

## Western Australia Statewide benchmarking report – Emergency Department July 2024 – December 2024

Antibacterial utilisation rates provided in this report are calculated using the number of defined daily doses (DDDs) of the antibacterial class consumed each month per 1,000 Emergency Department presentations.

Contributing hospitals are assigned according to Australian Institute for health and Welfare (AIHW) defined peer groups.<sup>1</sup> Deidentified contributor codes can be located via the 'Maintain My Hospital' drop-down menu in the NAUSP Portal.

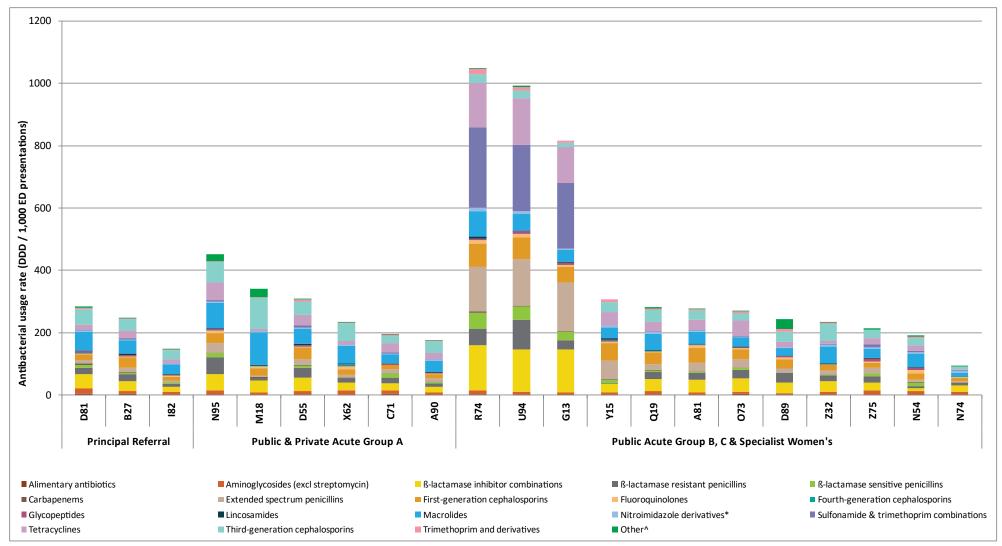
DDD values for each antimicrobial are assigned by the World Health Organization based on the "assumed average maintenance dose per day for the main indication in adults". DDDs are reviewed annually by the WHO as dosing recommendations change over time. For more information refer to: <u>https://www.whocc.no/atc\_ddd\_methodology/purpose\_of\_the\_atc\_ddd\_system/</u>

The charts below present aggregated antibacterial usage data in the Emergency Department for the respective contributing hospitals over the six-month period from 1 July 2024 to 31 December 2024. The same data are presented in both charts with outlier hospital(s) removed from Chart 1b.

[Note: Not all NAUSP contributors are able to provide stratified data for the Emergency Department].

<sup>&</sup>lt;sup>1</sup> AIHW. *Hospital resources 2017-18: Australian hospital statistics*. Available from <u>https://www.aihw.gov.au/reports/hospitals/hospital-resources-2017-18-ahs/data</u>

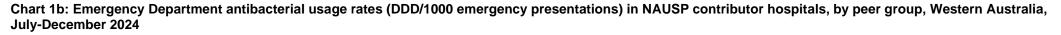
Chart 1a: Emergency Department antibacterial usage rates (DDD/1000 emergency presentations) in NAUSP contributor hospitals, by peer group, Western Australia, July-December 2024

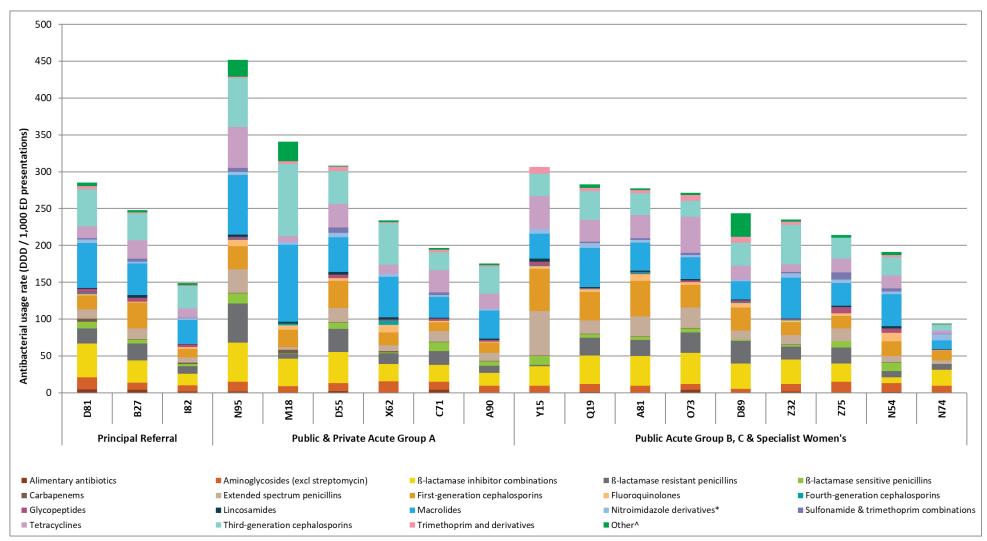


Alimentary antibiotics = colistin (oral), fidaxomicin, neomycin (oral), nystatin (oral), paromomycin, rifaximin, vancomycin (oral).

\*Nitroimidazole derivatives = metronidazole, tinidazole

^Other = amphenicols, antimycotic antibiotics, combinations for eradication of *Helicobacter pylori*, monobactams, nitrofurans, linezolid, daptomycin, other cephalosporins, polymyxins, rifamycins, second-generation cephalosporins, steroids, streptogramins and streptomycin





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NOTE: Outlier hospitals R74, U94 and G13 removed

## This report includes data from the following 21 hospitals in WA:

Albany Health Campus Armadale Kalamunda Group Broome Hospital Bunbury Regional Hospital Busselton Health Derby Hospital Fiona Stanley Hospital Geraldton Hospital Hedland Health Campus Hollywood Private Hospital Karratha Health Campus Katanning Health Service King Edward Memorial Hospital Kununurra Hospital Narrogin Hospital Northam Hospital Rockingham Hospital Royal Perth Hospital Sir Charles Gairdner Hospital St John Of God Midland St John Of God Murdoch

Disclaimer: Data presented in this report were correct at the time of publication. As additional hospitals join NAUSP, retrospective data are included. Data may change when quality assurance processes identify the need for data updates.

The National Antimicrobial Utilisation Surveillance Program (NAUSP) is funded by the Commonwealth Department of Health and Aged Care (DOHAC). NAUSP is administered by the Communicable Disease Control Branch, Department for Health and Wellbeing, Government of South Australia. All individual hospital data contributed to this program will remain de-identified unless otherwise agreed in writing. Aggregated data may be provided to all contributors, the ACSQHC and DOHAC.

	colistin (oral)	Glycopeptides	dalbavancin
Alimentary antibiotics	fidaxomicin		oritavancin
	neomycin (oral)		teicoplanin
	nystatin (oral)		vancomycin
	paromomycin	Imidazole derivatives	metronidazole
		Intermediate acting	(parenteral)
	rifaximin	sulfonamides	sulfadiazine
	vancomycin (oral)	Lincosamides	clindamycin
Aminoglycosides	amikacin	Macrolides	lincomycin
	gentamicin		azithromycin
(excl streptomycin)	neomycin		clarithromycin
	tobramycin		erythromycin
	amoxicillin-clavulanate		roxithromycin
Beta lactamase	ampicillin-sulbactam	Nitroimidazole	metronidazole (oral, rectal)
inhibitor	piperacillin-tazobactam	derivatives	tinidazole (oral, rectal)
combinations	ticarcillin-clavulanate	Sulfonamide & trimethoprim combinations	trimethoprim- sulfamethoxazole
Beta lactamase	dicloxacillin	Tetracyclines	doxycycline
resistant penicillins	flucloxacillin		minocycline
	benzathine benzylpenicillin		tetracycline
Beta lactamase	benzylpenicillin		tigecycline
sensitive penicillins	phenoxymethylpenicillin	<ul> <li>Third generation</li> <li>cephalosporins</li> </ul>	cefotaxime
	procaine benzylpenicillin		ceftazidime
Carbapenems	doripenem		ceftazidime- tazobactam
	ertapenem		ceftriaxone
	imipenem-cilastatin	Trimethoprim and derivatives	trimethoprim
	meropenem	Other antibacterials & combinations	daptomycin
	meropenem-vaborbactam		fosfomycin
Extended spectrum penicillins	amoxicillin		linezolid
	ampicillin		methenamine hippurate
	piperacillin		tedizolid
	pivmecillinam		esomeprazole, amoxicillin and clarithromycin
	temocillin		chloramphenicol
First generation	cefalexin		streptomycin
cephalosporins	cefazolin		colistin
Fluoroquinolones	ciprofloxacin		polymyxin B
	levofloxacin		sodium fusidate
	moxifloxacin		cycloserine
	norfloxacin		rifabutin
	ofloxacin		rifampicin
Fourth generation cephalosporins	cefepime		rifapentine
Other antibacterials & combinations	pristinamycin		cefiderocol
	quinupristin/dalfopristin		ceftaroline

-	aztreonam	Other cephalosporins and penems	ceftolozane-avibactam
	nitrofurantoin		faropenem
	cefaclor		
	cefoxitin		
	cefuroxime		