

Communicable Disease Report

Guinea-worm disease

The World Health Organisation (WHO) reports that dracunculiasis, or guinea-worm disease, should be eradicated by 1995¹. If this is achieved, dracunculiasis will become only the second disease to be defeated; smallpox was eradicated in 1979 as a result of WHO programmes and massive voluntary support worldwide.

Guinea-worm disease is currently reported from sub-Saharan Africa, India and Pakistan; 18 countries contributed data to the global total between 1985 and 1991 through an extensive surveillance programme². Although some 140 million people are still at risk of infection, under three million cases are now reported each year compared with about 10 million during the 1980s. The last case of imported dracunculiasis reported in England and Wales was in 1979.

Dracunculus medinensis is a tissue helminth with a two host life cycle which takes about a year to complete. Man becomes infected by drinking water containing the microcrustacean *Cyclops* (which forms part of the plankton of inland water) carrying the infective larval worm. Larvae escape in the duodenum and mature into adult worms as they migrate throughout the body, eventually reaching subcutaneous tissues where mating occurs. The female worms, up to one metre long, then complete their migration, normally reaching the dermis of the lower limbs where painful blistering occurs usually on the ankle or foot. When the guinea-worm ulcer is immersed in water the blisters break and the emerging worms expel hundreds of thousands of larvae that are swallowed by the *Cyclops*, thus renewing the transmission cycle. There is no drug treatment for the disease. The worms can be extracted but healing of the wounds they cause offers no immunity from further infection.

Eradication of the disease is being achieved through successful public health education programmes, which include basic advice on the filtration of drinking water. The provision of piped water supplies, concrete lined wells, insecticides for water supplies and nylon cloth filters for family use have been implemented by national and local health authorities, supported by the WHO, the United Nations Development Programme, the United Nations Children's Fund, Global 2000 and many other voluntary organisations. Dracunculiasis will effectively be eliminated once interruption of local transmission in endemic countries is achieved.

1. WHO. *Beating Cyclops: end in sight for an ancient disease*. WHO press release/21: April 1992.
2. WHO. Dracunculiasis global surveillance summary, 1991. *Wkly Epidemiol Rec* 1992; **67**: 121-7.

Heaf tuberculin testing

A new apparatus has been developed for tuberculin Heaf testing which employs single-use disposable heads. The heads, which attach by a magnet to a new simplified handle, are prepacked and sterile. They are available from Bignell Surgical Instruments Ltd (telephone 0903 715751). They are now recommended by the Joint Committee on Vaccination and Immunisation as the preferred method for Heaf testing³. Tuberculin testing using the fixed head Heaf gun remains a safe and satisfactory alternative provided that the recommended sterilisation procedure is strictly observed⁴.

3. Department of Health. *Heaf testing and BCG vaccination for tuberculosis*. DOH letter, 30 April 1992 (PL/CO (92)2).
4. Department of Health, Welsh Office, Scottish Home and Health Department. *Immunisation against Infectious Disease*, 1990. London: HMSO, 1990.

Respiratory tract infections:

weeks 92/19 - 22

Mycobacterial infections:

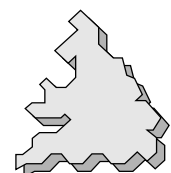
weeks 92/19 - 22

Bacteraemia and bacterial meningitis:

weeks 92/19 - 22

Unusual infections

Notices



Respiratory tract infections, England and Wales: laboratory reports, weeks 92/19 – 22

Laboratory reports	Number of reports received				Total reports 92/19-22	Average for weeks 19-22 (last 5 years)
	92/19	92/20	92/21	92/22		
Adenovirus (excluding EM faeces)	57	42	40	40	179	215 *
Coronavirus	4	3	–	–	7	3
Influenza A	9	24	8	4	45	31
Influenza B	1	1	–	1	3	73
Parainfluenza	15	14	18	16	63	70
RS virus	17	14	6	1	38	87
Rhinovirus	8	6	4	10	28	30

* average for last three years

Comment

Adenovirus (excluding EM faeces and Group F): 56 patients had eye infections, 4 had pneumonia, 8 had bronchiolitis and 1 had croup.

Influenza A (40 single titres, 4 rising titres and 1 microscopy): 15 patients had pneumonia.

Parainfluenza: type 1, 3; type 3, 57; type 4B, 1; untyped 2. Five patients had pneumonia and 14 had bronchiolitis. Two regions

reported more than 10% of cases: Northern (12 cases) and S Western (19). 62% of patients were aged less than 1 year.

RS virus: 14 patients had bronchiolitis. 87% of patients were aged less than 5 years.

Rhinovirus: one patient had pneumonia, 3 had bronchiolitis and 1 had croup.

Laboratory reports	Number of reports received				Total reports 92/19-22	Average for weeks 19-22 (last 5 years)
	92/19	92/20	92/21	92/22		
Chlamydia psittaci	8	9	2	1	20	43
Coxiella burnetii	2	4	–	2	8	11
Legionella pneumophila	1	–	2	5	8	NA
Mycoplasma pneumoniae	14	21	16	7	58	105

NA Not available

Chlamydia psittaci: 10 patients had pneumonia. One patient was a shepherdess and 3 patients had contact with parrots.

Coxiella burnetii: 5 patients had pneumonia.

Legionella pneumophila: 6 males, 2 females (age range 39-80 years). Seven patients had pneumonia. M 45y with MRSA

died and F 79y who had been to Majorca also died. Recent travel abroad 5: Majorca 1, Rhodes 1 and United States 3.

Mycoplasma pneumoniae: 25 patients had pneumonia. M 33y and F 8y both had rash. M 18y with Stevens-Johnson syndrome.

Mycobacterial infections, England and Wales: laboratory reports, weeks 92/19 – 22

Mycobacterium tuberculosis 91: 55 males, 30 females, 6 sex not stated.

Pulmonary infections 70: 47 males, 19 females, 4 sex not stated. Seventeen patients were sputum smear positive. One patient was aged less than 15 years and 20 were aged 65 years or over. M 76y and M 86y both died. There were 4 isolates from a pleural aspirate and 1 post mortem lung isolate.

Disseminated 4: 3 males (1 with miliary tuberculosis), 1 sex not stated. One was from the Indian subcontinent.

Meningitis 1: M 3y.

Lymph nodes 7: 3 males, 4 females (including 1 from Africa who was HIV positive). Four were from the Indian subcontinent.

Genitourinary 2: 1 male, 1 female.

Bone/joint 3: 1 male, 2 female. Two were from the Indian subcontinent.

Abscess 3: 1 male (chest wall), 1 female (neck), 1 sex not stated (paraspinal).

Pericardial 1: female.

M. kansasii 5: M 58y with skin wound. Four patients (2 male, 2 female) aged 58-76 years had pulmonary infection (1 sputum smear positive).

M. xenopi 1: M 75y with pulmonary infection.

Avium-intracellulare group 19: 12 males (one of whom died) aged 32-65 years were HIV-1 antibody positive, including 2 with haemophilia; immunocompromised M 39y (blood, faeces); F 47y and F 61y (urine); 2 females aged 72 years with pulmonary infection (1 sputum smear positive); F 2y with neck abscess and HIV-1 antibody positive F 31y (blood).

M. malmoense 3: M 48y, M 69y and F 36y all with pulmonary infection.

M. chelonae 2: M 21y and M 84y both with pulmonary infection (1 sputum smear positive).

M. gordonae 1: male, age not stated, with pulmonary infection.

M. marinum 2: M 51y and M 63y, both of whom had contact with fish, with skin wounds.

Bacteraemia and bacterial meningitis, England and Wales: weeks 92/19 – 22

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						
<i>S. aureus</i>	390	1	12	169	391 (11) *	2157
Coagulase negative	171	2	18	45	173	1080
Streptococci						
group A	35	2	1	20	37	263
group B	46	4	27	10	50	308
group C & G	30	–	2	19	30	164
enterococci	128	–	2	62	128	677
α- and non-haemolytic	116	1	6	57	117	595
<i>S. pneumoniae</i>	270	25	3	140	295	2174

* methicillin-resistant strains of *Staphylococcus aureus*

Bacteraemia

Staphylococci:

S. aureus: 29 of 95 patients with IV-lines were on haemodialysis. Five elderly patients had joint prosthesis. M 59y and M 73y had infected vascular grafts. M 33y was HIV-1 antibody positive. Twenty-one patients had pneumonia, including 2 elderly patients with septic arthritis (joint isolates also). Fifteen patients had UTI/GU surgery including 2 patients with pyelonephritis, one of whom (F 36y) also had endocarditis with splenic abscess. Nine women had post partum infection, including 7 following Caesarean section.

Also reported: diabetic M 62y (peritoneal dialysate isolate); M 50y had olecranon bursitis (bursa isolate). Fourteen methicillin-resistant strains were reported: NW Thames 3 (2 blood isolates and one skin isolate from patient with burns); NE Thames 3 (blood isolates, including F 78y with pacemaker prosthesis); SE Thames 4 (2 blood isolates, including M 36y on haemodialysis, and 2 nose, throat and HVS; clusters in a maternity ward); S Western 1 (blood isolate); N Western 2 (blood isolates, including one patient with pacemaker prosthesis); Wales 1 (blood isolate).

Coagulase negative: 12 premature neonates. Six of 97 patients with IV-lines were on haemodialysis.

Also reported: F 86y with joint prosthesis (joint isolate), M 69y with joint prosthesis (bone isolate; *Streptococcus faecalis* also isolated).

Streptococci:

group A: 15 patients had skin infection, including F 5y with chickenpox and neonate whose mother had puerperal infection. M 62y had infected vascular graft. M 36y was on haemodialysis. F 71y with joint prosthesis. Two patients with rheumatoid

arthritis had joint sepsis. Male, age not stated, with overdose, had empyema and septic arthritis (also isolated from PM pleura and joint).

group B: 25 neonates. Two women had post partum infection, including one following Caesarean section. F 29y had perforated uterus after laser therapy.

Also reported: M 16y had osteomyelitis (bone isolate).

group C, 7 and **group G**, 23: 14 patients had skin infection, including one with erysipelas and HIV-1 antibody positive M 37y. F 28y with heart valve prosthesis.

enterococci: *S. bovis* 11; *S. equinus* 1; *S. faecalis* 53; *S. faecium* 22. Four of 23 patients with IV-lines were on haemodialysis. Nineteen patients had UTI/GU surgery. Ten patients had biliary tract disease/surgery, including one after ERCP. M 49y and F 38y (*Acinetobacter sp* also isolated) had burns. One woman had infection following Caesarean section.

α- and non-haemolytic: *S. cremoris* 2; *S. lactis* 3; *S. milleri* 27; *S. mitis* 16; *S. mutans* 5; *S. salivarius* 10; *S. sanguis* 45. Six patients had biliary tract disease/surgery, including 2 after ERCP. *S. cremoris*, M 61y was on haemodialysis. *S. milleri*, F 47y and M 61y had liver abscess; M 67y had intra-abdominal abscess (blood and pancreas isolates).

S. pneumoniae: 119 patients had pneumonia, including 6 children aged less than 4 years. Fourteen patients were immunocompromised, including 3 with myeloma, 2 with lymphoma, 2 with leukaemia, 1 with AIDS, 5 on chemotherapy and 1 on steroids. M 6m had facial cellulitis. F 22y had peritonitis. M 53y and M 39y (also isolated from ascitic fluid). F 43y with previous splenectomy.

Also reported: F 32y had Bartholin gland abscess (pus isolate).

Laboratory reports	Total bacteraemia	Acute bone/joint	Age		IV/CVP lines	Pace-makers	Endocarditis (with prostheses)	IVDA (with endocarditis)
			<15y	≥65y				
Staphylococci								
S. aureus	390	28	6	11	95	9	18 (8)	2 (-)
Coagulase negative	171	1	-	-	97	1	8 (4)	1 (-)
Streptococci								
group A	35	4	-	3	2	-	-	-
group B	46	-	-	-	-	-	2 (-)	-
group C & G	30	5	-	3	-	-	1 (1)	1 (-)
enterococci	128	-	-	-	23	-	11 (2)	-
α- and non-haemolytic	116	1	-	1	7	-	30 (4)	-
S. pneumoniae	270	4	1	2	1	-	1 (-)	1 (-)

Meningitis

Staphylococci:

S. aureus: M 5m with hydrocephalus.

Coagulase negative: F 6y following neurosurgery; F 53y after myelogram (CSF isolate; *Gemella haemolysans* also isolated).

Streptococci:

group A: M 8d (blood, CSF and umbilical isolates). F 74y (blood and CSF isolates). F 69y (PM brain isolate).

group B: M 20d, M 21d, premature F 1m and F 2m (all blood and CSF isolates).

S. milleri: M 47y following oral surgery. Male, age not stated, had brain abscess (blood isolate).

S. salivarius: F 58y with renal transplant had meningitis with no CSF isolate (blood isolate).

S. pneumoniae: 14 patients aged 3 months - 84 years with otitis media (all blood and CSF isolates), including M 31y with previous splenectomy and M 50y following neurosurgery. Ten patients aged 6 months - 71 years had CSF isolate only including M 34y with previous splenectomy and M 34y with otitis media. F 63y (PM meninges isolate). F 1m, and M 55y after radiotherapy, both had meningitis with no CSF isolate (both blood isolates).

Unusual infections

Capnocytophaga ochracea: M 63y with intra-abdominal sepsis following gastrectomy (blood isolate).

Diphtheroids: female, age not stated, with IV-line (blood isolate).

Gemella haemolysans: M 9y with leukaemia (blood isolate).

Lactobacillus sp: F 27y had infection following Caesarean section (blood isolate).

Providencia sp: F 83y had urinary tract infection (blood isolate).

Streptococcus adjacens: M 66y (blood isolate).

Haemophilus influenzae surveillance

The PHLS Haemophilus Regional Survey began in September 1990 and includes five English regions (Northern, North Western, South Western, Oxford and East Anglia) and Wales. In order to reconcile the survey database, which is held at Oxford Public Health Laboratory, with information supplied to CDSC, a weekly list of reports of *Haemophilus influenzae* from laboratories in the study regions will be sent to Oxford. All microbiologists in the study regions have been informed of this proposed action.

Infectious disease and environmental hazards

A course on the epidemiology and control of infectious diseases and environmental hazards is to be held by the Academic Department of Public Health, St Mary's Hospital Medical School, and the Communicable Disease Surveillance Centre from 16-20 November 1992. Topics covered include the control of unusual infections, HIV, gastrointestinal disease, immunisation, current environmental issues and training for the CCDC role. There will also be workshops on study design and current practice. The fee is £400 for the full course or £100 per day. Further information is available from Mrs A McLoughlin, Course Organiser, 53 Acton Lane, London NW10 8UX (telephone 081 965 3965; fax 081 963 1689).

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