

Communicable Diseases Weekly Report

Week 08, 21 February to 27 February 2021

In summary, we report:

- [Chancroid](#) – one new case in a returned traveller
- [Rodent-borne disease risks](#)
- [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.

Chancroid

One case of chancroid was notified this reporting week in a traveller returning from overseas.

Chancroid is an acute sexually transmitted bacterial infection that causes painful genital ulcers. The condition is now rarely seen in Australia and only one other case has been notified in NSW during the past decade. Although the incidence of chancroid is decreasing globally, it is still reported in some regions within Africa, Asia, the Caribbean and South Pacific. Chancroid genital ulcer disease is a known risk factor for the transmission of HIV.

The bacterium that causes chancroid, *Haemophilus ducreyi*, is usually transmitted through anal, oral, or vaginal sex with an infected person. After infection, one or more ulcers (sores) develop on the genitals or around the anus. Non-genital skin infections have also been reported globally, through non-sexual skin-to-skin contact with an infected person.

The ulcers are usually painful, but rarely can be asymptomatic. Swelling in the groin (due to enlarged painful lymph nodes that can liquify and develop into buboes) can also occur. Other symptoms may include pain during sexual intercourse or while urinating. An infected person can spread the infection from their genital region to other parts of their body.

Symptoms usually occur within 4–14 days from exposure to a person infected with *H. ducreyi*. Chancroid is cured with effective antibiotic therapy.

Further information:

- NSW Health [Chancroid fact sheet](#)
- [Australian STI management guidelines for use in primary care: Chancroid](#)
- [BMJ Best Practice, Chancroid](#)

Rodent-borne disease risks

Since mid to late 2020, the western and northern parts of NSW have seen an increase in rodent populations. Increased rodent numbers and activity may mean more human contact with rats and mice, creating more opportunities for zoonotic disease transmission.

Rodents are associated with various diseases that share similar transmission pathways, and may initially present with a similar clinical picture and exposure history.

- **Leptospirosis** is a bacterial disease that can be transmitted to humans from infected animal urine and tissues. Rodents are a common source of infection via shedding of the bacteria in their urine. *Leptospira* bacteria can enter the human body through cuts or abrasions, or occasionally through the lining of the mouth, nose and eyes. Symptoms may include fever, headache, myalgia, chills, vomiting and conjunctivitis. Progression to severe disease can occur, with complications including jaundice, renal failure, pulmonary haemorrhage, acute respiratory distress syndrome (ARDS) and myocarditis. Aseptic meningitis can occur. Treatment includes antibiotics and supportive care.
- **Rat bite fever** is a systemic illness caused by *Streptobacillus* species or *Spirillum minus* bacteria. Symptoms include fever, myalgias, rash, arthritis, vomiting and headache. Complications can occur, including bacteraemia, endocarditis, meningitis, end-organ failure and other deep infections. The wound is usually not apparent by the time the illness presents. Treatment is with antibiotics.
- **Lymphocytic choriomeningitis (LCM)** virus is caused by a rodent-borne arenavirus. One case has recently been diagnosed in a resident of Far Western NSW, but it is likely that the condition has historically been under-reported. The virus is excreted in the faeces and urine of rodents. Exposure to these excretions (via direct contact, aerosolisation or contact with a contaminated environment) can result in human infection. Symptoms include an influenza-like illness, with headache and meningism. Arthritis, myopericarditis, orchitis and parotitis occur less commonly. Symptoms are usually mild, but infection in pregnancy can result in fetal death (in early pregnancy) and birth defects (in second/third trimester). Testing (PCR of CSF, blood and urine) should be discussed with the microbiology laboratory.
- Other infections that may be associated with rodents include:
 - Opportunistic wound infections due to rodent bites
 - Foodborne bacterial and protozoal diseases such as [salmonellosis](#), [campylobacteriosis](#) and [cryptosporidiosis](#) (due to direct contact or contamination of household food stores and preparation areas)
 - Rickettsial infections (e.g. murine typhus, caused by *Rickettsia typhi* that are transmitted by infected fleas carried by rats and mice). Common symptoms of [typhus](#) infections include fever, chills, headache, muscle aches, malaise and rash.

Misuse of mouse baits

Far West and Western NSW Local Health Districts have received reports of hospital admissions associated with domestic use of mouse baits licenced for use only in agricultural settings. Agricultural pesticide products containing zinc phosphide release phosphine gas when they react with moisture or acids. Exposure to small amounts of phosphine can cause headache, dizziness, nausea, vomiting, diarrhea, drowsiness, cough, and chest tightness. Serious exposure can lead to shock, convulsions, coma, irregular heartbeat, and liver and kidney damage.

Pesticides must always be used in accordance with the label. Poisoning or suffocation can occur by inhaling fumes given off by the bait, particularly in enclosed or poorly ventilated spaces. Children and pets are also at risk from swallowing when used in and around the home.

At-risk groups

Those most at risk of rodent-borne infections include people who work outdoors or with animals, those who engage in camping and outdoor activities (especially water sports that may involve kayaking or swimming in contaminated lakes and rivers) and persons exposed to rodent infestations at their home or workplace. Women who are pregnant and people with a weakened immune system should take particular care to avoid exposure risks. Children should be supervised to avoid rodent contact and ensure regular handwashing after contact with potentially contaminated environments.

Preventive measures

There are various preventive measures available to reduce rodent-borne disease risks:

- Avoid direct and indirect contact with rodents, wherever practicable.
- Practise good hand hygiene by thoroughly washing hands with soap and water after contact with potentially contaminated environments, and keeping any cuts and abrasions covered with a waterproof dressing.
- Use personal protective equipment when working with animals and seek veterinary advice if you suspect rodent-borne illness in pets or livestock.
- Implement rodent control measures around homes, outbuildings and other areas attracting rodents, e.g. grain or food stores and refuse disposal areas. Carefully follow instructions and check that any rodenticide used in homes is safe for domestic use, as some are toxic to humans and only safe for agricultural use. Do not place rodent baits in areas where they can be accessed by children or pets.
- [Cleaning up after rodents](#) – advice from the Centers for Disease Control (CDC).

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 21 February to 27 February 2021, by date received*

		Weekly		Year to date			Full Year	
		This week	Last week	2021	2020	2019	2020	2019
Enteric Diseases	Cryptosporidiosis	58	22	163	199	181	550	669
	Giardiasis	43	44	294	458	709	1791	3271
	Rotavirus	1	5	36	243	119	463	1755
	STEC/VTEC	2	7	22	19	19	113	80
	Salmonellosis	83	65	792	860	851	2888	3556
	Shigellosis	3	2	14	241	153	494	867
Respiratory Diseases	Influenza	1	0	16	4634	4046	7475	116443
	Legionellosis	1	3	42	17	37	168	153
	Tuberculosis	7	9	84	70	76	630	590
Sexually Transmissible Infections	Chancroid	1	0	1	0	0	0	0
	Chlamydia	576	584	4879	5297	5118	27270	32499
	Gonorrhoea	213	168	1552	1965	1790	9910	11702
Vaccine Preventable Diseases	Pneumococcal Disease (Invasive)	8	7	52	72	51	360	691
Vector Borne Diseases	Barmah Forest	3	0	23	13	12	271	63
	Ross River	16	14	154	27	83	1986	592
Zoonotic Diseases	Q fever	3	5	25	48	61	205	248

* 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.