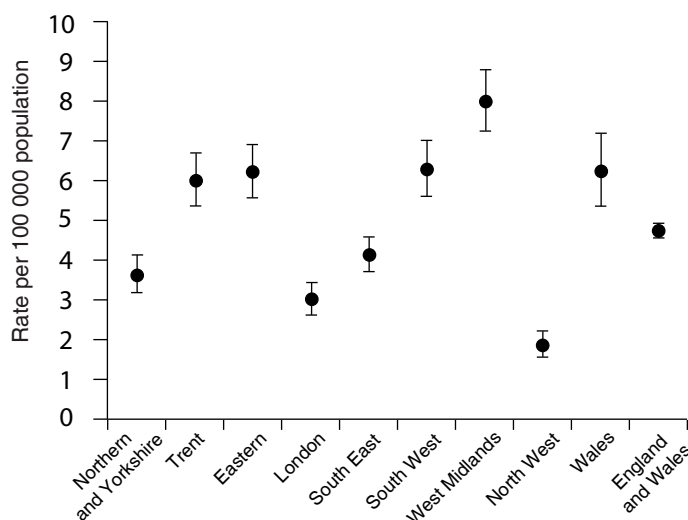
Figure 1 *Staphylococcus aureus* bacteraemia reports and methicillin susceptibility data: English health regions and Wales, weeks 1 to 13 2001*



* provisional data

Methicillin (or oxacillin) susceptibility was not recorded in 291 reports, 12% of the total. This is a considerably lower than the same period in 2000, when 473 reports (20%) were lacking susceptibility information. London region had the highest proportion of reports (51%) lacking information on methicillin susceptibility, followed by Northern and Yorkshire (33%) and the North West (15%). All other regions and Wales had 10% or fewer reports lacking this information. Although this marks a deterioration in the situation in London, it is a significant improvement for most other regions. The West Midlands is the first region to achieve complete methicillin susceptibility reporting since the start of enhanced surveillance, despite having the greatest number of reports.

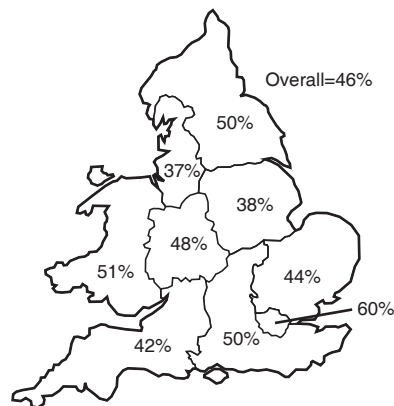
Figure 2 *Staphylococcus aureus* bacteraemia reporting rates* (95% confidence intervals) per 100,000 population: English health regions and Wales, weeks 1 to 13 2001**



* *S. aureus* bacteraemia reporting rate = total *S. aureus* reports (column d in table) divided by the regional/Welsh population (from census data) x 100,000. ** provisional data

Of the reports with information on methicillin susceptibility, 46% indicated methicillin resistance. This is the same as the level for the first quarter of 2000, and slightly higher than the overall figure for 2000 (42%) (2). The highest reported rate of methicillin resistance was seen in London (60%), followed by Wales (51%), and the South East and Northern and Yorkshire (both 50%). The lowest proportion of reports indicating methicillin resistance came from the North West (37%), but the number of reports appears to have decreased recently in this region.

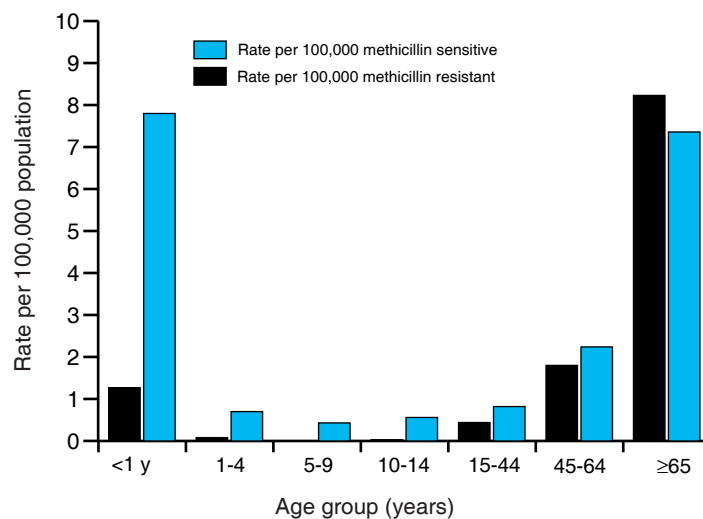
Figure 3 Methicillin resistance data in *S. aureus* bacteraemia reports: English health regions and Wales, weeks 1 to 13 2001*, MRSA as a percentage of isolates whose susceptibilities were reported**



* provisional data; ** MRSA as a percentage of isolates whose susceptibilities were reported = reported methicillin resistant (column a in table) divided by the sum of methicillin resistant (a) and methicillin sensitive (b) isolates reported x 100

Reports of methicillin resistant *Staphylococcus aureus* bacteraemia were concentrated in the older age groups, with the highest rates in those aged 65 years or over (8.23/100,000 population), exceeding the reporting rate of methicillin sensitive *Staphylococcus aureus* in this age-group (7.36/100,000; figure 4). The rate of reports of methicillin sensitive *Staphylococcus aureus* was highest in infants aged less than one year (7.80 per 100,000) and in adults aged 65 years and over.

Figure 4 Age-specific *Staphylococcus aureus* bacteraemia reporting rates and methicillin sensitivity per 100,000 population: English health regions and Wales, weeks 1 to 13 2001



This report marks a watershed on several counts. It is the first time a region has achieved complete reporting of methicillin susceptibility. Also, rates of reports are rising in several regions, which may indicate improved reporting. The bad news, however, is that the seemingly inexorable rise in methicillin resistance appears to be continuing apace in London, with 60% of reports with methicillin susceptibility information indicating methicillin resistance. This belies earlier suggestions that the rise in the MRSA rate was sigmoidal and levelling off at between 30 to 40% - clearly it is not. Reviews of isolates from over 20 hospitals participating in the European Antimicrobial Resistance Surveillance System (EARSS) suggest that over 90% of isolates in this country are EMRSA-15 and 16. This can be compared with the situation in other European countries on the European Antimicrobial Resistance Surveillance System (EARSS) website <www.earss.rivm.nl>. Fortunately vancomycin resistance is still absent from England and Wales (3), while teicoplanin resistance is still rare. Should resistance to these antibiotics, or to linezolid or quinupristin/dalfopristin, be detected, confirmation should be sought. Isolates should be sent to the Antibiotic Resistance Monitoring and Reference Laboratory (ARMRL) at the Central Public Health Laboratory, Colindale.

These reports would not be possible without the weekly contributions from microbiology colleagues in laboratories across England and Wales, without which there would be no surveillance data. The support from colleagues within the PHLS in the preparation of the reports is greatly valued, in particular from the Central Public Health Laboratory.

1. CDSC. *Staphylococcus aureus* bacteraemia: England and Wales, January to March 2000. *Commun Dis Rep CDR Wkly* 2000; **10**: 143-4.
2. CDSC. *Staphylococcus aureus* bacteraemia: England and Wales, January to December 2000. *Commun Dis Rep CDR Wkly* [online journal] 2001 [cited 17 May 2001]; **11** (7): bacteraemias. Available online at <www.phis.co.uk/publications/CDR%20Weekly/archive/bacteraemiaarchive.html#staphaureus>
3. Aucken HM, Warner M, Ganner M, Johnson AP, Richardson JF, Cookson BD, Livermore DM. Twenty months of screening for glycopeptide-intermediate *Staphylococcus aureus*. *J Antimicrob Chemother* 2000; **46** (4): 639-40.

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