



Antimicrobial Utilisation Surveillance in Australian Hospitals

Western Australia – 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.

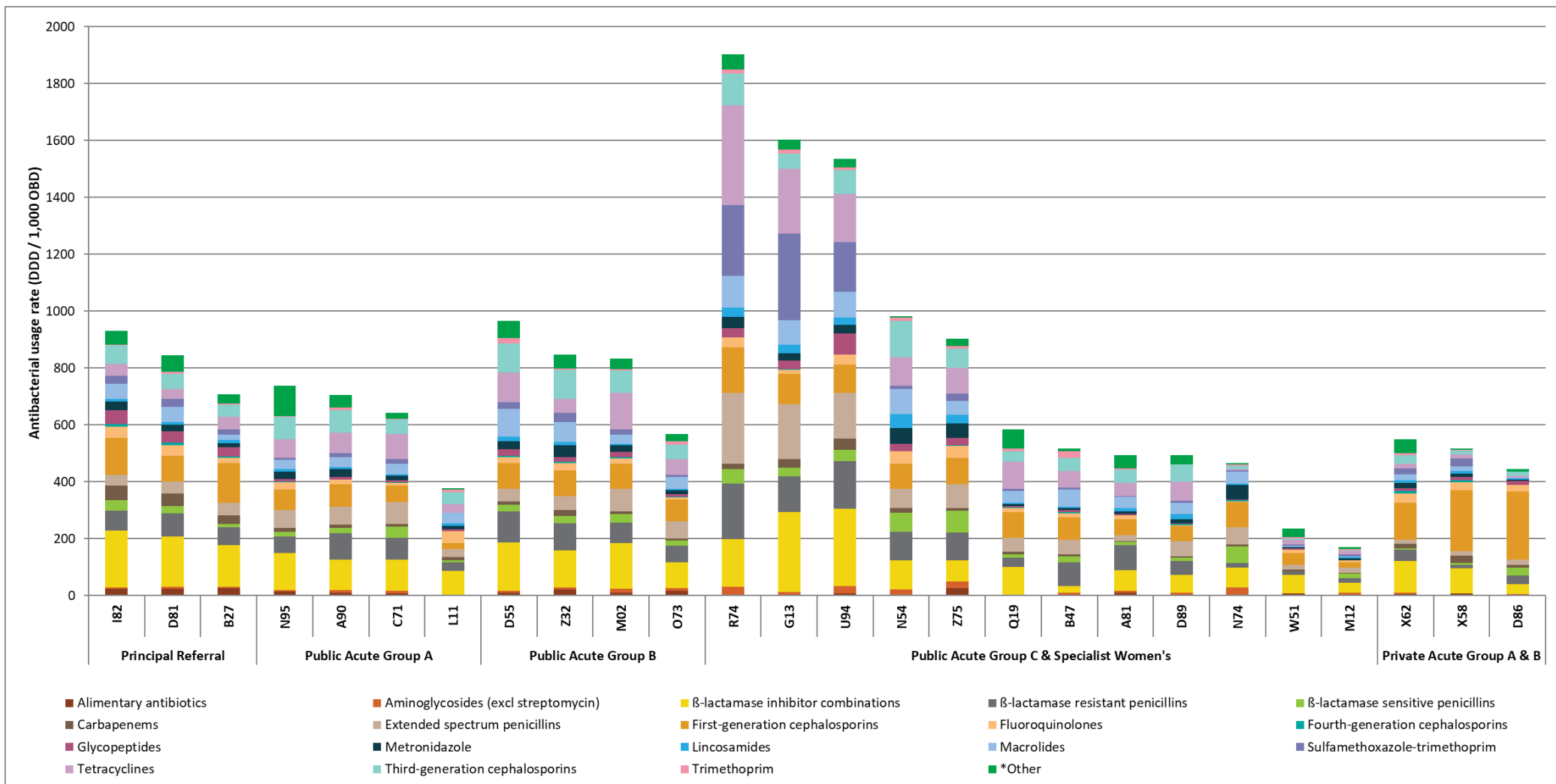
DDD values for each antimicrobial are assigned by the World Health Organization based on the “assumed average maintenance dose per day for the main indication in adults”. DDDs are reviewed annually by the WHO as dosing recommendations change over time. For more information refer to:

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

The chart below presents the acute aggregated antibacterial usage rates for the 26 respective contributing hospitals over the six-month period from 1 January 2023 to 30 June 2023. 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 1: Total acute hospital antibacterial usage rates (DDD/1000 OBD) in NAUSP contributor hospitals, by peer group, Western Australia, 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.

This report includes data from the following 26 hospitals in Western Australia:

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

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
	ceftiofime		daptomycin
Glycopeptides	dalbavancin		faropenem
	oritavancin		fosfomicin
	teicoplanin		linezolid
	vancomycin		rifampicin
Imidazole derivatives	metronidazole	tedizolid	
Intermediate-acting sulfonamides	sulfadiazine		