Western Australia – Statewide antimicrobial benchmarking report for acute inpatient aggregate usage rates

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 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.

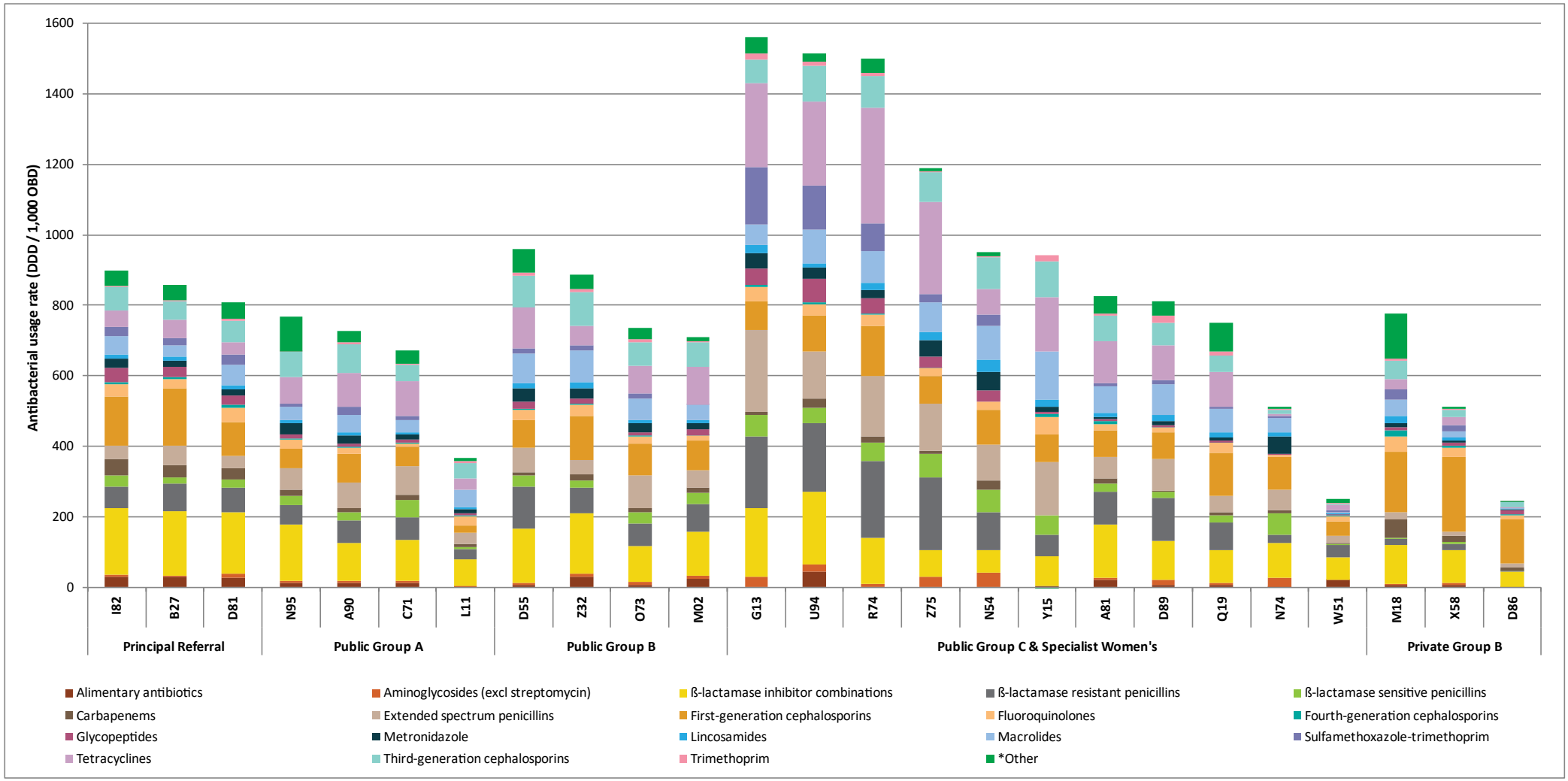
DDD values for each antimicrobial are assigned by the World Health Organization based on the "assumed average maintenance dose per day for the main indication in adults". DDDs are reviewed annually by the WHO as dosing recommendations change over time. For more information refer to:
https://www.whocc.no/atc_ddd_methodology/purpose_of_the_atc_ddd_system/.

The charts below present the acute aggregated antibacterial usage rates for the 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.

Unless otherwise specified, the aggregate rates include all acute care areas of the hospital, excluding usage in the emergency department and the operating theatre.

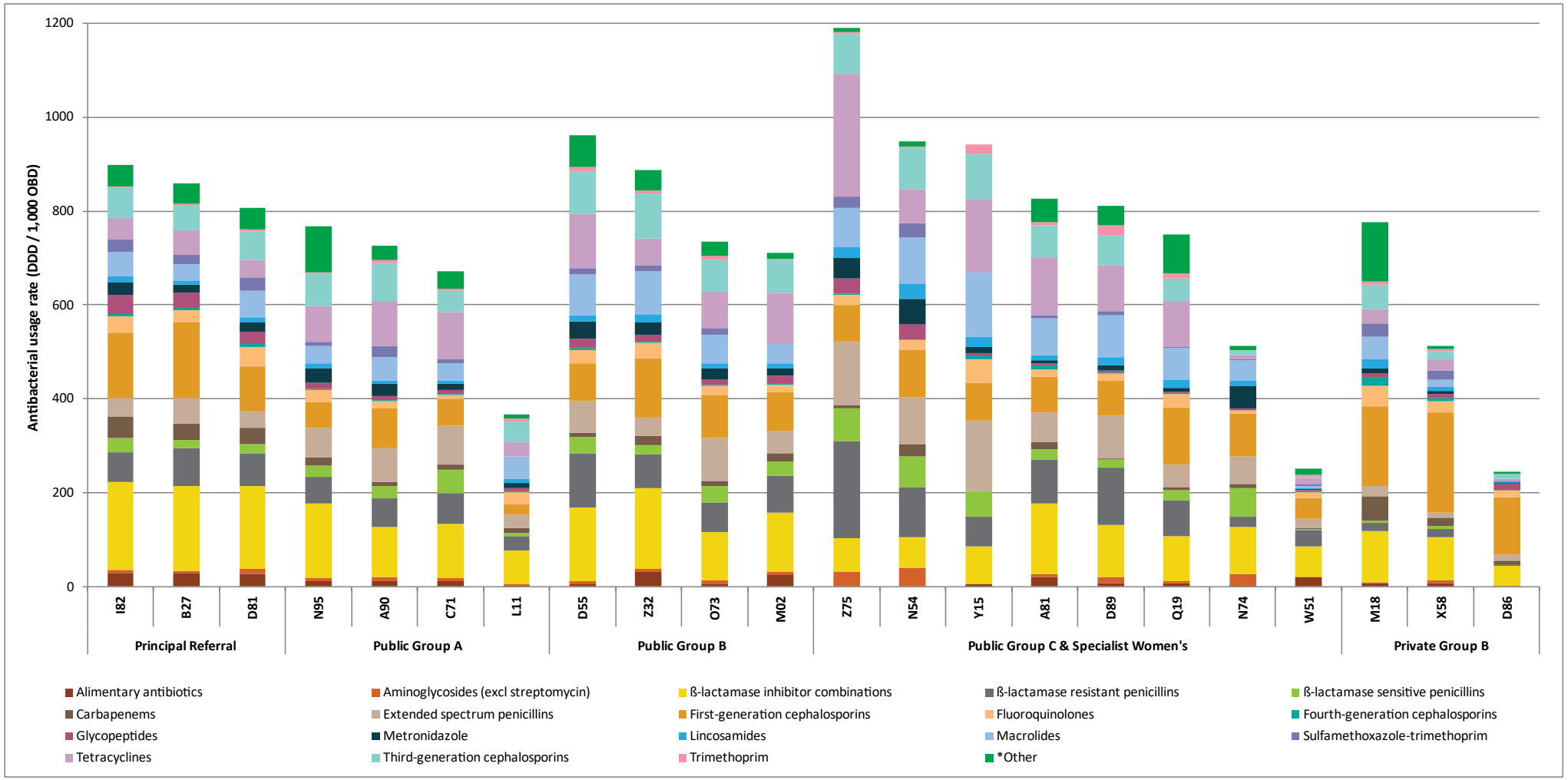
[1] AIHW. *Hospital resources 2017-18: Australian hospital statistics.* Available from https://www.aihw.gov.au/reports/hospitals/hospital-resources-2017-18-ahs/data

Chart 1a: **Total acute hospital antibacterial usage rates (DDD/1000 OBD) in NAUSP contributor hospitals, by peer group, Western Australia, July-December 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, Western Australia*, July-December 2023 (excludes Emergency Department and Operating Theatre)**



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***Note: Three outlier hospitals removed (Hospitals G13, U94, R74)**

This report includes data from the following 25 hospitals in Western Australia:

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

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. NAUSP is administered by Antimicrobial Programs, 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 the Commonwealth.

ANTIBACTERIAL CLASSES			
Alimentary antibiotics	fidaxomicin	**Lincosamides**	clindamycin
	paromomycin		lincomycin
	rifaximin	**Macrolides**	azithromycin
Aminoglycosides	amikacin		clarithromycin
	gentamycin		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	**Other (including other cephalosporins and penems)**	ceftaroline fosamil
Fourth-generation cephalosporins	cefepime		ceftolozane - tazobactam
	cefpirome		daptomycin
Glycopeptides	dalbavancin		faropenem
	oritavancin		fosfomycin
	teicoplanin		linezolid
	vancomycin		rifampicin
Imidazole derivatives	metronidazole		tedizolid
Intermediate-acting sulfonamides	sulfadiazine		