



Antimicrobial Utilisation Surveillance in Australian Hospitals

Queensland and Northern Territory – Statewide antimicrobial benchmarking report for acute inpatient aggregate usage rates

January 2023 – June 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 occupied bed days.

Contributing hospitals are assigned to Australian Institute for Health and Welfare (AIHW) defined peer groups.¹ Contributing hospitals can find their de-identifying code via the NAUSP Portal 'Maintain My Hospital' drop-down menu.

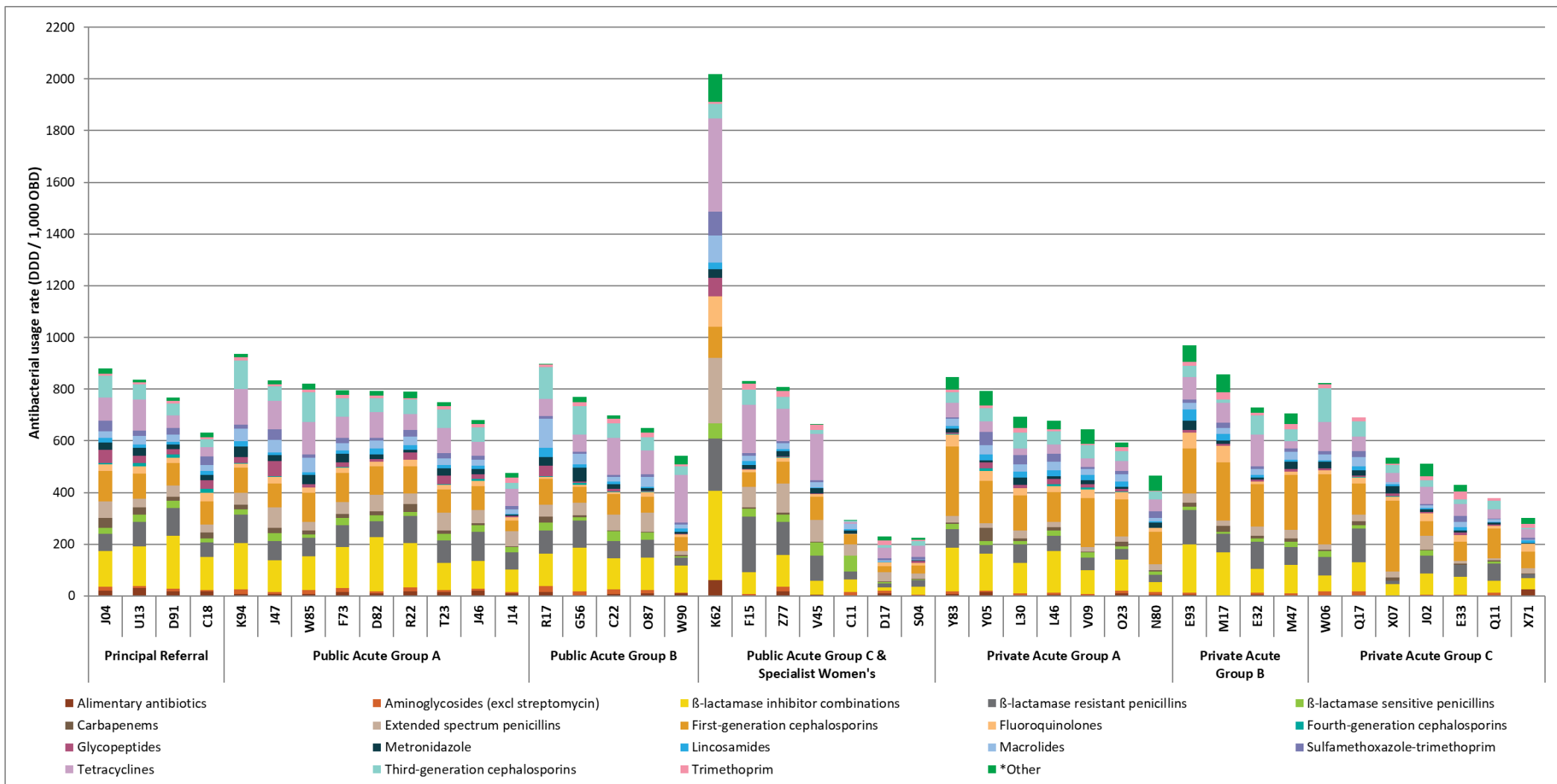
DDD values for each antimicrobial are assigned by the World Health Organization based on the “assumed average maintenance dose per day for the main indication in adults”. DDDs are reviewed annually by the WHO as dosing recommendations change over time. For more information refer to:

https://www.whocc.no/atc_ddd_methodology/purpose_of_the_atc_ddd_system/.

The charts below present the acute aggregated antibacterial usage rates for the 43 respective contributing hospitals over the six-month period from 1 January 2023 to 30 June 2023 (the second chart presents the same data, excluding one outlier hospital). Unless otherwise specified, the aggregate rates include all acute care areas of the hospital, excluding usage in the emergency department and the operating theatre.

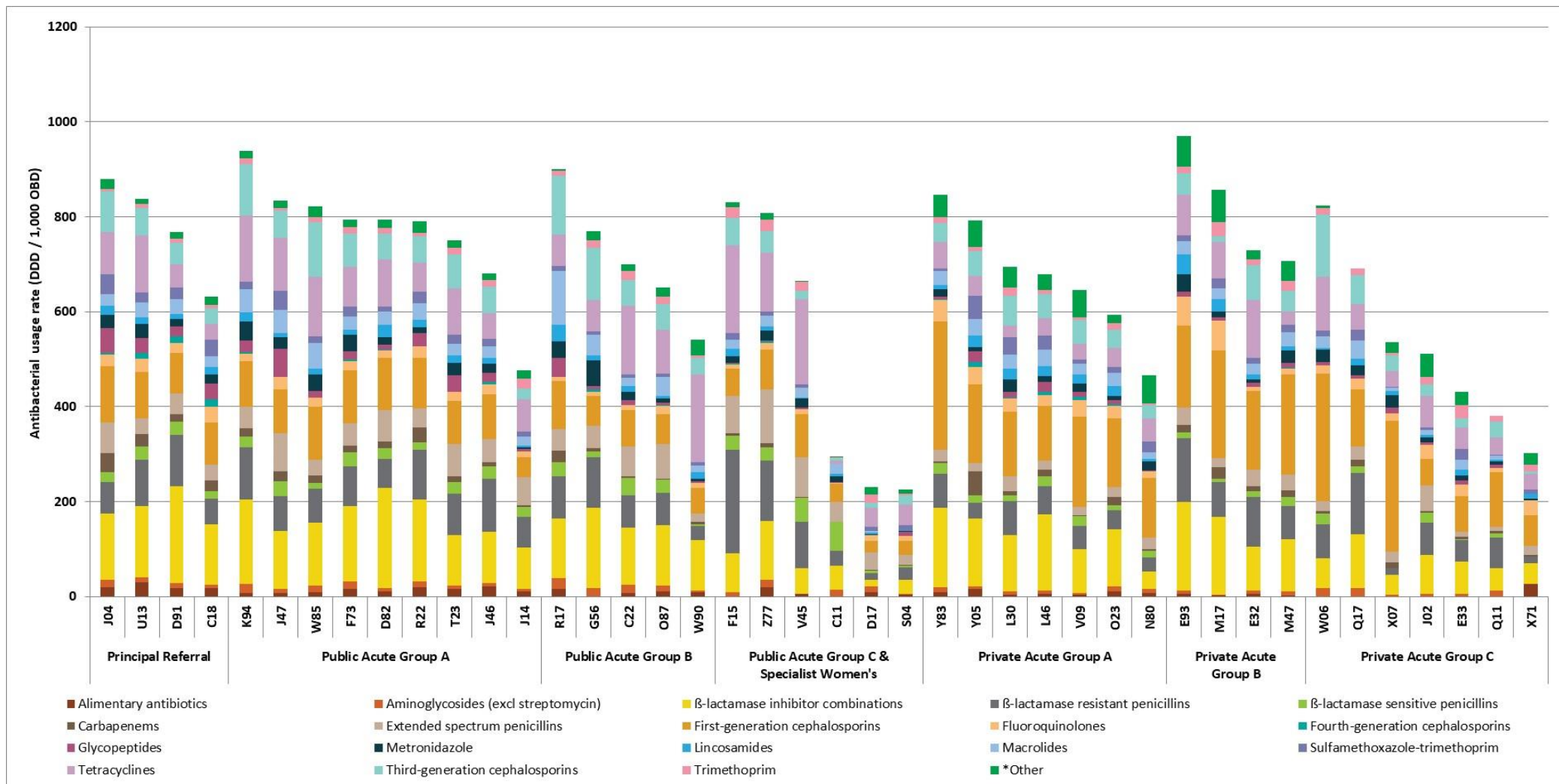
¹ AIHW. *Hospital resources 2017-18: Australian hospital statistics*. Available from <https://www.aihw.gov.au/reports/hospitals/hospital-resources-2017-18-ahs/data>

Chart 1a: Total acute hospital antibacterial usage rates (DDD/1000 OBD) in NAUSP contributor hospitals, by peer group, Queensland and Northern Territory, January-June 2023 (excludes Emergency Department and Operating Theatre)



Alimentary antibiotics = rifaximin, fidaxomicin. *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: Total acute hospital antibacterial usage rates (DDD/1000 OBD) in NAUSP contributor hospitals, by peer group, Queensland and Northern Territory*, January-June 2023 (excludes Emergency Department and Operating Theatre)



Alimentary antibiotics = rifaximin, fidaxomicin. *Other = amphenicols, antimycotics, combinations for eradication of *Helicobacter pylori*, monobactams, nitrofurans, linezolid, daptomycin, other cephalosporins, polymyxins, rifamycins, second-generation cephalosporins, steroids, streptogramins and streptomycin. (*Note: excludes outlier hospital K62)

This report includes data from the following 43 hospitals in Queensland and Northern Territory:

Alice Springs Hospital	Mater Redland Private
Atherton Hospital	Mater Rockhampton
Buderim Private Hospital	Mt Isa Hospital
Bundaberg Hospital	Nambour General Hospital
Darwin Private Hospital	Palmerston Regional Hospital
Gladstone Hospital	Queen Elizabeth 2 Jubilee Hospital
Gold Coast Private Hospital	Redcliffe Hospital
Greenslopes Hospital	Redland Hospital
Gympie Health Service	Royal Brisbane And Women's Hospital
Hervey Bay Hospital	Royal Darwin Hospital
Ipswich Hospital	St Andrew's War Memorial Hospital
John Flynn Private Hospital	St Stephen's Hospital Hervey Bay
Kilcoy Hospital	St Vincent's Private Hospital Brisbane
Kingaroy Hospital	St Vincent's Private Hospital Northside
Maryborough Hospital	St Vincent's Private Hospital Toowoomba
Mater Bundaberg	Sunshine Coast University Hospital
Mater Hospital Brisbane	Tennant Creek Hospital
Mater Mackay	Toowoomba Hospital
Mater Mothers' Hospital	Townsville Hospital
Mater Private Hospital Brisbane	Warwick Hospital
Mater Private Hospital Springfield	Wesley Hospital
Mater Private Hospital Townsville - Pimlico	

ANTIBACTERIAL CLASSES			
Alimentary antibiotics	fidaxomicin	Lincosamides	clindamycin
	paromomycin		lincomycin
	rifaximin		azithromycin
Aminoglycosides	amikacin	Macrolides	clarithromycin
	gentamycin		erythromycin
	neomycin		roxithromycin
	tobramycin		spiramycin
β-lactamase inhibitor combinations	amoxicillin - clavulanate		Monobactams
	piperacillin - tazobactam	Nitrofurans derivatives	nitrofurantoin
β-lactamase resistant penicillins	dicloxacillin	Polymyxins	colistin
	flucloxacillin		polymyxin B
β-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
	cefalotin	cefotaxime	
	cefazolin	ceftazidime	
Fluoroquinolones	ciprofloxacin	ceftazidime - avibactam	
	levofloxacin	ceftriaxone	
	moxifloxacin	Trimethoprim	trimethoprim
	norfloxacin	Other (including other cephalosporins and penems)	ceftaroline fosamil
Fourth-generation cephalosporins	cefepime		ceftolozane - tazobactam
	ceftirome		daptomycin
Glycopeptides	dalbavancin		faropenem
	oritavancin		fosfomicin
	teicoplanin		linezolid
	vancomycin		rifampicin
Imidazole derivatives	metronidazole	tedizolid	
Intermediate-acting sulfonamides	sulfadiazine		