

AURA 2023 Highlights

Pharmacists



The *Fifth Australian report on antimicrobial use and resistance in human health (AURA 2023)* includes data analyses from the Antimicrobial Use and Resistance in Australia Surveillance System (AURA). AURA 2023 data shows that antimicrobials continue to be prescribed at high rates in Australia, including in hospitals and in the community.

This resource highlights key findings from AURA 2023 and information about antimicrobial stewardship (AMS), to support pharmacists working across primary and acute care settings.

Pharmacists working in primary care (community)

- Compared to European countries, the United Kingdom and Canada, Australia ranks seventh highest in its use of antimicrobials in the community.
- There are significant opportunities to support further improvement in antimicrobial prescribing in primary care. The number of antimicrobial prescriptions supplied under the Pharmaceutical Benefits Scheme (PBS) and the Repatriation PBS (RPBS) decreased by more than 25% from 2019 to 2021; it then increased by almost 10% from 2021 to 2022, but the number of prescriptions in 2022 remains below that of 2019.
- There is an increasing proportion of private prescriptions for antimicrobials (prescriptions that are not subsidised under the PBS or RPBS). There are limited reporting and monitoring mechanisms in place for these prescriptions, which continues to be a gap in antimicrobial use surveillance in Australia.
- Community-onset *Clostridioides difficile* infection (CDI) is a larger health concern in Australia than was previously recognised. CDI is a known adverse effect of antimicrobial use. The rate of community-onset CDI increased from 2020 to 2021 despite the decline in antimicrobial use in the community.
- Rates of *Escherichia coli* resistance to ciprofloxacin decreased nationally from 2020 to 2021, following a steady increase in resistance to fluoroquinolones from 2013 to 2020. The decline in *E. coli* resistance may have been associated with reduced community antimicrobial use and restricted international travel during the COVID-19 response.
- Pharmacists can prescribe antimicrobials for cystitis under various arrangements in some states and territories. Awareness of the relationship between the use of antimicrobials for urinary tract infections (UTIs) and the selection pressure for resistance on bacteria such as *E. coli* is critically important, as there are limited oral options for treating UTIs.
- Pharmacists are ideally placed to communicate with consumers about the role of antimicrobials and the risk of AMR, their effects on beneficial and harmful bacteria, and other harms such as CDI and the potential for antimicrobial use to increase the risk of developing chronic conditions.
- Information on strategies to support community pharmacies to meet the AMS actions of the [National Safety and Quality Primary and Community Healthcare Standards](#) are available in [Options for implementation of AMS in primary care](#).

Pharmacists working in primary care (aged care)

- Just under half (42%) of the antimicrobials assessed were commenced more than six months prior, which is rarely recommended.
- Just over one-third (35%) of antimicrobials assessed were for PRN administration, which is inconsistent with guidelines.
- Information to support aged care homes to meet the AMS requirements of the [Aged Care Quality Standards](#), and the [strengthened Standards](#) in development, are available on the [Commission's website](#).
- The [Guiding principles for medication management in residential aged care facilities](#) aim to improve the quality and safety of medication management and provide specific guidance for AMS.
- With recent initiatives to integrate on-site aged care pharmacists with the healthcare team, there will be further opportunities to improve antimicrobial use in aged care.

Pharmacists working in acute care (hospital)

- High rates of inappropriate prescribing of antimicrobials for chronic obstructive pulmonary disease (COPD) treatment continue; In 2021, 45% of assessed hospital prescriptions were deemed inappropriate.
- Low rates of compliance with antimicrobial prescribing guidelines in private hospitals continue. A large proportion of these antimicrobials have a high selection potential for AMR.
- The use of antimicrobials for surgical prophylaxis in acute care remains an area of concern, particularly when used post-procedurally for prolonged durations.
- Antimicrobial use in Australian hospitals is estimated to be high (1.95 defined daily doses [DDDs] per 1,000 people per day), and substantially higher than in most, if not all, comparable European countries, Scotland and Canada.
- Rates of critical antimicrobial resistances (CARs) in hospitals have increased, particularly carbapenemase-producing *Enterobacterales* (CPE).
- Actions for AMS that apply to hospital pharmacies are outlined in the [National Safety and Quality Health Service \(NSQHS\) Standards](#) and the [AMS Clinical Care Standard](#).
- Information on strategies to support AMS in health service organisations are available in [Options for implementation of Antimicrobial Stewardship in a range of facilities](#).

For more information, visit: safetyandquality.gov.au/AURA2023



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