Queensland and Northern Territory

Statewide benchmarking report – Emergency Department

January – 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 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.

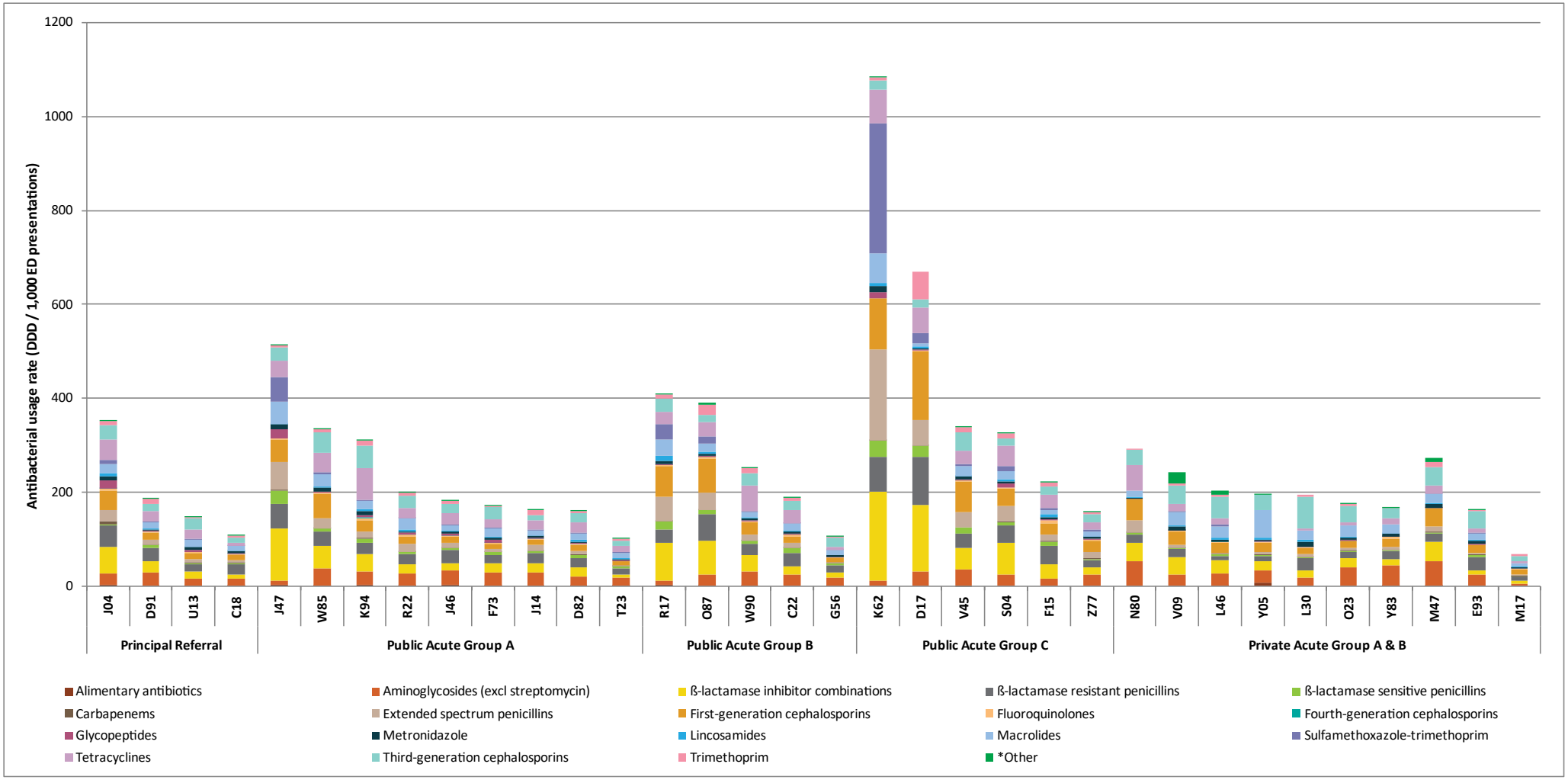
DDD values for each antimicrobial are assigned by the World Health Organization based on the "assumed average maintenance dose per day for the main indication in adults". DDDs are reviewed annually by the WHO as dosing recommendations change over time. For more information refer to: https://www.whocc.no/atc_ddd_methodology/purpose_of_the_atc_ddd_system/

The charts below present aggregated antibacterial usage data in the Emergency Department for the respective contributing hospitals over the six-month period from 1 January 2023 to 30 June 2023. The same data is presented in both charts with two outlier hospitals removed from Chart 1b.

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

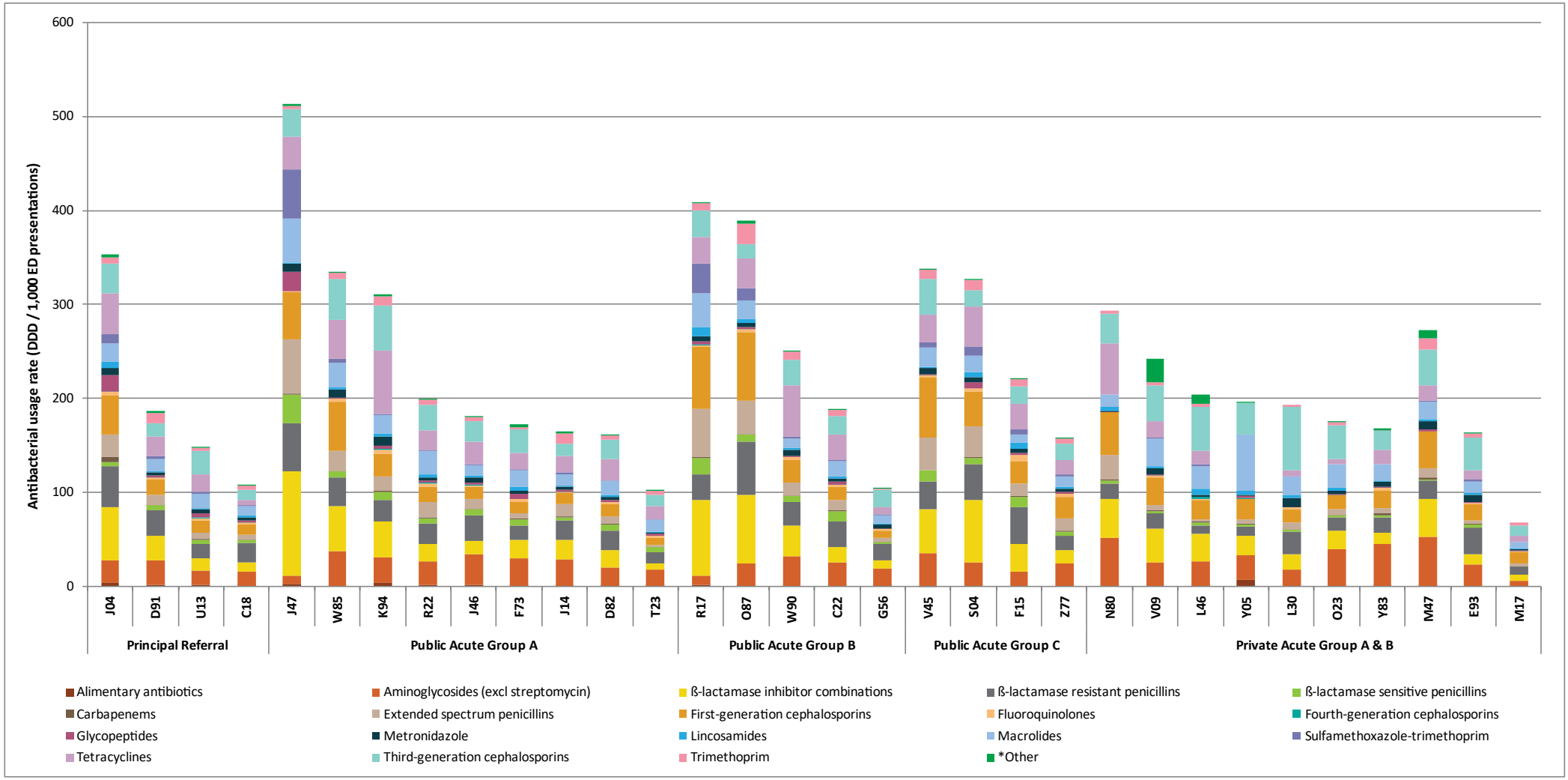
[1] AIHW. *Hospital resources 2017-18: Australian hospital statistics.* Available from https://www.aihw.gov.au/reports/hospitals/hospital-resources-2017-18-ahs/data

Chart 1a: **Emergency Department antibacterial usage rates (DDD/1000 emergency presentations) in NAUSP contributor hospitals, by peer group, Queensland and Northern Territory, Jan – Jun 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, Jan – Jun 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: Two outlier hospitals removed (Hospitals K62 and D17)**

This report includes data from the following 34 hospitals in NSW and ACT:

Alice Springs Hospital
Atherton Hospital
Buderim Private Hospital
Bundaberg Hospital
Gladstone Hospital
Gold Coast Private Hospital
Greenslopes Hospital
Gympie Health Service
Hervey Bay Hospital
Ipswich Hospital
John Flynn Private Hospital
Kilcoy Hospital
Kingaroy Hospital
Maryborough Hospital
Mater Hospital Brisbane
Mater Private Hospital Brisbane
Mater Private Hospital Townsville - Pimlico
Mt Isa Hospital
Nambour General Hospital
Palmerston Regional Hospital
Queen Elizabeth 2 Jubilee Hospital
Redcliffe Hospital
Redland Hospital
Royal Brisbane And Women's Hospital
Royal Darwin 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
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 CLASSES			
Alimentary antibiotics	fidaxomicin paromomycin rifaximin	**Lincosamides**	clindamycin lincomycin
Aminoglycosides	amikacin gentamycin neomycin tobramycin	**Macrolides**	azithromycin clarithromycin erythromycin roxithromycin spiramycin
ß-lactamase inhibitor combinations	amoxicillin - clavulanate piperacillin - tazobactam	**Monobactams**	aztreonam
		Nitrofuran derivatives	nitrofurantoin
ß-lactamase resistant penicillins	dicloxacillin flucloxacillin	**Polymyxins**	colistin polymyxin B
ß-lactamase sensitive penicillins	benzathine benzylpenicillin benzylpenicillin phenoxymethylpenicillin procaine benzylpenicillin	**Second-generation cephalosporins**	cefaclor cefamandole cefotetan cefoxitin cefuroxime
Carbapenems	doripenem ertapenem imipenem - cilastatin meropenem meropenem - vaborbactam	**Steroid antibacterials**	fusidic acid
		Streptogramins	pristinamycin
		Streptomycins	streptomycin
		Sulfonamide-trimethoprim combinations	sulfamethoxazole - trimethoprim
Extended-spectrum penicillins	amoxicillin ampicillin pivmecillinam temocillin	**Tetracyclines**	doxycycline minocycline tetracycline tigecycline
First-generation cephalosporins	cefalexin cefalotin cefazolin	**Third-generation cephalosporins**	cefixime cefotaxime ceftazidime ceftazidime - avibactam ceftriaxone
Fluoroquinolones	ciprofloxacin levofloxacin moxifloxacin norfloxacin	**Trimethoprim**	trimethoprim
Fourth-generation cephalosporins	cefepime cefpirome	**Other (including other cephalosporins and penems)**	ceftaroline fosamil ceftolozane - tazobactam daptomycin faropenem fosfomycin linezolid rifampicin tedizolid
Glycopeptides	dalbavancin oritavancin teicoplanin vancomycin		
Imidazole derivatives	metronidazole		
Intermediate-acting sulfonamides	sulfadiazine		