

**AUSTRALIAN COMMISSION  
ON SAFETY AND QUALITY IN HEALTH CARE**

**Consultation Report**

**Draft Antimicrobial Stewardship  
Clinical Care Standard**

**July 2014**



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# Introduction

The Australian Commission on Safety and Quality in Health Care (the Commission) was created by Health Ministers in 2006 to lead and coordinate health care safety and quality improvements in Australia. *The National Health Reform Act 2011* established the Commission as an independent, statutory authority. It specifies that the Commission will formulate and monitor safety and quality standards and work with clinicians to identify best practice clinical care.

The *National Health Reform Agreement 2011* identifies that the Commission will work with clinicians to develop clinical standards for ensuring the appropriateness of care for people with specific clinical conditions, and that the Commission will recommend to Health Ministers the clinical standards suitable for implementation as national clinical standards.

The Commission has been working with consumers, clinicians, health managers and researchers to develop an Antimicrobial Stewardship Clinical Care Standard.

It complements existing efforts supporting antimicrobial resistance.

This report provides a summary of consultation findings regarding the draft Antimicrobial Stewardship Clinical Care Standard.

## About the consultation

The public consultation period took place from 18 December 2013 to 14 March 2014. A total of 80 responses were received by the Commission as part of this consultation process.

Consultation documents for this Clinical Care Standard included:

- the draft Clinical Care Standard for Antimicrobial Stewardship. This document outlined key components of care a person should receive when they have, or are suspected of having, a bacterial infection. It covered the care from the time of diagnosis to cure of an infection and has been developed for use in hospital, general practice and residential aged care facilities.
- a summary of evidence sources used to support the development of the Clinical Care Standard.
- a draft indicator specification. This document outlined a set of suggested indicators developed to assist local implementation of this Clinical Care Standard. These indicators intend to support health services in monitoring the implementation of the quality statements, and improvements as needed.
- draft consumer and clinician fact sheets.

The purposes of the consultation process were to determine if the draft Clinical Care Standard covered key components of care, the relevance of suggested indicators and fact sheets, and to identify potential enablers and barriers regarding the use of the Clinical Care Standard.

Stakeholders across Australia were contacted by post and requested to submit feedback on the draft Clinical Care Standard. The consultation was also promoted via the Commission's website, Twitter account, *On the Radar* weekly publication and email bulletin. Members of the Antimicrobial Stewardship Topic Working Group also promoted this consultation.

Those contacted included medical colleges and societies, organisations, state health departments, Local Health Networks, Medicare Locals, consumer groups and private sector organisations. Feedback was received by either written response or online survey from a cross-section of these stakeholders. Additionally, key organisations met with the Commission to discuss the draft Clinical Care Standard in detail.

The following sections of the report provide a summary of the consultation process and responses.

# Consultation process

## Consultation questions

The Commission asked stakeholders to respond to the following consultation questions:

1. How well does each quality statement cover the key aspects of care that it describes? Please provide any comments you may have and evidence to support any modification to a quality statement.
2. What factors currently prevent the care described in the Clinical Care Standard from being achieved?
3. What factors will support the practical application of this Clinical Care Standard?
4. How relevant are the suggested indicators in supporting the monitoring of the quality statements at the local health service level? Please provide any comments you may have and evidence to support any modifications.
5. How should the Clinical Care Standards be disseminated?
6. Do you have any general comments in relation to each Clinical Care Standard?

## Submissions received

A total of 80 submissions were received. A breakdown is provided below:

Respondent type	Number of responses
Individuals	14
Colleges	11
Consumer organisations	1
Jurisdictions (state or territory response)	6
Organisations:	
- General	24
- Medical Local	3
- Private health care	7
Local Health Networks	14
Total	80

## Assessment of submissions

Submissions were allocated an identification number and classified according to the comment they related to, such as language/structure of the document, consumer fact sheets, scope of the Clinical Care Standard, quality statements, indicators, enablers/barriers, dissemination and general comments.

Feedback was themed for analysis and assigned into one of the following categories:

1. Consider now: Comments in this category were those relating to the scope of the Clinical Care Standard and the focus of each quality statement, terminology used, specificity, clarity of language particularly in the 'what it means' section, relevance of the proposed indicators, supporting evidence, and barriers and enablers relating to implementation.
2. Consider in the future: Comments under this category were those suggesting expansion to the current scope of the Clinical Care Standard. (e.g. extending the Clinical Care Standard to address antivirals and antifungals).
3. No action: Comments in this category expressed agreement and/or support for the Clinical Care Standard. Comments in this category also related to personal experience or suggestions to include background information that was out of scope of a Clinical Care Standard.

Following this assessment, this information was provided to the Antimicrobial Stewardship Topic Working Group for further refinement of the Clinical Care Standard.

# Summary of consultation feedback

Overall, there was strong support for the development and draft content of the Antimicrobial Stewardship Clinical Care Standard. Many commended the Commission for undertaking this work, and the multidisciplinary nature of the topic working group.

Feedback indicated that the Antimicrobial Stewardship Clinical Care Standard would provide important guidance to clinicians and health services regarding the provision of high quality and for consumers regarding the care that they can expect to receive. Many noted the value that the Antimicrobial Stewardship Clinical Care Standard would provide to initiatives currently addressing antimicrobial stewardship.

Below is a summary, although not exhaustive, of the responses received.

## Structure and language

The structure of the Antimicrobial Stewardship Clinical Care Standard appears appropriate, with feedback supporting the separate focus on the clinician, patient and health services. It was suggested that the reordering of the quality statements may increase the emphasis on 'patient centeredness'.

The language was noted as easy to understand, with the quality statements appropriately worded and constructed for ease of interpretation by front-line clinicians and consumers. Feedback suggested the need to consider terminology and advice that reflects the capacity or limitations of primary care.

There were comments regarding the suitability of the title, 'Antimicrobial Stewardship' versus 'Antibiotic Stewardship', with suggestions that this change in title would be a better description of the document.

Some respondents referenced the National Safety and Quality Health Service (NSQHS) Standards regarding the consistency of terminology (i.e. clinical record vs medical record). There was recognition of the expected requirements in line with the Antimicrobial Stewardship Clinical Care Standard, which are also addressed by the NSQHS Standards (i.e. informed consent, medication management, clinical governance and clinical handover). These comments highlight the connectivity between the work of the Commission's Clinical Care Standards program and the Accreditation program at a health system level.

Regarding the consumer and clinician fact sheets, feedback conveyed that both fact sheets were concise, easy to follow and very helpful documents. The Commission was congratulated for considering a patient-centred approach in developing a consumer fact sheet.

Suggested improvements to the fact sheets included the use of plain English, editing as well as user-testing to ensure accessibility to consumers of varying literacy levels. The inclusion of discussion prompts to aid interactions between clinicians and patients as well as broaching informed consent was also suggested. Feedback suggested to present the clinician fact sheet as per the consumer fact sheet, that is, to include a '*what this means for you*' section for each of the quality statements.



## Scope

Comments related to the applicability of the Antimicrobial Stewardship Clinical Care Standard to other patient groups besides adults, for instance paediatrics.

Furthermore, the terminology and advice contained within the draft Clinical Care Standard is hospital or acute care in focus and does not reflect the capacity or the limitations of primary care, such as dentistry that provide services in an office based environment.

In addition, feedback indicated that the Antimicrobial Stewardship Clinical Care Standard mostly refers to the use of antibiotics and suggested to broaden the scope to include other antimicrobial agents such as antifungals and antivirals.

## Quality statements

Overall, positive feedback was received with agreement about the intent of the Clinical Care Standard and the quality statements underpinned by clear, rational principles that align well with antimicrobial stewardship programs.

The majority of feedback on the quality statements related to suggestions to improve specificity and clarity. Some questioned the reference to the therapeutic guidelines and the fact that some of the quality statements may become out of date if the therapeutic guidelines are updated. A suggestion included the use of the wording “current therapeutic guidelines: Antibiotics” as a way to emphasise the need to refer to the latest version of the therapeutic guidelines.

Concerns were raised about the applicability of the Antimicrobial Stewardship Clinical Care Standard to dentistry, particularly regarding reference to the *Therapeutic Guidelines: Antibiotics* over the *Oral and Dental Therapeutics* publication. Advice sought from the Antimicrobial Clinical Standard Topic Working Group on this point indicates that the *Therapeutic Guidelines: Antibiotics* are consistent with the oral and dental guidelines for antibiotics, therefore these documents can be used interchangeably.

Key feedback for each quality statement is below:

### ***Draft quality statement 1: Life-threatening conditions***

**A patient requiring urgent treatment for a life-threatening condition due to a suspected bacterial infection receives antibiotic treatment without waiting for the results of microbiology tests.**

Feedback in line with Quality Statement 1 focused on the timing of the provision of antibiotics. There were suggestions to include terms such as “as soon as possible” or “without delay” or to specify a time by which antibiotics should be provided.

It was felt that this quality statement is also applicable to General Practice, specifically in relation to suspected bacterial meningitis and the need to commence treatment in the practice rather than wait for transport to the emergency department. In addition, definitions used for narrow and empirical antibiotic identified that a combination of narrow spectrum antibiotics can be the equivalent of providing broad spectrum.

### ***Draft quality statement 2: Microbiological testing***

**A patient has samples taken for microbiology testing when clinically indicated and before starting antibiotic treatment whenever possible.**

There was general agreement with the intent of this quality statement. The comments mainly focused on the quality statement's applicability to other settings beside hospitals; and the potential costs implication for the system or patient by undertaking microbiology testing in the general practice or residential care when it may not be needed.

It was suggested the term 'when clinically indicated' required clarification. On this point, the Antimicrobial Stewardship Topic Working Group had previously discussed the broad applicability of microbiology testing to other settings and agreed that the term 'when clinically indicated' was appropriate to use in the construct of this quality statement.

### ***Draft quality statement 3: Information on treatment options***

**A patient with a suspected bacterial infection, and/or their carer, receives information on their condition and treatment options, which may or may not include antibiotic therapy.**

Feedback for Quality Statement 3 indicated that in some circumstances, such as language barriers, lack of carers or gravity of the patient's condition may limit the provision and discussion of information with the patient.

The use of consistent terminology along the lines of those used by the NSQHS Standards was recommended.

Comments also indicated that patients' expectation is a driver of inappropriate antibiotic prescribing and the need for patient education and support where antibiotics are not indicated.

### ***Draft quality statement 4: Use of guidelines and clinical condition***

**When a patient is prescribed antibiotics, this is done in accordance with the current version of Therapeutic Guidelines: Antibiotic or guidelines based on local bacterial susceptibility patterns, taking into consideration a patient's allergies and other clinical factors.**

There were three main remarks for this particular quality statement. One was about clarifying the use of either empiric or directed antibiotic therapy once the infecting organism and its susceptibilities are known. The second comment questioned the rationale behind 'local bacterial susceptibility patterns'. It argued that they provide an unnecessary option to deviate from accepted guidelines, commenting that, "It is rare for local susceptibility patterns to influence pre-set treatment or prophylaxis guidelines. However antibiotic selection may deviate from guidelines for individual patients, in settings where a patient has received previous antibiotics, or is colonised with particular multi-resistant organisms etc. This is an important distinction".

The need to validate local pathways or guidelines that take into account patient and other clinical factors was suggested, noting that, "In some settings, hospitals have adapted Therapeutic Guidelines and have developed local pathways for care, usually based on TGL (Therapeutic Guidelines Limited). Often these are adapted based on specific patient populations (rather than susceptibility patterns). The draft guidelines should validate locally adapted guidelines or pathways as an option". Further comments noted "local variation needs to be taken into account".

The third comment was about the applicability of the *Therapeutic Guidelines: Antibiotics* in non-acute settings such as general practice and dental, in light that the latter has an equivalent set of guidelines.

***Draft quality statement 5: Taking antibiotics as prescribed***

**If antibiotics are prescribed, information about when, how and for how long to take them, as well as potential side effects and a review plan, is discussed with a patient and/or their carer.**

As this quality statement aims at improving patients' adherence with antibiotic therapy, the majority of comments were about adding more detail to the quality statement or what the statement means for the patient or clinician.

Comments suggested including detail such as *"give people the opportunity to ask questions"* or *"explain that they need to finish their antibiotics"* or *"discussed with and explained to a patient and/or their carer recognising their health literacy levels and needs"*.

***Draft quality statement 6: Documentation***

**When a patient is prescribed antibiotics, the clinical reason, drug name, dose, route of administration, intended duration and review plan is documented in their medical record.**

The main comments related to the use of a broader term to define 'medical record'. It was suggested that the use of the term 'health record' is more inclusive of all health professionals who prescribe antibiotics (including optometrists), not just medical doctors, and therefore 'health record' is considered as providing a more comprehensive health professional context.

***Draft quality statement 7: Use of broad-spectrum antibiotics***

**A patient who is treated with a broad-spectrum antibiotic is reviewed and, where indicated, switched to treatment with a narrow-spectrum antibiotic as indicated by microbiology test results.**

Feedback suggested that this statement may imply that changes in the patient's antibiotics is contingent on microbiology results only rather than considering changes in the patient's clinical status. Other feedback noted that microbiology results may not be available or required at all times in order to change the patient's treatment with some suggesting the need to review a patient's clinical status when switching treatment.

***Draft quality statement 8: Review of treatment***

**If microbiology tests are conducted to identify a suspected bacterial infection, the responsible clinician reviews these results in a timely manner (usually within 48–72 hours) and the patient's antibiotic therapy is modified accordingly.**

Feedback was received regarding the timing of results being available. Comments indicated that results of microbiology tests are generally available within 72 hours and once available, test results should be reviewed and antimicrobial therapy modified or ceased in view of the patient's clinical status. The suitability of the time frame for review of treatment in residential aged care was raised with suggestions on the provision of guidance for the frequency of treatment review in non-acute settings.

### **Draft quality statement 9: Surgical prophylaxis**

#### **A patient receives surgical prophylactic antibiotics in accordance with the latest version of Therapeutic Guidelines: Antibiotic or guidelines based on local bacterial susceptibility patterns.**

Feedback expressed concern regarding consideration of local bacterial susceptibility patterns in light of the therapeutic guidelines. Comments indicated that local bacterial susceptibility patterns should not determine local treatment guidelines. It was noted that *'Local guidelines, which may be useful in improving local unit adherence in prophylaxis, are acceptable as long as they are adapted to and consistent with national guidelines and evidence based'*.

Other comments sought clarification regarding the implementation of this quality statement within non-acute settings such as residential aged care and day procedure services.

### **Feedback on indicators**

Overall, feedback was supportive for the quality indicators, developed in line with the Antimicrobial Stewardship Clinical Care Standard, with many respondents noting that measurement is crucial for monitoring and improvement. A number of comments highlighted the burden of data collection and indicator fatigue, inclusive of the associated challenges in data collection. Feedback suggested the need to be explicit regarding the requirements of an indicator (for example, documentation requirements) to assist with auditing requirements.

It was suggested to review the indicators against the 'NSW TAG Quality Use of Medicine for Hospitals Indicator/Clinical Excellence Commission' set and limit duplication of indicators that may already be collected. Regarding Indicator 1a, feedback identified that by limiting the time to antibiotic therapy for life threatening infections to Emergency Department (ED), that ambulances and hospitals without EDs providing immediate treatment would not be able to apply the indicator. It is suggested to broaden 'First contact' to include GP and ambulance service.

Although no appropriate indicator measures were identified for quality statement 3, it was suggested that auditing whether information on treatment options is provided in a format and language that are able to be understood would be a useful area for individual antimicrobial stewardship programs to assess.

Regarding Indicator 4a, feedback suggested the need to be explicit in defining what constitutes "accordance" with guidelines (i.e. choice of antimicrobial, dose, route, frequency) to assist with auditing. Reference was made to the 'National QUM Indicator 2.2: Percentage of prescriptions for restricted antibiotics that are concordant with Drug and Therapeutics Committee approved criteria'.

Regarding Indicator 4b, it was noted that antibiotic-allergy mismatch may not be detected if the adverse drug reactions are not routinely documented on the medication chart or other clinical records. Another comment suggested extending the definition in the numerator to include specific hypersensitivity reactions (e.g. urticarial, angioedema, bronchospasm or anaphylaxis).

Although no appropriate indicators were identified for quality statement 5, feedback suggested that documentation of counselling patients in the medical notes could be used as a surrogate marker. One respondent suggested that the National QUM Indicators (2014) (Indicator 5.8 and 5.9) could be amended to suit measurement of this quality statement.

In line with Indicator 6a, feedback recommended the need to be explicit regarding acceptable indications for antimicrobial therapy and suggested for the use of 'antibiotic' be changed to 'antimicrobial therapy' to allow for inclusion of all combinations of treatment. Also, the need to

define the denominator, the 'number of prescriptions' was suggested, for example, where multiple drugs are prescribed, to indicate whether this scenario is counted as one prescription or many.

Regarding Indicator 7/8a, suggestions included the addition of 'planned duration of therapy'; combining the 'use of broad-spectrum antibiotics' and 'review of treatment quality statements' into one indicator (e.g. that measures proportion of patients on broad-spectrum therapy that are reviewed and changed to narrow-spectrum antibiotics on results of microbiology tests); the numerator to be changed from "within 48-72 hours" to "within 72 hours" to limit inconsistencies when measuring this indicator, and the addition of another indicator measuring microbiology mismatch, in line with quality statements 7 and 8. In line with Quality Statement 8, a review of the usefulness of including a post-antibiotic course review at the same time as treatment review was suggested.

Feedback on Indicator 9a suggested including explicit information on what constitutes "accordance" with guidelines (i.e. choice of antimicrobial, dose, route, frequency, duration and time of dose in relation to surgery). Regarding Indicator 9b, one comment noted that prophylactic antibiotics are usually given just before the incision as a bolus, not 2 hours before (except Vancomycin). Regarding Indicator 9c, two respondents questioned the rationale of extending the interval from 24 hours to 48 hours for vascular surgery, given the recommendations in the Therapeutic Guidelines: Antibiotic.

## **Barriers and enablers to care identified in the Clinical Care Standard**

Barriers affecting the implementation of the Clinical Care Standard were classified as follow:

- Limited time and resources dedicated to antimicrobial stewardship in hospitals, which can affect the capacity to measure improvement.
- Knowledge and attitudes towards antimicrobial prescribing, particularly de-escalation and limited knowledge of the importance of antimicrobials, which may prevent the care, described in the Standard from being achieved.
- Lack of practical tools and resources supporting the quality statements available to clinicians in their workplace, preventing application of the statements to practice.
- Circumstances outside the scope of *Therapeutic Guidelines: Antibiotic* - there may arise clinical scenarios where *Therapeutic Guidelines: Antibiotic* and local guidelines do not provide any direction to support quality statement 4, '*Use of guidelines and clinical condition*'.
- Communication challenges – ensuring that the information reaches the various groups of prescribers.
- Rurality and remoteness – limited resources for effective implementation, monitoring and auditing.

Enablers affecting the implementation of the Clinical Care Standard were classified as follow:

- Adequate resourcing, target education and senior leadership and commitment.
- Dedicated resources required for measurement and analysis of the proposed indicators to be feasible.
- Giving health services more specific information on how they can support the actions described in the Standard. This would then give antimicrobial stewardship teams a better understanding of

how to achieve change in their health service, and allow them to negotiate what kind of support is needed from their health service executive.

- Targeted education to consumers, clinicians and health services on the rationale behind the Clinical Care Standard, the relevance of the quality statements to healthcare, current gaps in practice between the care described in the Standard and the care delivered by health services may assist the practical application of this Clinical Care Standard. Above all, clinicians (primarily antimicrobial prescribers) need the skills, knowledge, tools and time to be able to deliver the care in the Standard without it impacting workload and competing priorities.
- Linking with other services like National Prescribing Service.
- Availability of therapeutic guidelines.

## Dissemination strategies

A summary of the suggested mediums for dissemination is provided below:

- **Consumers:** social media, local media, radio, TV, web-based resources, in translated formats, via consumer groups, via mobile/tablet devices.
- **Clinicians:** education sessions, tertiary curricula, in-service forums, printed resources, social media, via mobile/tablet devices, web-based resources (widgets, wiki, support tools, webinars), IT systems, resources (clinical pathways), conferences, via local health districts, Medical Locals, professional colleges and peak organisations, presentations.
- **Health services:** policy, via email, printed resources, intranet, Key Performance Indicators (KPIs), agency agreements, accreditation and quality information boards.

## Next steps

Feedback from the consultation process was collated and analysed, and a summary of key findings was presented to the Antimicrobial Stewardship Topic Working Group. Following this, the Clinical Care Standard was revised and finalised for submission to the Commission's various committees.

The Clinical Care Standard will undergo a process of endorsement through the relevant channels.

It is envisaged that the Commission will provide high-level implementation support for this Clinical Care Standard, with activities and resources to be identified in the coming months.

Further information about this Clinical Care Standard can be found at <http://www.safetyandquality.gov.au/ccs>

If you would like to be kept informed about the work of the Commission, sign up to the Commission's newsletter online, or follow the Commission on Twitter @ACSQHC.