

# Communicable Diseases Weekly Report

## Week 5, 28 January to 3 February 2018

In summary, we report:

- [Diphtheria](#) – new toxigenic, cutaneous case
- [Mumps](#) – outbreak of mumps amongst a rugby league team
- [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.

## Diphtheria

A new case of toxigenic diphtheria was notified this week, isolated from a skin wound. While cutaneous cases are diagnosed in NSW from time to time, most commonly in people with recent travel in the Pacific, this is the first case to be notified since the introduction of the updated case definition in 2017, which included isolation of toxigenic *Corynebacterium diphtheriae* from a skin lesion. The case, a man in his fifties who had been previously vaccinated, and who likely acquired the infection overseas, was treated with antibiotics, and provided with a booster dose of diphtheria vaccine. Close contacts of the case were provided with prophylactic antibiotics and also had a booster dose of vaccine administered.

Diphtheria is a contagious bacterial infection caused by toxigenic strains of *Corynebacterium diphtheriae* or *C. ulcerans*. Prior to introduction of an effective vaccine against the toxin in the 1940s, respiratory tract infection with diphtheria was a common cause of death among children around the world. The disease is now rarely seen in Australia, although a 27 year old unvaccinated man was recently diagnosed with respiratory diphtheria in Queensland and has unfortunately died from the infection. Diphtheria continues to remain endemic in countries with low immunisation rates. Diphtheria vaccine is provided as part of the National Immunisation Programme and provided as a part of a combination vaccine with tetanus and pertussis at 2, 4 and 6 months of age, with booster doses at 4 and 15 years of age. The vaccine protects against the toxin produced by the bacterium, so vaccinated people can have infection with *Corynebacteria* but are unlikely to suffer the effects of the toxin.

Diphtheria can present in many forms with the most severe affecting the throat and tonsils. This may result in the formation of a membrane in the back of throat, which makes it difficult for the person to swallow and breathe. Swelling of the lymph glands in the neck may also result in a characteristic “bull neck”. Infection of the skin can result in formation of large ulcers from smaller skin lesions, more commonly on the legs. This type of infection is more common in tropical climates.

Respiratory diphtheria is spread via respiratory droplets when an infected person or carrier coughs or sneezes. Transmission can also occur via close contact with an infected person’s mouth, nose, throat or skin. While this type of transmission is much less common, close contacts of cutaneous cases found to be toxigenic are treated in the same manner as contacts of toxigenic respiratory cases, as contact with cutaneous cases may result in development of respiratory infection in people who are not immune. Without appropriate treatment, cases may be infectious for up to 4 weeks from symptom onset, or develop long term carriage.

Contacts of cases found to be infected with toxigenic strains of diphtheria are provided with antibiotics, and a booster dose of diphtheria-tetanus-pertussis (DTP) vaccine if they have not

received one in the preceding 5 years. Cases are treated with antibiotics, and where appropriate, antitoxin.

Follow the links for more information on [Diphtheria infection](#), [vaccination](#) and [notifications data](#).

## Mumps

There were three confirmed cases of mumps notified in this reporting week (Table 1). Also notified this reporting week was an outbreak of mumps amongst players from a first grade rugby league team. Six players initially presented with fever, sore throat and the characteristic swelling of the parotid glands (the salivary glands located just in front of the ears). Test results confirmed the diagnosis of mumps, prompting measures to contain the spread of the virus which included isolation of symptomatic individuals, vaccination of all players and ancillary staff at risk, and handing out information letters about the disease.

There were 124 cases of mumps reported in NSW in 2017, compared to 67 cases in 2016, although none of the cases were related to an outbreak. The current outbreak and increase in cases generally has occurred despite high vaccination in NSW, and may be reflective of increased circulation of the pathogen combined with waning immunity. Waning immunity refers to a person's progressive loss of protective antibodies against a disease over time, requiring administration of another dose of vaccine (booster) for those at an increased risk of acquiring the disease.

Mumps is an acute viral disease caused by the mumps virus. Common symptoms include fever, loss of appetite, tiredness and headaches followed by swelling and tenderness of the salivary glands. Complications are rare but can be serious and include encephalitis and meningitis, orchitis (infection of the testes), spontaneous abortion and hearing loss. The mumps virus is transmitted through contact with respiratory secretions, usually from respiratory droplets through the airborne route but also through direct contact with the saliva of an infected person.

Mumps is vaccine preventable and it is recommended that anyone unsure of their vaccination status should speak to their local doctor. Vaccination against mumps is with the measles-mumps-rubella (MMR) vaccine which also protects against measles and rubella. MMR is routinely given as part of the National Immunisation Program and scheduled at 12 and 18 months of age.

If you or your child have not received this vaccine it is important that you see your local doctor to discuss a catch-up schedule. This is particularly important if you are planning to travel overseas where the risk of being exposed to the mumps virus is likely to be greater. Additional doses of MMR vaccine are safe so anyone unsure of their vaccination status should be vaccinated. MMR vaccine is provided free in NSW to all people born during or after 1966 who do not have written documentation of receiving two doses.

For more information on Mumps see the NSW Health [Mumps fact sheet](#).

For more information on Mumps notifications see the NSW Health [Mumps data page](#).

## 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 28 January – 3 February 2018, by date received\***

		Weekly		Year to date			Full Year	
		This week	Last week	2018	2017	2016	2017	2016
Enteric Diseases	Cholera	1	0	1	0	1	1	1
	Cryptosporidiosis	21	15	88	186	119	1266	1184
	Giardiasis	59	60	254	373	411	2994	3480
	Hepatitis A	1	1	8	5	7	72	41
	Listeriosis	3	2	9	0	5	20	36
	Rotavirus	15	15	98	102	89	2318	750
	Salmonellosis	98	68	462	549	764	3686	4544
	Shigellosis	4	6	19	37	28	232	310
	Typhoid	3	1	6	7	8	55	37
Respiratory Diseases	Influenza	270	259	1230	865	472	103862	35540
	Legionellosis	1	2	8	11	10	137	134
	Tuberculosis	8	11	41	43	54	508	535
Sexually Transmissible Infections	Chlamydia	613	440	2748	2936	2463	28980	25992
	Gonorrhoea	221	171	1050	1007	630	9251	7002
Vaccine Preventable Diseases	Adverse Event Following Immunisation	2	1	7	14	13	268	258
	Diphtheria	1	0	1	0	0	0	0
	Meningococcal Disease	1	0	5	9	7	91	70
	Mumps	3	1	8	10	5	124	67
	Pertussis	71	55	359	754	1684	5366	10956
	Pneumococcal Disease (Invasive)	4	5	32	25	30	680	544
Vector Borne Diseases	Barmah Forest	3	0	5	10	6	127	40
	Dengue	8	10	46	41	43	299	485
	Malaria	1	1	5	8	5	68	59
	Ross River	9	3	27	481	47	1649	594
Zoonotic Diseases	Brucellosis	1	0	1	0	1	6	10
	Q fever	3	4	18	24	27	202	231

### \* 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.