

FACTSHEET for health service organisations and primary care providers

Improving antimicrobial prescribing through selective reporting of antimicrobials

The Royal College of Pathologists of Australasia (RCPA) has developed a [guideline](#) that contains recommendations to support quality reporting of antimicrobials in the Australian context. Understanding how this will improve your clinical care for patients is important.

Diagnostic stewardship

Diagnostic stewardship is a tool used by microbiology laboratories to help prescribers choose antimicrobials wisely. Diagnostic stewardship aims to help clinicians:

- Choose the right test at the right time
- Understand the limitations of a microbiology result
- Choose the most appropriate antimicrobial therapy if antimicrobial therapy is required.
- If required, modify antimicrobial therapy when resistance to initial therapy is identified.

It has been shown to improve patient outcomes, reduce inappropriate antimicrobial prescribing and decrease antimicrobial resistance.

What is selective reporting of antimicrobials?

Selective reporting of antimicrobials involves only reporting the antimicrobial susceptibility results that are likely to be helpful in choosing the most appropriate antimicrobial. This can be dependent on the site of infection and aims to reduce prescribing of broad spectrum antibiotics when they are not required. Many microbiology laboratories provide this service to help clinicians choose when and what to prescribe, as part of optimal diagnostic stewardship (see case study).

Case study: selective reporting

A 32 year old female presents with urinary frequency and dysuria. She has no history of hospital or overseas travel exposure. She has had two past episodes of cystitis where she was prescribed oral trimethoprim. A midstream urine sample, positive for nitrites and leukocytes, was sent for microscopy, culture and susceptibility testing.

The RCPA guideline suggests reporting of a limited number of antimicrobials that are best suited to the treatment of cystitis based on the resistance profile of the organism. In general, a limited number of suitable oral agents, an intravenous agent and an option for penicillin allergic individuals would be included. If the organism isolated is always resistant to certain antimicrobials this may be reported too, so an antibiotic that is unlikely to work is not selected. For an *Escherichia coli* that is susceptible to all agents, you may only receive results for trimethoprim, nitrofurantoin, amoxicillin, cefalexin and gentamicin. The more resistant the organism, the more options are provided.

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Why is selective reporting important?

The [Antimicrobial Use and Resistance in Australia \(AURA\) Surveillance System](#), which is coordinated by the Australian Commission on Safety and Quality in Health Care (the Commission), has shown increasing antimicrobial resistance in Australia and high rates of prescribing antimicrobials in hospitals and the community, which were either not required or the spectrum was too broad. Prescribing the narrowest, most effective antimicrobial for the shortest duration, when indicated, is important to limit the progression of resistance and reduce the adverse antimicrobial effects on patients.

The Commission's [Antimicrobial Stewardship Clinical Care Standard](#) indicates that prescribing should be guided by microbiology test results. Whilst selective reporting of antimicrobials is not mandated, the literature suggests that this practice will assist in improving prescribing. The Commission's publication [Antimicrobial Stewardship in Australian Health Care](#) suggests that a clinical microbiology service that supports AMS programs should practice selective reporting of antimicrobials. Selective reporting of antimicrobials will also assist health service organisations to meet the requirement of the [National Safety and Quality Health Service Standards](#) in relation to an antimicrobial stewardship program that supports appropriate prescribing.

Who decides what to report?

In 2017, the RCPA reported that a number of unnecessary broad spectrum antimicrobial options were being released in microbiology reports. In 2019, the RCPA released a guideline to assist pathologists to improve selective reporting of antimicrobials. The use of this guideline is subject to the pathologist's judgement for each individual case. If antimicrobial susceptibility results that would not be normally reported are requested, a discussion between the microbiologist and requesting clinician is suggested.

What can I do to ensure I get the report I need for optimal patient care?

If the local microbiology service practices selective reporting of antimicrobials, the microbiology results will include advice on the best antimicrobials based on information provided as part of the pathology request. The more clinical information provided, the better the laboratory can optimise testing and reporting. The request should include all relevant clinical symptoms, allergies, prior antibiotic exposure, recent travel, the presence of indwelling medical devices and/or planned procedures to ensure the quickest, most relevant result for the patient.

Where do I find more information?

Contact your local microbiology service to ask about selective reporting of antimicrobials.

Contact the [Royal College of Pathologists of Australasia](#).

For further information on data available from the AURA Surveillance System, go to www.safetyandquality.gov.au/our-work/antimicrobial-resistance.

If you have any enquiries about AURA please contact AURA@safetyandquality.gov.au.