



Legionella Infection In Northern Ireland

Legionnaires' disease is a notifiable disease in Northern Ireland. The disease, caused by *Legionella pneumophila*, is a multi-system illness which can have severe widespread clinical symptoms, though the principle manifestation of the disease is pneumonia.

The organism is commonly found in various natural and man-made aquatic environments, often in low numbers. Water cooling towers, air conditioning systems and whirlpools have been implicated as major sources of infection. Colonisation is enhanced by temperatures of 25-42°C, stagnation and the presence of scale and sediment. Airborne or aerosol transmission of the organism from contaminated water in water systems in large institutions has accounted for numerous outbreaks throughout the world, associated with hotels, leisure complexes and hospitals. A significant proportion of cases are contracted abroad. Sporadic cases may also occur worldwide. Immunosuppressed, chronically ill people are most at risk of infection.

During 2002, four cases of Legionnaires' disease were reported in Northern Ireland. Three of the cases were associated with an outbreak of the disease in Newtownabbey during March and April (see Monthly Report Volume 11, Number 3). All three cases were male aged 35 to 50 years, and no deaths were associated with the outbreak. A further case occurred in a male aged >60 years with a history of travel to Turkey.

Twenty six cases have been notified between 1980 and 2002. Fifteen cases

are known to have been travel-related, involving European countries including Spain, Portugal and Greece. Four patients died. Information relating to age of patient was available in 22 cases. Ages ranged from 35 years to 78 years, with median and mean ages of 54 years and 55 years respectively. The sex ratio of the 22 cases was 4.2:1 male:female. An average of 1.2 cases occur per year in Northern Ireland. An unusually high number of cases occurred in 1999 with 5 cases being reported, two of which were associated with foreign travel. This increase was not apparent elsewhere in the United Kingdom, and so it is likely that these were sporadic cases. 2002 saw the first report of a cluster of Legionnaires' Disease cases in Northern Ireland, and outbreak reports elsewhere in the UK, including Cumbria^{1,2} and in a group of UK residents who travelled to Belgium³.

Monitoring of Legionella infections in Northern Ireland is carried out in conjunction with the European Working Group for *Legionella* infections (EWGLI). Although the disease is not a serious risk to public health in Northern Ireland, participation in this surveillance scheme ensures standardised methods of detection, diagnosis, recording and reporting of disease, and permits

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direct comparisons with data from other participating regions. Outbreaks or clusters of cases of Legionnaires' disease in returning travellers can be quickly identified through this European network, allowing rapid alerts to be communicated to all collaborating countries, WHO and other relevant centres. For further information on Legionnaire's Disease, please see http://www.phls.org.uk/topics_az/legionella/menu.htm.

References

1. PHLS (2002). Outbreak of Legionnaires' Disease in Barrow-in-Furness. **Commun Dis Rep Wkly 12 (32)**. Available at <http://www.phls.org.uk/publications/cdr/archive02/News/news3202.html>
2. PHLS (2002). Outbreak of legionnaires' disease in Barrow-in-Furness - Update. **Commun Dis Rep CDR Wkly 12 (32)**. Available at <http://phls.org.uk/publications/cdr/archive02/News/news3202.html>
3. Outbreak of Legionnaires' Disease associated with visits to Belgium. **Commun Dis Rep Wkly 12 (41)**. Available at <http://www.phls.org.uk/publications/cdr/archive02/News/news4102.html>

Influenza and Pneumococcal Vaccination Programmes: Winter 2002/03

Analyses of the winter 2002/03 Influenza and Pneumococcal Vaccination Programmes were completed at the end of March 2003.

Influenza Vaccine

The Department of Health, Social Services and Public Safety (DHSSPS) set a regional target of 70% influenza immunisation uptake among the over 65 population for winter 2002/03. Prior to the commencement of the 2002/03 campaign it was agreed that, across Northern Ireland, a nominal 10% of the under 65 population should also be considered 'at risk'. Therefore, DHSSPS also set an additional target of 60% influenza immunisation uptake among the under 65 'at risk' population.

Over two hundred and fifty thousand influenza vaccines were administered to all groups of patients considered 'at risk' - ie all those over 65 years of age, all those in long stay residential care, and those with underlying 'high risk' conditions, namely chronic respiratory, cardiac or renal disease, those patients who are immuno-suppressed, and diabetics. This figure represents a 4% increase on the number that were administered during last winter, and a 14% increase on the number that were administered during the winter 2000/01.

By the end of the winter 2002/03 campaign, 359 of the 361 practices in the Province were included in the analysis. Of the total 252 737 vaccines administered, 166 514 (66%) were given to the 65+ age group. The regional target uptake rate of 70% in the over 65 population was, essentially, attained by the end of November (69.5%) and, by the end of the

campaign, had been exceeded in each of the four Health Boards (range 71%-74%). The overall uptake in the over 65 population for 2002/03 was 72%, which is the same uptake as was achieved during winter 2001/02. This is despite a 0.8% increase, between October 2001 and October 2002, in the number of individuals aged 65 years or over registered with the Central Services Agency. Sixty four per cent of practices in Northern Ireland achieved an uptake rate of 70% or more in the 65+ age group during 2002/03.

This compares to 61% of practices in 2001/02. Therefore, the decision to target the under 65 'at risk' patients during the current season has not proved detrimental to the ongoing annual vaccination of those aged over 65.

A total of 86 223 vaccines were administered to under 65 'at risk' patients. Of these, 7 715 were administered to patients under 15 years, 90% of whom were children with chronic respiratory disease. Of the 78 508 patients within the 15-64 years age group who were vaccinated, 45% were categorised as suffering from chronic respiratory disease, 27% from chronic cardiac disease and 17% from diabetes. The overall uptake in the under 65 'at risk' population for 2002/03 was 56 % (range 52%-62%), which may reflect variation between Boards and between individual GP practices in the proportion of under 65's considered to be 'at risk'.

Pneumococcal Vaccine

In advance of winter 2002/03, the Joint Committee on Vaccination and Immunisation recommended that pneumococcal vaccine be offered to all adults aged 65 and over who had not received it previously. Those in the under 65 'at risk' categories who were not already immunised were also offered pneumococcal vaccine. In addition to the underlying 'at risk' conditions for influenza infection, pneumococcal vaccination is also recommended for those with asplenia, sickle cell anaemia and liver disease, and, for the first time, recipients of cochlear implants.

A total of 109 103 pneumococcal vaccines were administered during 2002/03, compared to 18 106 in 2001/02. During the current programme, 82 458 of these vaccines (76%) were administered to patients over 65 years of age. Unfortunately, due to differences between Boards in the collection of pneumococcal vaccine data, it has not been possible to calculate vaccine coverage for the over 65 population. The remaining 26 645 (24%) pneumococcal vaccines were administered to patients in the under 65 'at risk' categories. As expected, the majority of these individuals had underlying lung or heart disease, or diabetes. However, during the 2002/03 programme, vaccine was also administered to 30 cochlear implant recipients aged under 65 years.

CDSC (NI) appreciates the efforts of all those involved in the timely supply of both influenza and pneumococcal vaccination uptake data from each Health and Social Service Board.

Table 1: Influenza Vaccine Programme Summary: winter 2002/03

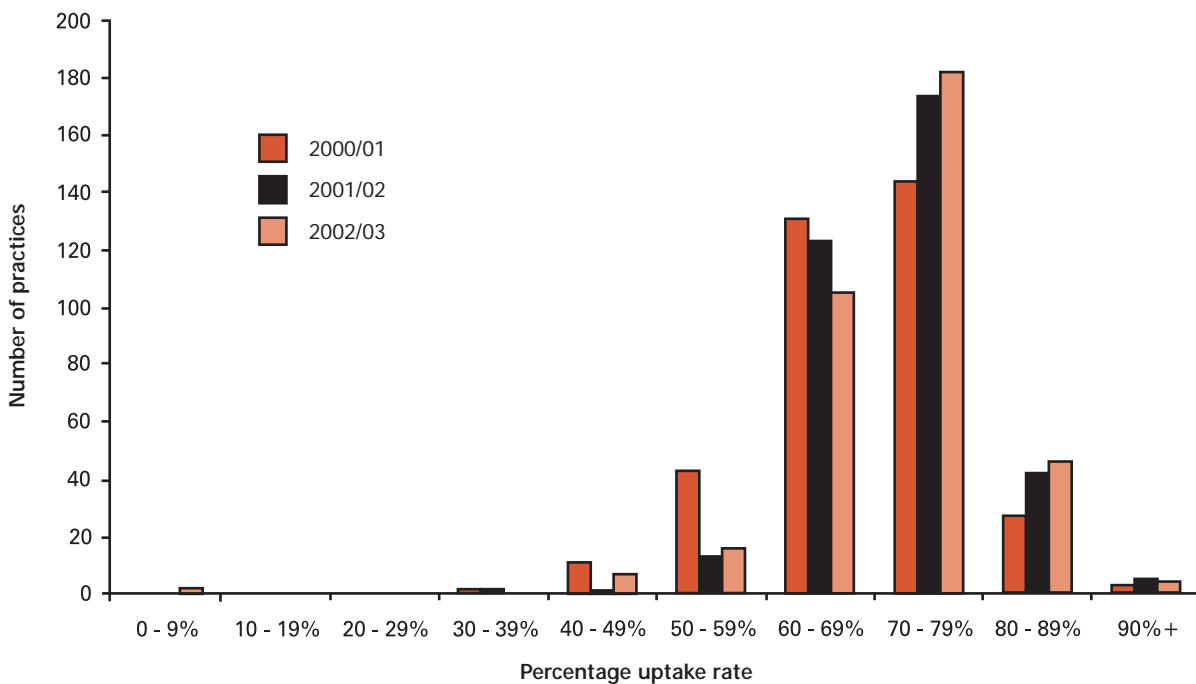
	EHSSB	NHSSB	SHSSB	WHSSB	NI
No of practices in Board (CSA Oct 02)	147	80	76	58	361
Size of registered population in Board (CSA Oct 02)	715158	416608	340203	305073	1777042
Size of registered 65+ population in Board (CSA Oct 02)	101231	55791	40929	32906	230858
No of practices submitting return by specified date	145	80	76	58	359
Size of total registered population of practices which submitted return	713797	416608	340203	305073	1775681
% of registered Board population covered by practices which submitted return	99.81%	100%	100%	100%	99.92%
No of influenza vaccines administered per practice which submitted return					
Total number administered in Board	105404	62006	44835	40492	252737
Range	103-2811	116-2188	172-1639	168-1754	103-2811
Median	566	671	497	610	582
Mean	727	775	590	698	704
% vaccine uptake rate among 65+ population per practice submitting return					
Total no of vaccines administered to 65+ population	72349	41032	29393	23740	166514
Range	42-85%	55-91%	44-106%	60-87%	42-106%*
Median	72%	74%	72%	71%	72%
Mean uptake rate as percentage of 65+ population (CSA Oct 02) in Board	71%	74%	72%	72%	72%
Percentage of practices achieving >= 70% uptake rate	60%	74%	59%	67%	64%

* Single practice administered 158 influenza vaccines to individuals aged over 65 years. Uptake based on CSA over 65 practice population figure of 149 on 1st Oct 2002.

Table 2: Pneumococcal Vaccine Programme Summary: winter 2002/03

	EHSSB	NHSSB	SHSSB	WHSSB	NI
No of practices in Board (CSA Oct 02)	147	80	76	58	361
Size of registered population in Board (CSA Oct 02)	715158	416608	340203	305073	1777042
No of practices submitting return by specified date	142	80	75	58	355
Size of total registered population of practices which submitted return	706413	416608	338002	305073	1766096
% of registered Board population covered by practices which submitted return	98.78%	100.00%	99.35%	100.00%	99.38%
No of pneumococcal vaccines administered per practice which submitted return					
Total number administered in Board	51287	24539	18136	15141	109103
Range	9-1326	30-1185	13-811	16-1079	9-1326
Mean	361	307	242	261	307
No of pneumococcal vaccines administered to 65+ population per practice which submitted return					
Total number administered to 65+ population in Board	39927	18171	13586	10774	82458
Range	0-1109	3-914	12-650	13-634	0-1109
Mean	281	227	181	186	23

Figure 1: Percentage influenza vaccine uptake rate in 65+ age group by GP practice, Northern Ireland: winter 2000/01 to winter 2002/03



Meningitis and Septicaemia in Children and Adults - 2003

18 - 19 November 2003

Royal College of Obstetricians and Gynaecologists, London

This two day conference organised by Meningitis Research Foundation will bring together experts in critical care, infectious diseases, epidemiology, immunology and molecular medicine from both paediatric and adult settings. It will examine current management, the impact of recent immunisation campaigns, implementations of new vaccines, and progress and pitfalls in the development of new drugs.

The conference will be of particular interest to physicians in Emergency Medicine, Critical Care, Anaesthetics, Paediatrics, Infectious Diseases, General Medicine and immunisation professionals, clinicians and scientists in Public Health/Communicable Disease Control, Epidemiology, Community Paediatrics, Microbiology, Molecular Medicine.

Day one will cover the clinical management of meningitis and septicaemia, whilst day two will cover vaccines and vaccine development. The conference is CPD accredited (10 points).

For more information and a booking form please contact:

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Enhanced surveillance of meningococcal disease

During the month of February, thirteen cases of invasive meningococcal disease were notified through the enhanced surveillance of meningococcal disease (ESMD) scheme. Ten of these have been identified as serogroup B and, of these, five cases were in children aged 2 years and under. Two of the three remaining cases were identified as serogroup C infection and the final case is not yet confirmed. One of the serogroup C infections occurred in a child aged under 18 years. This individual had previously received the Men C vaccine during 2000. No deaths due to meningococcal disease occurred during the month of February (see Table 5).

Between 1 January 2003 and 28 February 2003, CDSC (NI) received 22 notifications of invasive meningococcal disease through the ESMD scheme. Of these, 16 (73 %) were laboratory confirmed: 14 (88 %) were identified as serogroup B and 2 (12

%) as serogroup C. One of the cases of serogroup C infection is described above. The remaining case of serogroup C infection occurred in an adult over 24 years of age who, under current guidelines, would not receive the Men C vaccine. To date, no deaths

due to invasive meningococcal disease have occurred during 2003.

These figures are lower than for the same period last year, when 32 cases were notified and 3 deaths occurred. Twenty two (69 %) cases were laboratory confirmed, all of which were identified as serogroup B infection. Two of the three deaths occurred in children aged 2 years and under. Each of these presented with septicaemia and each had confirmed serogroup B infection.

Table 3: Meningococcal disease by Health and Social Services Board, Northern Ireland, January to February 2003

HSSB	Confirmed			Not Confirmed	Total
	B	C	Other and ungrouped		
E	4	0	0	0	4
N	5	0	0	3	8
S	3	1	0	1	5
W	2	1	0	2	5
Total	14	2	0	6	22

Table 4: Meningococcal disease: case and death by age, Northern Ireland, January to February 2003

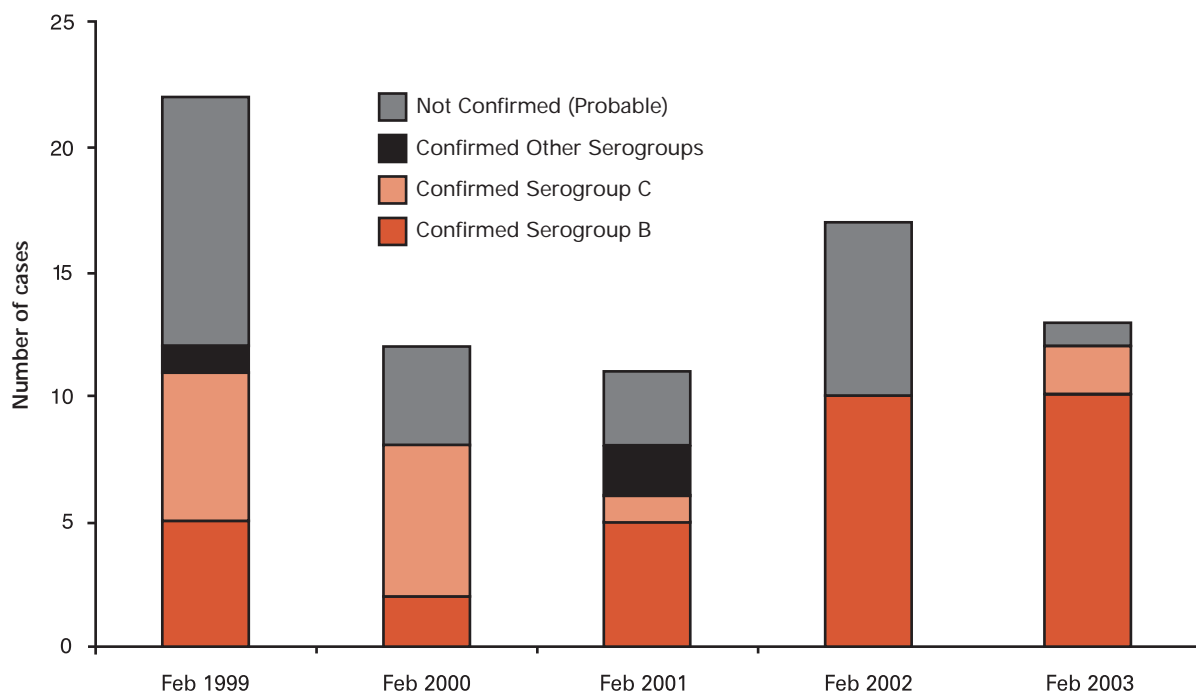
Age Group	Confirmed			Not Confirmed	Incidence per 100,000 Population*	Death
	B	C	Other and ungrouped			
0-2	7	0	0	1	12.0	0
3-4	2	0	0	0	4.2	0
5-14	3	1	0	1	2.0	0
15-17	0	0	0	1	1.2	0
18-24	0	0	0	2	1.3	0
>24	2	1	0	1	0.4	0
?	0	0	0	0		0
Total	14	2	0	6	1.3	0

* age specific incidence rate

Table 5: Meningococcal disease: case and death by age, Northern Ireland, for February 2003

Age Group	Confirmed			Not Confirmed	Total	Death
	B	C	Other and ungrouped			
0-2	5	0	0	0	5	0
3-4	1	0	0	0	1	0
5-14	3	1	0	1	5	0
15-17	0	0	0	0	0	0
18-24	0	0	0	0	0	0
>24	1	1	0	0	2	0
?	0	0	0	0	0	0
Total	10	2	0	1	13	0

Figure 2: Cases of Meningococcal Disease in the month of February, 1999 - 2003



The Health Protection Agency

The Chief Medical Officer in England, Sir Liam Donaldson, announced the need for the Health Protection Agency in his report *Getting Ahead of the Curve* published in January 2002. This recognised the need to bring together the skills and expertise in a number of organisations to work in a more co-ordinated way, to reduce the burden and consequences of health protection threats or disease. This would

provide a more comprehensive and effective response to threats to the public's health. The Health Protection Agency will operate primarily in England, working with Primary Care Trusts, NHS trusts, Strategic Health Authorities and local authorities and provide services on their behalf, and will provide specialist services to Wales, Scotland and Northern Ireland. The website can be accessed at <http://www.hpa.org.uk/>.

The Health Protection Agency's role involves:

- Advising government on public health protection policies and programmes
- Delivering services and supporting the NHS and other agencies to protect people from infectious diseases, poisons, chemical and radiological hazards
- Providing an impartial and

Monthly Surveillance Figures for Creutzfeldt-Jakob Disease

Table 6 shows surveillance figures for definite and probable cases of Creutzfeldt-Jakob disease (CJD) in the United Kingdom up to 3 March 2003. In 2002 there were 152 referrals to the CJD Surveillance Unit. Eighty-three cases were confirmed, 17 of which were

variant CJD (vCJD). The current total number of definite and probable cases is 132. To date in 2003, there have been 24 referrals with four confirmed as vCJD.

While this version of the table does not show figures for years prior to

1995 (the first year for which there are vCJD confirmations), a more extended version can be accessed on the Department of Health website (http://www.doh.gov.uk/cjd/cjd_stat.htm).

Table 6: Deaths of definite and probable CJD cases in the UK from 1995 to 3 March 2003

Year	Referrals for investigation	Deaths					vCJD confirmed	vCJD Probable still alive
		Sporadic	Iatrogenic	Familial	GSS*			
1995	87	35	4	2	3	3	-	
1996	134	40	4	2	4	10	-	
1997	161	59	6	4	1	10	-	
1998	154	63	3	4	1	18	-	
1999	169	62	6	2	0	15	-	
2000	178	49	1	2	1	28	-	
2001	174	55	3	2	2	20	-	
2002	152	62	0	3	1	17	-	
2003	24**	5	0	0	0	4	7	
Total						125		

* Gerstmann-Straussler-Scheinker syndrome.

** As at 3 March 2003.

authoritative source of information and advice to professionals and the public

- Responding to new threats to public health
- Providing a rapid response to health protection emergencies, including the deliberate release of biological, chemical, poison or radioactive substances
- Improving knowledge of health protection through research, development, and education and training.

The Health Protection Agency came into operation on 1 April 2003, bringing together the functions and expertise from the Public Health Laboratory Service, including the Communicable Disease Surveillance Centre, the Centre for Applied Microbiology and Research, the National Focus for Chemical Incidents, the Regional Service Provider Units, The National Poisons Information Service and NHS public health staff responsible for control of infectious disease and emergency planning. It will later include the

National Radiological Protection Board.

A review of public health functions is to be carried out in Northern Ireland by the Chief Medical Officer this year. This will include how health protection arrangements should be further developed. CDSC (NI), which was formerly part of the PHLS, is now part of the Health Protection Agency, and will continue to undertake communicable disease surveillance pending the outcome of this review.

Foodborne and Gastro-intestinal Tract Infections: Laboratory Reports, Weeks 05 - 08

Comment:

Laboratory reports of *Campylobacter* to week 8 of 2003 show a very slight increase (2%) compared with the same period last year. Cumulative reports of

Clostridium difficile toxin have risen by 25% and reports of Rotavirus have increased fourfold compared to 2002. To week 8 of this year there have been 4 reports of *Clostridium perfringens*, 1 report of *Shigella* and 4 reports of

Cryptosporidium.

Reports of *Salmonella* show a 39% reduction compared with the same period last year. Reports of Adenovirus, Enterovirus and SRSV have also decreased significantly (74%, 80% and 34% respectively).

	Number of Reports received		Cumulative total	
	03/05-08	02/05-08	03/01-08	02/01-08
<i>Campylobacter</i>	49	50	94	92
<i>C. difficile</i> Toxin	35	33	74	59
<i>C. perfringens</i>	3	1	4	4
<i>E. coli</i> O157	0	0	0	0
<i>Salmonella</i> total	4	10	11	18
<i>S. enteritidis</i> (PT 4)	0	1	1	3 (1)
<i>S. typhimurium</i> (DT 104)	1	4 (1)	6	6 (2)
<i>Salmonella</i> other	3	5	4	9
<i>Shigella</i>	0	3	1	3
<i>Cryptosporidium</i>	3	5	4	7
<i>Giardia</i>	0	2	0	4
Adenovirus (faeces)	4	18	10	38
Enterovirus (faeces)	1	6	2	10
Rotavirus	92	18	157	33
SRSV	43	22	78	119

Salmonella (other than *enteritidis* or *typhimurium*):

S. johannesburg 1

Respiratory Tract Infections: Laboratory Reports, Weeks 01 - 08

	Number of Reports received		Cumulative Total	
	03/01-04	03/05-08	03/01-08	02/01-08
<i>Coxiella burnetii</i>	0	0	0	5
<i>Mycoplasma pneumoniae</i>	1	0	1	16
Respiratory <i>Chlamydia</i>	0	0	0	1
<i>Adenovirus</i> (excluding faeces)	2	3	5	11
RSV	74	21	95	206

Contributing Laboratories

Altnagelvin	Mater
Antrim	Musgrave Park
Belfast City	Regional Mycology
Belvoir Park	Regional Virus
Causeway	Royal Victoria
Craigavon	Tyrone County
Daisyhill	Ulster
Erne	

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Monthly numbers are provisional and should not be used to indicate trends.

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