

AURA
Antimicrobial Use and
Resistance in Australia

# CARAlert data update 42

1 July 2025 - 30 September 2025

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Preferred citation: Australian Commission on Safety and Quality in Health Care. CARAlert data update 42: 1 July 2025 - 30 September 2025. Sydney: ACSQHC; 2025.

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# **Data Summary**

This report provides an update on data submitted to the National Alert System for Critical Antimicrobial Resistances (CARAlert) for the reporting period: 1 July 2025 to 30 September 2025, and complements previous analyses of and updates on CARAlert data and the CARAlert Data Explorer.

#### **National overview**

- The total number of critical antimicrobial resistances (CARs) reported was down 24.1% compared to the previous three-month period (n = 763 versus n = 1,005).
- Just under one-half of the CARs reported were carbapenemase-producing Enterobacterales (CPE) (including those with ribosomal methyltransferase) (353/763, 46.3%).
- The total number of CPE (either alone or in combination with other CARs) reported to date this year, compared with the same period last year, increased by 11.6% (n = 1,278 versus n = 1,145).
- Azithromycin-nonsusceptible (low-level resistance, minimum inhibitory concentration [MIC] < 256 mg/L) Neisseria gonorrhoeae was the second most reported CAR (255/763, 33.4%).
- Multidrug-resistant (MDR) Shigella species was the third most reported CAR (46/763, 6.0%). The number of reports increased compared to the previous three months (n = 46versus n = 35, up 31.4%).
- Five ceftriaxone-nonsusceptible N. gonorrhoeae were reported, one of which was also azithromycin-nonsusceptible (high-level resistance, MIC ≥ 256 mg/L).
- Where the setting was known, just over one-half of CARs were reported from hospital settings (369/690, 53.5%). There were 321 (46.5%) reports from the community, and no reports from aged care homes.

# Carbapenemase-producing *Enterobacterales*

- The total number of CPE (either alone or in combination with other CARs) decreased compared to the previous three-month period (n = 353 versus n = 441, down 20.0%).
- NDM (134/353, 38.0%), IMP (126/353, 35.7%), OXA-48-like (54/353, 15.3%), NDM+OXA-48-like (20/353, 5.7%) and KPC (7/353, 2.0%) types accounted for over 96% of all CPE reported during this period.
- The total number of NDM-types reported (either alone or co-produced with other carbapenemase types) decreased compared to the previous three months (n = 158 versus n = 200, down 21.0%), most notably in South Australia (SA) (n = 10 versus n = 24, down 58.3%).
- The total number of IMP-types reported decreased from compared to the previous three months (n = 126 versus n = 165, down 23.6%).
- Seven KPC-producing Enterobacterales were reported; two Klebsiella pneumoniae from Victoria, two K. pneumoniae from New South Wales (NSW), one K. pneumoniae from Western Australia (WA), one Citrobacter braakii and one Enterobacter cloacae complex

- from Victoria. In addition, one K. pneumoniae co-producing KPC-3 and NDM-1, and one Escherichia coli co-producing KPC-2 and OXA-181 were reported from Victoria.
- Where the setting was known, 84.0% (279/332) of CPE were reported from hospitals and 16.0% (53/332) were reported from the community.
- Twenty-nine hospitals had more than one report of NDM-types; these were in NSW (n = 12), Victoria (n = 7), Queensland (n = 5), SA (n = 2), WA (n = 2) and the Northern Territory (NT) (n = 1). Eight hospitals from Victoria (n = 4), Queensland (n = 2), NSW (n = 1), and SA (n = 1) had five or more reports.
- One hospital from Victoria reported 10 isolates (8 different species) with NDM types.
- Ten hospitals (NSW n = 6, Queensland n = 4) had more than two reports of IMP-types. A further 6 hospitals had two notifications of IMP-types: NSW (n = 4) and Queensland (n = 2).

# Salmonella and Shigella species

- There were 26 ceftriaxone-nonsusceptible Salmonella species reported during this reporting period, from Victoria (n = 11), NSW (n = 7), WA (n = 5), and one each from Queensland, Tasmania and the Australian Capital Territory (ACT), All were non-typhoidal species and produced either an extended-spectrum β-lactamase (ESBL [24]) or a pAmpC (n = 2). No S. Typhi were reported.
- There were 46 MDR Shigella species reported in this period: 29 S. sonnei, 15 S. flexneri, and two S. boydii. A vast majority (27/29, 93.1%) of S. sonnei isolates were ceftriaxone/cefotaxime-resistant and produced an ESBL. Almost one-half of MDR S. flexneri were susceptible to ceftriaxone/cefotaxime (7/15, 46.7%).

# Azithromycin-nonsusceptible (low-level resistance, MIC < 256 mg/L) Neisseria gonorrhoeae

There was a decrease in total number of reports of this CAR compared with the previous three-month reporting period (n = 255 versus n = 419, down 39.1%). A little over two-thirds of the reports were from Victoria (180/255, 70.6%).

# Ceftriaxone- and/or azithromycin-nonsusceptible Neisseria gonorrhoeae

There were five reports of ceftriaxone-nonsusceptible N. gonorrhoeae, down from 14 in the previous three-month reporting period. The reports were from WA (n = 2), one of which also had high-level resistance to azithromycin (MIC < 256 mg/L), and one each from NSW, SA, and the ACT.

# Gentamicin-resistant Neisseria gonorrhoeae

No gentamicin-resistant *N. gonorrhoeae* were reported in this period.

# Ciprofloxacin-nonsusceptible Neisseria meningitidis

There were two ciprofloxacin-nonsusceptible *N. meningitidis* reported from Victoria.

# Carbapenemase-producing Acinetobacter baumannii complex and Pseudomonas aeruginosa

- Nineteen carbapenemase-producing Acinetobacter baumannii complex were reported during this period, up from n = 15 in the previous three-months. The reports were from Victoria (n = 9), Queensland (n = 5), NSW (n = 2), and one each from SA, WA and the ACT.
- The number of carbapenemase-producing *Pseudomonas aeruginosa* isolates reported increased compared to the previous three months (n = 28 versus n = 22, up 27.3%). Four different types were reported (GES [11], NDM [9], VIM [5], IMP [3]).

## **Linezolid-resistant** *Enterococcus* species

There were 14 linezolid-resistant Enterococcus species reports this period, similar to the previous three-month reporting period (n = 15). There were 10 *E. faecalis* reports, from Victoria (n = 4), NSW (n = 2), Queensland (n = 2), WA (n = 1) and the NT (n = 1); and four E. faecium reports, from Victoria (n = 3) and the ACT (n = 1). Almost all E. faecalis (9/10) harboured optrA genes. One E. faecium isolate harboured a poxtA gene.

## Candida auris

There were eight Candida auris reports this reporting period (up from n = 4 in the previous three months). The reports were from Victoria (n = 4), SA (n = 2), Queensland (n = 1), and WA (n = 1).

# Linezolid- or vancomycin-nonsusceptible Staphylococcus aureus complex

There were no reports of linezolid- or vancomycin-nonsusceptible Staphylococcus aureus complex isolates during this period.

#### Transmissible colistin resistance

There were no reports of *Enterobacterales* with transmissible colistin resistance (mcr-1.1) during this period.

# Streptococcus pyogenes with reduced susceptibility to penicillin

No cases of Streptococcus pyogenes with reduced susceptibility to penicillin were reported during this period.

# **National summary**

**Table 1** Number of critical antimicrobial resistances, by state and territory, 1 July 2025 – 30 September 2025, and year to date 2024 and 2025

			State or Territory								Quarterly		Year to date		
Species	Critical resistance			(July	-Septe	ember	2025)			2025	2025			rear to	uate
			Vic	Qld	SA	WA	Tas	NT	ACT	Apr– Jun	Jul- Sep	Relative change*	2024	2025	Relative change*
Acinetobacter baumannii complex	Carbapenemase-producing	2	9	5	1	1	0	0	1	15	19	▲ 26.7%	33	42	<b>▲</b> 27.3%
Candida auris	_	0	4	1	2	1	0	0	0	4	8	<b>▲</b> 100%	12	17	<b>▲</b> 41.7%
	Carbapenemase-producing	151	67	68	17	19	1	2	3	417	328	▼ 21.3%	1,069	1,192	<b>▲</b> 11.5%
	Carbapenemase- and ribosomal methyltransferase-producing	0	19	3	1	2	0	0	0	23	25	▲ 8.7%	75	85	<b>1</b> 3.3%
Enterobacterales	Carbapenemase- producing and transmissible resistance to colistin		0	0	0	0	0	0	0	1	0	I	1	1	_
	Ribosomal methyltransferase-producing	0	1	0	0	0	0	0	1	1	2	-	10	5	▼ 50.0%
	Transmissible resistance to colistin	0	0	0	0	0	0	0	0	0	0	_	0	0	_
Enterococcus species	Linezolid-resistant	2	7	2	0	1	0	1	1	15	14	▼ 6.7%	93	42	▼ 54.8%
Mycobacterium tuberculosis	Multidrug-resistant – at least rifampicin- and isoniazid-resistant strains	0	0	0	2	0	0	0	0	1	2	-	14	3	_
	Azithromycin-nonsusceptible (low-level)†	22	180	11	4	38	0	0	0	419	255	▼ 39.1%	696	1,079	▲ 55.0%
	Azithromycin-nonsusceptible (high-level)§	1	0	2	0	2	0	0	0	0	5	_	28	5	▼ 82.1%
	Ceftriaxone-nonsusceptible	1	0	0	0	1	0	0	0	11	2	▼ 81.8%	23	20	▼ 13.0%
Neisseria gonorrhoeae	Ceftriaxone-nonsusceptible and azithromycin- nonsusceptible (low-level) <sup>†</sup>	0	0	0	1	0	0	0	1	2	2	-	3	4	_
	Ceftriaxone-nonsusceptible and azithromycin nonsusceptible (high-level)§	0	0	0	0	1	0	0	0	1	1	_	4	4	_
	Gentamicin-resistant	0	0	0	0	0	0	0	0	0	0	ı	0	0	_

Table 1 (continued)

			State or territory						Quarterly						
						ember 2	-			2025	2025		`	Year to	date
Species	Critical resistance	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Apr– Jun	Jul- Sep	Relative change*	2024	2025	Relative change*
Neisseria meningitidis	Ciprofloxacin-nonsusceptible	0	0	0	0	0	0	0	0	2	0	_	4	3	_
Pseudomonas aeruginosa	Carbapenemase-producing	15	4	2	3	3	1	0	0	22	28	<b>▲</b> 27.3%	55	72	▲ 30.9%
Salmonella species	Ceftriaxone-nonsusceptible	7	11	1	0	5	1	0	1	35	26	▼ 25.7%	67	107	▲ 59.7%
Shigella species	Multidrug-resistant	17	14	8	1	3	0	1	2	35	46	▲ 31.4%	293	187	▼ 36.2%
Staphylococcus aureus	Linezolid-nonsusceptible	0	0	0	0	0	0	0	0	1	0	_	0	1	_
complex	Vancomycin-nonsusceptible	0	0	0	0	0	0	0	0	0	0	_	0	1	_
Streptococcus pyogenes	Penicillin reduced susceptibility	0	0	0	0	0	0	0	0	0	0	_	0	0	_
	Total (reported by 10 November 2025)	218	316	103	32	77	3	4	10	1,005	763	▼ 24.1%	2,480	2,870	▲ 15.7%

CAR = critical antimicrobial resistances; MIC = minimum inhibitory concentration; 🛦 = increase; 🔻 = decrease; – = not applicable

Note: For this report, transmissible resistance to colistin refers to the presence of *mcr* genes other than *mcr*-9. This variant is not associated with a colistin resistant phenotype but is typically found on H12 plasmids which may carry *bla*<sub>IMP-4</sub>.

<sup>\*</sup> Relative change = absolute change between period in 2024 and same period in 2025, for each CAR, expressed as a percentage of 2024 base, where five or more CARs reported per reporting period

<sup>†</sup> Azithromycin MIC < 256 mg/L

<sup>§</sup> Azithromycin MIC ≥ 256 mg/L

**Table 2** Number of critical antimicrobial resistance isolates, by setting, national, 1 July 2025 – 30 September 2025

		Setting							
Species	Critical resistance	Public hospital	Private hospital	Aged care home	Community	Unknown	Total		
Acinetobacter baumannii complex	Carbapenemase-producing	16	0	0	3	0	19		
Candida auris	_	4	0	0	3	1	8		
	Carbapenemase-producing	245	15	0	47	21	328		
	Carbapenemase- and ribosomal methyltransferase-producing	18	1	0	6	0	25		
Enterobacterales	Carbapenemase- producing and transmissible resistance to colistin	0	0	0	0	0	0		
	Ribosomal methyltransferase-producing	1	0	0	1	0	2		
	Transmissible resistance to colistin	0	0	0	0	0	0		
Enterococcus species	Linezolid-resistant	9	0	0	5	0	14		
Mycobacterium tuberculosis	Multidrug-resistant – at least rifampicin- and isoniazid-resistant strains	2	0	0	0	0	2		
	Azithromycin-nonsusceptible (low-level)*	8	1	0	216	30	255		
	Azithromycin-nonsusceptible (high-level) <sup>†</sup>	0	0	0	4	1	5		
	Ceftriaxone-nonsusceptible	0	0	0	1	1	2		
Neisseria gonorrhoeae	Ceftriaxone-nonsusceptible and azithromycin-nonsusceptible (low-level)*	0	0	0	1	1	2		
	Ceftriaxone-nonsusceptible and azithromycin-nonsusceptible (high-level)†	0	0	0	1	0	1		
	Gentamicin-resistant	0	0	0	0	0	0		
Neisseria meningitidis	Ciprofloxacin-nonsusceptible	0	0	0	0	0	0		
Pseudomonas aeruginosa	Carbapenemase-producing	20	0	0	4	4	28		
Salmonella species	Ceftriaxone-nonsusceptible	3	1	0	11	11	26		
Shigella species	Multidrug-resistant	23	2	0	18	3	46		
Staphylococcus aureus	Linezolid-nonsusceptible	0	0	0	0	0	0		
complex	Vancomycin-nonsusceptible	0	0	0	0	0	0		
Streptococcus pyogenes	Penicillin reduced susceptibility	0	0	0	0	0	0		
	Total (reported by 10 November 2025)	349	20	0	321	73	763		

<sup>\*</sup> Azithromycin MIC < 256 mg/L

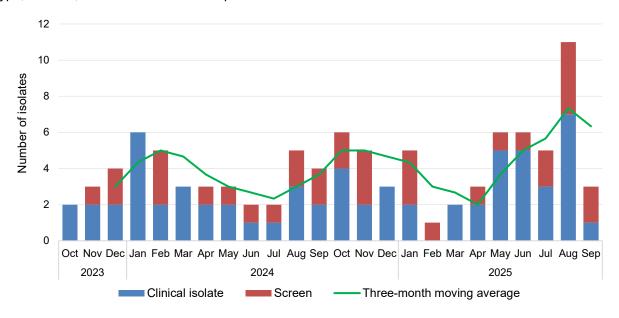
<sup>†</sup> Azithromycin MIC ≥ 256 mg/L

# Summary by CAR

# Acinetobacter baumannii complex

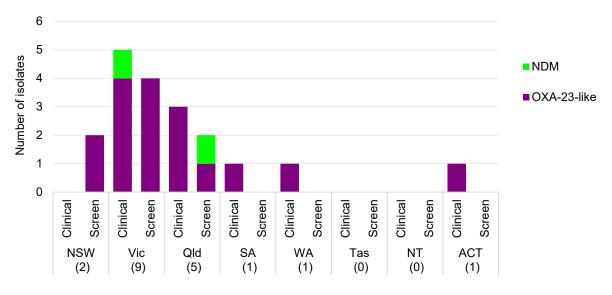
#### **National data**

**Figure 1** Carbapenemase-producing *Acinetobacter baumannii* complex, 24-month trend by specimen type, national, 1 October 2023 – 30 September 2025



# State and territory data

**Figure 2** Carbapenemase-producing *Acinetobacter baumannii* complex, number reported by carbapenemase type and specimen type, by state and territory, 1 July 2025 – 30 September 2025



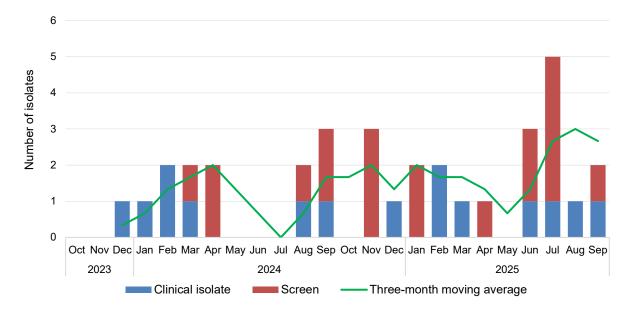
**Table 3** Carbapenemase-producing *Acinetobacter baumannii* complex, number reported by setting, by state and territory, 1 July 2025 – 30 September 2025

		State or territory									
Setting	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Total		
Total	2	9	5	1	1	0	0	1	19		
Public hospital	2	7	5	1	1	0	0	0	16		
Private hospital	0	0	0	0	0	0	0	0	0		
Aged care home	0	0	0	0	0	0	0	0	0		
Community	0	2	0	0	0	0	0	1	3		
Unknown	0	0	0	0	0	0	0	0	0		

## Candida auris

#### **National data**

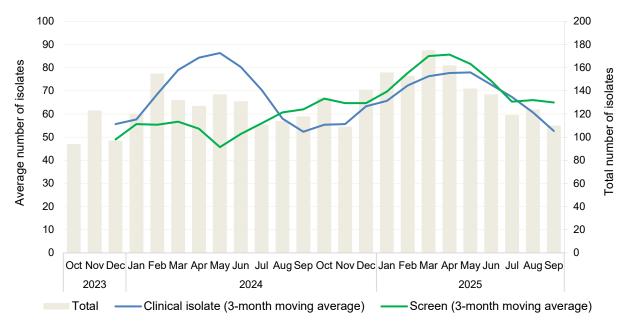
**Figure 3** Candida auris, 24-month trend by specimen type, national, 1 October 2023 – 30 September 2025



#### **Enterobacterales**

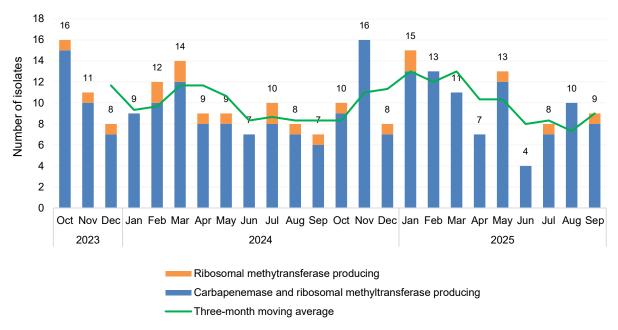
#### **National data**

**Figure 4** Carbapenemase-producing *Enterobacterales*\*, 24-month trend by specimen type, national, 1 October 2023 – 30 September 2025

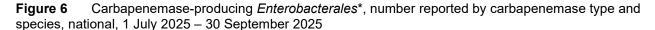


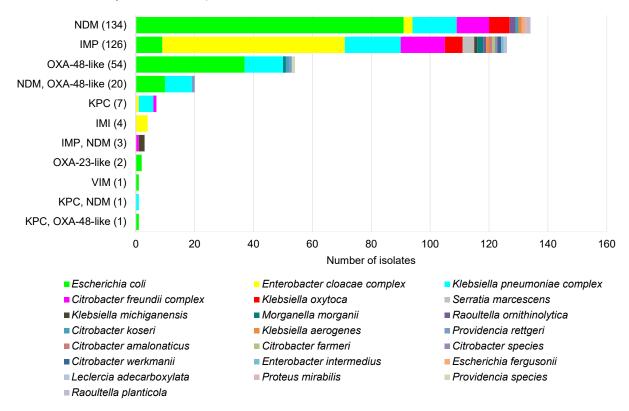
<sup>\*</sup> Carbapenemase-producing alone or in combination with ribosomal methyltransferases or transmissible resistance to colistin

**Figure 5** Ribosomal methyltransferase-producing *Enterobacterales\**, 24-month trend, national, 1 October 2023 – 30 September 2025



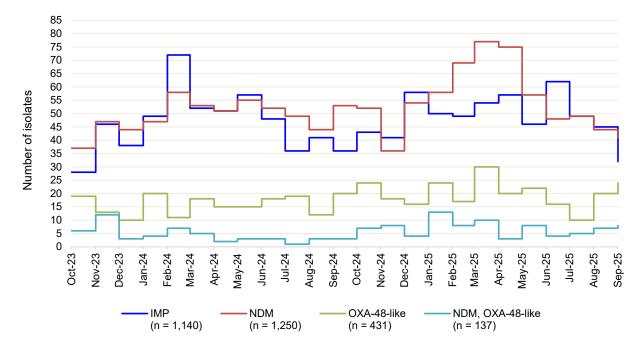
<sup>\*</sup> Ribosomal methyltransferases alone, or in combination with carbapenemase(s)





Carbapenemase-producing (n = 328), carbapenemase and ribosomal methyltransferase-producing (n = 25), carbapenemase-producing and transmissible resistance to colistin (n = 0)

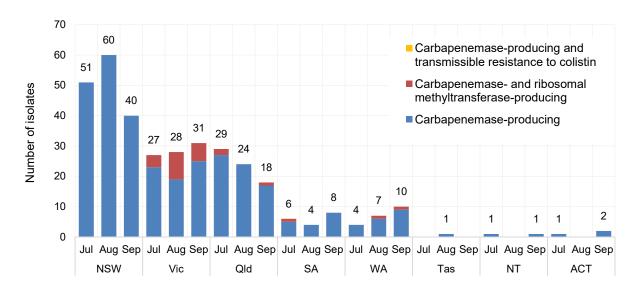
**Figure 7** Top four reported carbapenemase types\*, 24-month trend, national, 1 October 2023 – 30 September 2025



<sup>\*</sup> Alone or in combination with another type for the reporting period

#### State and territory data

**Figure 8** Carbapenemase-producing *Enterobacterales\**, number reported by month, state and territory, 1 July 2025 – 30 September 2025



<sup>\*</sup> Carbapenemase-producing (n = 328), carbapenemase and ribosomal methyltransferase-producing (n = 25), carbapenemase-producing and transmissible resistance to colistin (n = 0)

**Figure 9** Top four reported carbapenemase types from *Enterobacterales*, by state and territory and nationally, 24-month trend, (three-month moving average), 1 October 2023 – 30 September 2025

Туре	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Australia
IMP	34	7 /	17 /Mw/\	0	3 ///	0	0	1	58
NDM	21	26	10 M	18	4 1000	2	2 []	1	74
OXA-48-like	8 / MM	14 \ \ \ \	3	3 \\\\\	3 ~~~	0 4 1/2	1	1	25
NDM+OXA-4	3 W'	5 VVV V	1 1 V	0 7	0 2	0	0	0	14 10
8-like	0 /\/\"	0 /// 7	0 1/	0	۰ ۱۲۷۸	0	0	0	2 N W
All types	36	26	30 M	3	3 10	0 1/1/	<sup>2</sup> ////	0 \	163

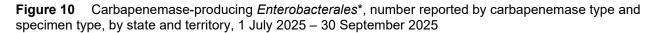
Straight green line in cell = no carbapenemase type for that state or territory during the reporting period;

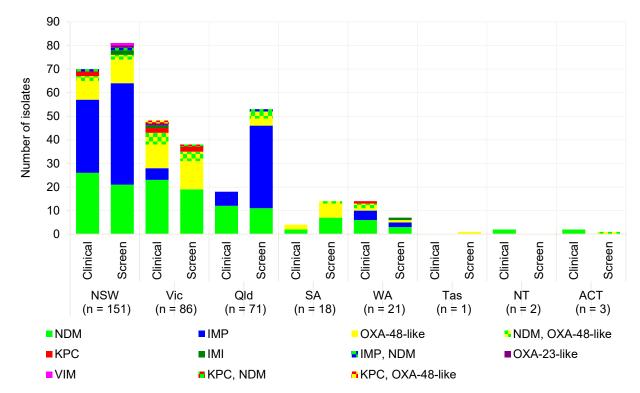
Blank cell = maximum monthly average was one or less

#### Notes:

<sup>1.</sup> Line graphs represent three-month moving average for the period 1 October 2023 to 30 September 2025, for each type, where maximum monthly average was greater than one.

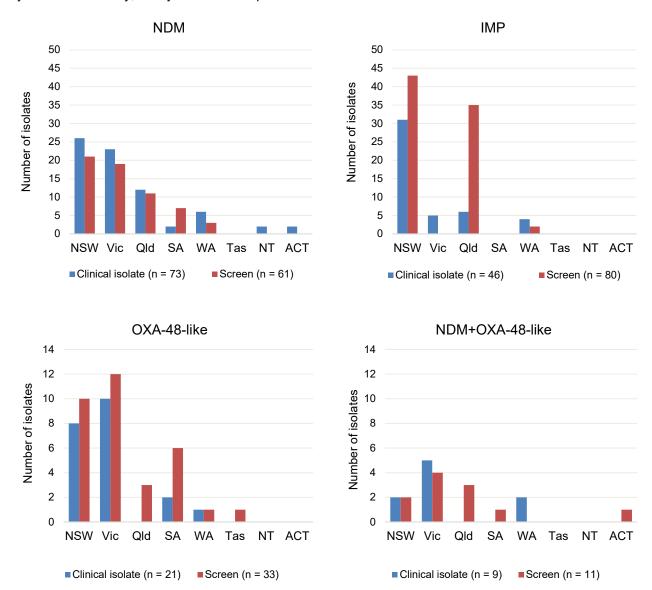
<sup>2.</sup> Numbers in each cell represent maximum (top) and minimum (bottom) monthly average.





<sup>\*</sup> Carbapenemase-producing (*n* = 328); carbapenemase- and ribosomal methyltransferase-producing (*n* = 25); carbapenemase-producing and transferrable resistance to colistin (*n* = 0)

**Figure 11** Top four reported carbapenemase-producing *Enterobacterales* types by specimen type, by state and territory, 1 July 2025 – 30 September 2025



Note: Other types include KPC (n = 7; Vic clinical [2], screen [2]; NSW clinical [2], WA clinical [1]); IMI (n = 4; NSW screen [2]; Vic clinical [1]; WA screen [1]); IMP+NDM (n = 3; NSW clinical [1], screen [1]; Qld screen [1]); OXA-23-like (n = 2; NSW screen[1]; Vic clinical [1]), VIM (n = 1; NSW screen); KPC+NDM (n = 1; Vic screen); KPC+OXA-48-like (n = 1; Vic clinical).

**Table 4** Top five carbapenemase types from *Enterobacterales*, number reported by setting, by state and territory, 1 July 2025 – 30 September 2025

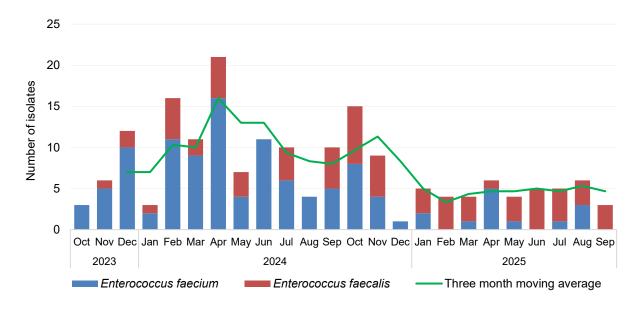
Carbapenemase		State or territory										
type	Setting	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Total		
NDM	Total	47	42	23	9	9	0	2	2	134		
	Public hospitals	38	30	11	7	4	0	2	1	93		
	Private hospitals	1	0	5	0	0	0	0	0	6		
	Aged care homes	0	0	0	0	0	0	0	0	0		
	Community	3	12	6	2	3	0	0	0	26		
	Unknown	5	0	1	0	2	0	0	1	9		
IMP	Total	74	5	41	0	6	0	0	0	126		
	Public hospitals	65	2	32	0	4	0	0	0	103		
	Private hospitals	1	0	6	0	0	0	0	0	7		
	Aged care homes	0	0	0	0	0	0	0	0	0		
	Community	1	3	3	0	1	0	0	0	8		
	Unknown	7	0	0	0	1	0	0	0	8		
OXA-48-like	Total	18	22	3	8	2	1	0	0	54		
	Public hospitals	14	12	3	7	2	0	0	0	38		
	Private hospitals	0	1	0	0	0	0	0	0	1		
	Aged care homes	0	0	0	0	0	0	0	0	0		
	Community	1	9	0	1	0	1	0	0	12		
	Unknown	3	0	0	0	0	0	0	0	3		
NDM, OXA-48-like	Total	4	9	3	1	2	0	0	1	20		
	Public hospitals	3	6	3	1	1	0	0	1	15		
	Private hospitals	0	0	0	0	0	0	0	0	0		
	Aged care homes	0	0	0	0	0	0	0	0	0		
	Community	0	3	0	0	1	0	0	0	4		
	Unknown	1	0	0	0	0	0	0	0	1		
KPC	Total	2	4	0	0	1	0	0	0	7		
	Public hospitals	2	4	0	0	0	0	0	0	6		
	Private hospitals	0	0	0	0	0	0	0	0	0		
	Aged care homes	0	0	0	0	0	0	0	0	0		
	Community	0	0	0	0	1	0	0	0	1		
	Unknown	0	0	0	0	0	0	0	0	0		

Note: Top five carbapenemase types account for 96.6% (341/353) of all carbapenemase-producing *Enterobacterales* reported for this period. Other types were IMI (n = 4, NSW [2]), Vic [1], WA [1]); IMP+NDM (n = 3, NSW [2], Qld [1]); OXA-23-like (n = 2, NSW [1], Vic [1]); VIM (n = 1, NSW); KPC+NDM (n = 1, Vic); KPC+OXA-48-like (n = 1, Vic).

## Enterococcus species

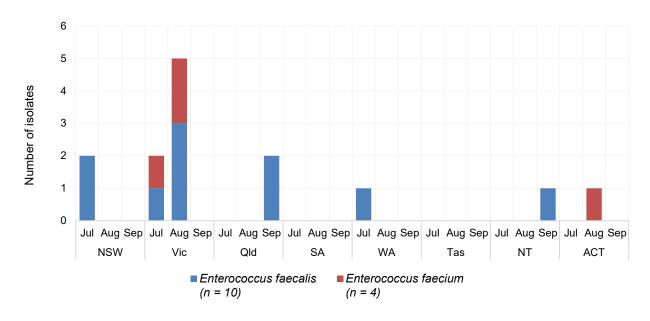
#### **National data**

**Figure 12** Linezolid-nonsusceptible *Enterococcus* species, 24-month trend, national, 1 October 2023 – 30 September 2025



# State and territory data

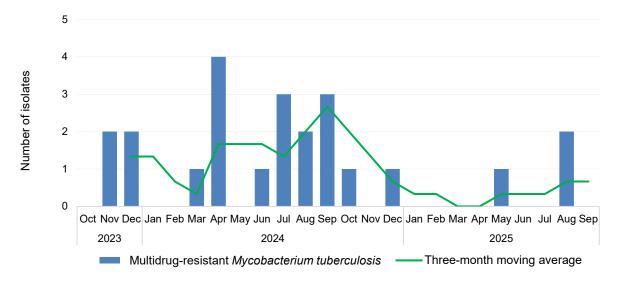
 $\textbf{Figure 13} \quad \text{Linezolid-nonsusceptible } \textit{Enterococcus} \text{ species, number reported by state and territory,} \\ 1 \text{ July 2025} - 30 \text{ September 2025}$ 



# Mycobacterium tuberculosis

### **National data**

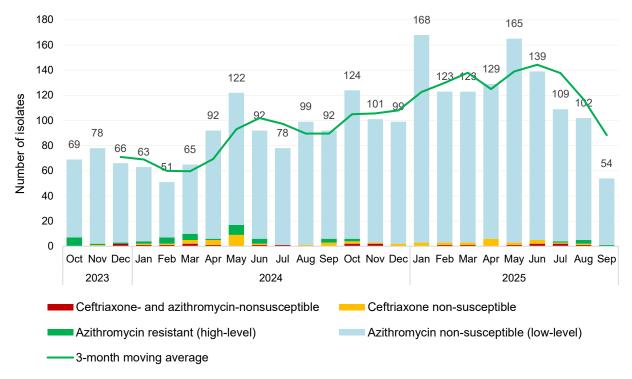
**Figure 14** Multidrug-resistant *Mycobacterium tuberculosis,* 24-month trend, national, 1 October 2023 – 30 September 2025



# Neisseria gonorrhoeae

#### **National data**

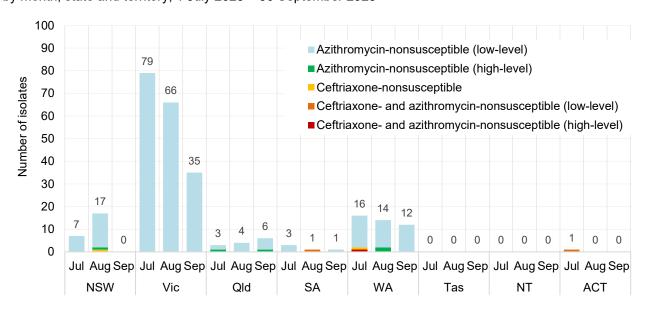
**Figure 15** Ceftriaxone- and/or azithromycin-nonsusceptible *Neisseria gonorrhoeae*, 24-month trend, national, 1 October 2023 – 30 September 2025



Note: Low-level = azithromycin MIC < 256 mg/L; high-level = azithromycin MIC ≥ 256 mg/L.

# State and territory data

**Figure 16** Ceftriaxone- and/or azithromycin-nonsusceptible *Neisseria gonorrhoeae*, number reported by month, state and territory, 1 July 2025 – 30 September 2025

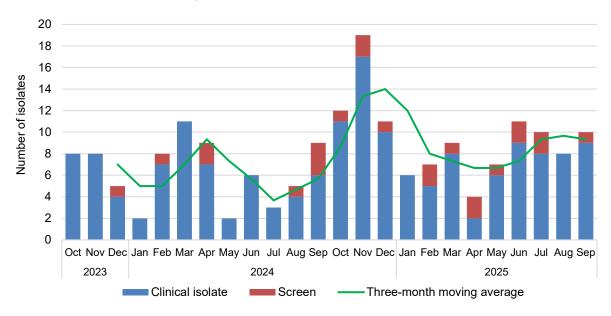


Note: Low-level = azithromycin MIC < 256 mg/L; high-level = azithromycin MIC ≥ 256 mg/L.

## Pseudomonas aeruginosa

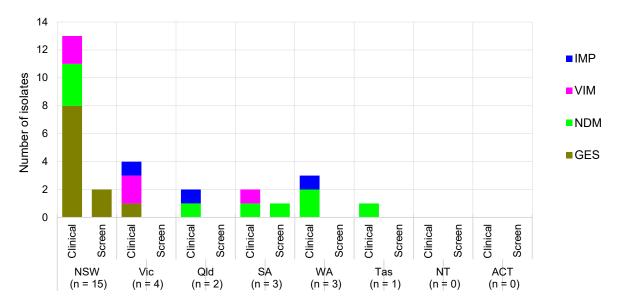
#### **National data**

**Figure 17** Carbapenemase-producing *Pseudomonas aeruginosa*, 24-month trend by specimen type, national, 1 October 2023 – 30 September 2025



#### State and territory data

**Figure 18** Carbapenemase-producing *Pseudomonas aeruginosa*, number reported by carbapenemase type and specimen type, by state and territory, 1 July 2025 – 30 September 2025



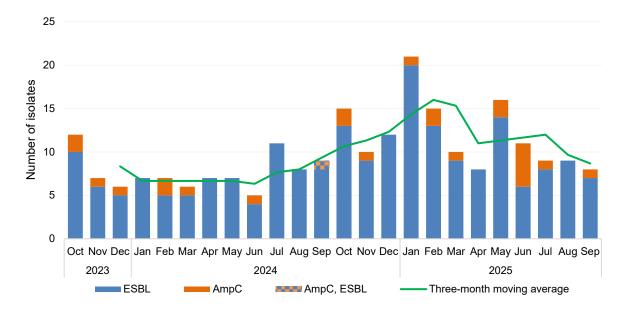
**Table 5** Carbapenemase-producing *Pseudomonas aeruginosa*, number reported by setting, by state and territory, 1 July 2025 – 30 September 2025

		State or territory									
Setting	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Total		
Total	15	4	2	3	3	1	0	0	28		
Public hospital	11	1	2	2	3	1	0	0	20		
Private hospital	0	0	0	0	0	0	0	0	0		
Aged care home	0	0	0	0	0	0	0	0	0		
Community	0	3	0	1	0	0	0	0	4		
Unknown	4	0	0	0	0	0	0	0	4		

# Salmonella species

#### **National data**

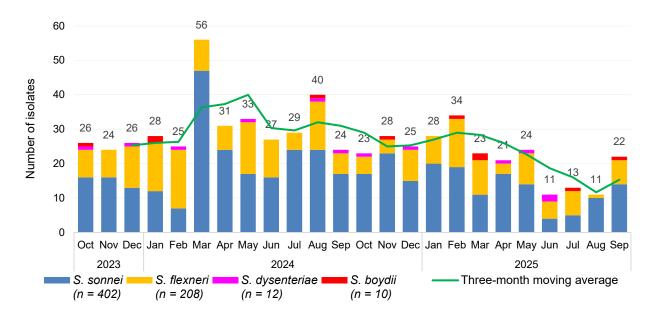
**Figure 19** Ceftriaxone-nonsusceptible *Salmonella* species, 24-month trend, national, 1 October 2023 – 30 September 2025



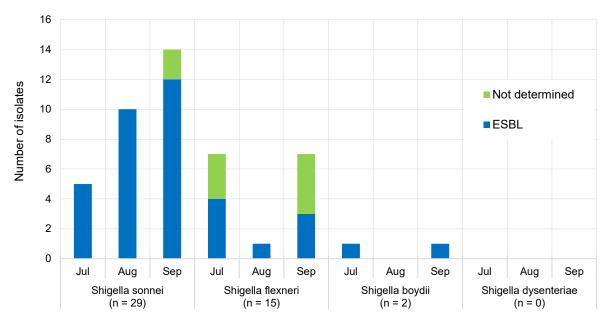
# Shigella species

#### **National data**

**Figure 20** Multidrug-resistant *Shigella* species, 24-month trend, national, 1 October 2023 – 30 September 2025



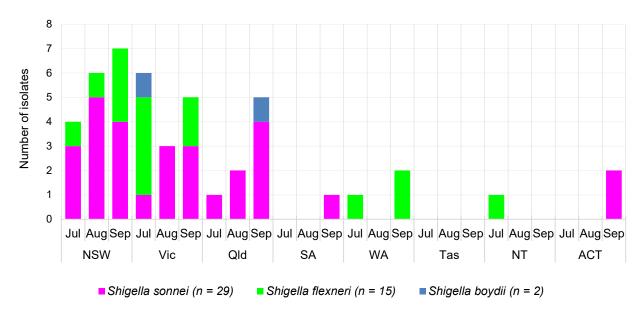
**Figure 21** Multidrug-resistant *Shigella* species, number reported by month, national, 1 July 2025 – 30 September 2025



Note: Not determined = multidrug-resistant, ceftriaxone/cefotaxime susceptible.

#### State and territory data

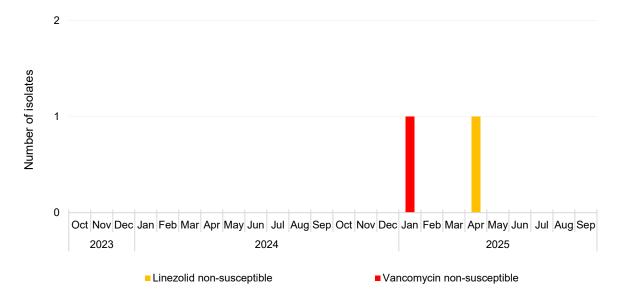
**Figure 22** Multidrug-resistant *Shigella* species, number reported by state and territory, 1 July 2025 – 30 September 2025



# Staphylococcus aureus

#### **National data**

**Figure 23** Linezolid- or vancomycin-nonsusceptible *Staphylococcus aureus*, 24-month trend, national, 1 October 2023 – 30 September 2025



#### State and territory data

There were no linezolid- or vancomycin-nonsusceptible *S. aureus* were reported during this reporting period.

# **Appendix**

#### **Data Notes**

The following are important considerations for interpreting National Alert System for Critical Antimicrobial Resistances (CARAlert) data:

- Participation in CARAlert is voluntary
- The data are based on the date that the isolate with the confirmed critical antimicrobial resistance (CAR) was collected
- States and territories refer to the state or territory within which the hospital is located, or within which the patient resides for isolates from the community. If place of residence is unknown or overseas, the state or territory of the originating laboratory is reported
- The same CAR/type/species is not submitted where the sample originated from the same patient who had the previous CAR, and the isolate was collected on the same day, or collected in the same admission or within three months
- Number of CARs reported does not always equal the number of patients, as patients may have more than one CAR, or species, detected in a specimen
- Cut-off date for data that are included in the <u>CARAlert Data Explorer</u>, data updates and reports is four weeks after the end of each reporting period
- Data may vary from that previously published as the reported number of CARs may have been updated to include additional submissions received or removed after the previous publication date; Comparison between data updates and reports may be influenced by delays in confirming laboratories reporting CARs to CARAlert due to late submission, which also means that the data analysed in this data update may not be complete for the time period at the time of publication
- National summary data are provided; comparison across states and territories is provided for organisms where large numbers are reported and a comparison is meaningful
- Local operating procedures for laboratories may not currently include testing for all the critical resistances included in CARAlert; however, all laboratories are encouraged to actively screen for CARs
- The CARAlert system generates a weekly summary email alert to report information on confirmed CARs to authorised officers from confirming laboratories, state and territory health authorities, the Australian Government Department of Health, Disability and Ageing (the Department) and the Australian Commission on Safety and Quality in Health Care (the Commission). Authorised officers in each state and territory have direct access to the CARAlert web portal for further information about their jurisdiction, including the name of the public hospital in which a patient with a confirmed CAR was cared for, and to extract reports on their data.

#### About AURA and CARAlert

The Antimicrobial Use and Resistance in Australia (AURA) surveillance program provides essential information to develop and implement strategies to prevent and contain antimicrobial resistance in human health and improve antimicrobial use across the acute and community healthcare settings. AURA is coordinated by the Department. AURA supports the <a href="National Safety and Quality Health Service">National Safety and Quality Health Service</a> (NSQHS) Preventing and Controlling Infections Standard and Australia's National Antimicrobial Resistance Strategy – 2020 and beyond.

CARAlert was established by the Commission in March 2016 as a component of the AURA surveillance program. Funding for CARAlert is provided by the Department, with contributions from the states and territories by meeting the costs of confirmatory testing and data submission processes.

CARAlert is based on routine processes used by pathology laboratories for identifying and confirming potential CARs. Participating confirming laboratories submit data to CARAlert on priority organisms with critical resistance to last-line antimicrobial agents, which can result in significant morbidity and mortality. Isolates collected from patients are reported to CARAlert as either a clinical isolate, that is a specimen (e.g., from blood, urine, wound) taken to guide clinical diagnosis, or as a screen for infection prevention and control purposes. No patient-level data are held in the CARAlert system.

CARAlert data on confirmed cases of CARs can be used to identify seasonal, geographic and national trends. The potential for CARAlert to act as an early warning system for CAR outbreaks to enable timely infection prevention and control responses is dependent on timely reporting of CARs by confirming laboratories.

The <u>CARAlert Data Explorer</u>, an interactive data dashboard, was published in June 2025. The Data Explorer offers customised analytics and trends for CARs and is complementary to CARAlert <u>data updates and annual reports</u>.

The CARs reported to CARAlert are listed in Table A1. These CARs were drawn from the list of high-priority organisms and antimicrobials which are the focus of the AURA surveillance program.<sup>1</sup>

CARAlert data update 42: 1 July 2025 - 30 September 2025

<sup>&</sup>lt;sup>1</sup> Australian Commission on Safety and Quality in Health Care. AURA 2023: fifth Australian report on antimicrobial use and resistance in human health. Sydney: ACSQHC; 2023.

 Table A1
 Critical antimicrobial resistances reported to CARAlert, 2025

Species	Critical Resistance						
Acinetobacter baumannii complex*	Carbapenemase-producing <sup>†</sup>						
Candida auris†	-						
Enterobacterales	Carbapenemase-producing and/or ribosomal methyltransferase-producing						
	Transmissible colistin resistance <sup>†</sup>						
Enterococcus species	Linezolid-resistant						
Mycobacterium tuberculosis	Multidrug-resistant – resistant to at least rifampicin and isoniazid						
Neisseria gonorrhoeae	Ceftriaxone-nonsusceptible and/or azithromycin-nonsusceptible						
	Gentamicin-resistant <sup>§</sup>						
Neisseria meningitidis	Ciprofloxacin-nonsusceptible <sup>§</sup>						
Pseudomonas aeruginosa	Carbapenemase-producing <sup>†</sup>						
Salmonella species	Ceftriaxone-nonsusceptible						
Shigella species	Multidrug-resistant						
Staphylococcus aureus#	Vancomycin- or linezolid-nonsusceptible**						
Streptococcus pyogenes	Penicillin reduced susceptibility						

<sup>\*</sup> For CARAlert, A. baumannii complex includes A. baumannii, A. calcoaceticus, A. dijkshoorniae, A. nosocomialis, A. pittii and A. seifertii

Note: Low level-azithromycin-nonsusceptible N. gonorrhoeae was excluded from the weekly summary following review in 2018.

<sup>†</sup> Reported to CARAlert from July 2019

<sup>§</sup> Reported to CARAlert from January 2023

<sup>#</sup> For CARAlert, S. aureus includes S. argenteus and S. schweitzeri

<sup>\*\*</sup> Reporting of daptomycin-nonsusceptible S. aureus was suspended from January 2023



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