Communicable Diseases Weekly Report

Week 35, 28 August to 3 September 2022

In this report we provide information regarding Invasive Group A Streptococcus (iGAS) and Respiratory syncytial virus (RSV) and a summary of notifiable conditions activity in NSW over the reporting period week 35, 28 August to 3 September 2022.

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.

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 Group A Streptococcus (iGAS)

Invasive group A streptococcal disease (iGAS) is an infection caused by the bacterium group A *Streptococcus* (Strep A). It was added to the list of notifiable conditions in NSW on the 1 September 2022. In the first 3 days of reporting, there were 3 cases of iGAS notified (Table 1).

Strep A infection causes a wide variety of disease ranging from uncomplicated skin and pharyngeal infections to life-threatening invasive disease. iGAS is defined as isolation of *S. pyogenes* from a normally sterile site. Clinical manifestations of infection include bacteraemia, streptococcal toxic-shock syndrome (STSS), necrotising fasciitis ('flesh-eating disease'), pneumonia, and meningitis. A study from the UK found that 20% of iGAS cases were admitted to an intensive care unit. In Australia, case fatality rates have been reported of up to 15% for iGAS.

Transmission is primarily person-to-person via large respiratory droplets, or direct contact with carriers or infected persons. The incubation period of iGAS is not well defined. Most secondary cases occur in the first 3 days after the identification of the primary case but have occurred up to 30 days after the primary case. Cases are infectious from the onset of symptoms until 24 hours after appropriate antibiotic treatment is started.

Increased rates of iGAS have been observed globally, and in some regions of Australia (where the data is available). In NSW, the hospitalisation rate for iGAS bacteraemia peaked at 4.0 cases per 100 000 people in 2017. At risk groups include the elderly, young children, pregnant and post-partum women, Aboriginal and Torres Strait Islander Australians, and household contacts of iGAS cases. iGAS disproportionately affects Aboriginal and/or Torres Strait Islander people and other disadvantaged cultural groups.

There is no vaccine for Strep A infection and the efficacy of post-exposure antibiotic treatment is not well understood. Routine contact tracing of mothers and babies that develop iGAS in the first 28 days after birth is recommended. Clearance antibiotics should be offered to the other of the pair, and in case of multiple births, any other neonates. Two or more cases in households or epidemiologically linked cases institutions in a 30-day period should be reported to the public health unit by calling 1300 066 055. Management of other household and household-like contacts are the responsibility of the treating clinician. Guidelines for management can be found in the Therapeutic Guidelines: Antibiotic.

For further information on iGAS, please see the NSW Health iGAS factsheet.

Respiratory syncytial virus (RSV)

Respiratory syncytial virus, or RSV, is a virus that causes respiratory infections. RSV can occur in children and adults. Almost all children will have been infected by the age of 3 years. Recovery from RSV gives some immunity against getting infected again but is not long-lasting.

Similar to influenza, RSV is seasonal, particularly in temperate regions which usually experience annual or biennial epidemics. Seasonal peaks in Australia are seen in early autumn in tropical regions, winter in temperate regions and all year-round activity, with autumn and winter peaks, in arid environments. RSV outbreaks are frequently associated with the rainy season rather than the cool, dry season in tropical and sub-tropical climates. In NSW, infections usually peak in late autumn or winter.

RSV transmission occurs through close or direct contact with large droplets or fomites contaminated with the virus from the hands, or by large-particle aerosols into the eyes and nose. RSV can survive many hours on hard surfaces. For most people, RSV infection causes a mild respiratory illness. Symptoms usually begin around five days after exposure to the virus and can get worse over the first 3 to 4 days of the illness before an improvement. People are usually contagious during this period.

Symptoms can include, runny nose, cough, sneezing, fever, ear infection (less common) and RSV can also cause wheezing and difficulty breathing.

Babies under one year of age are more likely to develop breathing problems such as bronchiolitis or pneumonia. Older children and adults may also have breathing problems, especially if they have chronic heart, lung or immune problems. RSV is often a cause of respiratory outbreaks in aged care facilities.

There are currently no vaccines available for RSV. The best way to help stop the virus spreading is for everyone to always practice good hygiene, especially if you have flu-like symptoms, such as stay at home if you don't feel well, cover your nose and mouth when coughing or sneezing, wear a mask in crowded places or if you are visiting high risk settings that have vulnerable people such as aged care facilities or hospitals and avoid contact with high risk people such as infants, older people and those who are immunocompromised until you feel better.

For further information on RSV please see the NSW Health RSV factsheet.

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 28 August – 3 September 2022, by date received*

Week ending 3 September 2022

		Weekly		Year to date				Full Year		
		This week	Last week	2022	2021	2020	2019	2021	2020	2019
Enteric Diseases	Campylobacter	242	259	7445	8024	6231	7401	12014	10054	11482
	Cryptosporidiosis	15	10	318	351	441	466	444	549	669
	Giardiasis	33	30	878	1182	1370	2483	1504	1872	3329
	Hepatitis E	1	0	5	1	13	16	1	14	24
	Listeriosis	2	1	24	15	10	8	22	20	16
	Rotavirus	37	35	393	249	414	656	356	500	1777
	Salmonellosis	37	39	2157	2200	2212	2550	3097	2883	3554
	Shigellosis	11	18	257	45	414	583	60	494	867
	STEC/VTEC	3	3	91	78	60	41	126	115	79
	Typhoid	2	3	35	2	34	50	2	37	64
Other Diseases	Invasive Group A Streptococcus	3	0	3	0	0	0	0	0	0
	Monkeypox	2	7	49	0	0	0	0	0	0
Respiratory Diseases	Influenza	271	291	112990	70	7418	100608	124	7485	116429
	Respiratory syncytial virus (RSV)	319	7	327	0	0	0	0	0	0
	Tuberculosis	12	14	326	406	394	384	558	625	589
Sexually Transmissable Infections	Chlamydia	559	482	16755	18750	18569	21748	25368	27239	32474
	Gonorrhoea	207	228	6966	5810	6819	8050	7621	9881	11687
	LGV	3	1	17	31	35	40	36	44	69
Vaccine Preventable Diseases	Pertussis	2	5	45	38	1377	4240	43	1400	6386
	Pneumococcal Disease (Invasive)	27	11	364	318	247	429	387	358	690
Vector Borne Diseases	Barmah Forest	2	1	53	82	216	52	111	271	63
	Chikungunya	1	0	2	0	8	19	0	8	33
	Dengue	2	1	47	2	76	312	4	76	456
	Malaria	1	1	22	6	22	46	8	25	73
	Ross River	3	4	573	582	1854	487	659	1990	595
Zoonotic Diseases	Brucellosis	1	0	3	3	3	2	4	4	4
	Psittacosis	1	0	9	12	21	6	17	30	11
	Q fever	3	3	123	136	155	178	205	209	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.