

Communicable Diseases Weekly Report

Week 6, 4 to 10 February 2018

In summary, we report:

- [Listeriosis](#) – three new cases
- [Legionellosis](#) – four new cases reported
- [Summary of notifiable conditions activity in NSW](#)

For further information see NSW Health [infectious diseases page](#). This includes links to other NSW Health [infectious disease surveillance reports](#) and a [diseases data page](#) for a range of notifiable infectious diseases.

Listeriosis

Three new cases of *Listeria* infection (listeriosis), including one fatal case, were reported this week ([Table 1](#)). All three cases were aged over 80 years and had underlying significant medical conditions including diabetes, heart disease or kidney disease. Two cases were notified from Northern Sydney LHD and the third was from South Eastern Sydney LHD. All three cases had consumed one or more high risk foods in their incubation period.

Since 1 January 2018, there have been 12 listeriosis notifications in NSW which is higher than the five year average for this period (4.4 cases). To date, despite careful interviews, no causal link has been identified among cases.

Cases have arisen from across the state, including from Murrumbidgee, Northern NSW and several Sydney local health districts. Binary typing on samples from the cases has found that 5 cases (42%) have binary type 158, and 4 cases (33%) have binary type 159. These two binary types are not thought to be related. An investigation into the increase in both binary types has commenced. The remaining three cases have different and unrelated binary types. All listeria isolates in NSW routinely undergo whole genome sequencing, which will assist these investigations.

Listeriosis is a rare illness caused by eating food contaminated with a bacterium called *Listeria monocytogenes*. This bacterium is widespread throughout nature, being commonly carried by many species of both domestic and wild animals.

Eating foods that contain *Listeria* bacteria does not cause illness in most people, but in some higher risk groups can result in severe illness and death. Outbreaks of listeriosis have been associated with the consumption of unpasteurised milk, soft cheeses, pre-prepared salads (for example, from salad bars), unwashed raw vegetables, pâté, cold diced chicken and pre-cut fruit and fruit salad. *Listeria* survives refrigeration but is sensitive to cooking temperatures.

People at increased risk of listeriosis include pregnant women, older people and people with weakened immune systems; for example, people on cancer treatment or corticosteroids, or people with diabetes, kidney disease, liver disease or people living with HIV infection. Listeriosis may be severe in these individuals.

People at increased risk should not eat pre-packed cold salads including coleslaw and fresh fruit salad, pre-cut fruit, pre-cooked cold chicken, cold delicatessen meats, pâté, raw seafood, uncooked smoked seafood (e.g. smoked salmon), unpasteurised milk or milk products, soft cheeses (e.g. brie, camembert, ricotta or blue-vein), sprouted seeds or raw mushrooms. Fruit and vegetables eaten raw should be thoroughly washed prior to eating to reduce the risk of *listeria* contamination.

For further information on which people are at increased risk of listeriosis and which foods to avoid see the [Listeriosis fact sheet](#) and the NSW Food Authority [Food safety during pregnancy brochure](#).

Follow the link for further NSW Health [listeriosis data](#).

Legionellosis

There were four notifications of legionellosis (Legionnaires' disease) in this reporting week ([Table 1](#)); two were due to *Legionella pneumophila 1* (LP1) infections and two were due to *Legionella longbeachae* infections.

The two LP1 cases along with a more recently reported LP1 case spent time in the Castle Hill area during the incubation period prior to becoming unwell. Precautionary inspections and testing of cooling towers and other possible sources of *L. pneumophila* bacteria are being undertaken in the Castle Hill area by environmental health officers from the local public health unit and the local council to try and identify a source and reduce the risk of further infections. For further information on this cluster investigation see the NSW Health [media release](#).

Legionellosis is a type of pneumonia and the symptoms include fever, chills, cough and shortness of breath. Some people also have muscle aches, headache, tiredness, loss of appetite and diarrhoea. Risk factors for legionellosis include increasing age (most cases are aged over 50 years), smoking, and immunosuppression as a result of chronic medical conditions, cancer or taking high-dose corticosteroid medicines. People with legionellosis often have severe symptoms and infection is associated with a 10 to 15 per cent mortality rate.

Legionellosis is caused by infection with *Legionella* bacteria. There are around 50 different species of *Legionella* bacteria but most infections in NSW are caused by *L. pneumophila* or *L. longbeachae*.

L. pneumophila is found in water and can contaminate air conditioning cooling towers, spas, plumbing systems and other bodies of warm water. Outbreaks are sometimes associated with contaminated cooling towers that are part of air conditioning systems in large buildings. Regular inspection, disinfection and maintenance of cooling towers and plumbing systems limit the growth of bacteria and prevent outbreaks of Legionnaires' disease.

The NSW *Public Health Act 2010* and the Public Health Regulation 2012 control various man-made environments and systems which are conducive to the growth of *Legionella* bacteria and which are capable, under the right conditions, of transmitting the bacteria to people through the air.

To further strengthen the regulation of cooling towers, NSW Health amended the Public Health Regulation to require monthly testing for *Legionella* and total bacteria in all cooling towers from 1 January 2018. Further regulatory changes are planned for early in 2018 to require that all cooling tower systems have risk management plans and third party auditing.

Follow the link for more information on the [regulatory control of Legionnaires' disease](#).

Follow the links for more information on [Legionnaires' disease](#) and on [notifications of Legionnaires' disease](#).

Summary of notifiable conditions activity in NSW

The following table summarises notifiable conditions activity over the reporting period (Table 1).

Table 1. NSW Notifiable conditions from 4 to 10 February 2018, by date received*

		Weekly		Year to date			Full Year	
		This week	Last week	2018	2017	2016	2017	2016
Bloodborne Diseases	Hepatitis B - Newly Acquired	1	0	2	5	4	15	13
	Hepatitis C - Newly Acquired	1	0	4	4	2	43	25
	Hepatitis D	1	0	3	2	3	21	20
Enteric Diseases	Cryptosporidiosis	13	21	101	246	152	1266	1184
	Giardiasis	68	60	323	456	512	2994	3480
	Hepatitis A	2	1	11	6	7	72	41
	Listeriosis	3	3	11	1	5	20	36
	Rotavirus	23	15	121	116	99	2318	750
	STEC/VTEC	2	0	8	10	7	53	65
	Salmonellosis	105	97	566	681	946	3686	4544
	Shigellosis	6	6	28	42	37	233	310
	Typhoid	1	3	7	10	12	55	37
Respiratory Diseases	Influenza	311	281	1552	1054	602	103862	35540
	Legionellosis	4	1	13	16	11	137	134
	Tuberculosis	6	8	49	54	66	522	535
Sexually Transmissible Infections	Chlamydia	612	635	3382	3633	3060	28979	25992
	Gonorrhoea	206	232	1269	1215	760	9226	7002
	LGV	1	1	5	2	2	50	60
Vaccine Preventable Diseases	Meningococcal Disease	1	1	6	9	7	91	70
	Mumps	7	3	15	12	5	126	67
	Pertussis	77	80	446	882	1962	5366	10956
	Pneumococcal Disease (Invasive)	6	4	38	33	32	680	544
Vector Borne Diseases	Barmah Forest	2	3	7	13	7	127	40

* Notes on Table 1: NSW Notifiable Conditions activity

- Data cells represent the number of case reports received by NSW Public Health Units and recorded on the NSW Notifiable Conditions Information Management System (NCIMS) in the relevant period.
- Data cells in the 'Adverse Event Following Immunisation' category refer to suspected cases only. These reports are referred to the Therapeutic Goods Administration (TGA) for assessment. Data on adverse events following immunisation is available online from the TGA [Database of Adverse Event Notifications](#).
- Only conditions for which at least one case report was received appear in the table. HIV and chronic blood-borne virus case reports are not included here but are available from the [Infectious Diseases Data](#) webpage.