

COMMUNICABLE DISEASES for general practitioners and practice nurses

The Pandemic: Preparation For the Second Wave

The second wave of the pandemic has mostly passed in the northern hemisphere. There is declining activity in eastern Europe and southeast Asia. In several Sub-Saharan African countries however, H1N1 09 activity is sporadic.

The epidemiology of the pandemic virus has remained unchanged as have the at-risk groups targeted in vaccination programmes (below). Tamiflu resistance remains rare with less than 300 cases identified so far. Data from the United States indicates that the disease most commonly affects children and young people but that the elderly, although less likely to get pandemic influenza, are more likely to die if they do. There have been almost 15,000 deaths world-wide. In New Zealand 20 deaths have occurred where the pandemic virus was considered the primary cause. The age range of these cases was 13 months to 79 years with an average of 40 years (median of 39.5 years).

Planning meetings involving representatives from the health sector have been held in each DHB during the past few months to coordinate responses to the second wave of the pandemic. Based on the experience in the northern hemisphere this may be as early as April.

The planning includes:

- the three-stage influenza immunisation programme,
- a review of patient management in primary and secondary care building on the lessons from last winter.

Not all plans have been finalised but discussions are ongoing. Whether or not H1N1 09 continues to be the predominant virus or this year's influenza is a mixture with seasonal strains is as yet unknown. However the health sector is endeavouring to do what it can to be prepared.

January 2010

Contents

- Preparation for the second wave
- Three-stage influenza immunisation programme
- Legionellosis from potting mix
- TB outbreak update
- Neonatal BCG vaccination
- Summary of selected notifiable diseases 2009 and 2008
- Review of diseases 2009
- Summary of selected notifiable diseases Oct – Dec '09 and '08

Public Health Canterbury

District Health Board
Te Pōari Hauora o Waitaha

Three-Stage Influenza Immunisation Programme

For some people - see Eligibility Criteria (page 2) influenza immunisation in 2010 will involve two vaccines.

- Stage One (Early Protection) uses a monovalent pandemic influenza vaccine Celvapan® (Baxter) in a 2-dose schedule at least three weeks apart and provides protection against H1N1 09 influenza only. Those receiving this vaccine will still need a dose of the trivalent vaccine for protection against seasonal influenza. The Early Protection Programme is aimed predominantly at health workers who will not be eligible for the first few thousand doses of the seasonal vaccine. Those most at risk of more severe outcomes are able to access this vaccine and will also have priority for seasonal vaccine in March.
- Stage Two started early March and is the usual seasonal Influenza Immunisation Programme. It uses a trivalent vaccine (one dose) which protects against three strains of influenza including the pandemic H1N1 09 strain. Since initially there will

only be 16,000 doses in Canterbury, priority should be given to those most at risk of complications of H1N1 09 – i.e. pregnant women, those with chronic conditions, the morbidly obese (BMI >35kg/m²) and children under five.

- Stage 3 will commence in early April using the bulk of the seasonal vaccine supplies. From this time onwards more seasonal vaccine will be available. All others requesting influenza vaccination, including health workers who did not get vaccinated in February (Stage One) can receive this vaccine.

Eligibility Criteria

Stage One (Early Protection programme)

- All health workers who have direct contact with patients including porters, receptionists, doctors, nurses and allied health in primary, secondary and community care.
- People eligible for stage two who specifically request early vaccination.

Stage Two

- People under 65 years with certain conditions (as for seasonal influenza),
- Pregnant women,
- People who are morbidly obese,
- All children aged 6 months to their fifth birthday enrolled in eligible practices (those with 50% or more of their enrolled children under 6 years identified as Maori, Pacific and/or from high deprivation areas).

Stage Three

- All those eligible for stage two and all other people requesting flu vaccination including occupational groups and health workers, who did not receive the vaccine in February.

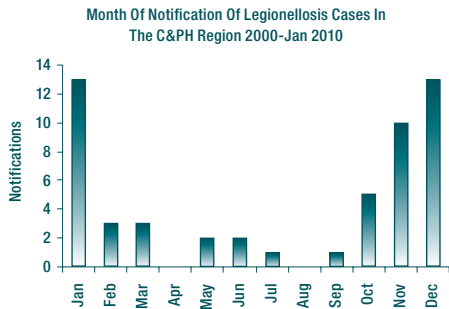
Legionellosis From Potting Mix

Notifications of Legionnaire's disease have a seasonal pattern (Fig. 1) and since September there have been eight notifications associated with potting mix/compost in Canterbury and three in West Coast. Nationally there are usually between 50-100 notifications of Legionnaire's disease each year. Between 2004 and October 2009 the commonest

species were *L. longbeachae* (35%) and *L. pneumophila* sg1 (33%). *Longbeachae* is typically associated with potting mix/compost and is frequently isolated from these sources.

In Europe the risk to gardeners from *L. longbeachae* has only recently been highlighted with peat moss as well as bark-based potting mix also implicated.

Figure 1



Risk factors include being over 50 years of age, chronic illness particularly a lung disease, smoking and immunosuppression. The mechanism of transmission is considered to be inhalation of aerosolised particles and it is recommended that a P1 or P2 disposable dust mask be worn when handling potting mix or compost.

TB Outbreak Update

Last January's edition included an article about a tuberculosis outbreak of five cases (A-E) in Christchurch. Results of DNA fingerprinting identified that they consisted of two different groups based around shared accommodation rather than workplace contact.

An extended review of typing indicated that since 2006 there had been another nine cases with the same strain as cases A, B and D. There were two distinct groups with no apparent link between the groups. Three cases had no link to any other case. Over the past nine years the average number of new cases of tuberculosis per year in Canterbury has been 22, in South Canterbury 1.3 and in West Coast 1. There has been no

increasing or decreasing trend in notifications over this time in any of the three DHBs.

Neonatal BCG Vaccination

This notice was faxed to practices in October last year.

There is a concern that some infants at risk of acquiring tuberculosis are not receiving a BCG.

- BCG is important in at-risk infants and young children because they are more likely to progress to severe generalised disease if infected with *M. tuberculosis*.
- Extrapulmonary TB is vaccine preventable in children.
- The vaccine is free to at risk children under 5 years of age.

Eligibility Criteria:

- A household, family/whanau where there is a history of TB
- Parents or grandparents who identify as being Pacific People
- Parents or grandparents who have come from overseas unless they have come from one of the following countries*
- Will live outside New Zealand for more than 3 months during the first 5 years of life unless they are living in one of the following countries*:

(* Austria, Australia, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Holland, Iceland, Ireland, Israel, Italy, Luxembourg, Malta, Monaco, Norway, Slovakia, Sweden, Switzerland, UK and USA)

Annual Summary Of Selected Notifiable Diseases 2009 And 2008

	Canterbury		South Canterbury		West Coast		TOTAL	
	Cases 2009	Cases 2008	Cases 2009	Cases 2008	Cases 2009	Cases 2008	Cases 2009	Cases 2008
ENTERIC DISEASES								
Campylobacteriosis	545	593	104	214	42	54	691	861
Cryptosporidiosis	97	109	28	86	18	19	143	214
Gastroenteritis	52	117	3	11	90	10	145	138
Giardiasis	190	184	10	23	13	21	213	228
Hepatitis A	6	4	-	-	-	-	6	4
Listeriosis	1	-	-	-	-	-	1	-
Paratyphoid	3	4	-	-	-	-	3	4
Salmonellosis	149	172	34	52	10	10	193	234
Shigellosis	10	6	1	1	1	1	12	8
Typhoid	2	1	-	-	-	-	2	1
VTEC	16	20	2	5	1	1	19	26
Yersiniosis	67	111	10	19	12	17	89	147
OTHER DISEASES								
AIDS	-	-	-	-	-	-	-	-
Dengue Fever	7	13	-	-	1	-	8	13
Haemophilus influenzae b	-	2	-	-	-	-	-	2
Hepatitis B	5	7	-	-	2	-	7	7
Hepatitis C	8	3	1	-	-	-	9	3
Influenza A H1N1 09	601	-	75	-	64	-	740	-
Lead absorption	30	21	5	7	-	-	35	28
Legionellosis	14	12	1	3	3	1	18	16
Leptospirosis	10	7	2	9	5	5	17	21
Malaria	3	3	-	-	2	-	5	3
Measles	170	7	2	-	7	1	179	8
Meningococcal infection	12	9	-	2	1	1	13	12
Mumps	14	13	3	-	1	-	18	13
Pertussis	317	88	27	10	29	5	373	103
Pneumococcal Invasive Dis	58	-	6	-	-	-	64	-
Rubella	1	1	-	1	-	-	1	2
Tuberculosis (new case)	21	24	2	8	2	-	25	32

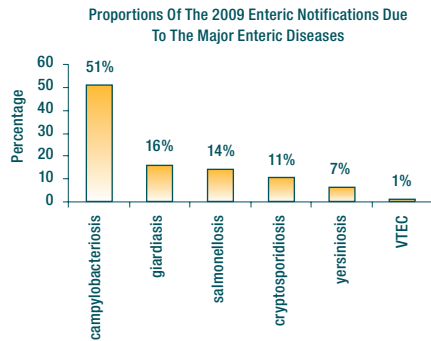
Review of Communicable Diseases 2009

Apart from Pandemic Influenza A H1N1 09 (740 cases) and measles (179) there were 2134 other notifications in the C&PH region of which 70% were enteric. Fifty-one percent of the major enteric notifications were due to campylobacter in 2008 and 2009 (Fig. 2) compared with 77% in 2007. Other enteric notifications included six cases of hepatitis A, two cases of typhoid fever and one case of listeriosis.

Following the termination of the measles outbreak in September there were two cases notified in December but neither were linked to the outbreak. One case was a 15-year old Christchurch boy who acquired the disease locally but the other was travel related. Pertussis notifications were higher

in 2009 than in the previous year but the increase was not progressive and does not appear indicative of an impending epidemic at this stage.

Figure 2



Summary Of Selected Notifiable Diseases October – December 2009 & 2008

	Canterbury		South Canterbury		West Coast		TOTAL	
	Cases Oct-Dec 2009	Cases Oct-Dec 2008	Cases Oct-Dec 2009	Cases Oct-Dec 2008	Cases Oct-Dec 2009	Cases Oct-Dec 2008	Cases Oct-Dec 2009	Cases Oct-Dec 2008
ENTERIC DISEASES								
Campylobacteriosis	193	170	30	66	16	16	239	252
Cryptosporidiosis	43	43	16	35	14	12	73	90
Gastroenteritis	19	23	-	8	20	1	39	32
Giardiasis	60	40	1	8	3	4	64	52
Hepatitis A	2	1	-	-	-	-	2	1
Listeriosis	-	-	-	-	-	-	-	-
Paratyphoid	-	-	-	-	-	-	-	-
Salmonellosis	39	51	8	7	5	5	52	63
Shigellosis	-	-	-	1	1	1	1	2
Typhoid	-	-	-	-	-	-	-	-
VTEC	3	4	1	-	-	-	4	4
Yersiniosis	15	12	4	2	3	5	22	19
OTHER DISEASES								
AIDS	-	-	-	-	-	-	-	-
Dengue Fever	-	4	-	-	-	-	-	4
Haemophilus influenzae b	-	1	-	-	-	-	-	1
Hepatitis B	2	2	-	-	-	-	2	2
Hepatitis C	-	1	1	-	-	-	1	1
Influenza A H1N1 09	8	-	-	-	1	-	9	-
Lead absorption	6	5	4	-	-	-	10	5
Legionellosis	6	5	-	2	2	1	8	8
Leptospirosis	5	-	1	1	3	1	9	2
Malaria	-	-	-	-	-	-	-	-
Measles	3	2	1	-	6	-	10	2
Meningococcal Disease	2	3	-	1	-	-	2	4
Mumps	4	-	1	-	-	-	5	-
Pertussis	70	37	3	5	3	2	76	44
Pneumococcal Invasive Dis.	15	-	-	-	-	-	15	-
Rubella	-	1	-	-	-	-	-	1
Tuberculosis (new case)	3	10	-	-	2	-	5	10