

## Communicable Disease Report

### Verotoxin producing *Escherichia coli* O 157 : phage type 49

Sixteen isolates of verotoxin producing *Escherichia coli* O 157 phage type 49 from patients living in the North West of England have been confirmed by the Division of Enteric Pathogens. Most cases presented with bloody diarrhoea. Twelve isolates were from children, five of whom have developed haemolytic uraemic syndrome. A case-control study has shown a significant association ( $p = 0.0003$ ) between infection and the consumption of a locally produced yoghurt. The yoghurt-making process, including pasteurisation of milk, has been reviewed and action taken to safeguard production.

Nine cases of *E. coli* O 157 PT 49 infection have been identified in association with a nursery in Carmarthen. They include five children, three family contacts and one staff member. Person-to-person spread is thought to be the most likely form of transmission although a cohort study is in progress to exclude other common sources of infection.

### Brucellosis surveillance

Thirteen cases of brucellosis have been reported to CDSC during the first three quarters of 1991. This compares with ten and five cases for the same periods of 1989 and 1990, respectively. *Brucella melitensis* was isolated from three of this year's cases, the remainder being diagnosed serologically. The majority of these infections were imported and the two indigenous cases had contracted their infection from cattle years earlier. The last confirmed case of bovine *B. abortus* infection occurred in an elderly cow in Devon in 1990. Since then, several low grade reactors have been identified in herds but infection has not been confirmed in any of them. The Chief Veterinary Officer reports that Great Britain is, for all practical purposes, free from bovine brucellosis<sup>1</sup>.

1. Ministry of Agriculture, Fisheries and Food, Scottish Office Agriculture and Fisheries Department, Welsh Office Agriculture Department. *Animal health 1990: report of the Chief Veterinary Officer*. London: HMSO, 1991.

### PHLS publications

The following books have been published recently by the PHLS:

*Current topics in clinical virology*, edited by P Morgan-Capner (price £25). Its fourteen chapters include contributions on mumps, rabies, CMV, EBV, HTLV-1, hantavirus, Norwalk-like and varicella zoster viruses as well as other topics of interest to the virologist eg, *Chlamydia trachomatis*, *Mycoplasma pneumoniae* and Q fever.

*Quality control: principles and practice in the microbiology laboratory*, edited by JJS Snell, JD Farrell and C Roberts (price £12.50). This reviews the principles of quality control and their application to antibiotic assays, bacteriological characterisation, culture media, electron microscopy, immunoassays, mycology, parasitology and the microbiology of food and water.

Both books are available from PHLS Publications, 61 Colindale Avenue, London NW9 5DF (telephone 081 200 1295).

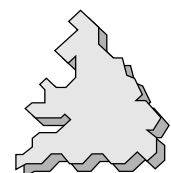
**Respiratory tract infections:**  
weeks 91/43 - 46

**Mycobacterial infections:**  
weeks 91/43 - 46

**Bacteraemia and bacterial meningitis:**  
weeks 91/43 - 46

**Unusual infections**

**Notice**



## Respiratory tract infections, England and Wales: laboratory reports, weeks 91/43 – 46

Laboratory reports	Number of reports received				Total reports 91/43-46	Cumulative total 1991
	91/43	91/44	91/45	91/46		
Adenovirus (excluding EM faeces)	34	35	22	39	130	2155
Coronavirus	–	1	3	4	8	50
Influenza A	–	1	2	–	3	117
Influenza B	1	3	2	–	6	1973
Parainfluenza	8	4	6	13	31	573
RS virus	36	57	100	215	408	7298
Rhinovirus	3	11	3	9	26	316

### Comment

**Adenovirus** (excluding EM faeces and Group F): 32 patients had eye infections, 6 had pneumonia, 9 had bronchiolitis and 1 had croup.

**Influenza A** (all single titres): one patient had pneumonia.

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

**Parainfluenza**: type 1, 8; type 2, 16; type 3, 3; type 4, 2; untyped 2. One patient had pneumonia, 4 had bronchiolitis and 6 had croup.

**RS virus**: two regions reported more than 10% of cases: S Western (83 cases) and Northern (61). Three hundred and sixteen (77%) patients were aged less than 1 year. Five patients had pneumonia, 118 had bronchiolitis and 2 had croup.

**Rhinovirus**: two patients had bronchiolitis.

**Chlamydia psittaci**: 14 patients had pneumonia. Ten patients had contact with birds: parrots 4 (including parrots from Senegal), cockatiels 1, budgerigars 1, pigeons 1 and seagull 1; one patient was a poultry worker and another was a veterinary surgeon.

**Legionella bozemanii**: M 62y with pneumonia died following pneumonectomy for bronchial carcinoma (nosocomial infection) and F 35y, immunosuppressed due to neoplasia,

also died (possible nosocomial infection).

**L. pneumophila**: 15 males, 11 females, age range 12-79 years. Twenty-one patients had pneumonia, two had influenza-like illness, one was asymptomatic and the symptoms in two patients were not specified. Two patients died (F 63y with chronic renal failure and severe anaemia, and M 57y with heart disease). Two of the cases were possibly nosocomial (M 29y and F 63y); both of these patients were immunosuppressed. Recent travel abroad: France 3, Italy 1, Malta 2, Portugal 1, Spain 5, Turkey 1.

**Mycoplasma pneumoniae**: three regions reported more than 10% of cases: SE Thames (53 cases), S Western (40), SW Thames (39). Forty-three cases (15%) were aged less than 4 years; and 35 (12%), 5-9 years. One hundred and thirty-four (45%) had pneumonia. Eleven patients were reported with skin manifestations including 7 with erythema multiforme or Stevens-Johnson syndrome, and 4 others with unspecified rashes; 5 patients had associated neurological manifestations including F 31y with Guillain-Barré syndrome, F 28y with encephalitis, M 4y with meningitis, and M 31y and F 4y with unspecified neurological symptoms. HIV infection was identified in one male in his thirties.

Laboratory reports	Number of reports received				Total reports 91/43-46	Cumulative total 1991
	91/43	91/44	91/45	91/46		
<b>Chlamydia psittaci</b>	9	13	2	6	30	377
<b>Coxiella burnetii</b>	1	1	–	1	3	73
<b>Legionella pneumophila</b>	4	4	1	19	28	138
<b>Mycoplasma pneumoniae</b>	60	83	70	82	295	2777

## Mycobacterial infections, England and Wales: laboratory reports, weeks 91/43 – 46

**Mycobacterium tuberculosis** 115: 71 males, 38 females, 6 sex not stated.

Pulmonary infections 87: 61 males, 22 females, 4 sex not stated. Twenty-eight were sputum smear positive. Two patients were aged less than 2 years and 21 were aged 65 years or over. There was one death (F 38y). There were 3 isolates from a pleural aspirate and 1 from a lung biopsy.

Meningitis 1: F 91y (CSF isolate).

Lymph nodes 8: 1 male, 5 female, 2 sex not stated. Five from

the Indian subcontinent.

Bone/joint 5: 2 male, 3 female. Three from the Indian subcontinent.

Abdomen 1: F 34y (peritoneal fluid).

Abscess 9: 4 male, 5 female.

Skin 2: 1 male, 1 female.

Pericardial 1: HIV-1 antibody positive male of African origin.

Ear 1: five year-old, sex not stated, with middle ear infection.

**M. kansasii** 2: M 53y and F 69y with pulmonary infection.

**M. xenopi** 1: M 69y with pulmonary infection.  
**Avium intracellulare group** 11: M 85y and F 68y with pulmonary infection (both sputum smear positive); F 1y, F 2y and F 13y with lymph node disease; F 3y with neck abscess and M 2y with mandibular abscess; M 41y (blood and faecal isolates); and M 28y and M 52y, both with AIDS (both blood isolates).

**M. malmoense** 2: M 60y and F 66y with pulmonary infection.  
**M. chelonae** 1: M 1y with neck sinus.  
**M. fortuitum** 2: female, age not stated (abscess); F 80y with pulmonary infection.  
**M. marinum** 2: M 3y and M 61y with fish tank granuloma.  
**Mycobacterium sp** 2: M 76y (sputum), F 55y subscapular abscess.

**Bacteraemia and bacterial meningitis, England and Wales: laboratory reports, weeks 91/43 – 46**

Laboratory reports	No. of reports received		Age		Total received	Cumulative total 1991
	blood only	CSF only or CSF & blood	<1m	≥65y		
<b>Staphylococci</b>						
<b>S. aureus</b>	422	5	16	223	427 (4) *	3856
Coagulase negative	234	2	37	56	236	2255
<b>Streptococci</b>						
group A	30	1	–	20	31	478
group B	55	5	23	22	60	647
group C & G	35	–	1	24	35	370
enterococci	120	–	8	67	120	1292
α- and non-haemolytic	114	–	5	45	114	1293
<b>S. pneumoniae</b>	237	27	9	150	264	3424

\* methicillin-resistant strains of *Staphylococcus aureus*

**Bacteraemia**

**Staphylococci:**

**S. aureus:** 31 of 95 patients with IV-lines were on haemodialysis; 9 of 40 with joint/bone infection had prostheses. Eighteen patients had pneumonia including F 70y (post mortem lung tissue isolate). Nineteen patients had UTI/GU surgery. Five women had post partum infection. There were 16 neonates. Two HIV-1 antibody positive male patients were reported, one of whom was a haemophiliac. F 41y had peritonitis (blood isolate). M 70y and F 84y with burns. M 2y had epiglottitis (*Haemophilus influenzae* also isolated). Two patients had infected vascular grafts.

Four methicillin-resistant strains were reported: NE Thames 1 (blood isolate); SE Thames 1 (blood, urine, IV-line isolates); W Midlands, patient with liver transplant (blood and bile isolates); and Wales, M 55y with pacemaker (blood isolate). Also reported: M 83y (pleural isolate), F 78y (joint isolate) and F 9y (bone isolate). M 10y with leukaemia was on haemodialysis.

**Coagulase negative:** 5 of 139 patients with IV-lines were on haemodialysis. There were 37 neonates. F 9d with pneumonia (blood and endotracheal aspirate isolates) and M 1m (blood and bronchial aspirate isolates). M 60y had subphrenic abscess (blood and liver isolates).

Also reported: F 83y (joint isolate).

**Streptococci:**

**group A:** 7 patients had skin infection. F 39y had puerperal infection (blood, placenta and HVS isolates). M 65y and F 81y had pneumonia. F 27y had peritonitis (blood isolate).

Also reported: F 42y with peritonitis (peritoneal isolate). M 2y had tracheitis (endotracheal aspirate isolate). M 4y had croup (sputum isolate).

**group B:** 23 neonates and 1 stillbirth (brain, liver and spleen isolates). Four patients had skin infection; 3 patients had pneumonia; 8 women had post partum infection, of whom 3 had UTI, including F 26y (blood, placenta and amniotic fluid

Laboratory reports	Total bacteraemia	Acute bone/joint	Age		IV/CVP lines	Pace-makers	Endocarditis (with prostheses)	IVDA (with endocarditis)
			<15y	≥65y				
<b>Staphylococci</b>								
<b>S. aureus</b>	422	40	10	19	95	24	21 (5)	4 (–)
Coagulase negative	234	–	–	–	139	3	7 (4)	–
<b>Streptococci</b>								
group A	30	2	–	1	1	–	1 (1)	–
group B	55	–	–	–	–	–	–	–
group C & G	35	–	–	–	2	–	–	–
enterococci	120	–	–	–	18	1	14 (2)	–
α- and non-haemolytic	114	1	–	–	13	1	28 (1)	1 (–)
<b>S. pneumoniae</b>	237	1	1	–	–	–	–	–

isolates). F 71y had liver abscess (blood isolate). M 40y had liver cirrhosis (died).

**group C**, 6 and **group G**, 29: 11 patients had skin infections, including F 64y with leukaemia. Five patients had UTI/GU surgery. M 69y had pneumonia. F 29y with Crohn's disease had liver abscess (blood and liver isolates).

**enterococci**: *S. bovis* 13; *S. durans* 1; *S. faecalis* 66; *S. faecium* 22. Twenty-one patients had UTI/GU surgery; 9 had biliary tract disease/surgery. There were 5 neonates, including one with blood and placenta isolates. M 2d had aspirated meconium. F 28y had puerperal infection. M 64y had peritonitis (blood isolate). Two patients had liver transplants, 2 had bone marrow transplants, 5 had leukaemia and one had myeloma. One patient had burns and one was on haemodialysis. Two patients had pancreatitis, including one with blood and pancreatic tissue isolates.

**α- and non-haemolytic**: *S. acidominimus* 1; *S. cremoris* 1; *S. milleri* 23; *S. mitis* 30; *S. mutans* 3; *S. salivarius* 7; *S. sanguis* 40. Twelve patients had leukaemia/lymphoma; 2 had bone marrow transplants; 1 had myeloid dysplasia; 2 were on haemodialysis; 2 had UTI; and 1 had biliary tract disease. M 5y had otitis media (blood isolate). F 13y had infected spinal prosthesis. F 51y on CAPD (blood and peritoneal dialysate isolate). *S. milleri*, 3 patients had endocarditis, including one with heart valve prosthesis. M 68y had intra-abdominal abscess. M 55y and M 59y had liver abscess (blood isolate).

**S. pneumoniae**: 6 children aged 4 years or less had pneumonia, including 2 neonates. Two children aged 6 and 8 years, respectively, also had pneumonia. Eighty-six adults had

pneumonia. Three children aged less than 1 year had otitis media (all blood isolates). One premature neonate (blood, gastric aspirate, external ear isolates, and HVS isolate from mother). F 25y had post partum infection (blood and HVS isolates). There were seven patients with leukaemia, three with myeloma and one with chronic liver disease. M 56y had previous splenectomy. M 15y, immunocompromised and on steroids, had infarcted spleen (blood isolate). M 70y had pneumonectomy (blood isolate).

Also reported: F 2m (eye isolate) and M 5m (synovial fluid isolate).

### Meningitis

#### Staphylococci:

**S. aureus**: three male infants aged 7-11 months with CSF shunts (CSF isolates); M 10y with CSF shunt (CSF isolate). M 30y after neurosurgery (blood and CSF isolates).

**Coagulase negative**: M 4m with CSF shunt (CSF isolate). F 9m with myelocoele and hydrocephalus.

#### Streptococci:

**group A**: M 10y with CSF shunt (CSF isolate, *S. aureus* also isolated).

**group B**: three neonates (blood and CSF isolates). F 2m (CSF isolate) and F 3m (blood and CSF isolates).

**S. milleri**: M 2y (brain isolate).

**S. pneumoniae**: 18 patients including 2 neonates, 5 children aged 6 months - 7 years, 10 adults aged 31-82 years and one age not stated (all CSF and blood isolates). M 33y with hydrocephalus (CSF isolate). Female, age not stated, with chronic sinusitis (CSF isolate). F 66y (post mortem meningeal isolate).

## Unusual infections

**Agrobacterium sp**: M 7y with rhabdomyosarcoma had IV-line (blood isolate).

**Corynebacterium sp** 7: *C. aquaticum*, M 32y had endocarditis (blood isolate). *C. jeikeium*, immunosuppressed M 71y and male, age not stated, with IV-lines (both blood isolates). *C. minutissimum*, M 1m with CSF shunt (CSF isolate). *Corynebacterium sp*, M 65y had endocarditis, F 23y with IV-line after Caesarean section and immunosuppressed F 30y with IV-line (all blood isolates).

**Diphtheroids** 3: M 1m had febrile convulsions, M 47y and F 53y with leukaemia (all blood isolates).

**Flavobacterium sp**: F 72y with leukaemia had IV-line (blood isolate).

**Gemella sp** 2: *G. haemolysans*, M 3y had tonsillitis; *G. morbillorum*, F 28y had post partum infection (both blood isolates).

**Micrococcus luteus**: F 2y with leukaemia had IV-line (blood isolate).

## Identification of non-dermatophyte skin moulds

A two day practical course covering non-dermatophytic fungi, which may invade nails and skin, will be held on 29 and 30 January 1992. The ability to identify these organisms is essential to the interpretation of their significance in disease, and this can only be achieved by studying the comparative morphology of their cultures. For further information, contact Rita Legros, Central Public Health Laboratory, 61 Colindale Avenue, London NW9 5HT (telephone 081 200 4400, ext 3839).

**From week 91/01, data in CDR will be from England and Wales only, unless otherwise stated.**

**Weekly numbers are provisional and should not be used to indicate trends**