

Queensland and Northern Territory Statewide benchmarking report – Emergency Department July 2023 – December 2023

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.¹ Deidentified contributor codes can be located via the 'Maintain My Hospital' drop-down menu in the NAUSP Portal.

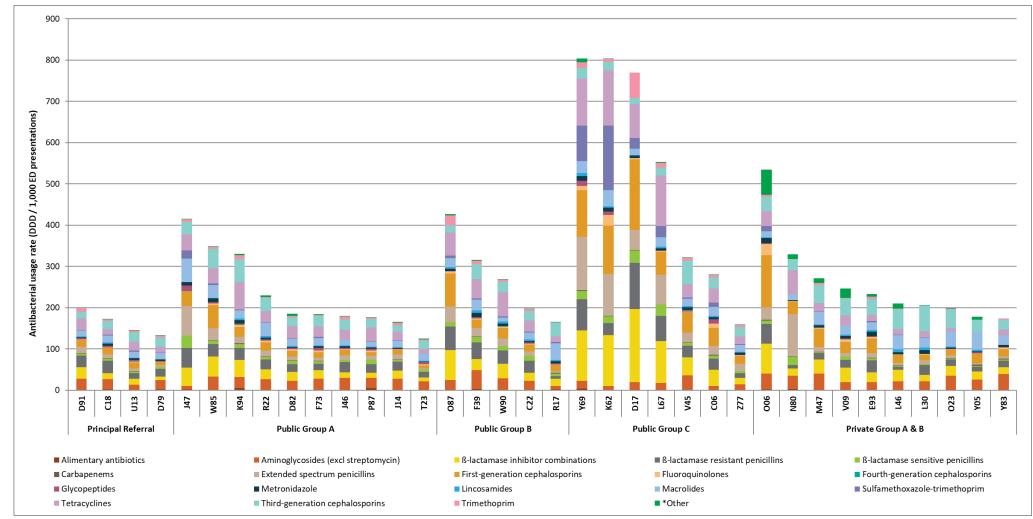
DDD values for each antimicrobial are assigned by the World Health Organization based on the "assumed average maintenance dose per day for the main indication in adults". DDDs are reviewed annually by the WHO as dosing recommendations change over time. For more information refer to: <u>https://www.whocc.no/atc_ddd_methodology/purpose_of_the_atc_ddd_system/</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 2023 to 31 December 2023. 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].

¹ 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, Queensland and Northern Territory, July – December 2023



[Alimentary antibiotics = rifaximin, fidaxomicin, paromomycin. Other = amphenicols, antimycotics, combinations for eradication of Helicobacter pylori, monobactams, nitrofurans, linezolid, daptomycin, other cephalosporins, polymyxins, rifamycins, second-generation cephalosporins, steroids, streptogramins and streptomycin.

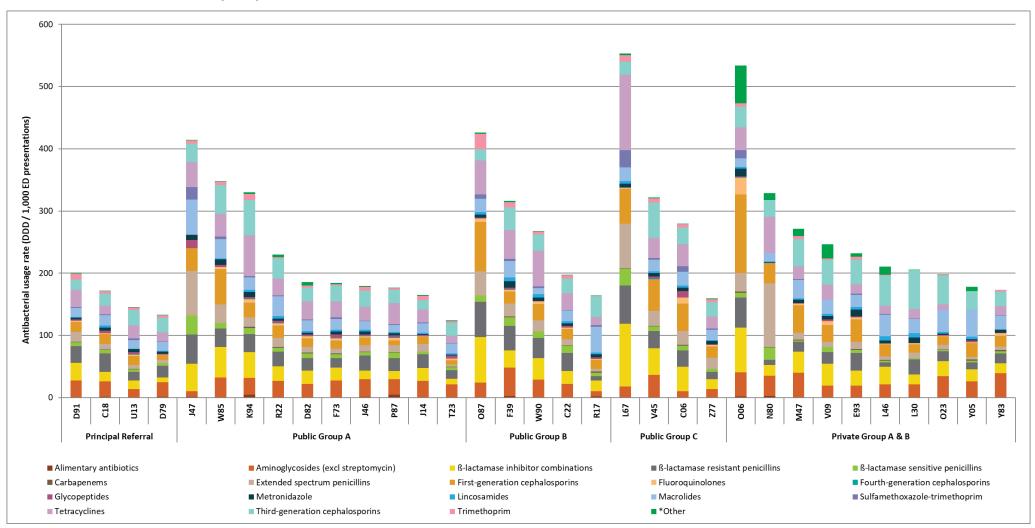


Chart 1b: Emergency Department antibacterial usage rates (DDD/1000 emergency presentations) in NAUSP-contributor hospitals*, by peer group, Queensland and Northern Territory, July – December 2023

[Alimentary antibiotics = rifaximin, fidaxomicin, paromomycin. Other = amphenicols, antimycobacterial antibiotics, monobactams, nitrofurans, linezolid, daptomycin, other cephalosporins and penems, polymyxins, second-generation cephalosporins, steroids, streptogramins and streptomycin]

*Note: Three outlier hospitals removed (Hospitals Y69, K62 and D17)

This report includes data from the following 36 hospitals in QLD and NT:

Alice Springs Hospital **Buderim Private Hospital** Bundaberg Hospital Caboolture Hospital Gold Coast Private Hospital Gove District Hospital Greenslopes Hospital Gympie Health Service Hervey Bay Hospital **Ipswich Hospital** John Flynn Private Hospital Katherine District Hospital Kilcoy Hospital **Kingaroy Hospital** Mackay Base Hospital Mareeba Hospital Maryborough Hospital Mater Hospital Brisbane

Mater Private Hospital Brisbane Mt Isa Hospital Nambour General Hospital **Pindara Private Hospital** Queen Elizabeth 2 Jubilee Hospital **Redcliffe Hospital Redland Hospital** Royal Brisbane And Women's Hospital St Andrew's War Memorial Hospital St Vincent's Private Hospital Northside St Vincent's Private Hospital Toowoomba Sunshine Coast University Hospital **Tennant Creek Hospital** The Prince Charles Hospital **Toowoomba Hospital Townsville Hospital** Warwick Hospital Wesley Hospital

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.

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ANTIBACTERIAL CLAS	SES		
	fidaxomicin	Lincosamides	clindamycin
Alimentary antibiotics	paromomycin	Lincosamides	lincomycin
	rifaximin		azithromycin
Aminoglycosides	amikacin		clarithromycin
	gentamycin	Macrolides	erythromycin
	neomycin		roxithromycin
	tobramycin		spiramycin
ß-lactamase inhibitor combinations	amoxicillin - clavulanate	Monobactams	aztreonam
	piperacillin - tazobactam	Nitrofuran derivatives	nitrofurantoin
ß-lactamase resistant penicillins	dicloxacillin	Polymyxins	colistin
	flucloxacillin		polymyxin B
ß-lactamase sensitive penicillins	benzathine benzylpenicillin	Second-generation cephalosporins	cefaclor
	benzylpenicillin		cefamandole
	phenoxymethylpenicillin		cefotetan
	procaine benzylpenicillin		cefoxitin
Carbapenems	doripenem		cefuroxime
	ertapenem	Steroid antibacterials	fusidic acid
	imipenem - cilastatin	Streptogramins	pristinamycin
	meropenem	Streptomycins	streptomycin
	meropenem - vaborbactam	Sulfonamide- trimethoprim combinations	sulfamethoxazole - trimethoprim
Extended-spectrum penicillins	amoxicillin	Tetracyclines	doxycycline
	ampicillin		minocycline
	pivmecillinam		tetracycline
	temocillin		tigecycline
First-generation cephalosporins	cefalexin	Third-generation cephalosporins	cefixime
	cefalotin		cefotaxime
	cefazolin		ceftazidime
Fluoroquinolones	ciprofloxacin		ceftazidime - avibactam
	levofloxacin		ceftriaxone
	moxifloxacin	Trimethoprim	trimethoprim
	norfloxacin		ceftaroline fosamil
Fourth-generation cephalosporins	cefepime		ceftolozane - tazobactam
	cefpirome	Other (including	daptomycin
Glycopeptides	dalbavancin	other cephalosporins and penems)	faropenem
	oritavancin		fosfomycin
	teicoplanin		linezolid
	vancomycin		rifampicin
Imidazole derivatives	metronidazole		tedizolid
Intermediate-acting sulfonamides	sulfadiazine		