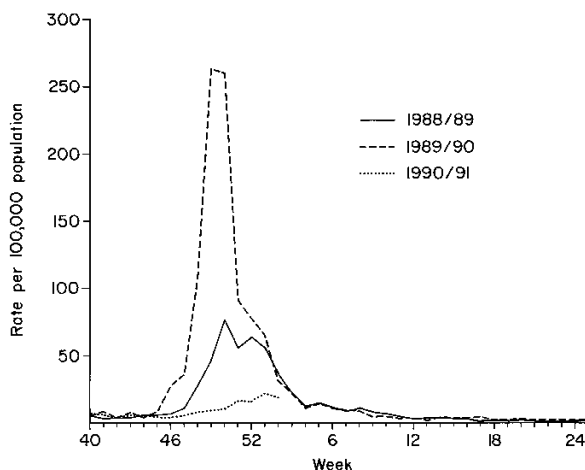


Communicable Disease Report

Influenza activity, England and Wales

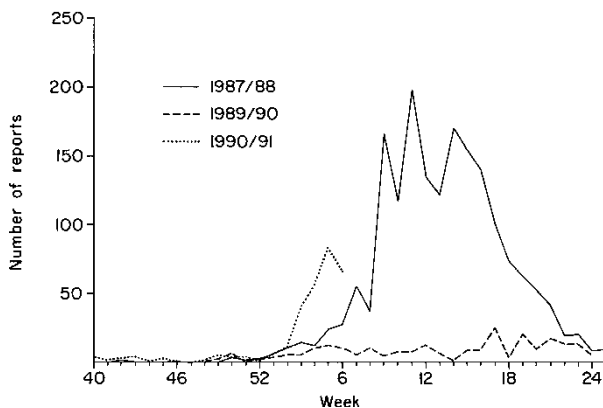
Increases in influenza activity have been reported from spotter practice schemes in England and Wales in the week ending 5 February 1991. The consultation rate for 'epidemic influenza' (a clinical index which is usually a reliable indicator of influenza virus activity) from general practitioners in the RCGP scheme (located mainly in England) rose from 18 (per 100,000 population) in the week to 29 January, to 45 in the week to 5 February (Figure 1). The corresponding figures for 'influenza-like illness' rose from 65 to 101. A similar rise was reported, in the equivalent weeks, from general practitioners in the CDSC Welsh Unit scheme: 61 (per 100,000) in the week ending 30 January to 91 in the next week.

Figure 1 RCGP consultation rate for "epidemic influenza"



Reports of 'influenza-like illness' in schoolchildren in the Medical Officers of Schools Association (MOSA) scheme rose a little earlier, having been 2.8 (per 1000) in the week ending 17 January and then 12.2 and 12.9 in the two subsequent weeks. Similar increases have not been reported from Scotland over this period.

Figure 2 Laboratory reports to CDSC of influenza B (England and Wales)



Weekly mortality data from OPCS indicate only a slight excess of 'respiratory deaths' (influenza, bronchitis and pneumonia) above the level expected for the

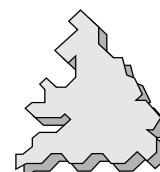
Respiratory tract infections:
weeks 91/03-06

Mycobacterial infections:
weeks 91/03-06

Bacteraemia and bacterial meningitis:
weeks 91/03-06

Unusual infections:
weeks 91/03-06

Notice: Vancomycin-resistant *Staphylococcus epidermidis*:
Sheffield



time of year, and almost no excess from deaths due to all causes (based on CDSC unpublished data). No increase has been seen in applications to the Emergency Bed Service in London during this period.

Thirty-nine isolates of influenza B virus have been reported to CDSC between weeks 90/40 and 91/06 and confirmed by the Virus Reference Laboratory. A further 65 confirmed influenza B infections have been reported with rising serological titres, and 181 infections with single high titres only (Figure 2). Most of these reports have been received in weeks 91/03-05. No isolates of influenza A virus infection, or rising titres, have been confirmed so far this season.

Increased 'influenza-like illness', associated with the H₁N₁ subtype of influenza A, has been reported in Sweden, and local outbreaks of influenza have been reported from Korea and Japan associated with the H₃N₂ subtype of influenza A. However, in the remainder of Europe and in North America, influenza activity is reported at low levels and most isolates have been of influenza B virus.

Comment

There has undoubtedly been a rise in influenza activity in England and Wales in the last week, as indicated by the general practitioner clinical indices. These have been corroborated by anecdotal reports of outbreaks in residential establishments and schools, including one outbreak in a school in the English midlands with about 50 clinical cases, from some of whom influenza B virus has been isolated. However, the levels of activity are still low by comparison with years of epidemic activity (Figure 1) and no appreciable increase has yet been seen in other indices such as respiratory deaths or hospital bed demand in London.

General practitioners report highest consultation rates in the 5-14 years age group, followed by the 1-4 years group. Laboratory reports to CDSC are also most common in the 5-14 years group, but followed by the 15-44 years group.

It is likely that other infections are contributing to the 'influenza-like illness' currently being reported, such as respiratory syncytial virus in infants and *Mycoplasma pneumoniae* in older children and young adults. No prediction about the trend in influenza activity over the next few weeks is possible.

Respiratory Diseases Section, CDSC.

Respiratory tract infections, England and Wales: laboratory reports weeks 91/03 - 06

Laboratory Reports	Number of reports received				Total reports 91/03-06	Cumulative total 1991
	91/03	91/04	91/05	91/06		
Adenovirus (excluding EM faeces)	42	94	50	36	222	320
Coronavirus	1	-	2	1	4	5
Influenza A	8	14	10	3	35	39
Influenza B	40	56	83	65	244	259
Parainfluenza	3	7	5	7	22	27
RS virus	769	518	478	261	2026	3109
Rhinovirus	6	10	13	6	35	47

Comment

Adenovirus (excluding EM faeces): 12 patients had bronchiolitis and 7 had pneumonia. 64 had eye infections. F 4y had haemolytic uraemic syndrome; F 6y had Guillain-Barré syndrome; M 2y had a chest infection and hepatosplenomegaly, and M 4y also had measles.

Influenza A (all single titres): 14 patients had pneumonia.

Influenza B (33 isolates; 55 rising titres; 152 single titres; 4 direct fluor): 5 patients had bronchiolitis; 66 had pneumonia; 1 had croup. M 29y had meningitis; M 65y had a pericardial effusion; M 53y had myocarditis; M 14y had encephalitis; F 80y and M 67y had Guillain-Barré

syndrome and F 9y had Henoch-Schönlein purpura.

Parainfluenza: type 1, 8; type 2, 2; type 3, 12. 6 patients had bronchiolitis and 1 had pneumonia.

RS virus: 2 regions reported more than 10% cases: Northern (240 cases) and N Western (277). 78% of patients were aged less than 1 year. 467 patients had bronchiolitis; 21 had pneumonia and 1 had croup. M 2y had encephalitis and right hemiparesis; F 52y had pericardial and pleural effusions; and F 80y had chest infection and haemolytic anaemia.

Rhinovirus: 4 patients had bronchiolitis.

Laboratory Reports	Number of reports received				Total reports 91/03-06	Cumulative total 1991
	91/03	91/04	91/05	91/06		
Chlamydia psittaci	14	12	15	3	44	71
Coxiella burnetii	1	1	-	4	6	9
Legionella pneumophila	-	-	12	-	12	17
Mycoplasma pneumoniae	82	74	64	43	263	383

Chlamydia psittaci: 20 patients had pneumonia. 10 patients had contact with birds, including budgerigars 2, parrots 3, poultry 2.

Coxiella burnetii: 3 patients had pneumonia.

Legionella pneumophila: 10 males, 2 females, age range 33-68 years. 10 patients had pneumonia. M 68y and F 47y died.

There were 4 cases associated with the same industrial site in the north-west of England, source not identified.

F 47y with probable hospital association died.

Recent travel abroad 4: Bali 1, France & Italy 1, Ibiza 1, Spain 1.

Mycoplasma pneumoniae: 2 regions reported more than 10% cases: E Anglia (31 cases) and S Western (46). 16% of patients were aged 5-9 years; 43% were aged 15-44 years and 12% were aged 45-64 years. 133 patients had pneumonia. M 6y and M 11y had meningitis. M 5y, M 12y, M 33y, F 1y, F 2y had rashes, and F 26y had a rash and polyarthrits; M 5y and M 10y had Stevens-Johnson syndrome; F 5y had erythema multiforme; F 9y had Henoch-Schönlein purpura. M 17y, F 53y and F 56y had Guillain-Barré syndrome. M 31y and M 47y had haemolytic jaundice. M 1y had reactive arthritis.

Mycobacterial infections, England and Wales: laboratory reports weeks 91/03-06

Mycobacterium tuberculosis 89: 62 males, 27 females.

Pulmonary infections 68 (54 males, 14 females): 20 were sputum smear positive. There were 30 adults aged 65 years or more and 4 deaths (2 males aged 71y and 89y, and 2 females aged 69y and 71y). There was one isolate from a pleural aspirate and 3 from lung specimens.

Disseminated 6: M 50y from ISC with miliary disease died (CSF, lung); male, age not stated, with leukaemia (sputum, pleural fluid, urine); 2 women with miliary disease, aged 42y and 81y, from ISC (both bronchus); F 83y with osteomyelitis (bone, lymph nodes); F 72y with ankle ulcer (skin biopsy, urine).

Lymph nodes 4: 3 males (2 from ISC), 1 female.

Genitourinary 4: 2 males, 2 females.

Abdomen 3: 2 males, 1 female from ISC (died).

Abscess 2: both female, one from ISC with neck abscess.

Skin 1: female with ankle ulcer (isoniazid resistant strain).

Pericardium 1: female 81y from ISC died.

M. bovis 1: HIV antibody positive F 32y with pulmonary infection.

M. kansasii 3: males 43y, 63y and 65y, all with pulmonary infections (1 sputum smear positive).

M. xenopi 2: males 36y and 69y, both pulmonary infections.

Avium-intracellulare group 9: 6 males, 3 females. 2 HIV antibody positive males, both aged 38y, with pulmonary infections (1 sputum smear positive); M 87y with pulmonary infection; 4 children aged 3-8 years with cervical lymphadenopathy; 2 females aged 76y and 83y with pulmonary infections.

M. malmoense 5: M 56y, M 64y, M 78y, male age not stated and F 30y, all with pulmonary infections (2 sputum smear positive).

M. chelonae 1: M 17y with cystic fibrosis had pulmonary infection (sputum smear positive).

Bacteraemia and bacterial meningitis, England and Wales: weeks 91/03 - 06

Laboratory Reports	No. of reports received		Age		Total received	Cumulative total for 1991
	Blood only	CSF only or CSF & blood	<1m	≥65y		
Staphylococci						
S. aureus	356	1	18	152	357 (1)*	588
Coagulase negative	166	10	15	54	176	267
Streptococci						
group A	62	2	—	32	64	93
group B	50	7	28	12	57	82
group C & G	29	—	—	23	29	52
enterococci	96	—	4	36	96	159
α and non-haemolytic	88	2	4	11	90	154
S. pneumoniae	377	38	6	204	415	701

* methicillin-resistant strains of **Staphylococcus aureus**

Bacteraemia

Staphylococci: S. aureus: 24 patients with IV-lines were on haemodialysis; 18 patients had pneumonia/lung abscess; 17 had UTI/GU surgery including 6 women with puerperal fever; 1 had CSF shunt.

Also reported: M 64y with ear infection and cerebral abscess (pus); M 31y and M 60y with septic arthritis (both joint isolates).

Coagulase negative: 7 patients with IV-lines were on haemodialysis.

Also reported: M 16y with lymphoma had septic arthritis (joint isolate).

Streptococci: group A: 21 patients had skin infections; 4 had pneumonia; 4 women had post partum infections. One patient had pharyngitis, one had epiglottitis and M 4y had scarlatiniform rash. F 84y with diarrhoea (blood isolate, PM bowel).

Also reported: 5 patients aged 14-60 years with acute bone/joint infections. F 32y with septic arthritis of wrist and ankles, necrotising myositis of thigh had recent sore throat and dental extraction for abscess (isolates from muscle and joints).

Streptococci: group B: 22 neonates and 2 other babies aged 1-2 months; 8 patients had UTI/GU surgery including 4 women with post partum infections.

group C, 6 and group G, 23: 12 patients had skin infections. Also reported: **group C**, F 65y and **group G**, M 58y with septic arthritis (joint isolates).

enterococci: *S. avium* 1; *S. bovis* 10; *S. faecalis* 40; *S. faecium* 19. 11 patients had UTI/GU surgery including 2 women with post partum infections; 9 had biliary tract disease.

α- and non-haemolytic: *S. cremoris* 1; *S. milleri* 20; *S. mitis* 14;

S. morbillorum 1; *S. mutans* 1; *S. salivarius* 8; *S. sanguis* 33. 8 patients had biliary tract disease.

Also reported: **group F**, M 61y on CAPD (peritoneum).

S. pneumoniae: 27 children aged 4 years or less. 180 patients had pneumonia (48%). F 62y with CSF shunt. F 20y had primary peritonitis.

Also reported: M 14y with septic arthritis (joint isolate); F 67y with mycotic aortic aneurysm (vessel wall) and F 85y (pericardium).

	Total Bacteraemia	Acute Bone/joint	Age		IV/CP lines	Pace-makers	Endocarditis with prostheses	IVDA with endocarditis
			<15y	≥65y				
Staphylococci								
S. aureus	356	32	10	13	73	9	8 (-)	1 (-)
Coagulase negative	166	-	-	-	100	1	5 (3)	-
Streptococci								
group A	62	2	-	1	-	-	-	1 (-)
group B	50	1	-	1	1	-	2	-
group C & G	29	2	-	1	1	-	1 (-)	-
enterococci	96	1	-	-	21	-	6 (2)	-
α and non-haemolytic	88	-	-	-	2	-	18 (-)	-
S. pneumoniae	377	5	1	3	3	-	2 (-)	-

Meningitis

Staphylococcus aureus: M 10y after neurosurgery.

Coagulase negative: 3 neonates; 5 patients aged 3 months - 25 years with CSF shunts; M 30y and F 59y.

Streptococcus group A: F 3m; F 1y who died suddenly.

group B: 6 neonates and preterm M 3m.

group G: M 74y with meningitis (blood isolate only).

S. milleri: F 3m.

S. sanguis: F 3y with CSF shunt.

S. pneumoniae: 15 children aged 4 years or less, including 2 neonates and F 4m with pneumonia (blood isolate only, 2); 23 patients aged 5-64 years (blood isolate only, 3); 5 patients aged 65 years or more, including one with pneumonia (blood only, 1).

Unusual infections

Bacillus sp 3: M 20y with orthopaedic pin (blood and wound isolates); F 71y with surgical wound infection (wound) and M 79y (blood isolate).

Branhamella catarrhalis: F 68y with leukaemia (blood isolate).

Diphtheroids: M 70y with non-Hodgkin lymphoma (blood isolate).

Gardnerella vaginalis: preterm neonate (blood isolates).

Moraxella sp: F 67y with chest infection (blood isolate).

Vancomycin-resistant *Staphylococcus epidermidis*: Sheffield

A patient treated with CAPD for renal failure developed peritonitis which failed to respond to intraperitoneal treatment with vancomycin and gentamicin. Culture of CAPD fluid yielded an isolate of *Staphylococcus epidermidis* resistant to vancomycin (MIC = 16 mg/l), teicoplanin (MIC more than 16 mg/l) and gentamicin (MIC more than 32 mg/l). The patient had had 10 previous episodes of CAPD peritonitis in three years, all of which had been treated with intraperitoneal vancomycin. It is thus possible that repeated exposure to vancomycin caused emergence of resistance in this isolate.

The isolate appeared sensitive to vancomycin by Stokes method when a 30µg disc was used, but appeared resistant using a 5µg disc. Detection of low-level vancomycin resistance may, therefore, require the use of 5µg discs or breakpoint testing at 4 mg/l.

The Antibiotic Reference Laboratory at Colindale would be interested in receiving any further vancomycin-resistant isolates of *staphylococci*.

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