

# Communicable Diseases Weekly Report

## Week 45, 6 to 12 November 2022

In this report we provide information regarding invasive meningococcal disease, gonorrhoea, and a summary of notifiable conditions activity in NSW over the reporting period 45, 6 to 12 November 2022.

Data on **COVID-19** notifications can be found separately on the NSW Health [Latest Updates on COVID-19](#) page.

For up-to-date information regarding the **Japanese encephalitis** outbreak and the NSW response, please visit the [NSW Health Japanese encephalitis page](#).

Information on notifiable conditions is available at the 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.

### Invasive meningococcal disease

Three cases of invasive meningococcal disease (IMD) were notified in this reporting week ([Table 1](#)). The cases were all due to meningococcal serogroup B, and although two cases occurred in residents of the same local health district, all three cases were unrelated.

Meningococcal disease is a rare, but serious and sometimes fatal acute bacterial infection caused by *Neisseria meningitidis*. Meningococcal disease cases can occur at any time of year, but incidence tends to increase in late winter and early spring.

Meningococcal disease can affect anyone, but children under five years (particularly those under two) and people aged 15-25 years are at most risk. Of the three cases this reporting week, two were in the 15–25-year age group, while the third was in their thirties.

Meningococcal disease can become very severe, and even fatal very quickly. All three cases reported this week required admission to an Intensive Care Unit, with one requiring intubation. Up to 10% of people with meningococcal disease die, even with rapid treatment, and 40% of those who survive suffer long term effects including learning difficulties, sight and hearing problems, liver and kidney failure, loss of fingers, toes, or limbs, or scarring caused by skin grafts.

Vaccination is a key component of meningococcal disease prevention. Under the National Immunisation Program, the following groups are eligible for free meningococcal vaccine:

Vaccine	Groups eligible for free vaccine
Meningococcal ACWY vaccine	All children at 12 months of age Children aged 15-19 years (via the School Vaccination Program, their GP or select community pharmacy immunisers**)
Meningococcal B vaccine	Aboriginal children < 2 years of age
Both vaccines	People with certain medical conditions that cause increased risk of infection*

\*including asplenia, hyposplenia, complement deficiency and those receiving eculizumab treatment

\*\* Registered pharmacist immunisers can now provide adolescent vaccines usually delivered via the School Program. This is to increase catch-up options available for those who may have missed their school program vaccines, due to lockdowns or school closures. The vaccine itself will be free, but a service fee may be charged.

For all other people wishing to protect themselves against meningococcal disease, the vaccines are available for purchase via prescription from your doctor. Some private health insurance companies provide rebates for privately purchased vaccines depending on your level of cover. As not all practices store all meningococcal vaccines on site, you should discuss how best to access meningococcal vaccines with your doctor.

More information on meningococcal disease is available from:

- NSW Health [meningococcal disease website](#) and [meningococcal disease factsheet](#)
- The [Australian Immunisation Handbook](#) for more information on meningococcal vaccines
- NSW Health [meningococcal disease data](#)

## Gonorrhoea

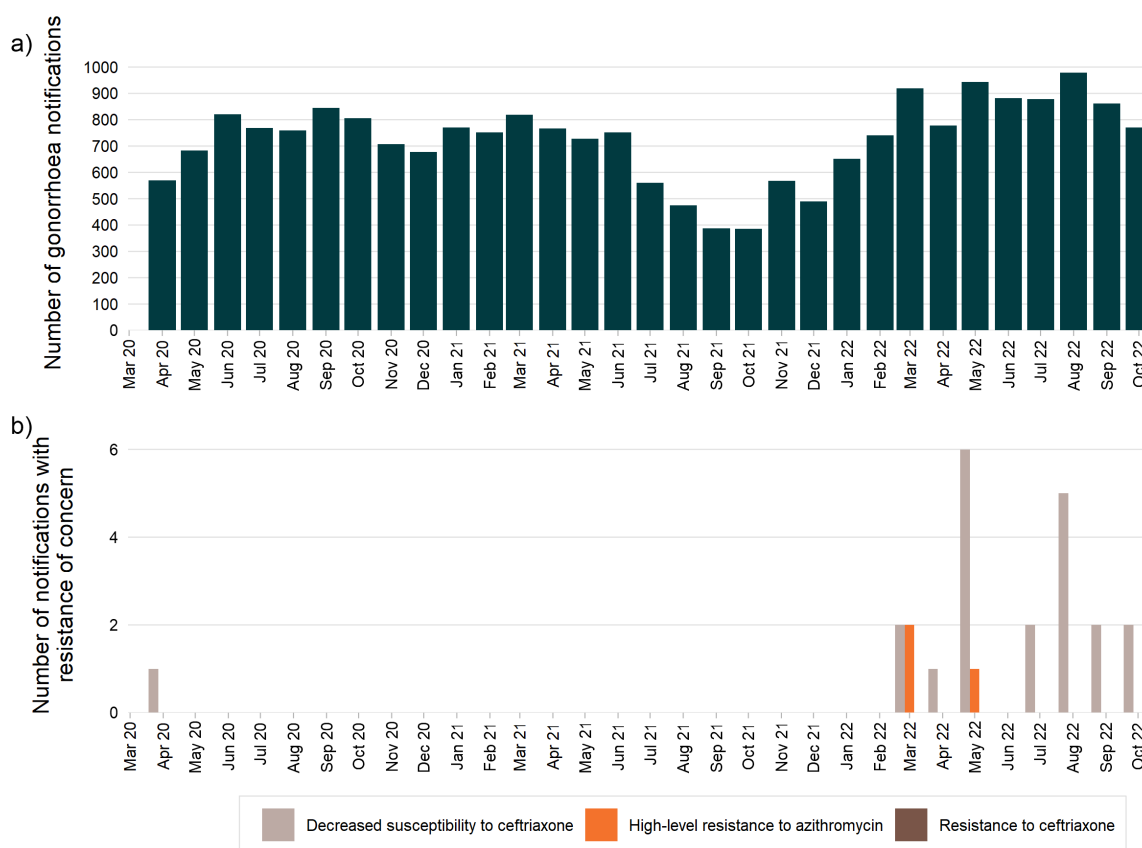
Between 1 March and 31 October 2022, 24 cases of gonorrhoea with critical resistance to azithromycin or ceftriaxone, or decreased susceptibility to ceftriaxone, have been notified in NSW. Azithromycin and ceftriaxone are the two main antibiotics used to treat gonorrhoea in Australia.

In Australia, resistance to ceftriaxone and high-level resistance to azithromycin is rarely observed. These antimicrobial resistant gonococcal strains detected in Australia typically originate from overseas. Three cases infected with a strain of gonorrhoea with high level resistance to azithromycin were likely imported from South America in March and May 2022. A case infected with a strain of gonorrhoea with resistance to ceftriaxone was likely imported from Southeast Asia in October.

Twenty cases were diagnosed with gonococcal infections with decreased susceptibility to ceftriaxone. This highly clonal strain with decreased susceptibility to ceftriaxone appears to be spreading across multiple sexual networks in NSW. Most cases are based in metropolitan Sydney, and include females, heterosexual males, men who have sex with men (MSM), and range in age from 18 to 63 years. This strain will likely respond to ceftriaxone and oral azithromycin, but treatment failures are possible. Treating all confirmed and suspected gonorrhoea with ceftriaxone and oral azithromycin as per the [Australian STI management guidelines](#) is important. The detection of endemic spread of gonococcal infections with decreased susceptibility to ceftriaxone is concerning and appears to have been circulating in NSW since 2021.

Many strains of the bacteria *Neisseria gonorrhoeae*, both overseas and within Australia, are resistant to a wide range of antibiotics. Gonococcal infections with antimicrobial resistance are of major public health concern, as they may require complex treatment with increased disease burden and associated health care costs.

During 2020 and 2021, the number of gonorrhoea notifications in NSW was relatively low and the reduction in international travel was protective against imported strains of gonorrhoea with antimicrobial resistance. However, in 2022 gonorrhoea notifications are returning to pre-pandemic levels (Figure 1), particularly in metropolitan Sydney.



**Figure 1: Number of gonorrhoea notifications by month (a) and notifications with AMR of concern (b) in NSW, 1 March 2020 to 31 October 2022.**

Gonorrhoea is a sexually transmissible infection caused by *N. gonorrhoeae* bacteria. It can infect the throat, rectum, urethra (urine passage), cervix (neck of the womb) and eyes. People with gonorrhoea often have no symptoms, particularly women and those with gonorrhoea of the throat or rectum. People often have gonorrhoea and pass it on to others without knowing it. If untreated, the infection can spread via the blood stream to the skin, joints, heart valves and lining of the brain (meningitis). Untreated gonorrhoea in women can also spread to the womb and fallopian tubes (pelvic inflammatory disease or PID) and this can result in infertility or a pregnancy in the fallopian tube (ectopic pregnancy). Infertility can also occur in men if the infection spreads down the urethra and into the testes.

People who have unprotected sex are most at risk of gonorrhoea. Gonorrhoea can be prevented using condoms for vaginal and anal sex and dental dams for oral sex.

For free and confidential sexual health support and information people can contact the Sexual Health InfoLink (SHIL) on 1800 451 624. SHIL is a NSW Ministry of Health funded information and referral telephone line that is staffed by specialist sexual health nurses from 9:00am to 5:30pm weekdays.

Follow the links for more information on [gonorrhoea](#) and [gonorrhoea notifications](#).

## Summary of notifiable conditions activity in NSW

The following table summarises notifiable conditions activity over the reporting period alongside reports received in the previous week, year to date and in previous years (Table 1).

**Table 1. NSW Notifiable conditions from 6 to 12 November 2022, by date received\***

		Weekly		Year to date				Full Year		
		This week	Last week	2022	2021	2020	2019	2021	2020	2019
Enteric Diseases	Campylobacter	261	301	10496	10116	8152	9740	12014	10054	11482
	Cryptosporidiosis	10	9	414	386	479	533	444	548	669
	Giardiasis	45	33	1178	1381	1640	2965	1504	1872	3329
	Rotavirus	63	36	972	314	460	1145	356	500	1777
	STEC/VTEC	6	7	129	104	76	60	126	115	79
	Salmonellosis	50	57	2590	2630	2505	3109	3097	2882	3552
	Shigellosis	13	10	381	52	463	749	60	494	867
Other	Invasive Group A Streptococcus	6	8	69	0	0	0	0	0	0
Respiratory Diseases	Influenza	166	140	114273	85	7453	114405	124	7481	116402
	Legionellosis	6	3	219	176	137	132	214	171	154
	Respiratory syncytial virus (RSV)	184	206	4524	0	0	0	0	0	0
	Tuberculosis	16	7	429	488	513	511	558	625	589
Sexually Transmissible Infections	Chlamydia	595	568	22284	22634	23445	28040	25368	27239	32473
	Gonorrhoea	203	166	8911	6779	8649	10236	7620	9880	11686
	LGV	1	0	24	34	39	58	36	44	69
Vaccine Preventable Diseases	Meningococcal Disease	3	0	26	19	19	53	23	22	59
	Pertussis	4	2	69	42	1391	5440	43	1400	6386
	Pneumococcal Disease (Invasive)	10	14	484	358	289	602	386	343	690
Vector Borne Diseases	Barmah Forest	3	1	75	98	251	60	111	271	63
	Dengue	12	8	135	3	76	400	4	76	456
	Malaria	3	1	31	6	24	60	8	25	73
	Ross River	17	11	653	629	1931	561	659	1990	595
Zoonotic Diseases	Q fever	2	2	165	167	189	220	206	212	249

### \* 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.
- 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.