Canterbury District Health Board
MEDICAL OFFICERS OF HEALTH

Public Health Information Quarterly

COMMUNICABLE DISEASES

For general practitioners and practice nurses

October 2017

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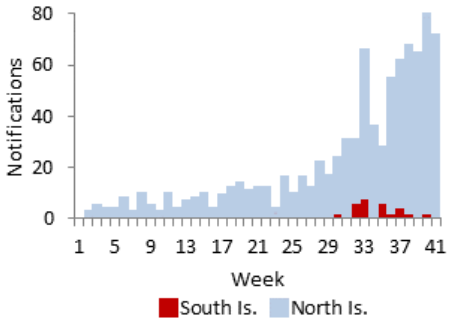
Mumps Outbreak Update

Following on from the report in the July edition, the national mumps outbreak that has affected 16 DHBs so far, has resulted in 692 confirmed and probable cases. Relatively few however, have been from the South Island (Fig. 1). By week 41, Southern had had 30 cases notified, Canterbury 14 and Nelson Marlborough 8. By contrast the three most affected DHBs in the North Island together had had 537 notifications (Waitemata 197, Counties Manukau 207 and Auckland 133).

Figure 1. North and South Island Mumps Notifications to 13th October 2017



Ages: 70% aged 10-29 years
Sex: Male to female ratio 1: 1
Ethnicity: Approximately 50% have been Pacific Peoples
Vaccination: 46% unvaccinated
15% one dose.
Hospitalised: 30 cases

The public health response in the Auckland region and Southern DHB has moved to the 'Manage It' phase. This involves focusing on immunising (MMR) the populations at risk rather than following up individual cases and their contacts. Instead of actively testing all cases where mumps is clinically suspected, testing resources are being prioritised for high risk cases and new settings.

Practice Points for GPs in C&PH Regions

- MMR eligibility:
  - children at ages 15 months and 4 years
  - adults who are susceptible to one or more of measles, mumps and rubella are also eligible for free MMR.
  - persons who require (re-)vaccination following immune-suppression (if the individual is immune competent enough to safely receive the vaccine).
  - Unimmunised contacts may not develop mumps and MMR is recommended in case they are re-exposed.
- Post-exposure prophylaxis for mumps is not effective.

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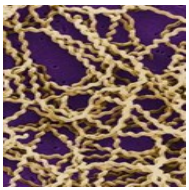
Leptospirosis

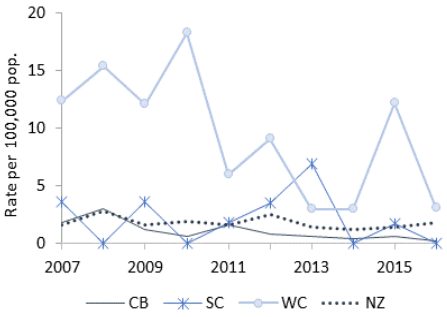


Although often a mild self-limiting illness, leptospirosis, a zoonotic disease caused by Leptospira bacteria, can sometimes be a serious and fatal disease.

Many different animals both domestic and wild can harbour Leptospira including rats, mice, possums, hedgehogs and dogs. Animals processed for meat, eg. cattle, pigs, sheep, goats and deer, can also be infected.

Although 50 to 100 cases of leptospirosis are usually notified each year in New Zealand, few are reported in C&PH regions. In the three years from 2014 to 2016 there were only 6 notifications in Canterbury, 1 in South Canterbury and 6 in West Coast. In the past 10 years the average annual rate in West Coast was well above the other two DHBs (Fig. 2).

Figure 2. Annual rates of leptospirosis in the C&PH DHBs and New Zealand, 2007– 2016



Common symptoms include: fever, chills, headaches, lethargy, aching muscles, red eyes, nausea and vomiting. They appear between 1 - 4 weeks after a person is infected and last for a few days to three weeks or longer. Some people may take months to recover. The severe icteric form (Weil's disease) is associated with a high mortality due to hepatic and renal dysfunction, haemorrhage, cardiac, pulmonary and neurological involvement.

In mild cases no treatment is required. More severe disease is treated with antibiotics.

Most cases in New Zealand are occupationally acquired and are usually associated with farms and the meat processing industry. Vets are at risk. Occasionally hunters, those having contact with wild animals and those exposed to rural environments including 'adventure' sports participants may also get leptospirosis.

Practice Points

- Serology is one of the diagnostic tests for leptospirosis and usually requires acute and convalescent serology unless acute levels are high. It is important that the blood test for the convalescent specimen is not overlooked.
- A person who develops leptospirosis as a result of his/her employment is eligible for ACC cover.

Endemic Measles and Rubella Eliminated

The WHO has verified that New Zealand has eliminated endemic measles and rubella for the first time, ie. no measles or rubella cases have originated here for the past three years. However, because of the ongoing importation of cases, levels of MMR immunisation need to be high to prevent outbreaks and maintain this disease-free status.

In New Zealand, those aged 12 to 32 years have lower vaccination rates (80% fully vaccinated) in contrast to young children (90% of five year olds fully vaccinated), so are less likely to be protected against these diseases. This is likely to account for the high incidence of mumps in this age group in the current outbreak.

Practice Points

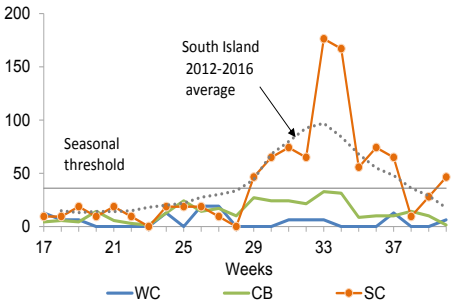
- The importation of measles is a recurrent threat to New Zealand remaining measles free and higher levels of immunisation need to be achieved, especially among teenagers and young adults.
- Two MMR are necessary to be fully protected.

Influenza and Other Respiratory Viruses, May - September 2017

South Canterbury had a sharp rise in the rate of influenza-like illness (ILI) in August due to an increase in activity in Geraldine but otherwise recorded average levels from May to September.

For Canterbury and West Coast however, it was another quiet winter as neither DHB reached the national seasonal ILI threshold (Fig.3).

Figure 3. Influenza-like illness rates per 100,000 pop. for Canterbury, South Canterbury and West Coast, May - September 2017



In Canterbury by the end of September the total number of influenza isolates was comprised of approximately one third A(H1N1)pdm09, one third A(H3N2), and one third B.

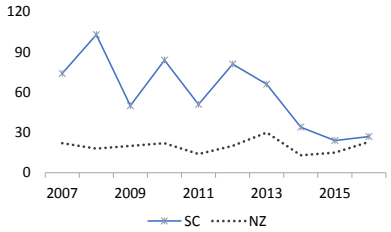
Of the other respiratory viruses, rhinovirus was the most prevalent being at or above moderately high levels for 38% of the time, compared with RSV (20%) and coronavirus (15%).

Trends of Three Enteric Diseases in South Canterbury

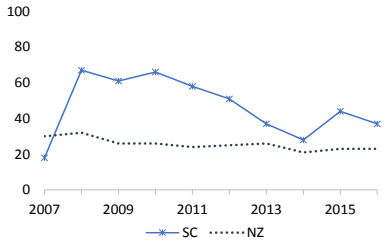
A review of annual notification rates over the past 10 years of certain notifiable diseases showed trends for three enteric diseases in South Canterbury (Fig. 4). For two of the diseases, cryptosporidiosis and salmonellosis (since 2008), the rates trended down but for VTEC/STEC since 2011, the rates increased for reasons unknown. The increase began before and was unrelated to, the national increase that resulted from the introduction of the more sensitive PCR testing in some areas in 2015.

Figure 4. Annual rates per 100,000 pop. of three enteric diseases in South Canterbury, 2007-2016

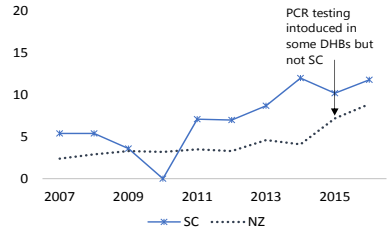
Cryptosporidiosis



Salmonellosis



VTEC/STEC



Summary Of Selected Notifiable Diseases* By District Health Board July— September 2017 And 2016

	Canterbury		South Canterbury		West Coast		TOTALS	
	Cases Jul-Sep 2017	Cases Jul-Sep 2016	Cases Jul-Sep 2017	Cases Jul-Sep 2016	Cases Jul-Sep 2017	Cases Jul-Sep 2016	Cases Jul-Sep 2017	Cases Jul-Sep 2016
Enteric Diseases								
Campylobacteriosis	220	156	30	31	20	9	270	196
Cryptosporidiosis	32	19	7	5	2	1	41	25
Gastroenteritis	7	19	-	-	1	3	8	22
Giardiasis	34	36	3	3	2	5	39	44
Hepatitis A	1	-	-	-	-	1	1	1
Listeriosis	-	-	-	-	-	-	-	-
Paratyphoid	-	1	-	-	-	-	-	1
Salmonellosis	50	36	3	3	-	2	53	41
Shigellosis	4	1	-	-	-	-	4	1
Typhoid	-	1	-	-	-	-	-	1
VTEC	3	1	-	1	-	-	3	2
Yersiniosis	45	41	4	5	1	2	50	48
Other Diseases								
Dengue Fever	2	1	1	1	-	-	3	2
Haemophilus influenza b	-	-	-	-	-	-	-	-
Hepatitis B	-	1	-	-	-	-	-	1
Hepatitis C	-	4	-	-	-	-	-	4
Invasive Pneumococcal dis.	22	16	2	4	-	-	24	20
Lead absorption	-	-	-	-	-	-	-	-
Legionellosis	12	8	2	1	-	1	14	10
Leptospirosis	2	1	-	-	-	1	2	2
Malaria	3	1	-	-	-	-	3	1
Measles	-	-	-	-	-	-	-	-
Meningococcal Disease	5	1	-	-	1	-	6	1
Mumps	7	-	-	-	-	1	7	1
Pertussis	55	50	-	3	1	2	56	55
Rheumatic fever (initial attack)	2	1	-	-	-	-	2	1
Rubella	-	-	-	-	-	-	-	-
Tuberculosis (new case)	12	3	-	1	-	-	12	4

* There was one Zika notification in the South Island from July to September 2017 and two for the same quarter in 2016.