

Communicable Disease Report

Malaria deaths in the United Kingdom

Two British tourists who visited Kenya in recent weeks have died from malaria contracted there, and there has been extensive media coverage of these fatalities. They underline the first of three key principles in preventing morbidity and mortality from imported malaria: to be **aware** of the risk, whether prophylactic antimalarials are taken or not. No malaria prophylactic regimen gives 100% protection, even though substantial reduction of risk is possible. Malaria, or the presence of fever in someone who has visited a malarious area, is a medical emergency; early malaria is treated without difficulty but can progress in very few days to a life-threatening disease that is difficult to manage. The other two key principles are to **avoid** mosquito bites by the use of impregnated bed nets or screened rooms and appropriate clothes and repellents, and to take the recommended **antimalarials** regularly. The choice of a suitable antimalarial for East Africa, where transmission is high and multiple drug resistance of *Plasmodium falciparum* is common, poses problems. Current recommendations are for proguanil 200mg daily plus chloroquine 300mg weekly. Alternatively, mefloquine 250mg weekly may be used. The latter is more appropriate for short-term visitors provided they are not pregnant or liable to become pregnant in the ensuing three months. Fuller details of the advice on avoiding mosquito bites, and on the choice of, and contraindications to, antimalarials, are given elsewhere¹.

A total of five deaths from malaria in the United Kingdom has been recorded by the PHLS Malaria Reference Laboratory during the first half of 1992; three of the infections were acquired in East Africa (Kenya) and two in West Africa. Last year there were 12 deaths, the highest number for many years; all these infections were acquired in Africa.

1. Prophylaxis against malaria for travellers from the United Kingdom. Report of meetings convened by the Malaria Reference Laboratory and the Ross Institute. *BMJ* 1989; **299**: 1087-9.

Typhoid fever in East London

CDSC has received reports of five cases of typhoid fever (four microbiologically confirmed and one clinically suspected) in persons who ate food together at a gathering in East London on the evening of 27 June 1992. One strain has been identified as *Salmonella typhi* untypable Vi-2 by the PHLS Laboratory of Enteric Pathogens (LEP). The function was attended by about 170 persons. Most of the food was prepared in domestic premises and transported to the function hall. The five cases presented at three different London hospitals with dates of diagnosis between 17 and 28 July. Case searching has been undertaken by contacting hospital physicians, microbiologists and family doctors in the districts where cases may present. Public health interventions include the identification and follow-up (by interview and microbiological examination of faecal samples) of all those at the reception and the targeting of preventive measures at those among the cohort who pose a special risk of further transmission ie, groups 1-4 in the PHLS Salmonella Sub-committee guidelines (*CDR* Supplement 1, 1990).

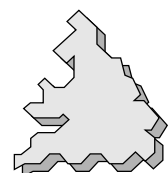
During 1991, LEP identified four isolates of *S. typhi* untypable Vi-2; two of these had a history of recent travel abroad (both Bangladesh). Since January of this year, nine cases of this strain have been reported, six of whom had recently returned from South-East Asia and one from Africa.

Respiratory tract infections:
weeks 92/27 - 30

Mycobacterial infections:
weeks 92/27 - 30

Bacteraemia and bacterial meningitis:
weeks 92/27 - 30

Unusual infections



Respiratory tract infections, England and Wales: laboratory reports, weeks 92/27 – 30

Laboratory reports	Number of reports received				Total reports 92/27-30	Average for weeks 27-30 (last 5 years)
	92/27	92/28	92/29	92/30		
Adenovirus (excluding EM faeces)	65	54	59	60	238	257 *
Coronavirus	–	–	6	2	8	5
Influenza A	4	2	4	6	16	13
Influenza B	–	–	–	3	3	17
Parainfluenza	36	46	47	21	150	100
RS virus	1	2	5	1	9	41
Rhinovirus	3	8	12	5	28	28

* average for last three years

Comment

Adenovirus (excluding EM faeces and group F): 65 patients had eye infections, 11 had pneumonia and 3 had bronchiolitis. M 7y with Reye's-type syndrome had encephalitis.

Influenza A (13 single titres, 2 isolates, 1 microscopy): 5 patients had pneumonia and one had bronchiolitis.

Influenza B (all single titres): 2 patients had pneumonia.

Parainfluenza: type 1, 3; type 2, 1; type 3, 135; untyped 11.

Six patients had pneumonia, 31 had bronchiolitis and 4 had croup. Three regions reported more than 10% of cases: Trent (28 cases), S Western (25) and W Midlands (32). 86% of patients were aged less than 5 years.

RS virus: one patient had pneumonia and one had bronchiolitis.

Rhinovirus: 2 patients had pneumonia and one had bronchiolitis.

Laboratory reports	Number of reports received				Total reports 92/27-30	Average for weeks 27-30 (last 5 years)
	92/27	92/28	92/29	92/30		
Chlamydia psittaci	8	9	9	13	39	36
Coxiella burnetii	3	–	4	3	10	12
Legionella pneumophila	1	2	3	14	20	NA
Mycoplasma pneumoniae	23	21	25	20	89	102

NA Not available

Chlamydia psittaci: 13 patients had pneumonia. Six patients had contact with birds (parrots 2, pigeons 2, canary 1, lovebirds 1) and 3 with animals.

Coxiella burnetii: 3 patients had pneumonia. One patient, who lives on a farm, had contact with animals.

Legionella sp.: *L. bozemanii*, 3 cases associated with one hospital were reported. *L. pneumophila*, 16 males, 4 females (age range 27-75 years). Fifteen patients had pneumonia. One case of non-pneumonic legionellosis was reported.

Recent travel abroad 10: Corfu 3, Spain 2, Crete, Italy, Majorca, Portugal, Turkey, one each. Three cases were associated with an outbreak at an industrial estate in Humberside (one previous case was reported in *CDR* 1992; 2: 122).

Mycoplasma pneumoniae: 43 patients had pneumonia. M 25y and F 31y with rashes, M 8y with meningitis and F 21y with erythema multiforme. Three regions reported more than 10% of cases: SE Thames (10 cases), Oxford (15) and S Western (18).

Mycobacterial infections, England and Wales: laboratory reports, weeks 92/27 – 30

Mycobacterium tuberculosis 115: 70 males, 35 females, 10 sex not stated.

Pulmonary infections 77: 54 males, 18 females, 5 sex not stated. Eighteen patients were sputum smear positive. One patient was HIV-1 antibody positive and one had an abscess in chest wall. Four patients were aged less than 15 years and 22 were aged 65 years or more. M 53y and M 60y died. There were 6 isolates from pleural aspirate and 2 from lung biopsy. Disseminated 5: 4 females; one patient, sex not stated, with miliary disease (died).

Lymph nodes 16: 8 males, 7 females, 1 sex not stated. One patient had parotid abscess. Eight were from the Indian subcontinent.

Genitourinary 2: 1 male, 1 female.

Bone/joint 5: 4 males, 1 female. Two were from the Indian subcontinent.

Abdomen 4: 2 males, 1 female, 1 sex not stated.

Abscess 4: 1 male (also with pulmonary infection), 2 females, 1 sex not stated.

Skin 3: 1 male (ear), 2 female (ear, breast).

M. bovis 4: M 41y, M 52y and female, age not stated, all had pulmonary infection; one patient, sex and age not stated (urine).

M. kansasii 3: M 78y, F 74y and one patient, sex and age not stated, all with pulmonary infection (1 sputum smear positive).

M. xenopi 2: M 62y and M 84y both with pulmonary infection. **Avium-intracellulare group** 7: M 2y (lymph nodes); M 35y, and M 40y with Kaposi sarcoma were both HIV-1 antibody positive (both blood); M 64y, M 70y, M 72y and F 62y all had pulmonary infection. **M. malmoense** 7: M 55y, M 68y, M 69y, M 81y, M 85y and F 79y all with pulmonary infection; F 5y (cervical lymph

nodes). **M. fortuitum** 3: M 43y with vertebral infection; M 71y (sputum; *M. gordonae* also isolated); F 64y with breast cancer. **M. gordonae** 1: M 71y (sputum; *M. fortuitum* also isolated). **M. marinum** 1: F 34y with skin wound. **Mycobacterium sp** 1: F 60y with pulmonary infection (sputum smear positive).

Bacteraemia and bacterial meningitis, England and Wales: weeks 92/27 – 30

Laboratory reports of blood and CSF isolates of bacteria are grouped into four categories and published in a weekly sequence:

1. Staphylococci and streptococci (excluding anaerobic cocci).
2. Enterobacteriaceae ie, *Citrobacter*, *Enterobacter*, *Escherichia coli*, *Klebsiella*, *Proteus* and *Salmonella species*.
3. Environmental and anaerobic bacteria ie, *Bacteroides*, *Clostridia*, *Acinetobacter*, *Aeromonas*, *Pseudomonas*, *Serratia* and anaerobic cocci.
4. *Neisseria meningitidis*, *Haemophilus species* and *Listeria monocytogenes*.

This week's CDR contains reports for category 1. Less commonly reported causes of bacteraemia or bacterial meningitis are listed under **Unusual infections**.

Laboratory reports	No. of reports received		Age		Total received	Cumulative total 1992
	blood only	CSF only or CSF & blood	<1m	≥65y		
Staphylococci						
S. aureus	381	5	13	180	386 (5) *	2921
Coagulase negative	193	6	28	46	199	1485
Streptococci						
group A	27	1	–	14	28	337
group B	54	5	22	9	59	420
group C & G	25	–	–	14	25	219
enterococci	130	–	9	57	130	951
α- and non-haemolytic	88	–	4	22	88	783
S. pneumoniae	193	16	1	85	209	2591

* methicillin-resistant strains of *Staphylococcus aureus*

Bacteraemia

Staphylococci:

S. aureus: 19 of 102 patients with IV-lines were on haemodialysis. M 41y was HIV-1 antibody positive. M 20y had burns. Six patients had joint prosthesis. Twenty-three patients had pneumonia, including F 3m with broncho-pulmonary dysplasia. Eleven patients had UTI/GU surgery, including diabetic M 62y with endophthalmitis. Five women had post partum infection, including 4 after Caesarean section. M 62y and M 84y had infected vascular grafts. F 3y and M 29y had infected chickenpox. M 78y had bullous pemphigoid. M 66y with leukaemia had splenic abscess. Twelve methicillin-resistant strains were reported: Northern 1 (surgical wound isolate); SE Thames 2 (1 blood isolate – *Klebsiella oxytoca* and *Candida albicans* also isolated from M 76y with infected vascular graft; 1 blood and joint isolates); Wessex 2 (1 pus isolate, 1 eye isolate); W Midlands 5 (1 blood isolate, 2 surgical wound isolates, 1 skin and nose isolates, and 1 urine and surgical wound isolates); Wales 2 (both blood isolates).

Also reported: F 79y with joint prosthesis (pus isolate).

Coagulase negative: 9 of 119 patients with IV-lines were on haemodialysis, including F 68y who had endocarditis (heart valve isolate also).

Also reported: F 53y and M 69y both had peritonitis (both peritoneal dialysate isolates).

Streptococci:

group A: 10 patients had skin infection. Two women had puerperal infection. F 53y with joint prosthesis had septic arthritis (joint aspirate isolate also). M 57y with leukaemia had pharyngitis.

Also reported: alcoholic M 44y (PM lung isolate).

group B: 20 neonates, including premature male with hydrops fetalis. Seven women had post partum infection, including F 25y whose baby (neonate) died of infection. Two women had septic abortion and 2 had intra-uterine death (both placenta isolates also). Four patients aged 52-88 years had urinary tract infection. M 69y had joint prosthesis.

group C, 2 and group G, 23: 10 patients had skin infection. M 30y, an intravenous drug user, had endocarditis (blood isolate; *Staphylococcus aureus* also isolated). M 69y had infection following coronary artery bypass graft.

Also isolated: M 46y (traumatic wound isolate).

enterococci: *S. avium* 1; *S. bovis* 8; *S. faecalis* 70; *S. faecium* 20. Seven patients were on haemodialysis and 2 were on CAPD. Fourteen patients had biliary tract disease/surgery; 19 had UTI/GU surgery; M 71y had infection following coronary artery bypass graft.

α- and non-haemolytic: *S. adjacens* 1; *S. cremoris* 2; *S. defectivus* 2; *S. lactis* 1; *S. milleri* 14; *S. mitis* 22; *S. morbillorum* 1; *S. mutans* 4; *S. salivarius* 5; *S. sanguis* 28. *S. adjacens*, M

66y had endocarditis. *S. cremoris*, M 56y with leukaemia. *S. defectivus*, M 79y, and F 7y with congenital heart disease, both had endocarditis. *S. milleri*, 3 patients had biliary tract disease/surgery. M 76y had joint prosthesis. F 1d (external ear and amniotic fluid isolates also). F 46y had pelvic abscess (blood isolate; anaerobic *streptococcus* also isolated). *S. morbillorum*, F 33y had infection following Caesarean section. *S. salivarius*, male, age not stated, on haemodialysis; F 25y had infection following antral washout.

Also reported: *S. milleri*, M 39y (ascitic fluid isolate). *S. salivarius*, F 68y (peritoneal dialysate isolate).

S. pneumoniae: 80 patients had pneumonia (including 7

children aged less than 4 years), of whom M 2y and haemophilic patient 30y were HIV-1 antibody positive. M 7m had periorbital cellulitis; M 32y had pyelonephritis; M 54y and F 70y both had previous splenectomy; M 79y had otitis media; F 7y had tonsillitis; F 22y with intra-uterine contraceptive device had pelvic inflammatory disease (blood and peritoneal fluid isolates). Fourteen patients were immunocompromised, including 5 with myeloma, 3 with leukaemia, one with lymphoma, 2 with bone marrow transplant and one on steroid therapy.

Also reported: M 85y with scrotal abscess (pus isolate) and F 77y (pleural fluid isolate).

Laboratory reports	Total bacteraemia	Acute bone/joint	Age		Intravascular lines	Pace-makers	Endocarditis (with prostheses)	IVDA (with endocarditis)
			<15y	≥65y				
Staphylococci								
<i>S. aureus</i>	381	34	9	14	102	9	12 (4)	4 (3)
Coagulase negative	193	—	—	—	119	1	11 (4)	—
Streptococci								
group A	27	3	—	2	1	—	—	1 (—)
group B	54	—	—	—	—	—	2 (1)	—
group C & G	25	1	—	—	1	—	3 (1)	2 (1)
enterococci	130	—	—	—	32	—	8 (1)	—
α- and non-haemolytic	88	—	—	—	10	—	31 (—)	—
<i>S. pneumoniae</i>	193	3	2	1	3	—	1 (—)	—

Meningitis

Staphylococci:

S. aureus: M 55y had infection following surgery (subdural aspirate isolate); F 2y, F 24y and F 46y all had infection following neurosurgery; 30y, sex not stated; diabetic F 83y (blood and CSF isolates).

Coagulase negative: M 3m, M 27y, M 32y (shunt isolate also), F 8m (shunt and peritoneal fluid isolates also) and F 3y (shunt isolate also) all with CSF shunts. M 3y; M 23y.

Streptococci:

group A: F 59y (CSF isolate).

group B: M 1d, M 5d and M 20d (all blood and CSF isolates). M 14d and M 18d.

group G: M 45y had meningitis following neurosurgery (blood and surgical wound isolates).

S. pneumoniae: 11 patients aged 3 days - 83 years (all blood and CSF isolates). Five patients aged 5 months - 42 years (all CSF isolates). Eleven patients aged 1 month - 70 years had meningitis with no CSF isolate, including M 64y and male, age not stated, both with otitis media (all blood isolates).

Unusual infections

Aerococcus viridans: F 82y (blood isolate).

Arachnia sp: F 71y had abscess on anterior chest wall (pus isolate).

***Bacillus sp* 3**: *B. cereus*, M 60y had leukaemia (blood isolate) and F 14y had surgical wound infection (pus isolate). *Bacillus sp*, female, age not stated, with bone marrow transplant had IV-line (blood isolate).

***Campylobacter sp* 9**: *C. jejuni*, M 78y, F 85y and male, age not stated, all had gastrointestinal symptoms (blood and faecal isolates); M 44y with gastrointestinal symptoms and M 80y (both blood isolates only).

***Citrobacter sp* 4**: 3 patients aged 36-83 years (blood and faecal isolates). Immunocompromised M 68y had gastrointestinal symptoms (blood isolate only).

***Gemella sp* 3**: *G. haemolysans*, F 45y (blood isolate); F 73y with endocarditis (blood isolate; *Streptococcus milleri* also isolated). *G. morbillorum*, diabetic M 60y (blood isolate).

Haemophilus aphrophilus: F 42y had endocarditis (blood isolate).

Propionibacterium acnes: M 40y (blood isolate).

***Providencia sp* 8**: *P. rettgeri*, M 70y and M 94y (blood isolate). *P. stuartii*, M 56y and M 58y with urinary catheters, and F 74y with urinary tract infection. *Providencia sp*, M 81y had infection following catheterisation (blood isolate; *Streptococcus faecalis* also isolated), F 91y (blood isolate; *Klebsiella sp* also isolated).

Yersinia enterocolitica: M 73y had fever and abdominal pain (blood isolate).

Data are for England and Wales only, unless otherwise stated.
Weekly numbers are provisional and should not be used to indicate trends.