Antimicrobial utilisation rates provided in this report are calculated using the number of defined daily doses (DDDs) of the antimicrobial agent or class consumed in each month per 1,000 occupied bed days using aggregated data for contributing hospitals in the peer group. Rates for aggregated use of all antibacterials by all contributors for the specialty are shown. Rates are also reported for use of 6 target antibacterial classes within the Intensive Care Unit (ICU) specialty.

A change to the DDD for a number of high volume antimicrobials occurred in January 2019. This has been applied to all retrospective data. For more information refer to WHO WTC/DDD alterations 2019.

Aggregated rates for this reporting period include data from 83 hospital(s). Some hospitals were unable to submit data for this reporting period and these rates may vary from previous reports.

Enquiries regarding this report should be directed to the Senior Pharmacist, National Antimicrobial Utilisation Surveillance Program (ph (08) 7425 7169 or health.nausphelp@sa.gov.au)

1. TOTAL SPECIALTY ANTIMICROBIAL USE (INCLUDING ALL CLASSES)

2. TOTAL SPECIALTY USE BY ANTIMICROBIAL CLASS (SELECTED CLASSES)

Total specialty antimicrobial utilisation rates for 3rd and 4th generation cephalosporins, glycopeptides, carbapenems, fluoroquinolones, aminoglycosides and anti-pseudomonal penicillins with beta-lactamase inhibitor are displayed for the period July 2017 to June 2019 in charts 2 and 3.
3. SPECIALTY ANTIMICROBIAL UTILISATION RATES FOR INDIVIDUAL AGENTS

Specialty antimicrobial utilisation rates for individual agents within reported classes are shown in charts 4 to 9 below.

- **Chart 4:** ICU usage of glycopeptides (vancomycin and teicoplanin)
- **Chart 5:** ICU usage of 3rd/4th generation cephalosporins (ceftriaxone and cefotaxime grouped together)
- **Chart 6:** ICU usage of carbapenems (meropenem, ertapenem and imipenem with cilastatin)
- **Chart 7:** ICU usage of fluoroquinolones (ciprofloxacin, moxifloxacin and norfloxacin)
- **Chart 8:** ICU usage of aminoglycosides (gentamicin, amikacin and tobramycin)
- **Chart 9:** ICU usage of parenteral penicillins with beta-lactamase inhibitor (piperacillin-tazobactam and amoxicillin-clavulanate)
4. SPECIALTY ANTIMICROBIAL UTILISATION RATES

Specialty rates for other agents of interest are shown in chart/s below.

Chart 10: ICU usage of reserve agents (linezolid, daptomycin and colistin)

Chart 11: ICU usage of macrolides (azithromycin, clarithromycin, erythromycin, roxithromycin)

Chart 12: ICU usage of azole antifungal agents (fluconazole, itraconazole, posaconazole and voriconazole)
This report includes data from the following hospitals:

ACT: CALVARY PUBLIC HOSPITAL BRUCE, CANBERRA HOSPITAL

NSW: BANKSTOWN HOSPITAL, BLACKTOWN HOSPITAL, CAMPBELTOWN HOSPITAL, COFFS HARBOUR HOSPITAL, CONCORD HOSPITAL, DUBBO BASE HOSPITAL, GOSFORD HOSPITAL, GOSFORD PRIVATE HOSPITAL, GRAFTON BASE HOSPITAL, HORNSBY KU-RING-GAI HOSPITAL, LISMORE BASE HOSPITAL, LIVERPOOL HOSPITAL, MATLADN HOSPITAL, MATER HOSPITAL NORTH SYDNEY, NEPEAN HOSPITAL, NEWCASTLE MATER, NORTHERN BEACHES HOSPITAL, ORANGE HEALTH SERVICE, PORT MACQUARIE BASE HOSPITAL, PRINCE OF WALES HOSPITAL, ROYAL NORTH SHORE HOSPITAL, ROYAL PRINCE ALFRED HOSPITAL, SHOALHAVEN HOSPITAL, ST GEORGE HOSPITAL, ST VINCENT'S HOSPITAL SYDNEY, ST VINCENT'S PRIVATE HOSPITAL SYDNEY, SUTHERLAND HOSPITAL, SYDNEY ADVENTIST HOSPITAL, THE TWEED HOSPITAL, WAGGA WAGGA BASE HOSPITAL, WESTMEAD HOSPITAL, WESTMEAD PRIVATE HOSPITAL, WYONG HOSPITAL

NT: ALICE SPRINGS HOSPITAL, ROYAL DARWIN HOSPITAL

QLD: CAIRNS BASE HOSPITAL, GOLD COAST PRIVATE HOSPITAL, GOLD COAST UNIVERSITY HOSPITAL, GREENSLOPES HOSPITAL, MATER HOSPITAL BRISBANE, MATER PRIVATE HOSPITAL BRISBANE, PRINCESS ALEXANDRA HOSPITAL, ROYAL BRISBANE AND WOMEN'S HOSPITAL, ST VINCENT'S PRIVATE HOSPITAL NORTHSIDE, SUNSHINE COAST UNIVERSITY HOSPITAL, TOOWOOMBA HOSPITAL, TOWNSVILLE HOSPITAL

SA: CALVARY NORTH ADELAIDE HOSPITAL, CALVARY WAKEFIELD PRIVATE HOSPITAL, FFLINDERS MEDICAL CENTRE, FFLINDERS PRIVATE HOSPITAL, LYELL MCEWIN HOSPITAL, QUEEN ELIZABETH HOSPITAL, ROYAL ADELAIDE HOSPITAL

TAS: ROYAL HOBART HOSPITAL

VIC: ALBURY WODONGA - ALBURY, ALFRED HOSPITAL, ANGLISS HOSPITAL, AUSTIN HOSPITAL, BALLARAT BASE HOSPITAL, BENDIGO HEALTH, BOX HILL HOSPITAL, CABRINI HOSPITAL, MALVERN, CENTRAL GIPPSLAND HEALTH, DANEDONG HOSPITAL, FRANKSTON HOSPITAL, GEELONG HOSPITAL, MAROONDAN HOSPITAL, MONASH MEDICAL CENTRE, CLAYTON, ROYAL MELBOURNE HOSPITAL, ST VINCENT'S PRIVATE FITZROY, THE NORTHERN HOSPITAL, WERIBEE MERCY HOSPITAL, WESTERN HEALTH FOOTSCRAY, WESTERN HEALTH SUNSHINE

WA: FIONA STANLEY HOSPITAL, MOUNT HOSPITAL, ROYAL PERTH HOSPITAL, SIR CHARLES GAIRDNER HOSPITAL, ST JOHN OF GOD MURDOCH, ST JOHN OF GOD SUBIACO