

## Communicable Diseases Weekly Report

### Week 24, 7 June to 13 June 2020

In summary, we report:

- [Tularaemia](#) – one new probable case
- [Novel coronavirus 2019 \(COVID-19\)](#)
- [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.

### Tularaemia

A probable case of tularaemia has been reported in a NSW resident. The woman in her 50s works as a veterinary pathologist and likely had an inhalational laboratory exposure. She developed symptoms in mid-April including fever, lethargy, arthralgia, myalgia, night sweats, dyspnoea, rash, and an atypical pneumonia. During her exposure period, she had performed necropsies on numerous Australian wildlife species, but which did not include possum species. This suggests that *F. tularensis* is potentially present in other Australian wildlife species besides possums. Investigations are ongoing to confirm the woman's infection. NSW Health is working with animal health agencies to investigate the animal source.

Tularaemia is an extremely rare disease caused by the bacterium *Francisella tularensis*, a Gram-negative rod. Only three cases of tularaemia have been reported in people in Australia previously, including two confirmed cases in Tasmania in 2011 and one probable case in NSW in 2020. They had all been bitten or scratched by possums prior to their illness.

Worldwide, tularaemia can affect a wide range of animals including rabbits, hares, rodents and wildlife. The infection has only been found in two possums in Australia, which died in separate clusters in 2002 and 2003.

People can acquire the infection through:

- Skin contact with sick or dead infected animals
- Bites of infected blood-feeding arthropods such as ticks and deer fly
- Drinking contaminated water or eating undercooked meat of an infected animal
- Contact of broken skin with natural water bodies including lakes or rivers, contaminated by infected animals
- Laboratory exposure
- Inhalation of contaminated dusts or aerosols.

It is not spread via person to person transmission.

The best way to prevent tularaemia in Australia is to avoid handling any wildlife, particularly any sick or dead ringtail possums. In settings with occupational exposure risk, special care should be taken when handling wildlife, particularly during necropsy. This includes the use of personal protective equipment such as gloves, gown, goggles, and a P2 mask. Handling *F. tularensis* can represent a biosafety hazard and specialised laboratory safety procedures are required if tularaemia is suspected.

Symptoms of tularaemia include fever, chills, fatigue, body aches, headache and nausea. Additional symptoms depend on where the bacteria enter the body, whether it be through the skin, eyes, mouth,

throat or lungs. These can include a skin ulcer at the site of the bite or skin exposure, lymphadenopathy, eye irritation and swelling, sore throat, mouth ulcers, tonsillitis, cough, chest pain and difficulty breathing. The average incubation period for tularaemia is between 3 and 5 days, but can be as long as 14 days.

If a person displays clinically compatible symptoms after handling a possum, clinicians should suspect tularaemia and test for the condition. Similarly, if a person has handled other Australian wildlife species and develops a compatible illness, tularaemia should be explored as a possible diagnosis. If a case is suspected to have tularaemia or a suspected isolate is cultured from clinical samples by a pathology provider, the treating physician should contact the on-call microbiologist at the Centre for Infectious Diseases and Microbiology (ICPMR-Pathology West) to discuss testing and results. Treatment of the condition involves administration of appropriate antibiotics according to the Therapeutic Guidelines.

There are three subspecies of *Francisella tularensis*. Subspecies *holarctica* (Type B) is the only type that has been identified in Australia. It typically causes a less severe form of disease and occurs throughout the northern hemisphere. There have been no deaths associated with the disease in Australia. Other subspecies include subsp. *Tularensis* and subsp. *Mediasiatica*. Subspecies *tularensis* (Type A) is the most virulent and is geographically restricted to North America. Subspecies *mediasiatica* has virulence similar Type B tularaemia and has only been isolated from a small region in central Asia.

Follow the links for further information about [Tularaemia data](#), and the [Tularaemia factsheet](#). For further information on tularaemia in possums, see the NSW [DPI tularaemia webpage](#) and [CVO bulletin for wildlife carers](#).

## **Novel coronavirus 2019 (COVID-19)**

For up-to-date information regarding the COVID-19 outbreak and the NSW response, please visit the [NSW Health COVID-19 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 7 June – 13 June 2020, by date received\***

		Weekly		Year to date			Full Year	
		This week	Last week	2020	2019	2018	2019	2018
Enteric Diseases	Cryptosporidiosis	2	4	394	402	437	669	708
	Giardiasis	20	27	1036	1935	1454	3271	2937
	Listeriosis	1	0	7	5	15	16	19
	Rotavirus	4	6	340	316	418	1756	808
	STEC/VTEC	2	0	48	33	31	80	57
	Salmonellosis	36	36	1910	2066	1852	3562	3336
	Shigellosis	4	1	369	417	108	868	530
Respiratory Diseases	Influenza	7	6	7281	27034	4469	116446	17409
	Tuberculosis	4	14	250	268	219	594	508
Sexually Transmissible Infections	Chlamydia	317	474	12751	14761	14813	32448	31178
	Gonorrhoea	160	165	4720	5535	4926	11709	10605
Vaccine Preventable Diseases	Mumps	2	0	41	27	42	56	72
	Pertussis	7	12	1302	2906	1818	6386	6280
	Pneumococcal Disease	4	2	151	202	200	692	681
Vector Borne Diseases	Barmah Forest	12	6	125	41	43	63	74
	Ross River	65	93	1433	370	334	577	571
Zoonotic Diseases	Q fever	2	4	102	135	92	248	228
	Tularaemia	0	1	2	0	0	0	0

**\* Notes on Table 1: NSW Notifiable Conditions activity**

- Only conditions which had one or more case reports received during the reporting week appear in the table.
- Due to the rapidly evolving nature of the situation, data on COVID-19 notifications can be found separately on the NSW Health [Latest Updates on COVID-19](#) page.
- 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 (i.e. by report date).
- Note that [notifiable disease data](#) available on the NSW Health website are reported by onset date so case totals are likely to vary from those shown here.
- Cases involving interstate residents are not included.
- The shigellosis case definition changed on 1 July 2018 to include probable cases (PCR positive only), hence case counts cannot be validly compared to previous years.
- 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](#).
- Chronic blood-borne virus conditions (such as HIV, hepatitis B and C) are not included here. Related data are available from the [Infectious Diseases Data](#), the [HIV Surveillance Data Reports](#) and the [Hepatitis B and C Strategies Data Reports](#) webpages.
- Notification is dependent on a diagnosis being made by a doctor, hospital or laboratory. Changes in awareness and testing patterns influence the proportion of patients with a particular infection that is diagnosed and notified over time, especially if the infection causes non-specific symptoms.