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### **Note regarding alternative descriptions**

No alternative descriptions have been provided. If you need assistance with the structure of any graphs or charts, please email the Australian Commission on Safety and Quality in Health Care at [CARAlert@safetyandquality.gov.au](mailto:CARAlert@safetyandquality.gov.au).

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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 January 2025 to 31 March 2025, and complements previous analyses of and updates on [CARAlert data](#).

### National overview

- The total number of critical antimicrobial resistances (CARs) reported was up 12.2% compared to the previous three-month period ( $n = 1,021$  versus  $n = 910$ ).
- Just under one-half of the CARs reported were carbapenemase-producing *Enterobacterales* (CPE) (including those with ribosomal methyltransferase) (465/1,021, 45.5%).
- 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 14.3% ( $n = 465$  versus  $n = 407$ ).
- Azithromycin-nonsusceptible (low-level resistance, minimum inhibitory concentration [MIC] < 256 mg/L) *Neisseria gonorrhoeae* was the second most reported CAR (404/1,021, 39.6%). The number of reports increased compared to the previous three months ( $n = 404$  versus  $n = 313$ , up 29.1%).
- Multidrug-resistant (MDR) *Shigella* species was the third most reported CAR (61/1,021, 6.0%). The number of reports decreased compared to the previous three months ( $n = 61$  versus  $n = 76$ , down 19.7%).
- Eight ceftriaxone-nonsusceptible *N. gonorrhoeae* were reported, two of which were also azithromycin-nonsusceptible (high-level resistance, MIC  $\geq$  256 mg/L). There were nine reported in the previous three months.
- Where the setting was known, just over one-half of CARs were reported from community settings (507/933, 54.3%). There were 425 (45.6%) reports from hospitals, and one report from aged care homes.

### Carbapenemase-producing *Enterobacterales*

- The total number of CPE (either alone or in combination with other CARs) increased compared to the previous three-month period ( $n = 465$  versus  $n = 384$ , up 21.1%).
- NDM (198/465, 42.6%), IMP (146/465, 31.4%), OXA-48-like (68/465, 14.6%), NDM+OXA-48-like (31/465, 6.7%) and KPC (9/465, 1.9%) types accounted for 97.2% of all CPE reported during this period.
- The total number of NDM-types reported (either alone or co-produced with other carbapenemase types) increased compared to the previous three months ( $n = 234$  versus  $n = 167$ , up 40.1%), most notably in South Australia (SA) ( $n = 55$  versus  $n = 23$ , up 139%).
- The total number of IMP-types reported was similar to the previous three months ( $n = 146$  versus  $n = 142$ ).
- The total number of any OXA-48-like types reported increased compared to the previous three months ( $n = 101$  versus  $n = 77$ , up 31.2%).
- Nine KPC-producing *Enterobacterales* were reported; four *Klebsiella pneumoniae* from New South Wales (NSW), three *K. pneumoniae* from Victoria, and two *Escherichia coli* from Queensland. One additional *K. pneumoniae* isolate that co-produced KPC and NDM was reported from and Victoria.
- Where the setting was known, 80.6% (350/434) of CPE were reported from hospitals and 19.1% (83/434) were reported from the community.
- Twenty-seven hospitals had more than one report of NDM-types; these were in NSW ( $n = 10$ ), Victoria ( $n = 7$ ), Queensland ( $n = 6$ ), SA ( $n = 2$ ), and Western Australia (WA) ( $n = 2$ ). Eleven hospitals from NSW ( $n = 4$ ), Victoria ( $n = 4$ ), Queensland ( $n = 2$ ) and SA ( $n = 1$ ) had five or more reports.
- One hospital from SA reported 43 isolates (clinical [4], screen [39]) with NDM types.
- Fourteen hospitals (NSW  $n = 9$ ; Queensland  $n = 5$ ) had more than two reports of IMP-types. A further 13 hospitals had two notifications of IMP-types: Queensland ( $n = 6$ ), NSW ( $n = 4$ ), Victoria ( $n = 2$ ), and the Australian Capital Territory ( $n = 1$ ).

### **Salmonella and Shigella species**

- There were 38 ceftriaxone-nonsusceptible *Salmonella* species reported during this reporting period, from all states. All non-typhoidal species ( $n = 35$ ) produced either an extended-spectrum  $\beta$ -lactamase (ESBL [32]) or a pAmpC (3). Three *S. Typhi* were reported from Victoria (ESBL [1], pAmpC [1]) and WA (ESBL [1]).
- There were 61 MDR *Shigella* species reported in this period: 36 *S. sonnei*, 22 *S. flexneri*, and three *S. boydii*. The vast majority of *S. sonnei* isolates were ceftriaxone/cefotaxime-resistant and produced an ESBL (34/36, 94.4%). Almost one-half of MDR *S. flexneri* were susceptible to ceftriaxone/cefotaxime (10/22, 45.5%).

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

- The total number of reports of this CAR increased compared with the previous three-month reporting period ( $n = 404$  versus  $n = 313$ , up 29.1%). A substantial majority of the reports were from Victoria (325/404, 80.4%).

### **Ceftriaxone- and/or azithromycin-nonsusceptible Neisseria gonorrhoeae**

- There were eight reports of ceftriaxone-nonsusceptible *N. gonorrhoeae*; seven from NSW, two of which also had high-level resistance to azithromycin (MIC < 256 mg/L), and one from the Northern Territory (NT).

### **Gentamicin-resistant Neisseria gonorrhoeae**

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

### **Ciprofloxacin-nonsusceptible Neisseria meningitidis**

- There was one report of a ciprofloxacin-nonsusceptible *N. meningitidis* during this period.

### **Carbapenemase-producing Acinetobacter baumannii complex and Pseudomonas aeruginosa**

- Eight carbapenemase-producing *Acinetobacter baumannii* complex were reported during this period, down from 14 in the previous three-months. The reports were from NSW ( $n = 3$ ), Victoria ( $n = 2$ ), Queensland ( $n = 2$ ), and WA ( $n = 1$ ).
- The number of carbapenemase-producing *Pseudomonas aeruginosa* reports decreased compared to the previous three months ( $n = 21$  versus  $n = 42$ , down 50.0%). A little over two-thirds harboured VIM (8/21, 38.1%) or NDM types (7/21, 33.3%).

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

- Seven linezolid-resistant *Enterococcus* species were reported, down from 25 in the previous three-month reporting period. There were four *E. faecalis* reports, from Victoria ( $n = 3$ ) and the NT ( $n = 1$ ); and three *E. faecium* reports, from Victoria ( $n = 2$ ) and NSW ( $n = 1$ ). All *E. faecalis* and two *E. faecium* harboured *optrA* genes. One *E. faecium* isolate from Victoria harboured a *poxA* gene.

### **Candida auris**

- There were five *Candida auris* reports this reporting period (up from  $n = 4$  in the previous three months). The reports were from NSW ( $n = 2$ ), Victoria ( $n = 2$ ) and Queensland ( $n = 1$ ).

### **Linezolid- or vancomycin-nonsusceptible Staphylococcus aureus complex**

- There was one report of a vancomycin-nonsusceptible *Staphylococcus aureus* complex isolate from WA.

### **Transmissible colistin resistance**

- No *Enterobacterales* with transmissible colistin resistance (*mcr-1*) were reported 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 January 2025–31 March 2025, and year to date 2024 and 2025

Species	Critical resistance	State or Territory (January–March 2025)								Quarterly			Year to date		
		NSW	Vic	Qld	SA	WA	Tas	NT	ACT	2024	2025	Relative change*	2024	2025	Relative change*
										Oct-Dec	Jan-Mar				
<i>Acinetobacter baumannii</i> complex	Carbapenemase-producing	3	2	2	0	1	0	0	0	14	8	▼ 42.9%	14	8	▼ 42.9%
<i>Candida auris</i>	–	2	2	1	0	0	0	0	0	4	5	▲ 25.0%	5	5	0.0%
<i>Enterobacterales</i>	Carbapenemase-producing	158	101	83	61	20	0	0	7	351	430	▲ 22.5%	376	430	▲ 14.4%
	Carbapenemase- and ribosomal methyltransferase-producing	2	21	5	1	6	0	0	0	32	35	▲ 9.4%	31	35	▲ 12.9%
	Carbapenemase- producing and transmissible resistance to colistin	0	0	0	0	0	0	0	0	1	0	–	0	0	–
	Ribosomal methyltransferase-producing	0	1	0	0	1	0	0	0	2	2	0.0%	4	2	▼ 50.0%
	Transmissible resistance to colistin	0	0	0	0	0	0	0	0	0	0	–	0	0	–
<i>Enterococcus</i> species	Linezolid-resistant	1	5	0	0	0	0	1	0	25	7	▼ 72.0%	30	7	▼ 76.7%
<i>Mycobacterium tuberculosis</i>	Multidrug-resistant – at least rifampicin- and isoniazid-resistant strains	0	0	0	0	0	0	0	0	2	0	–	1	0	–
<i>Neisseria gonorrhoeae</i>	Azithromycin-nonsusceptible (low-level) <sup>†</sup>	25	325	12	8	33	0	0	1	313	404	▲ 29.1%	158	404	▲ 156%
	Azithromycin-nonsusceptible (high-level) <sup>§</sup>	0	0	0	0	0	0	0	0	2	0	–	12	0	▼ 100%
	Ceftriaxone-nonsusceptible	5	0	0	0	0	0	1	0	5	6	▲ 20.0%	5	6	▲ 20.0%
	Ceftriaxone-nonsusceptible and azithromycin-nonsusceptible (low-level) <sup>†</sup>	0	0	0	0	0	0	0	0	2	0	–	2	0	–
	Ceftriaxone-nonsusceptible and azithromycin nonsusceptible (high-level) <sup>§</sup>	2	0	0	0	0	0	0	0	2	2	–	2	2	–
	Gentamicin-resistant	0	0	0	0	0	0	0	0	0	0	–	0	0	–

**Table 1 (continued)**

Species	Critical resistance	State or territory (January–March 2025)								Quarterly			Year to date		
		NSW	Vic	Qld	SA	WA	Tas	NT	ACT	2024 Oct-Dec	2025 Jan-Mar	Relative change*	2024	2025	Relative change*
<i>Neisseria meningitidis</i>	Ciprofloxacin-nonsusceptible	0	1	0	0	0	0	0	0	0	1	–	4	1	▼ 75.0%
<i>Pseudomonas aeruginosa</i>	Carbapenemase-producing	10	8	2	0	1	0	0	0	42	21	▼ 50.0%	21	21	0.0%
<i>Salmonella</i> species	Ceftriaxone-nonsusceptible	4	18	4	2	9	1	0	0	37	38	▲ 2.7%	20	38	▲ 90.0%
<i>Shigella</i> species	Multidrug-resistant	14	14	17	3	5	2	2	4	76	61	▼ 19.7%	109	61	▼ 44.0%
<i>Staphylococcus aureus</i> complex	Linezolid-nonsusceptible	0	0	0	0	0	0	0	0	0	0	–	0	0	–
	Vancomycin-nonsusceptible	0	0	0	0	1	0	0	0	0	1	–	0	1	–
<i>Streptococcus pyogenes</i>	Penicillin reduced susceptibility	0	0	0	0	0	0	0	0	0	0	–	0	0	–
<b>Total (reported by 10 May 2025)</b>		<b>226</b>	<b>498</b>	<b>126</b>	<b>75</b>	<b>77</b>	<b>3</b>	<b>4</b>	<b>12</b>	<b>910</b>	<b>1,021</b>	<b>▲ 12.2%</b>	<b>794</b>	<b>1,021</b>	<b>▲ 28.6%</b>

CAR = critical antimicrobial resistances; MIC = minimum inhibitory concentration; ▲ = increase; ▼ = decrease; – = not applicable

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

† Azithromycin MIC < 256 mg/L

§ Azithromycin MIC ≥ 256 mg/L

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>*.

**Table 2:** Number of critical antimicrobial resistance isolates, by setting, national, 1 January 2025–31 March 2025

Species	Critical resistance	Setting					Total
		Public hospital	Private hospital	Aged care home	Community	Unknown	
<i>Acinetobacter baumannii</i> complex	Carbapenemase-producing	7	0	0	1	0	8
<i>Candida auris</i>	–	3	0	0	2	0	5
<i>Enterobacterales</i>	Carbapenemase-producing	306	23	1	70	30	430
	Carbapenemase- and ribosomal methyltransferase-producing	21	0	0	13	1	35
	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
<i>Enterococcus</i> species	Linezolid-resistant	3	0	0	4	0	7
<i>Mycobacterium tuberculosis</i>	Multidrug-resistant – at least rifampicin- and isoniazid-resistant strains	0	0	0	0	0	0
<i>Neisseria gonorrhoeae</i>	Azithromycin-nonsusceptible (low-level)*	6	0	0	361	37	404
	Azithromycin-nonsusceptible (high-level)†	0	0	0	0	0	0
	Ceftriaxone-nonsusceptible	0	0	0	0	6	6
	Ceftriaxone-nonsusceptible and azithromycin-nonsusceptible (low-level)*	0	0	0	0	0	0
	Ceftriaxone-nonsusceptible and azithromycin-nonsusceptible (high-level)†	0	0	0	0	2	2
	Gentamicin-resistant	0	0	0	0	0	0
<i>Neisseria meningitidis</i>	Ciprofloxacin-nonsusceptible	0	0	0	1	0	1
<i>Pseudomonas aeruginosa</i>	Carbapenemase-producing	11	2	0	3	5	21
<i>Salmonella</i> species	Ceftriaxone-nonsusceptible	11	0	0	25	2	38
<i>Shigella</i> species	Multidrug-resistant	29	1	0	26	5	61
<i>Staphylococcus aureus</i> complex	Linezolid-nonsusceptible	0	0	0	0	0	0
	Vancomycin-nonsusceptible	1	0	0	0	0	1
<i>Streptococcus pyogenes</i>	Penicillin reduced susceptibility	0	0	0	0	0	0
<b>Total (reported by 10 May 2025)</b>		<b>399</b>	<b>26</b>	<b>1</b>	<b>507</b>	<b>88</b>	<b>1,021</b>

\* Azithromycin MIC < 256 mg/L

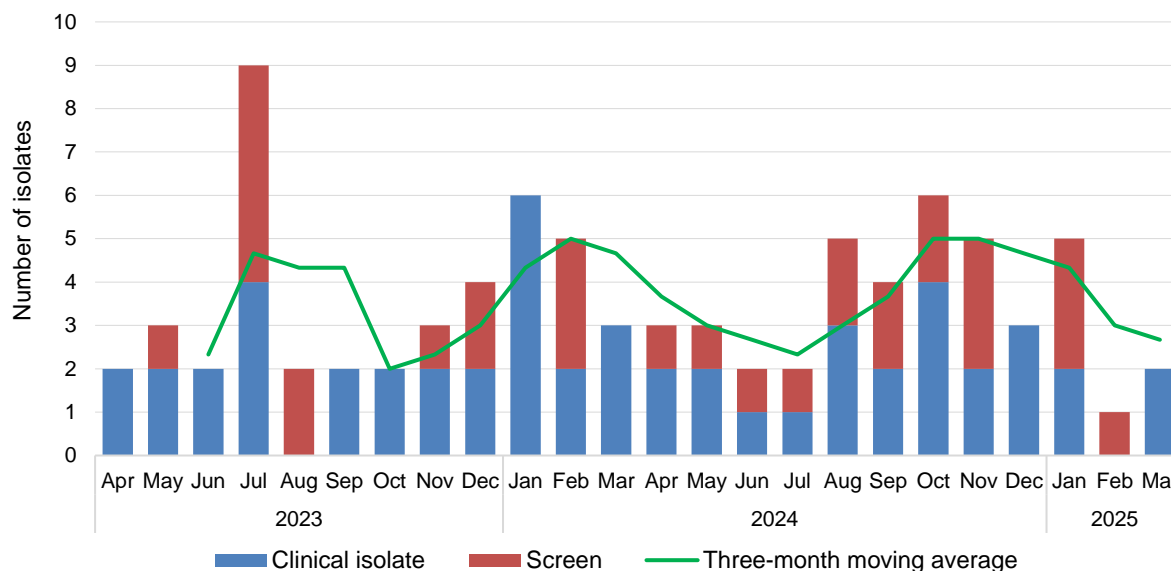
† Azithromycin MIC ≥ 256 mg/L

## Summary by CAR

### *Acinetobacter baumannii* complex

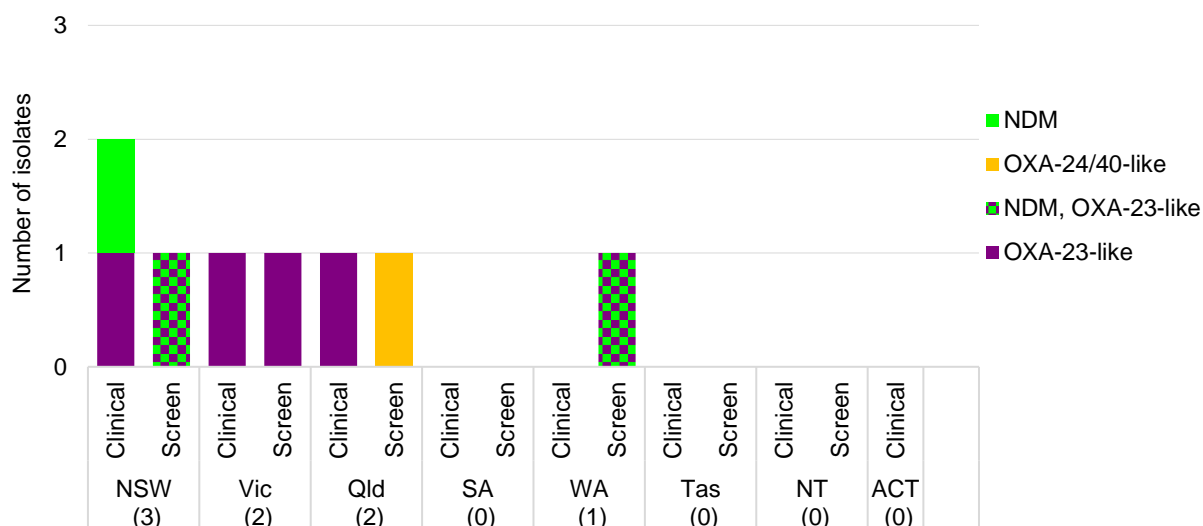
#### National data

**Figure 1:** Carbapenemase-producing *Acinetobacter baumannii* complex, 24-month trend by specimen type, national, 1 April 2023–31 March 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 January 2025–31 March 2025



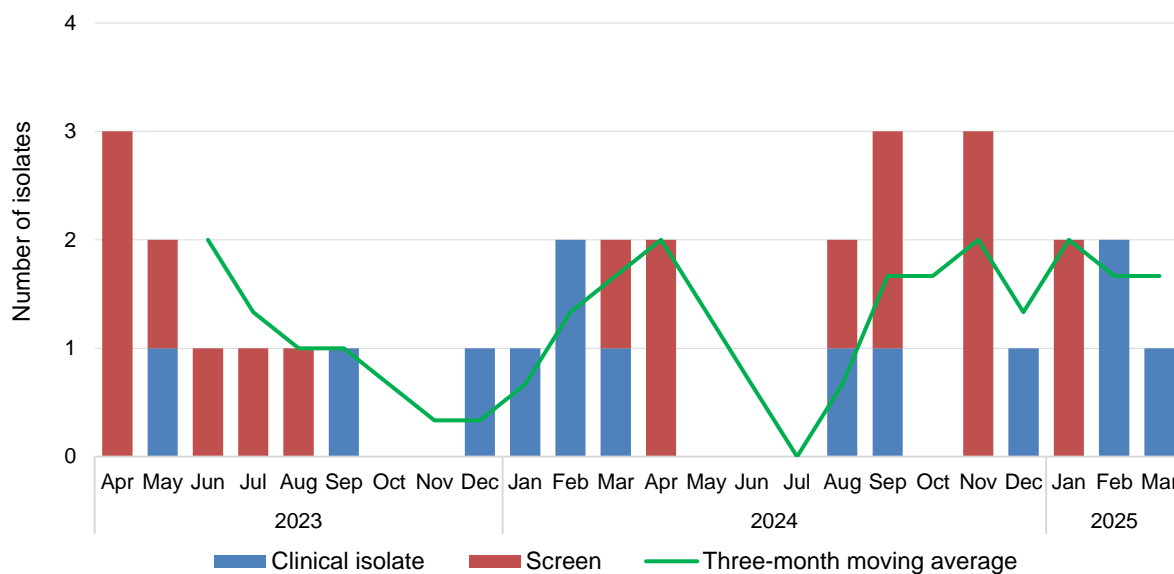
**Table 3:** Carbapenemase-producing *Acinetobacter baumannii* complex, number reported by setting, by state and territory, 1 January 2025–31 March 2025

Setting	State or territory								Total
	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	
Total	3	2	2	0	1	0	0	0	8
Public hospital	3	1	2		1	0	0	0	7
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	1	0	0	0	0	0	0	1
Unknown	0	0	0	0	0	0	0	0	0

## Candida auris

### National data

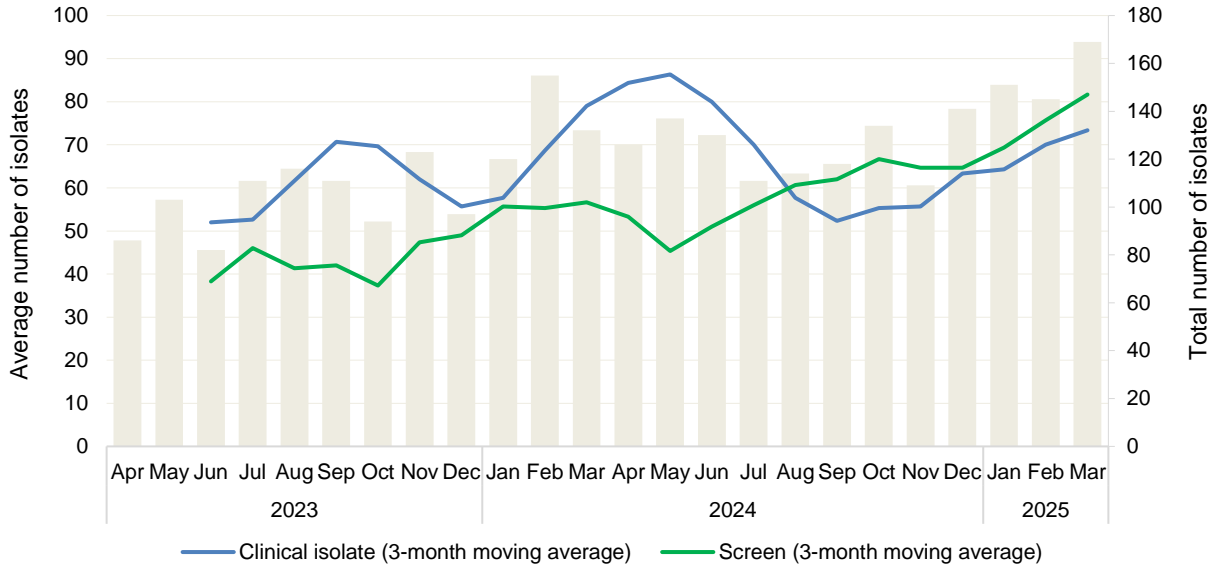
**Figure 3:** *Candida auris*, 24-month trend by specimen type, national, 1 April 2023–31 March 2025



# Enterobacterales

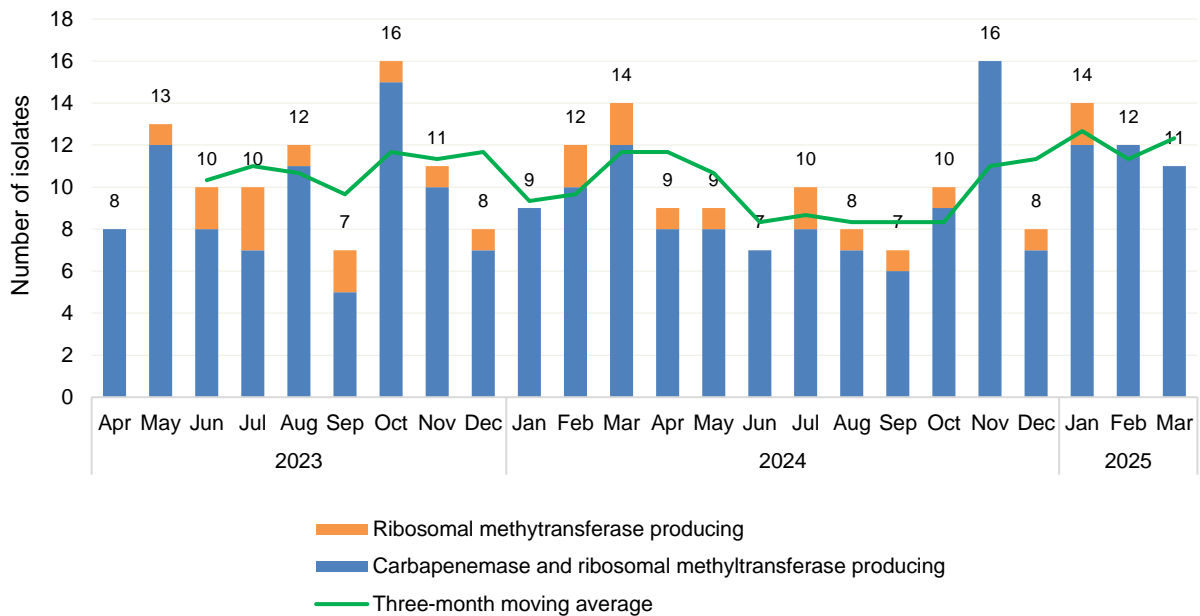
## National data

**Figure 4:** Carbapenemase-producing *Enterobacterales*\*, 24-month trend by specimen type, national, 1 April 2023–31 March 2025



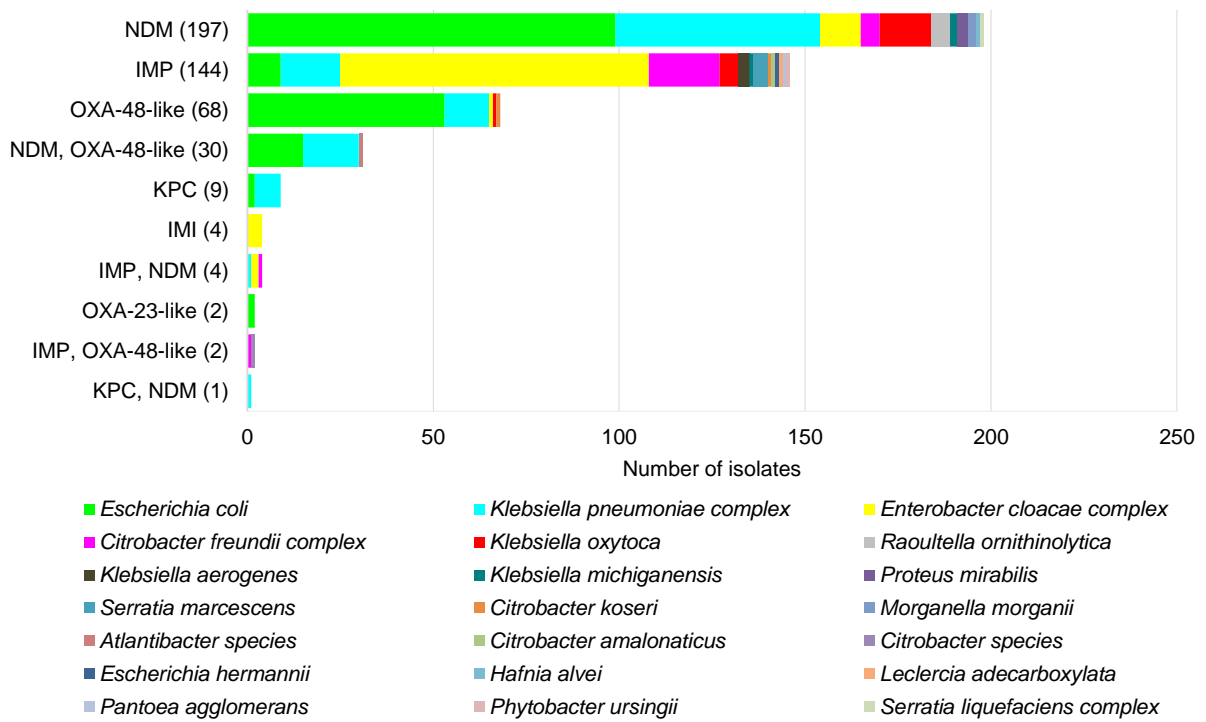
\* Carbapenemase-producing alone or in combination with ribosomal methyltransferases or transmissible resistance to colistin

**Figure 5:** Ribosomal methyltransferase-producing *Enterobacterales*\*, 24-month trend, national, 1 April 2023–31 March 2025



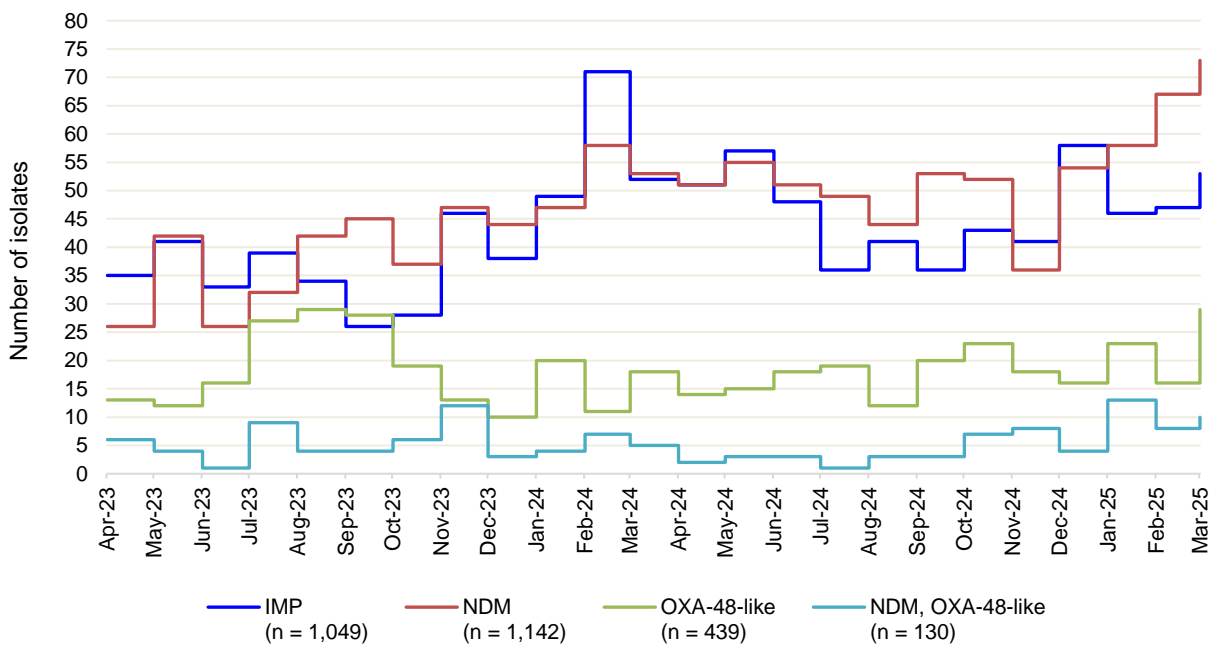
\* Ribosomal methyltransferases alone, or in combination with carbapenemase(s)

**Figure 6:** Carbapenemase-producing *Enterobacterales*\*, number reported by carbapenemase type and species, national, 1 January 2025–31 March 2025



\* Carbapenemase-producing ( $n = 426$ ), carbapenemase and ribosomal methyltransferase-producing ( $n = 35$ ), carbapenemase-producing and transmissible resistance to colistin ( $n = 0$ )

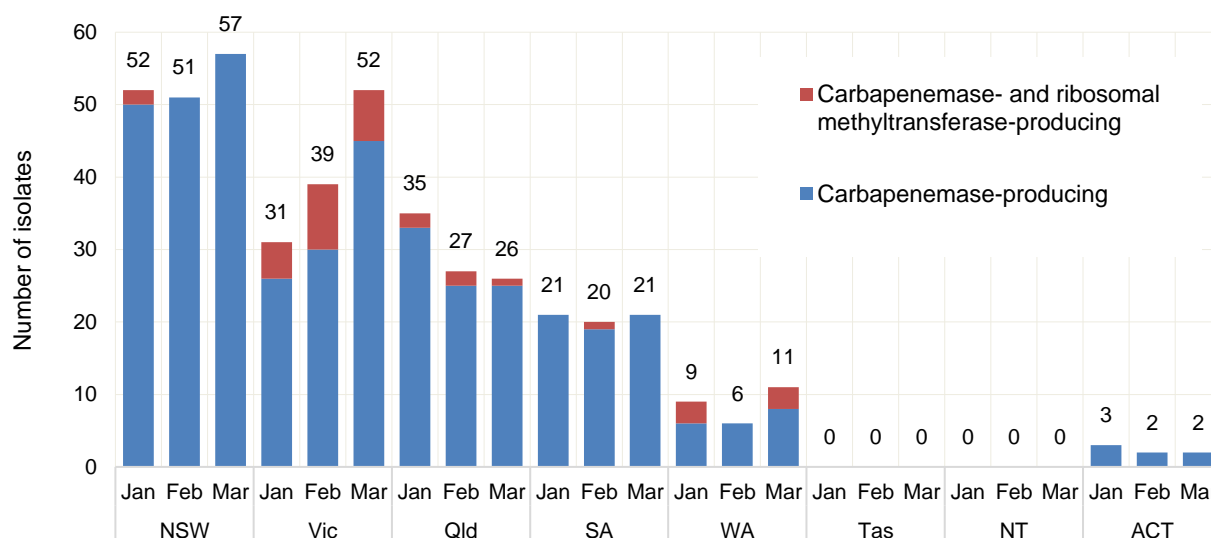
**Figure 7:** Top four reported carbapenemase types\*, 24-month trend, national, 1 April 2023–31 March 2025



\* 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 January 2025–31 March 2025



\* Carbapenemase-producing ( $n = 430$ ), carbapenemase and ribosomal methyltransferase-producing ( $n = 35$ )

Note: No carbapenemase-producing *Enterobacterales* with transmissible resistance to colistin were reported during this period.

**Figure 9:** Top four reported carbapenemase types from *Enterobacterales*, by state and territory and nationally, 24-month trend, (three-month moving average), 1 April 2023–31 March 2025

Type	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Australia
IMP	34 14	7 1	17 5	0 0	3 0	0 0	0 0	1 0	58 29
NDM	18 6	26 11	10 3	18 1	3 1	2 0	1 0	1 0	66 26
OXA-48-like	7 3	18 5	3 0	3 0	2 0	0 0	1 0	1 0	28 11
NDM+OXA-48-like	3 0	4 0	2 0	1 0	2 0	0 0	0 0	1 0	10 2
All types	58 36	44 23	30 9	21 3	9 3	2 0	2 0	2 0	154 90

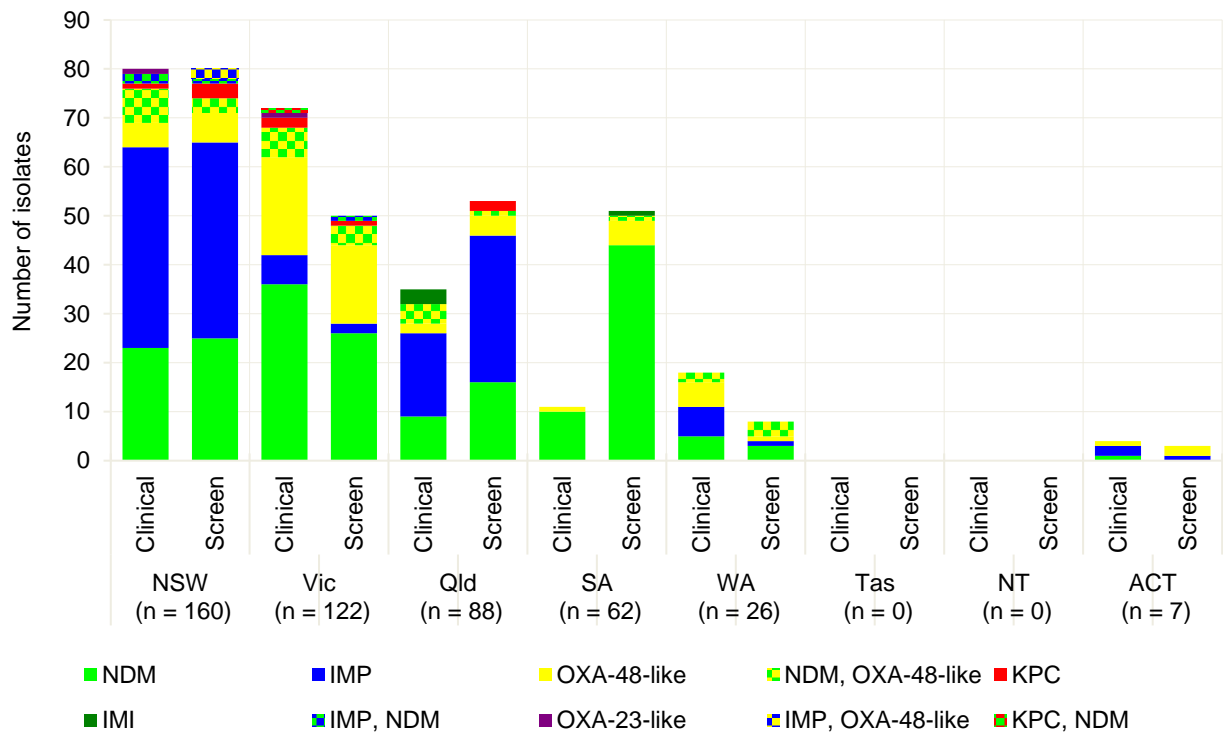
Straight green line in cell = no carbapenemase type for that state or territory during the reporting period;

Blank cell = maximum monthly average was one or less

Notes:

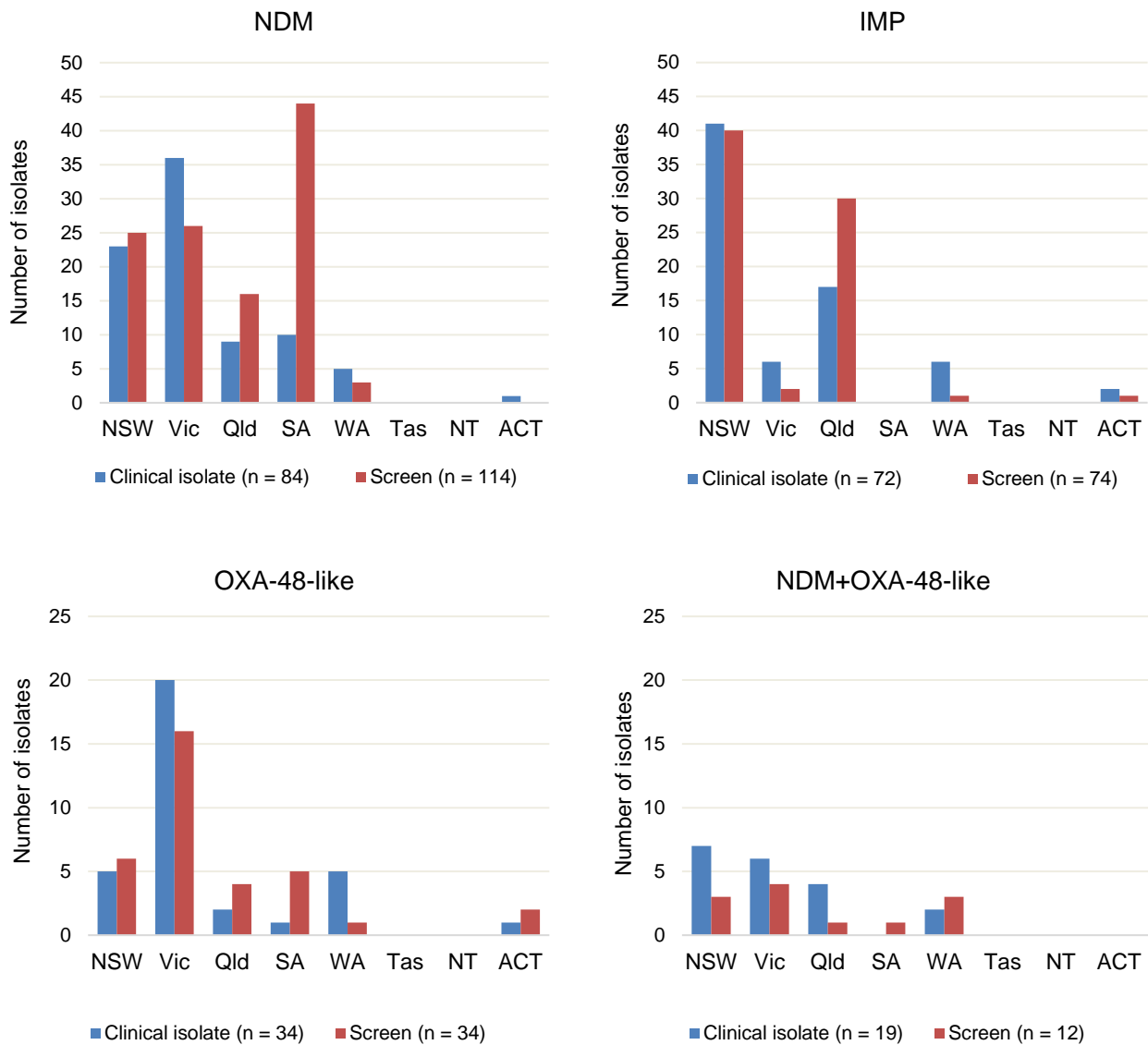
1. Line graphs represent three-month moving average for the period 1 April 2023 to 31 March 2025, for each type, where maximum monthly average was greater than one.
2. Numbers in each cell represent maximum (top) and minimum (bottom) monthly average.

**Figure 10:** Carbapenemase-producing *Enterobacterales*\*, number reported by carbapenemase type and specimen type, by state and territory, 1 January 2025–31 March 2025



\* Carbapenemase-producing ( $n = 430$ ); carbapenemase- and ribosomal methyltransferase-producing ( $n = 35$ ); 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 January 2025–31 March 2025



Note: Other types include KPC ( $n = 9$ ; NSW clinical [1], screen [3]; Vic clinical [2], screen [1]; Qld screen [2]); IMI ( $n = 4$ ; Qld clinical [3]; SA screen [1]); IMP+NDM ( $n = 4$ ; NSW clinical [2], screen [1]; Vic screen [1]); OXA-23-like ( $n = 2$ ; NSW clinical [1]; Vic clinical [1]); IMP+OXA-48-like ( $n = 2$ ; NSW screen); KPC+NDM ( $n = 1$ ; Vic clinical).

**Table 4:** Top five carbapenemase types from *Enterobacterales*, number reported by setting, by state and territory, 1 January 2025–31 March 2025

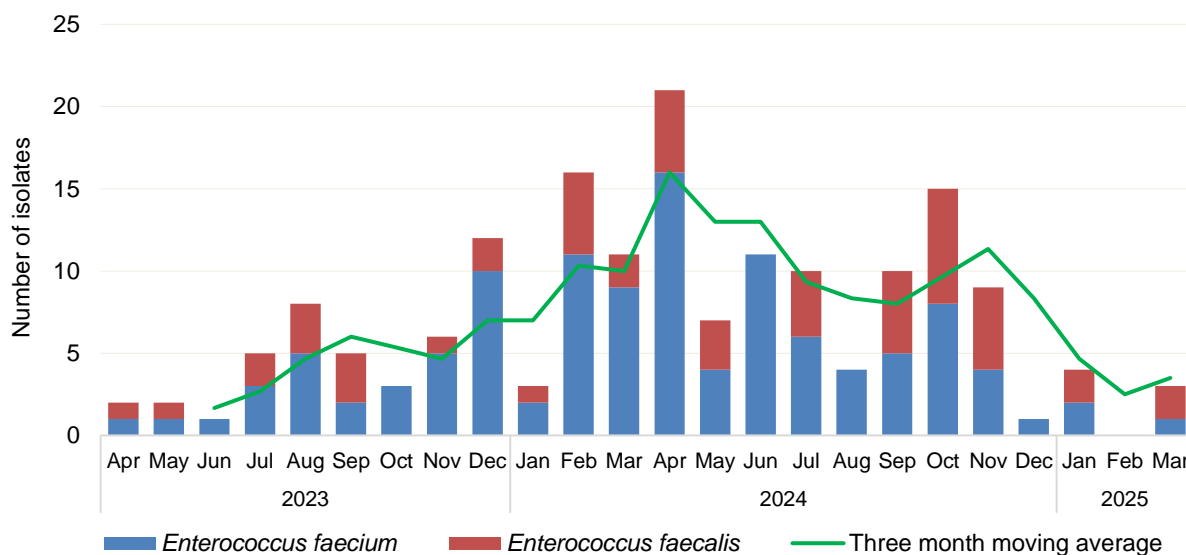
Carbapenemase type	Setting	State or territory								Total
		NSW	Vic	Qld	SA	WA	Tas	NT	ACT	
NDM	Total	48	62	25	54	8	0	0	1	198
	Public hospitals	36	27	23	49	3	0	0	0	138
	Private hospitals	0	2	1	1	1	0	0	0	5
	Aged care homes	0	0	0	0	0	0	0	0	0
	Community	2	32	1	3	3	0	0	0	41
	Unknown	10	1	0	1	1	0	0	1	14
IMP	Total	81	8	47	0	7	0	0	3	146
	Public hospitals	69	3	36	0	4	0	0	2	114
	Private hospitals	0	0	11	0	0	0	0	0	11
	Aged care homes	0	0	0	0	1	0	0	0	1
	Community	3	4	0	0	2	0	0	1	10
	Unknown	9	1	0	0	0	0	0	0	10
OXA-48-like	Total	11	36	6	6	6	0	0	3	68
	Public hospitals	8	13	6	6	4	0	0	2	39
	Private hospitals	0	2	0	0	0	0	0	0	2
	Aged care homes	0	0	0	0	0	0	0	0	0
	Community	0	21	0	0	2	0	0	1	24
	Unknown	3	0	0	0	0	0	0	0	3
NDM, OXA-48-like	Total	10	10	5	1	5	0	0	0	31
	Public hospitals	6	6	2	1	3	0	0	0	18
	Private hospitals	0	0	2	0	1	0	0	0	3
	Aged care homes	0	0	0	0	0	0	0	0	0
	Community	0	4	1	0	1	0	0	0	6
	Unknown	4	0	0	0	0	0	0	0	4
KPC	Total	4	3	2	0	0	0	0	0	9
	Public hospitals	4	2	2	0	0	0	0	0	8
	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	1	0	0	0	0	0	0	1
	Unknown	0	0	0	0	0	0	0	0	0

Note: Top five carbapenemase types account for 97.2% (452/465) of all carbapenemase-producing *Enterobacterales* reported for this period. Other types were IMI ( $n = 4$ , Qld [3], SA [1]); IMP+NDM ( $n = 4$ , NSW [3], Vic [1]); OXA-23-like ( $n = 2$ , NSW [1], Vic [1]); IMP+OXA-48-like ( $n = 2$ , Vic); KPC+NDM ( $n = 1$ , Vic).

## Enterococcus species

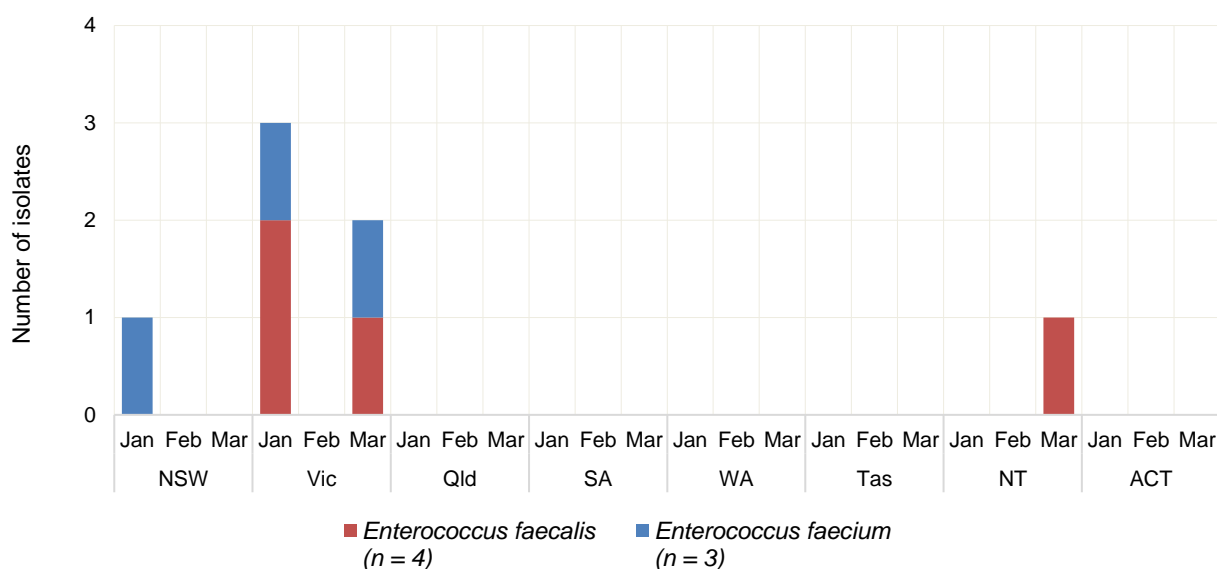
### National data

**Figure 12:** Linezolid-nonsusceptible *Enterococcus* species, 24-month trend, national, 1 April 2023–31 March 2025



### State and territory data

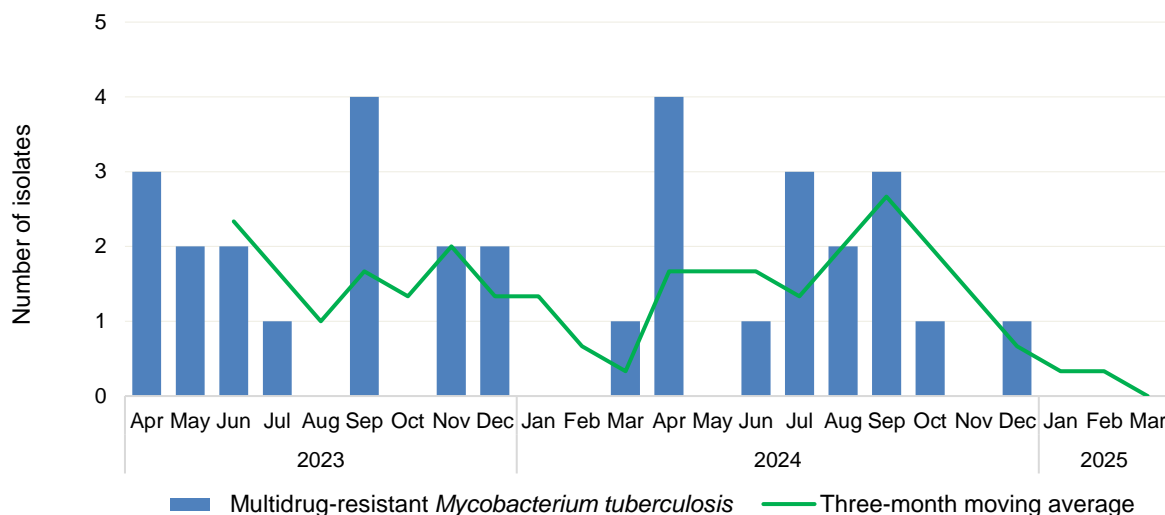
**Figure 13:** Linezolid-nonsusceptible *Enterococcus* species, number reported by state and territory, 1 January 2025–31 March 2025



## Mycobacterium tuberculosis

### National data

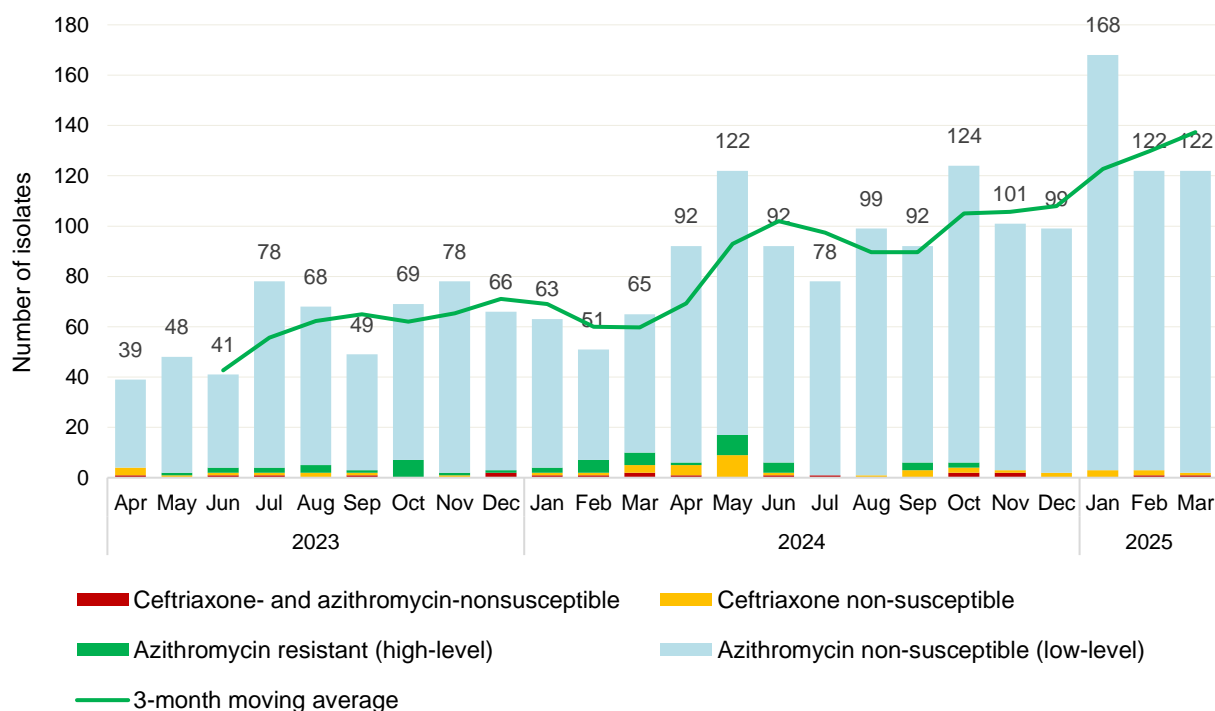
**Figure 14:** Multidrug-resistant *Mycobacterium tuberculosis*, 24-month trend, national, 1 April 2023–31 March 2025



## Neisseria gonorrhoeae

### National data

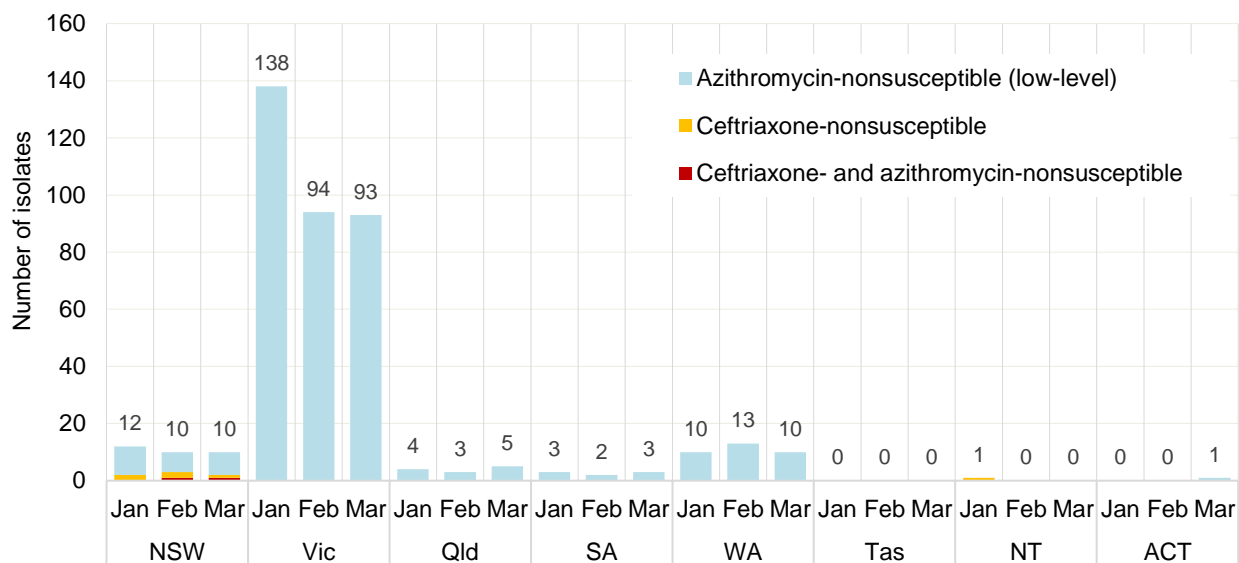
**Figure 15:** Ceftriaxone- and/or azithromycin-nonsusceptible *Neisseria gonorrhoeae*, 24-month trend, national, 1 April 2023–31 March 2025



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 January 2025–31 March 2025

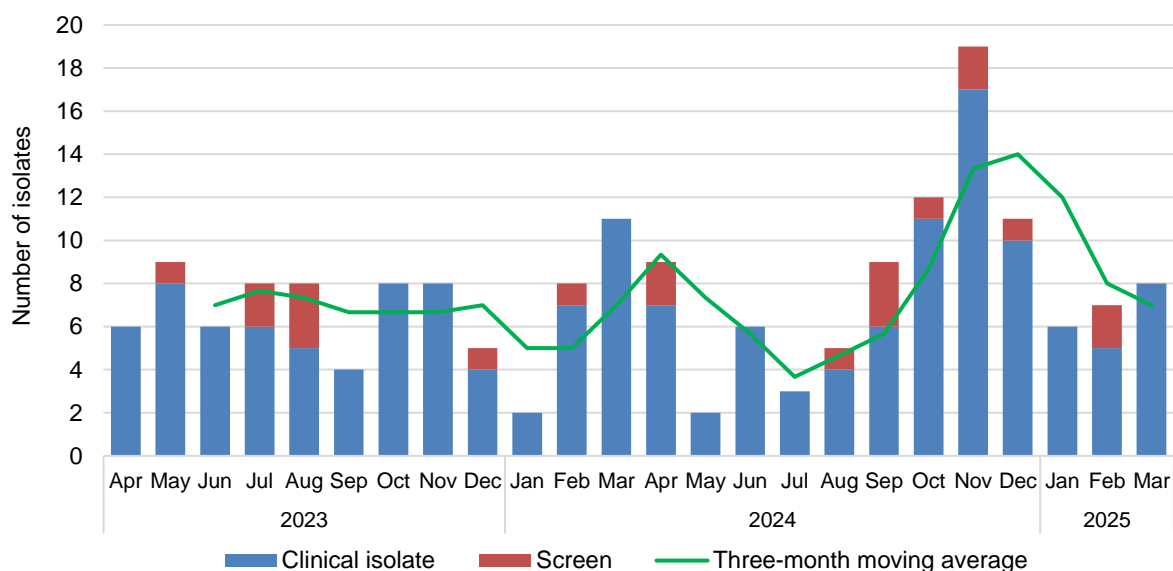


Note: Low-level = azithromycin MIC < 256 mg/L; high-level = azithromycin MIC ≥ 256 mg/L.

## *Pseudomonas aeruginosa*

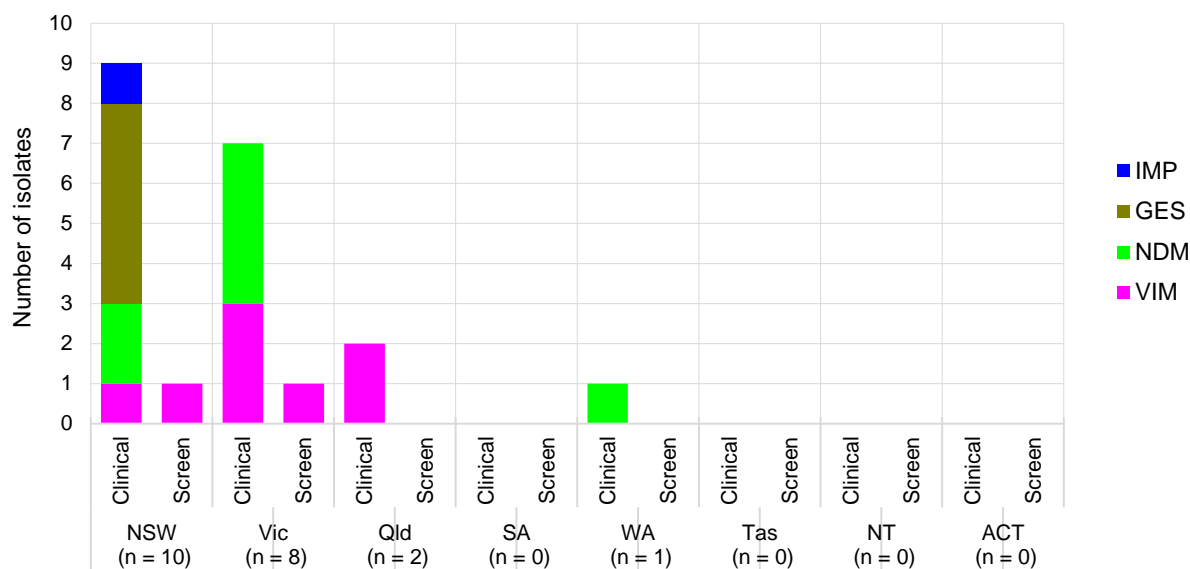
### National data

**Figure 17:** Carbapenemase-producing *Pseudomonas aeruginosa*, 24-month trend by specimen type, national, 1 April 2023–31 March 2025



## State and territory data

**Figure 18:** Carbapenemase-producing *Pseudomonas aeruginosa*, number reported by carbapenemase type and specimen type, by state and territory, 1 January 2025–31 March 2025



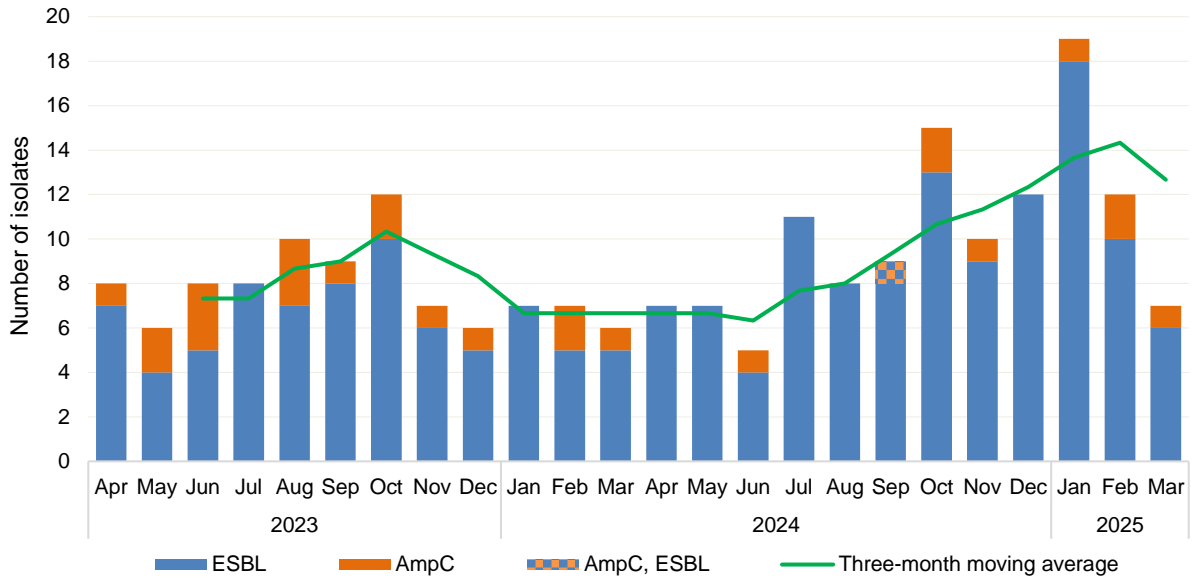
**Table 5:** Carbapenemase-producing *Pseudomonas aeruginosa*, number reported by setting, by state and territory, 1 January 2025–31 March 2025

Setting	State or territory								Total
	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	
Total	10	8	2	0	1	0	0	0	21
Public hospital	5	5	1	0	0	0	0	0	11
Private hospital	1	0	1	0	0	0	0	0	2
Aged care home	0	0	0	0	0	0	0	0	0
Community	0	2	0	0	1	0	0	0	3
Unknown	4	1	0	0	0	0	0	0	5

## Salmonella species

### National data

**Figure 19:** Ceftriaxone-nonsusceptible *Salmonella* species, 24-month trend, national, 1 April 2023–31 March 2025

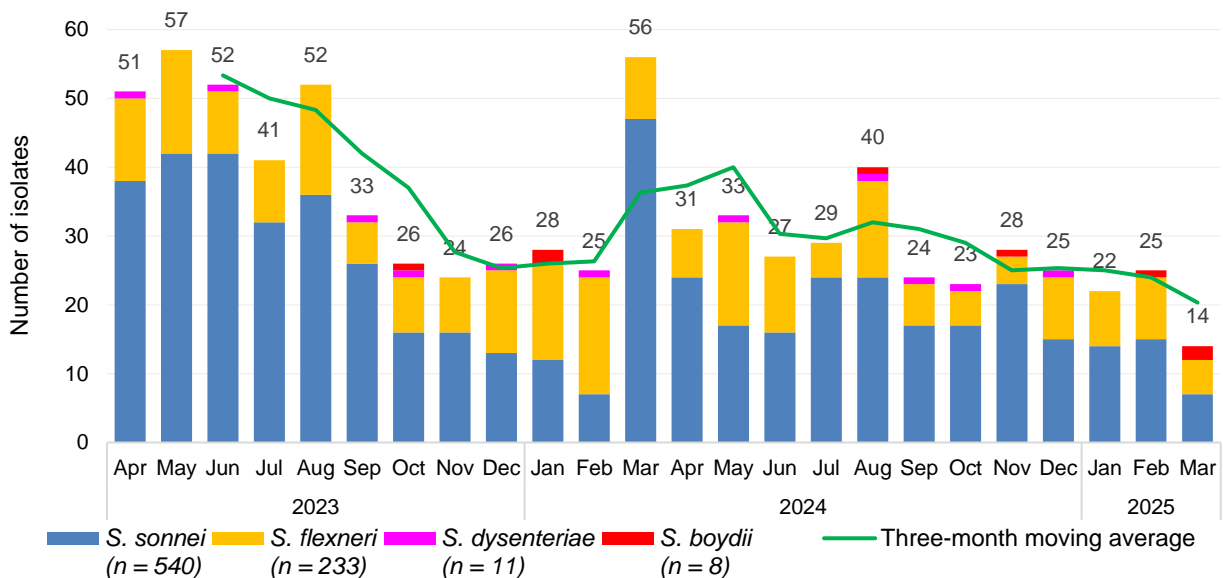


Note: (1 January 2025–31 March 2025) non-typhoidal *Salmonella* species ( $n = 35$ ) and typhoidal *Salmonella* species ( $n = 3$ ).

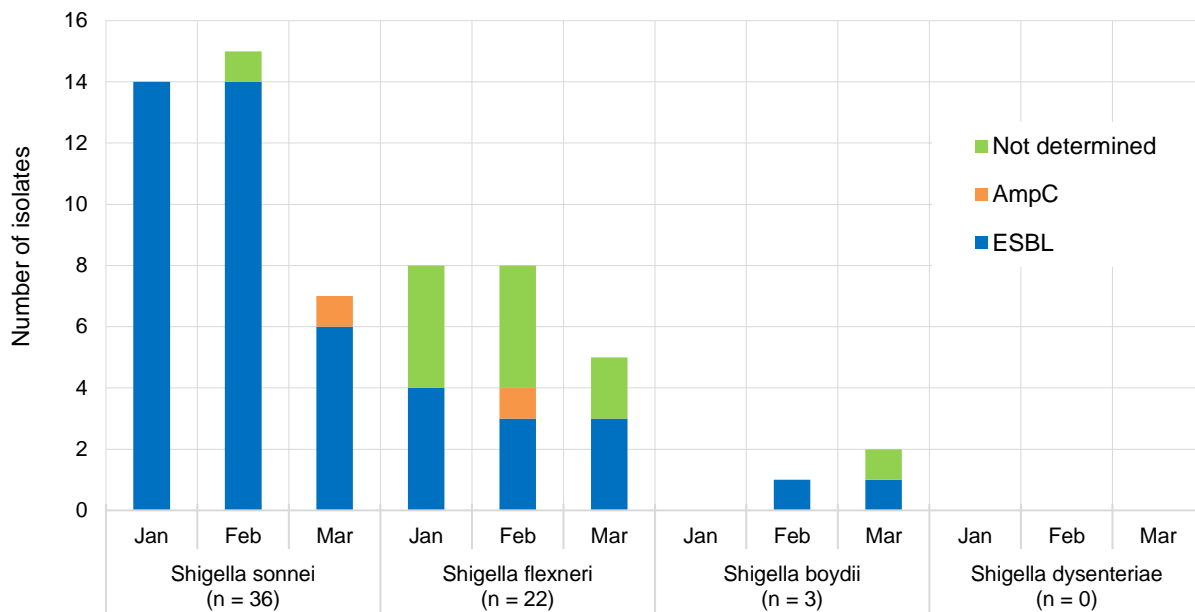
## Shigella species

### National data

**Figure 20:** Multidrug-resistant *Shigella* species, 24-month trend, national, 1 April 2023–31 March 2025



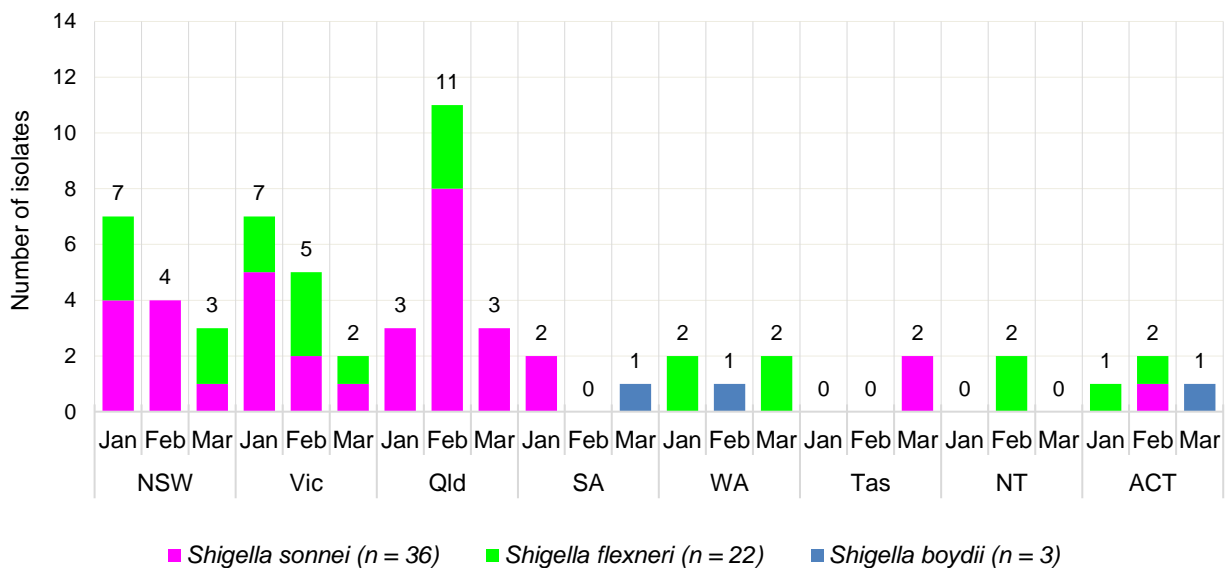
**Figure 21:** Multidrug-resistant *Shigella* species, number reported by month, national, 1 January 2025–31 March 2025



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 January 2025–31 March 2025



## Staphylococcus aureus

### National data

**Figure 23:** Linezolid- or vancomycin-nonsusceptible *Staphylococcus aureus*, 24-month trend, national, 1 April 2023–31 March 2025



### State and territory data

There was one vancomycin-nonsusceptible *S. aureus* reported from WA during this period. No linezolid-nonsusceptible *S. aureus* were reported.

# 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 CARAlert Data Explorer (in press), 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 data support the [National Safety and Quality Health Service \(NSQHS\) 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 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>

**Table A1: Critical antimicrobial resistances reported to CARAlert, 2025**

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

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

† Reported to CARAlert from July 2019

§ Reported to CARAlert from January 2023

# For CARAlert, *S. aureus* includes *S. argenteus* and *S. schweitzeri*

\*\* Reporting of daptomycin-nonsusceptible *S. aureus* was suspended from January 2023

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

<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.



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