

Guidance for implementation of the Antimicrobial Stewardship (AMS) Clinical Care Standard in aged care

Aged care organisations and providers

This document provides guidance for aged care organisations and providers to support implementation of the [Antimicrobial Stewardship \(AMS\) Clinical Care Standard](#). This guidance also supports implementation of the strengthened Aged Care Quality Standards, which include an action on AMS.

The guidance should be used by clinicians including but not limited to doctors, nurses and pharmacists and be considered in the context of local requirements and policies. **Table 1** below outlines strategies that could be implemented to demonstrate that an aged care organisation or provider has policies and practices in place consistent with the AMS Clinical Care Standard.

This resource is designed to be a companion resource to the AMS Clinical Care Standard for aged care organisations and providers in residential, community and home-based settings where clinical care is provided. The AMS Clinical Care Standard uses the term “patient” in Quality Statements because it was developed for the healthcare sector.

Table 1: Options for implementation of the AMS Clinical Care Standard in aged care organisations and providers

AMS CCS	Implementation in aged care organisations and providers
Quality Statement 1	
A person with a life-threatening condition due to a suspected infection receives an appropriate antimicrobial immediately, without waiting for the results of investigations.	Where clinical care is provided, clinicians should be trained to recognise and respond to acute deterioration and escalate care appropriately. The actions taken should be in line with the older person’s goals of care, advance care plan (ACP), the acuity of their condition, and the local policies of the aged care organisation or provider. The resources that support the Sepsis Clinical

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	<p>Care Standard, although not specific to aged care, provide useful guidelines and tools.</p> <p>Clinicians should be familiar with clinical escalation pathways, limitations of care and end-of-life care which align with the values, needs and wishes of the individual, or their substitute decision makers, and their family or carer when appropriate. An example is ambulance transfer to a hospital where the goals of care indicate this is appropriate. This is applicable in both residential aged care and home-based care.</p>
Quality Statement 2	
<p>When a patient is prescribed an antimicrobial, this is done in accordance with the current <i>Therapeutic Guidelines</i> or evidence-based, locally endorsed guidelines and the antimicrobial formulary.</p>	<p>There should be access to current evidence-based antimicrobial treatment guidelines, appropriate for aged care (see Specialised Resources below).</p> <p>Prescribe, dispense, review and administer antimicrobial treatment including the appropriate:</p> <ul style="list-style-type: none"> • Active ingredient • Dose • Route of administration • Formulation • Frequency of administration • Duration • Review date. <p>Consider the older person’s specific needs, including their co-morbidities, renal function, swallowing difficulties, allergies, intolerances, and goals of care. The choice of antimicrobial should be based on best evidence accounting for potential drug interactions with the older person’s other medications.</p> <p>Aged care organisations and providers are unlikely to have an antimicrobial formulary. However, broad-spectrum last-line antimicrobials should not be prescribed, dispensed or administered without appropriate infectious diseases specialist or clinical microbiologist input. Examples of these antimicrobials include but are not limited to ceftriaxone, ciprofloxacin and piperacillin–tazobactam. The Guiding Principles for Medication Management in Residential Aged Care</p>

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	<p>Facilities and local AMS policies can support considerations for antimicrobials available on imprest.</p> <p>Inappropriate antimicrobial prescribing increases the risk of antimicrobial resistance, which is particularly concerning for older persons who are more susceptible to infections.</p>
Quality Statement 3	
<p>When an adverse reaction (including an allergy) to an antimicrobial is reported by a patient or recorded in their healthcare record, the active ingredient(s), date, nature and severity of the reaction are assessed and documented. This enables the most appropriate antimicrobial to be used when required.</p>	<p>Before prescribing, dispensing, reviewing or administering an antimicrobial, staff should consult the older person’s healthcare record and medication record. This should be readily available to all clinicians prescribing, dispensing, reviewing or administering antimicrobials. It is the responsibility of all clinicians involved in care to check that adverse reactions documented in the healthcare and medication records include the nature and severity of the reaction.</p> <p>If any of the essential elements for assessing an adverse reaction are unknown, this should be explicitly documented in the older person’s healthcare record.</p>
Quality Statement 4	
<p>A patient with a suspected infection has appropriate samples taken for microbiology testing as clinically indicated, preferably before starting antimicrobial therapy.</p>	<p>Obtain appropriate samples for microbiology testing when clinically indicated before starting antimicrobials. This can increase the likelihood that the microorganism that is causing the infection can be identified. However, antimicrobials should not be delayed if there is an urgent clinical need. Low value tests can lead to overuse of antimicrobials, inappropriate care and unnecessary environmental impact.</p> <p>Examples of low-value testing when diagnosing infection include:</p> <ul style="list-style-type: none"> • Urine dipstick for an older person without clinical signs or symptoms of a urinary tract infection (UTI) • Urine culture for an older person without clinical signs or symptoms of a UTI • Urine culture for an older person who has a long-term urinary catheter without signs or symptoms of a UTI

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	<ul style="list-style-type: none"> • Swab of a wound that does not look clinically infected • Sputum culture for exacerbation of Chronic Obstructive Pulmonary Disease (COPD). <p>In general, microbiology testing should be avoided unless there are symptoms and signs of an infection.</p> <p>Case study 1 An older person has sudden onset of confusion with no other signs of infection. A urine dipstick test is performed. The dipstick comes back positive for nitrites and leukocytes.</p> <p>Important considerations:</p> <ul style="list-style-type: none"> • Older persons with non-specific symptoms, such as drowsiness, behavioural changes, malodorous or dark urine, or those who have experienced a fall, are often misdiagnosed with a UTI using dipstick test results. • A positive result for ‘nitrite’ (bacterial marker) or ‘leucocyte’ (white blood cell marker) may be a normal finding because a very high proportion of older people have asymptomatic bacteriuria, which means that they have harmless bacteria in their urine. • An older person should have signs and symptoms that are consistent with a urinary tract infection prior to performing a urine dipstick. If performed in an older person with non-specific symptoms, it is more likely to be related to asymptomatic bacteriuria than UTI. Using a positive dipstick test result to diagnose UTI might result in the real diagnosis being missed, and the older person may receive antibiotics unnecessarily. For an older person with non-specific clinical changes, a clinical assessment should be used to guide clinical diagnosis rather than a urine dipstick test. • For additional resources on an evidence-based approach for use of urine dipstick testing in older persons, refer to the Therapeutic Guidelines and To Dip or not to Dip

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	<p>Case Study 2</p> <p>An older person has sudden onset of confusion. The doctor suspects this could be due to the recent increase in dose of their buprenorphine patch. A urine culture was taken as a precaution to assist with determining whether the confusion was due to a UTI. Antibiotics were not started. The buprenorphine dose was decreased, and the older person’s cognitive state improved. The urine culture results came back the following day with <i>Escherichia coli</i> (also called <i>E. coli</i>) 10⁶CFU (significant growth).</p> <p>Important considerations:</p> <ul style="list-style-type: none"> • Clinical interpretation of urine culture results is required • Even positive urine cultures should be considered in the context of the older person’s clinical presentation. Positive urine cultures could be due to asymptomatic bacteriuria. • A urine culture alone does not confirm a UTI, the older person’s clinical symptoms and signs does. The Therapeutic Guidelines has a flow chart that outlines assessment and treatment of a UTI. • Collect urine samples appropriately to minimise risk of contamination and store appropriately to minimise bacterial overgrowth. Refer to the To Dip or Not to Dip Clinical Pathway user guide for guidance on collecting urine samples.
Quality Statement 5	
<p>A patient with an infection, or at risk of an infection, is provided with information about their condition and treatment options in a way that they can understand. If antimicrobials are prescribed, information on how to use them, when to stop, potential side effects and a review plan is discussed with the patient.</p>	<p>It is the responsibility of clinicians involved in the older person’s direct care to discuss with the older person (and their substitute decision makers and representatives when appropriate) about the natural progression of the infection and potential benefits and harms of treatment options. The Do you need antibiotics? fact sheet is a helpful resource for this conversation.</p> <p>If antimicrobials are required, the risks related to medication interactions, underlying health conditions and side effects should be discussed. A side effect that may occur with antibiotics is <i>Clostridioides difficile</i> infection (also called <i>C. difficile</i>), which can present as diarrhoea and abdominal pain. The risk of <i>C. difficile</i> infection increases with advancing age. Older persons (and family</p>

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	<p>or carers if appropriate) should be informed about how they can identify ineffective treatment and adverse effects of the antimicrobial.</p> <p>Communicating the appropriate information will allow a shared decision to be made that considers the older person’s preferences and needs. It also ensures that the requirements of the Charter of Aged Care Rights are met.</p>
Quality Statement 6	
<p>When a patient is prescribed an antimicrobial, the indication, active ingredient, dose, frequency and route of administration, and the intended duration or review plan are documented in the patient’s healthcare record.</p>	<p>All antimicrobial treatment plans should be appropriately documented in the antimicrobial ordering form, with clear treatment indications, expected course of the infection and planned review, duration of treatment, stop date or review date as supported by evidence-based guidelines.</p>
Quality Statement 7	
<p>A patient prescribed an antimicrobial has regular clinical review of their therapy, with the frequency of review dependent on patient acuity and risk factors. The need for ongoing antimicrobial use, appropriate microbial spectrum of activity, dose, frequency and route of administration are assessed and adjusted accordingly. Investigation results are reviewed promptly when they are reported.</p>	<p>All antimicrobial therapy should be reviewed regularly by clinicians, particularly antimicrobials with prolonged durations (e.g., longer than 7 days) and PRN (pro-re-nata) or as required orders.</p> <p>Aged care organisations and providers should have a local policy which outlines clear responsibility and mechanisms for checking and reviewing of microbiological results and duration of antimicrobials. When microbiological test results are available, they should ideally be reviewed by the doctor within 24 hours. This information should be used in conjunction with the older person’s clinical progress to determine whether changing, stopping or continuing antimicrobials is appropriate.</p> <p>Antimicrobial prescriptions for prophylaxis should be reviewed for risk, benefits, and reason for prescription. Review of these prescriptions should include a discussion with the older person (and family or their substitute decision makers and representatives) on the advantages and disadvantages of continuing or stopping. Antimicrobials that are charted PRN (pro-re-nata) or as required are not recommended and are inconsistent with</p>

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	<p>guidelines. If this is identified in practice, it should be escalated for immediate review.</p> <p>Pharmacy programs that support the quality use of medicines for people living in approved Australian Government-funded aged care facilities include:</p> <ul style="list-style-type: none"> • <i>Residential Medication Management Review</i> - a service provided by a Credentialed Pharmacist to an older person, as requested by a medical practitioner, to undertake a comprehensive assessment of the older person’s medications and medication-related healthcare interventions. • <i>Quality Use of Medicines</i> - a service provided by a Registered or Credentialed Pharmacist that focuses on improving practices and procedures relating to the quality and safe use of medicines in residential care facilities. • <i>Aged Care On-site Pharmacist Measure</i> - which supports community pharmacies and residential aged care homes to employ pharmacists to work on-site in residential aged care homes alongside other aged care professionals to improve medication management, participate in quality use of medicines activities and ensure older people are using their medications safely.
Quality Statement 8	
<p>A patient having surgery or a procedure is prescribed antimicrobial prophylaxis in accordance with the current <i>Therapeutic Guidelines</i> or evidence-based, locally endorsed guidelines. This includes recommendations about the need for prophylaxis, choice of antimicrobial, dose, route and timing of administration, and duration.</p>	<p>There are limited reasons for prescribing antimicrobials to prevent infections.</p> <p>Antibiotics should not be prescribed before insertion or removal of indwelling urinary catheters to prevent an infection. Antibiotics should not be prescribed before dental or other procedures to prevent infections, unless it is recommended in evidence-based treatment guidelines that are appropriate for aged care or individual circumstances.</p> <p>Surgical antimicrobial prophylaxis should be prescribed, dispensed, reviewed and administered according to the recommendations outlined in the current <i>Therapeutic Guidelines</i> or other local evidence-based guidelines.</p>
Specialised Resources	<ul style="list-style-type: none"> • AMS Book – Chapter 16 – Antimicrobial stewardship in community and residential aged care

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	<ul style="list-style-type: none"> • Antibiotics (antimicrobials) and older people – what you should know • Topical Antifungals in Aged Care factsheet • Asymptomatic bacteriuria factsheet • Aged Care Quality and Safety Commission – Do you need antibiotics? • Aged Care Quality and Safety Commission – To Dip or Not to Dip • Aged Care Quality and Safety Commission – AMS consumer resources • Therapeutic Guidelines • Access to Therapeutic Guidelines • Do I really need antibiotics? Australian Commission on Safety and Quality in Health Care • The Aged Care Infection Prevention and Control Guide – see Chapter 10

For more information, please visit: [Antimicrobial stewardship in aged care](#)

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