



SHPA response to Inquiry: Access to Urinary Tract Infection Treatment in South Australia, March 2023

The Society of Hospital Pharmacists of Australia (SHPA) is the national, professional organisation for the 6,100+ Hospital Pharmacists, and their Hospital Pharmacist Intern and Hospital Pharmacy Technician colleagues working across Australia's health system, advocating for their pivotal role improving the safety and quality of medicines use. Embedded in multidisciplinary medical teams and equipped with exceptional medicines management expertise, SHPA members are progressive advocates for clinical excellence, committed to evidence-based practice and passionate about patient care.

SHPA convenes an Infectious Diseases speciality practice group, comprising of a network of SHPA members who have expertise or interest in infectious diseases, including general infectious diseases, critical care, tropical medicine, antimicrobial stewardship, antimicrobial therapeutic drug monitoring, surgical prophylaxis, HIV and sexual health. The objectives of an infectious disease pharmacy service outlined in *SHPA's Standard of practice in infectious diseases for pharmacy services*¹, are to optimise the use of antimicrobials, minimise the emergence of resistance to antimicrobials and ensure the safe and effective use of antimicrobial agents to improve patient health outcomes.

SHPA's South Australia/Northern Territory Branch Committee supports safe and timely access to medicines for consumers and welcomes the opportunity to provide feedback into this Inquiry.

If you have any queries or would like to discuss our submission further, please do not hesitate to contact Jerry Yik, Head of Policy and Advocacy on jjyik@shpa.org.au.

1. Barriers facing sufferers of Urinary Tract Infections (UTIs) in gaining timely access to treatment;

Access to medicines and appropriate treatment is vital in the prompt resolution of an UTI, however for consumers living in rural and regional areas of Australia, access to a GP can be challenging. Furthermore, lack of access to hospitals in these areas can also be a barrier to treatment for severe complicated cases of UTIs.

Access to GPs is also an increasing problem in metropolitan settings across Australia, resulting in many patients presenting to emergency departments for access to UTI treatment. Between 2021-2022, genitourinary system diseases were one of the top ten most common reasons for admission to an emergency department.² This could also be due to treatment failure of first-line antibiotic therapy, complications, persistence or worsening of symptoms.

2. The applicability of implementing Queensland's Urinary Tract Infection Community Pharmacy Service in South Australia

SHPA believes that several considerations must be made prior to considering implementation of a urinary tract community pharmacy service in South Australia.

SHPA believes there is a need for state-wide oversight of antimicrobial prescribing by pharmacists, and a method of monitoring dispensing of antibiotics prescribed by pharmacists. Antibiotic surveillance data could be captured by a system such as the AURA Surveillance System³ enabling the tracking of antibiotic use and mitigate antimicrobial resistance. This would, however, prove challenging if antibiotics are prescribed and dispensed on private prescriptions which are not captured by community pharmacy PBS data or AURA, and therefore could present a gap in surveillance.



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Adequate training, credentialing and the promotion of antimicrobial stewardship for community pharmacists must be a requirement to providing this service. Checklists confirming appropriate steps to ascertain clinical indication for antibiotics are taken, as well as record keeping, can further ensure that an audit trail can occur to assess the service and provide a method to monitor antibiotic use.

Community pharmacists do not have access to previous patient pathology results required to make informed clinical decisions around treatment. For example, in the absence of urine sensitivities (what antibiotic the bacteria may respond to) or kidney function, pharmacists may find it challenging to ascertain suitability for antibiotic treatments such as nitrofurantoin, which requires dose adjustment in kidney disease, or where an alternative treatment may be indicated.

Community pharmacists also do not have access to Medicare to enable urine samples to be analysed for culture and sensitivities. While treatment for simple UTIs is empiric (where treatment is started before knowing whether the pathogen is susceptible to the antibiotic or not), in the case of treatment failure on the first antibiotic, results will not be available to guide treatment if the consumer is then referred to the GP. In addition, if sensitivity data is not collected, the true resistance rate in the community cannot be ascertained.

3. Any other related matters

Increasing antimicrobial resistance and the importance of antimicrobial stewardship

Growing antimicrobial resistance (AMR) is increasing the risk that antibiotic treatment of UTIs may fail to resolve infections. UTIs are primarily caused by pathogenic *Escherichia coli* (*E. coli*) with resistance rates of *E. coli* to trimethoprim (one of the first line antibiotics to treat UTIs) at approximately 20% in South Australia⁴ with similar rates across the rest Australia at between 21-24%.⁵

Overuse of antibiotics is the key driver of increasing AMR, thus antibiotic stewardship and prevention of inappropriate antibiotic use is vital in minimising the increasing rates of AMR.

To meet the Antimicrobial Stewardship Clinical Care Standard published by the Australian Commission on Safety and Quality of Health Care, infectious diseases pharmacists or AMS pharmacists should be embedded into antimicrobial stewardship teams in all healthcare facilities that use antimicrobials to treat patients.

Hospital pharmacists play a critical role in antimicrobial resistance, collaborating with clinicians and consumers to ensure appropriate prescribing and use of antimicrobial agents. The role of hospital infectious diseases pharmacists during the global COVID-19 pandemic highlighted the importance of ensuring they are integrated within the Infectious Diseases and Infection Prevention and Control systems to support pandemic preparedness as well as the day-to-day management of infectious diseases.

Hospital infectious diseases pharmacists are medication experts and are involved in leading, implementing and evaluating Antimicrobial Stewardship (AMS) program activities and initiatives at an organisation level, this includes managing formularies, approval systems, monitoring use and evaluating interventions, and delivering AMS training and education.

This AMS approach needs to be extended to the community settings where the greatest proportion of antibiotics are prescribed. This includes targeting education for community healthcare practitioners as well as consumers. A better shared understanding around expectations around the treatment of UTIs is also necessary to prevent inappropriate use of antibiotics from occurring.



References

- ¹ Cairns, K.A., Avent, M., Buono, E., Cheah, R., Devchand, M., Khumra, S., Rawlins, M., Roberts, J.A., Xenos, K. and Munro, C. (2021), Standard of practice in infectious diseases for pharmacy services. *J Pharm Pract Res*, 51: 247-264. <https://doi.org/10.1002/jppr.1744>
- ² Australian Institute of Health and Welfare. (2022). National non-admitted patient emergency department care database
- ³ Australian Commission on Safety and Quality in Health Care. AURA Surveillance System. Available at: <https://www.safetyandquality.gov.au/our-work/antimicrobial-resistance/antimicrobial-use-and-resistance-australia-surveillance-system/about-aura-surveillance-system>
- ⁴ SA Pathology. (2021). State-wide Cumulative Antibigram: Urine Isolates in General Practice. Available at: <https://www.sahealth.sa.gov.au/wps/wcm/connect/3a92d088-7fc5-417f-81fc-093ff958643d/Urine+Isolates+in+General+Practice+2021.pdf?MOD=AJPERES&CACHEID=ROOTWORKSPACE-3a92d088-7fc5-417f-81fc-093ff958643d-o2nh6Xk>
- ⁵ Australian Commission on Safety and Quality in Health Care. Antimicrobial Use and Resistance in Australia (AURA) Surveillance System. (2017). 'Second Australian report on antimicrobial use and resistance in human health.' Available at: <https://www.safetyandquality.gov.au/sites/default/files/2019-05/aura-2017-second-australian-report-on-antimicrobial-use-and-resistance-in-human-health.pdf>

