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Structure indicators for antimicrobial stewardship programs in health service organisations

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Introduction

Structure indicators provide qualitative information regarding the operating environment (these include: hospital infrastructure, culture, systems, policies, procedures and activities) required for provision of quality health care; they typically require 'Yes / No' answers and provide a snapshot of the organisational environment at a particular point in time.[1] Process indicators assist in assessing policy, practice and monitoring and feedback mechanisms. They can be used to target and evaluate initiatives to improve practice, in this case specifically focussed on antimicrobial stewardship (AMS).[2]

The *Structure Indicators for Antimicrobial Stewardship in Health Service Organisations* (the Indicators) have been developed by the Australian Commission on Safety and Quality in Health Care (the Commission) to support health service organisations assess the status, and measure the progress, of their AMS programs. It is acknowledged that performance indicators for AMS may already exist in health service organisations. The Indicators provided in this document can be incorporated or adapted, as appropriate to the local context, taking account of existing indicators.

The Indicators were derived from the core and supplemental structure and process indicators for hospital antimicrobial stewardship programs developed by the Transatlantic Task Force on Antimicrobial Resistance (TATFAR)[3] and the Pulcini[4] checklist for global hospital AMS programs. The Commission's Antimicrobial Stewardship Advisory Group considered these indicators, and others, and adapted them for the Australian health environment to ensure relevance to local health care systems.

The outcome of this work is a suite of indicators for use by health service organisations in their assessment of the effectiveness of local and networked AMS programs. The Indicators are not mandatory, but provide a resource that can help identify and inform areas for improvement and successful strategies. The indicators offer the potential for by health service organisations to compare their local AMS programs with other health service organisations in Australia, and internationally.

The Indicators also incorporate the essential elements and strategies for hospital AMS programs published in *Antimicrobial Stewardship in Australian Health Care 2018*.[2] The final indicator set in this document reflects the importance of having a well-supported multidisciplinary infrastructure to help ensure antimicrobial stewardship is sustainably integrated into clinical practice.[5]

About the Indicators

The Indicators are presented in the form of a self- assessment checklist that includes a section for recording actions required if an indicator is not met, and if met, the source of the evidence. They have been mapped to the relevant AMS criterion action items in the *National Safety and Quality Health Services (NSQHS) Standards* (second edition) – *Clinical Governance, Partnering with Consumers*, *Preventing and Controlling Healthcare-associated Infection* and *Medication Safety* where appropriate.[6] They have also been mapped to some of the *Antimicrobial Stewardship Clinical Care Standard.*[7] The Indicators may be used by health service organisations to support compliance with the NSQHS Standards.

The suite of 26 indicators describe a range of characteristics for an effective AMS program, and where relevant, supplementary information is provided to assist with data collection. The Indicators are grouped into three domains:

- Infrastructure
- Policy and practice
- Monitoring and feedback

Health service organisations can select those indicators most relevant to their environmental and operational context. It may be that a selection across the three domains is used for review, over a period of years, to assess improvement over time.

Completing the assessment

It is recommended that the assessment is completed by a multidisciplinary group, such as the AMS team or representatives of the AMS committee. All questions relevant to each indicator should be considered as part of the assessment. The supplementary information provides guidance to the team and needs to be considered within the context of the nature of the service. For example, the needs and resources of a principal referral hospital compared with a small health service. The results can be used to inform the AMS plan for the health service organisation.

To be most effective, assessments should be conducted at regular intervals so that progress against previous recommendations for improvements can be considered. Where appropriate further action can then be determined; annual assessments may an appropriate frequency in the early stages of development

The Commission will continue to work with health service organisations to inform the Indicators so they remain a useful tool.

Table 1: The suite of AMS indicators for consideration by health service organisations or networks.

	AMS Indicators
1	Does your health service have a formal **antimicrobial stewardship (AMS) program** for ensuring appropriate antimicrobial use?
2	Does your health service have a designated member of the **senior executive with accountability** for antimicrobial leadership?
3	Does your health service have a **formal organisational structure** responsible for antimicrobial stewardship?
4	Is an antimicrobial stewardship **team** available at your service?
5	Is there a clinician identified as a **leader** for antimicrobial stewardship activities at your health service?
6	Has the clinician responsible for AMS activities had **specialised training** in infectious disease management or stewardship?
7	Is there a **pharmacist** with dedicated responsibility for and/or time to support AMS at your health service?
8	Does your health service provide **dedicated time** for antimicrobial stewardship activities?
9	Is **clinical infectious disease** (ID) consultation available either onsite or externally through a formalised arrangement?
10	Does your health service have access to a **clinical microbiology service** that provides guidance and support for optimal specimen collection and timely reporting of clinically meaningful pathogens and their susceptibilities?
11	Does your health service have the **IT capability** to support the needs of the antimicrobial stewardship activities?
12	Does your health service provide ongoing **education and training** for prescribers, pharmacists, nurses and midwives?
13	Does your health service have systems in place for clinicians to **discuss with patients** and/or their carers the need to take antimicrobials as prescribed, how and for how long to take them, any potential side effects and whether treatment will need be reviewed?
14	Does your health service provide access to and promote the use of, the current version of **Therapeutic Guidelines: Antibiotic**
15	Does your health service have **clinical guidelines** that incorporate antimicrobial treatment recommendations?
16	Are your health service's **clinical guidelines** easily accessible to prescribers on all wards?
17	Does your health service have a written policy that incorporates the **Antimicrobial Stewardship Clinical Care Standard**?
18	Does your health service have an antimicrobial **formulary** that includes restriction rules and approval processes?
19	Is there a formal procedure for a physician, pharmacist, or other staff member to review the appropriateness of selected antimicrobials at a nominated time period from the initial order (**post-prescription review**)?
20	Has your health service produced a cumulative antimicrobial susceptibility report (**antibiogram**) in the past year?
21	Does your health service monitor the **quality of antimicrobial use** at unit and/or organisation wide?
22	Does your health service **monitor if the indication** is captured in the medical record for antimicrobial prescriptions?
23	Does your health service audit or **review surgical antimicrobial prophylaxis** choice and duration (where surgery is performed)?
24	Are results of antimicrobial use and prescribing audits or reviews **communicated directly** with prescribers?
25	Does your health service **monitor the quantity of antimicrobial use** by grams of antimicrobial(s) by patients per day?
26	Has an **annual report,** focused on antimicrobial stewardship, been produced for your health service?

Table 2: Structure indicators for hospital antimicrobial stewardship programs

Legend		Relates to NSQHS Standard		Relates to AMS CC Standard		Independent of NSQHS and AMS Standards

	Indicator no.	NSQHS/CCS action item	Description	☐ Met or not met
Infrastructure	**1**	**NSQHS Standards** Action 1.10 Action 3.1 Action 3.15 Action 4.1	Does your health service have a formal **antimicrobial stewardship (AMS) program** for ensuring appropriate antimicrobial use? ***Supplementary information:*** *This should be a priority objective and a key performance indicator for the health service.*	☐ No ➔ further action is required ☐ Yes ➔ list source of evidence
	2	**NSQHS Standards** Action 1.1	Does your health service have a designated member of the **senior executive with accountability** for antimicrobial leadership?	☐ No ➔ further action is required ☐ Yes ➔ list source of evidence
	3	**NSQHS Standards** Action 1.3	Does your health service have a **formal organisational structure** responsible for antimicrobial stewardship [e.g., a multidisciplinary committee focused on appropriate antimicrobial use (antimicrobial stewardship committee), drug and therapeutics committee, patient safety committee or other relevant structure]? ***Supplementary information:*** *Committee membership should include clinicians other than those who are members of the AMS team (e.g. clinicians from ICU, surgery, medicine). The organisational structure should include links between the AMS committee/team and the infection prevention and control committee/team. The AMS Committee functions may be performed by a Local Hospital Network/District or private hospital group committee.*	☐ No ➔ further action is required ☐ Yes ➔ list source of evidence
	4		Is an antimicrobial stewardship **team** available at your health service (e.g., greater than one staff member supporting AMS program and activities)? ***Supplementary information:*** *This is the group of clinicians responsible for implementing AMS strategies "on the ground". The composition of the team will depend on the resources and needs of the health service. See table of Options for Antimicrobial Stewardship Programs in different settings (pg. 46 of Antimicrobial Stewardship in Australian Health Care, 2018).*[2] *Access to advice should be readily available and roles and responsibilities of team members documented.*	☐ No ➔ further action is required ☐ Yes ➔ list source of evidence

	Indicator no.	NSQHS/CCS action item	Description	☐ Met or not met
	5	**NSQHS Standards** Action 1.1.a	Is there a clinician identified as a **leader** for antimicrobial stewardship activities at your health service? ***Supplementary information:*** *the clinician leader may be a nurse, midwife, infection control practitioner, medical practitioner or pharmacist with dedicated time for AMS.*	☐ No ➔ further action is required ☐ Yes ➔ list source of evidence
Infrastructure	6	**NSQHS Standards** Action 1.25.a	Has the clinician responsible for AMS activities had **specialised training** in infectious disease management or stewardship? ***Supplementary information:*** *Training may involve workshops offered by professional bodies, placements AMS program of other health service organisations or online courses.*	☐ No ➔ further action is required ☐ Yes ➔ list source of evidence
	7		Is there a **pharmacist** with dedicated responsibility to support AMS at your health service?	☐ No ➔ further action is required ☐ Yes ➔ list source of evidence
	8		Does your health service provide **dedicated time** for antimicrobial stewardship activities?	☐ No ➔ further action is required ☐ Yes ➔ list source of evidence
	9		Is clinical infectious disease (ID) consultation available either onsite or externally through a formalised arrangement?	☐ No ➔ further action is required ☐ Yes ➔ list source of evidence
	10	**AMS CCS** QS 2	Does your health service have access to a clinical microbiology service that provides guidance and support for optimal specimen collection and timely reporting of clinically meaningful pathogens and their susceptibilities? ***Supplementary information:*** *It is highly desirable that the clinical microbiology service uses selective reporting of susceptibility testing results. The emphasis should be on selective reporting to narrow spectrum and less restricted agents. Specific advices can be provided to patients with allergies. These services may be on site or provided externally. The timeframe for reporting should be agreed with the clinical governance unit of the facility.*	☐ No ➔ further action is required ☐ Yes ➔ list source of evidence

	Indicator no.	NSQHS/CCS action item	Description	☐ Met or not met
Infrastructure	**11**	**NSQHS Standards** Action 4.13	Does your health service have the **IT capability** to support the needs of the antimicrobial stewardship activities? ***Supplementary information****: The AMS team or committee should determine the information technology systems required to support the team's AMS activities, in consultation with the IT team and Executive with consideration of the costs and benefits of the system. Integration with existing systems should be another consideration. Information technology systems used to support the AMS program may include:* • *electronic clinical decision support systems* • *electronic medication management systems (including electronic prescribing) with clinical decision support* • *online approval systems for restricted agents* • *post-prescription alert systems* • *capability to contribute to antimicrobial use surveillance systems (e.g. NAUSP)* • *capability to participate in the National Antimicrobial Prescribing Survey* • *capability to participate in passive surveillance of antimicrobial resistance (e.g. Australian Passive AMR Surveillance [APAS])* • *capability to generate an annual antibiogram* • *electronic linkage of pharmacy records, microbiology results and electronic health records.*	☐ No ➔ further action is required ☐ Yes ➔ list source of evidence
	12	**NSQHS Standards** Action 3.1	Does your health service provide ongoing **education and training** for prescribers, pharmacists, nurses and midwives about AMS, antimicrobial resistance and optimal antimicrobial use? ***Supplementary information:*** *This may be delivered locally or via electronic means. Education and training for the AMS team members should also be supported. This may be provided at Local Health Network (LHN) or jurisdictional level, or through professional organisations. Examples of education resources are provided in the Antimicrobial Stewardship in Australian Health Care.*[2]	☐ No ➔ further action is required ☐ Yes ➔ list source of evidence
Policy and practice	**13**	**NSQHS Standards** Action 2.7 Action 3.3 Action 4.3 **AMS CCS** QS 3 QS 5	Does your health service have systems in place for clinicians to **discuss with patients** and/or their carers the need to take antimicrobials as prescribed, how and for how long to take them, any potential side effects and whether treatment will need be reviewed? ***Supplementary information****: This should also include broader discussions regarding the infection and treatment options. Consideration should also be given to the format and language of the information.*	☐ No ➔ further action is required ☐ Yes ➔ list source of evidence

	Indicator no.	NSQHS/CCS action item	Description	☐ Met or not met
Policy and practice	**14**	**NSQHS Standards** Action 1.27.a Action 3.15.b **AMS CCS** QS 4	Does your health service provide access to, and promote the use of, the current version of **Therapeutic Guidelines: Antibiotic**[8] ?	☐ No ➔ further action is required ☐ Yes ➔ list source of evidence
	15	**NSQHS Standards** Action 1.27.a Action 3.15.b **AMS CCS** QS 4	Does your health service have **clinical guidelines** that incorporate antimicrobial treatment recommendations? Are they consistent with ***Therapeutic guidelines: Antibiotic***[8] and take into account local microbiology and antimicrobial susceptibility patterns? ***Supplementary information****: clinical guidelines refer to guidelines developed locally, at local health network/local health district, or at the state and territory level that include antimicrobial treatment recommendations for the management of infections at the health service organisation. For example: management of community acquired pneumonia, urinary tract infections and sepsis. Guidelines also include standardized criteria for changing from intravenous to oral antimicrobial therapy in appropriate situations? Clinical guidelines include: clinical pathways, care bundles and treatment algorithms.*	☐ No ➔ go to C16 ☐ Yes ➔ list source of evidence
	16	**NSQHS Standards** Action 1.27.a Action 3.15.b	Are your health service's **clinical guidelines** easily accessible to prescribers on all wards (printed 'pocket guide', electronic summaries at workstations, via hospital intranet or mobile devices)? ***Supplementary information:*** *Clinical guidelines include treatment protocols, clinical pathways, care bundles and treatment algorithms.*	☐ No ➔ further action is required ☐ Yes ➔ list source of evidence
	17	**NSQHS Standards** Action 1.27.b Action 3.15.a Action 3.15.d **AMS CCS**	Does your health service have a written policy that incorporates the **Antimicrobial Stewardship Clinical Care Standard**[7]? ***Supplementary information:*** *The policy should include the quality statements from the Clinical Care Standard including the requirement for the prescriber to document the reason, drug name, dose, route of administration, intended duration and review plan is in the patient's healthcare record.*	☐ No ➔ further action is required ☐ Yes ➔ list source of evidence
	18	**NSQHS Standards** Action 3.15.c	Does your health service have an antimicrobial **formulary** that includes restriction rules and approval processes? ***Supplementary information:*** *The formulary may be developed by network/ district/management group executive and implemented locally. It may be part of an electronic management system.*	☐ No ➔ further action is required ☐ Yes ➔ list source of evidence

	Indicator no.	NSQHS/CCS action item	Description	☐ Met or not met
Policy and practice			*Services may choose to target their efforts on specific antimicrobials such as third generation cephalosporins or quinolones. The formulary should :* • *outline restriction rules and approval processes, and systems to manage these* • *stipulate clinical scenarios where preapproval for first line treatment is not required, (e.g. serious bacterial infection or suspected sepsis)*	
	19	**NSQHS Standards** Action 3.16.a **AMS CCS** QS 7 QS 8	Is there a formal procedure for a physician, pharmacist, or other staff member to review the appropriateness of selected antimicrobials at a nominated time period from the initial order (**post-prescription review**)? ***Supplementary information**: A review of a patient's antimicrobial therapy may be triggered by a referral from another clinician, prescription of a specific antimicrobial, a laboratory result, or a clinical condition. The AMS team should also review the use of highly restricted antimicrobials across the whole hospital and episodes of prolonged use of other restricted antimicrobials.* *Routine AMS ward rounds (at least twice per week) should be done in clinical areas with high antimicrobial use – for example, ICUs, transplant wards and haematology units. The frequency of AMS ward rounds will depend on the size and resources of the hospital and the case mix of patients[2].*	☐ No ➔ further action is required ☐ Yes ➔ list source of evidence
Monitoring and Feedback	**20**	**NSQHS Standards** Action 3.16.b	Has your health service produced a cumulative antimicrobial susceptibility report (**antibiogram**) in the past year? ***Supplementary information**: The information from the antibiogram is conveyed to prescribers through channels such as revised guidelines, formulary changes.*	☐ No ➔ further action is required ☐ Yes ➔ list source of evidence
	21	**NSQHS Standards** Action 3.16.a Action 3.16.c	Does your health service monitor the **quality of antimicrobial use** at unit and/or organisation wide? ***Supplementary information**: This may be done by point prevalence studies at ward or health service level measuring compliance with guidelines/policy or appropriateness of prescribing such as the National Antimicrobial Prescribing Survey (NAPS) , drug use evaluation studies or measuring quality use of medicines indicators for antibiotic therapy[1].*	☐ No ➔ further action is required ☐ Yes ➔ list source of evidence
	22	**NSQHS Standards** Action 3.16.a Action 3.16.c **AMS CCS** QS 6	Does your health service **monitor if the indication** is captured in the medical record for antimicrobial prescriptions? ***Supplementary information**: This may be collected as part of by point prevalence studies at ward or health service level such as the National Antimicrobial Prescribing Survey (NAPS).Another consideration for organisations is to monitor the intended duration or review plan.*	☐ No ➔ further action is required ☐ Yes ➔ list source of evidence

	Indicator no.	NSQHS/CCS action item	Description	☐ Met or not met
Monitoring and Feedback	**23**	**NSQHS Standards** Action 3.16.c Action 3.16.d **AMS CCS** QS 9	Does your health service audit or **review surgical antimicrobial prophylaxis** choice and duration (where surgery is performed at the health service)? ***Supplementary information****: This may be done by point prevalence studies at ward or health service level such as the National Antimicrobial Prescribing Survey (NAPS), drug use evaluation studies or measuring quality use of medicines indicators for antibiotic therapy. Another consideration for organisations is to review the timing of surgical prophylaxis in regards to the procedure.*	☐ No ➔ further action is required ☐ Yes ➔ list source of evidence
	24	**NSQHS Standards** Action 1.9.b, Action 3.16.d	Are results of antimicrobial use and prescribing audits or reviews **communicated directly** with prescribers? ***Supplementary information****: These results are also shared with the health service's leadership.*	☐ No ➔ further action is required ☐ Yes ➔ list source of evidence
	25	**NSQHS Standards** Action 3.16.a Action 3.16.c	Does your health service **monitor the quantity of antimicrobial use** by grams [Defined Daily Dose (DDD)] or counts [Days of Therapy (DOT)] of antimicrobial(s) by patients per day? ***Supplementary information:*** *Health services can access reports on their antimicrobial use as DDD per 1000 patient occupied bed days by participating in the National Antimicrobial Utilisation Surveillance Program (NAUSP). It is recognised there are limitations associated with monitoring the quantity of antimicrobials in the paediatric context. Consider the use of an alternative appropriate metric.*	☐ No ➔ further action is required ☐ Yes ➔ list source of evidence
	26	**NSQHS Standards** Action 1.9, Action 3.2 Action 3.16.d	Has an **annual report,** focused on antimicrobial stewardship, (summary antimicrobial use and/or practices improvement initiatives) been produced for your health service? ***Supplementary information:*** *This information should also include any targets or goals (short and longer term) for optimising antimicrobial use.*	☐ No ➔ further action is required ☐ Yes ➔ list source of evidence

Table 3: Glossary of terms

Term	Definition
Algorithm (as in clinical or treatment algorithm)	A flow chart that outlines a sequence of clinical decisions that can be used for guiding patient care and for teaching clinical decision making.
Antibiogram	Tables of antimicrobial susceptibilities. They are used to inform local empirical antimicrobial recommendations and formulary management.[10]
Antimicrobial formulary	A list of antimicrobial agents approved for use within an organisation or network that includes descriptions of restrictions and criteria for use.[2]
Antimicrobial stewardship program	A systematic and coordinated approach to optimising antimicrobial use with the goals of improving patient outcomes, ensuring cost-effective therapy and reducing adverse consequences of antimicrobial use, including antimicrobial resistance.[2]
Clinical care standards	Developed by the Australian Commission on Safety and Quality in Health Care, a Clinical Care Standard is a small number of quality statements that describe the care patients should be offered by health professionals and health services for a specific clinical condition or defined clinical pathway in line with current best evidence.[11]
Clinical guidelines	Evidence based statements that include recommendations intended to optimise patient care and assist health care practitioners to make decisions about appropriate health care for specific clinical circumstances. For the purposes of this publication clinical guidelines may also include: clinical pathways, care bundles and treatment algorithms.
Clinician	For the purposes of this publication, the term clinician includes nurses, midwives, infection control practitioners, medical practitioners, pharmacists.
Health service organisation	A separately constituted health service that is responsible for implementing clinical governance, administration and financial management of a service unit or service units providing health care at the direction of the governing body. A service unit involves a group of clinicians and others working in a systematic way to deliver health care to patients. It can be in any location or setting, including pharmacies, clinics, outpatient facilities, hospitals, patients' homes, community settings, practices and clinicians' rooms.[6]
National Safety and Quality Health Service (NSQHS) Standards	Standards developed by the Australian Commission on Safety and Quality in Health Care to drive the implementation of safety and quality systems, and improve the quality of health care in Australia. The NSQHS Standards provide a nationally consistent statement about the level of care consumers can expect from health service organisations.[2, 6]
Post prescription review	Review of antimicrobial prescribing, with intervention and direct and timely feedback to the prescriber to educate clinical staff on appropriate prescribing. The review may be by a single clinician or by a multidisciplinary (AMS) team.[2]

Appendix 1 – Excerpt from NSQHS Standard 1 – Clinical Governance

	NSQHS Standard 1
1.1	The governing body: a. Provides leadership to develop a culture of safety and quality improvement, and satisfies itself that this culture exists within the organisation b. Provides leadership to ensure partnering with patients, carers and consumers c. Sets priorities and strategic directions for safe and high-quality clinical care, and ensures that these are communicated effectively to the workforce and the community d. Endorses the organisation's clinical governance framework e. Ensures that roles and responsibilities are clearly defined for the governing body, management, clinicians and the workforce f. Monitors the action taken as a result of analyses of clinical incidents g. Reviews reports and monitors the organisation's progress on safety and quality performance
1.3	The health service organisation establishes and maintains a clinical governance framework, and uses the processes within the framework to drive improvements in safety and quality
1.9	The health service organisation ensures that timely reports on safety and quality systems and performance are provided to: a. The governing body b. The workforce c. Consumers and the local community d. Other relevant health service organisations
1.10	The health service organisation: a. Identifies and documents organisational risks b. Uses clinical and other data collections to support risk assessments c. Acts to reduce risks d. Regularly reviews and acts to improve the effectiveness of the risk management system e. Reports on risks to the workforce and consumers f. Plans for, and manages, internal and external emergencies and disasters
1.25a	The health service organisation has processes to support the workforce to understand and perform their roles and responsibilities for safety and quality
	The health service organisation has processes that:
1.27a	Provide clinicians with ready access to best-practice guidelines, integrated care pathways, clinical pathways and decision support tools relevant to their clinical practice
1.27b	Support clinicians to use the best available evidence, including relevant clinical care standards developed by the Australian Commission on Safety and Quality in Health Care

Appendix 2 – Excerpt from NSQHS Standard 2 – Partnering with Consumers Standard

	NSQHS Standard 2
2.7	The health service organisation supports the workforce to form partnerships with patients and carers so that patients can be actively involved in their own care

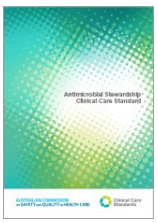
Appendix 3 – Excerpt from NSQHS Standard 3 – Preventing and Controlling Healthcare-Associated Infections

	NSQHS Standard 3
3.1	The workforce uses the safety and quality systems from the Clinical Governance Standard when: a. Implementing policies and procedures for healthcare-associated infections and antimicrobial stewardship b. Managing risks associated with healthcare-associated infections and antimicrobial stewardship c. Identifying training requirements for preventing and controlling healthcare-associated infections, and antimicrobial stewardship
3.2	The health service organisation applies the quality improvement system from the Clinical Governance Standard when: a. Monitoring the performance of systems for prevention and control of healthcare-associated infections, and the effectiveness of the antimicrobial stewardship program b. Implementing strategies to improve outcomes and associated processes of systems for prevention and control of healthcare associated infections, and antimicrobial stewardship c. Reporting on the outcomes of prevention and control of healthcare associated infections, and the antimicrobial stewardship program
	The health service organisation has an antimicrobial stewardship program that:
3.15a	Includes an antimicrobial stewardship policy
3.15b	Provides access to, and promotes the use of, current evidence-based Australian therapeutic guidelines and resources on antimicrobial prescribing
3.15c	Has an antimicrobial formulary that includes restriction rules and approval processes
3.15d	Incorporates core elements, recommendations and principles from the current Antimicrobial Stewardship Clinical Care Standard
	The antimicrobial stewardship program will:
3.16a	Review antimicrobial prescribing and use
3.16b	Use surveillance data on antimicrobial resistance and use to support appropriate prescribing
3.16c	Evaluate performance of the program, identify areas for improvement, and take action to improve the appropriateness of antimicrobial prescribing and use
3.16d	Report to clinicians and the governing body regarding • Compliance with the antimicrobial stewardship policy • Antimicrobial use and resistance • Appropriateness of prescribing and compliance with current evidence-based Australian therapeutic guidelines or resources on antimicrobial prescribing.

Appendix 4 – Excerpt from NSQHS Standard 4 – Medication Safety

	NSQHS Standard 4
4.1	Clinicians use the safety and quality systems from the Clinical Governance Standard when: a. Implementing policies and procedures for medication management b. Managing risks associated with medication management c. Identifying training requirements for medication management
4.3	Clinicians use organisational processes from the Partnering with Consumers Standard in medication management to: a. Actively involve patients in their own care b. Meet the patient's information needs c. Share decision-making
4.13	The health service organisation ensures that information and decision support tools for medicines are available to clinicians

Appendix 5 – Antimicrobial Stewardship Clinical Care Standard



	Antimicrobial Stewardship Clinical Care Standard (AMS CCS)
1	A patient with a life-threatening condition due to a suspected bacterial infection receives prompt antibiotic treatment without waiting for the results of investigations.
2	A patient with a suspected bacterial infection has samples taken for microbiology testing as clinically indicated, preferably before starting antibiotic treatment.
3	A patient with a suspected infection, and/or their carer, receives information on their health condition and treatment options in a format and language that they can understand.
4	When a patient is prescribed antibiotics, whether empirical or directed, this is done in accordance with the current version of the *Therapeutic Guidelines*[1] (or local antibiotic formulary). This is also guided by the patient's clinical condition and/or the results of microbiology testing.
5	When a patient is prescribed antibiotics, information about when, how and for how long to take them, as well as potential side effects and a review plan, is discussed with the patient and/or their carer.
6	When a patient is prescribed antibiotics, the reason, drug name, dose, route of administration, intended duration and review plan is documented in the patient's health record.
7	A patient who is treated with broad-spectrum antibiotics has the treatment reviewed and, if indicated, switched to treatment with a narrow-spectrum antibiotic. This is guided by the patient's clinical condition and the results of microbiology tests.
8	If investigations are conducted for a suspected bacterial infection, the responsible clinician reviews these results in a timely manner (within 24 hours of results being available) and antibiotic therapy is adjusted taking into account the patient's clinical condition and investigation results.
9	If a patient having surgery requires prophylactic antibiotics, the prescription is made in accordance with the current Therapeutic Guidelines[1] (or local antibiotic formulary), and takes into consideration the patient's clinical condition.

References

1. Australian Commission on Safety and Quality in Health Care. National Indicators for Quality Use of Medicines in Australian Hospitals 2014. ['Internet'] 2014 Available from: https://www.safetyandquality.gov.au/our-work/medication-safety/medication-safety-tools-and-resources/.
2. Australian Commission on Safety and Quality in Health Care. Antimicrobial Stewardship in Australian Hospitals. 2nd ed. *In press*: Australian Commission on Safety and Quality in Health Care; 2018.
3. Pollack LA, Plachouras D, Gruhler H, Sinkowitz-Cochran R. Summary the modified Delphi process for common structure and process indicators for hospital antimicrobial stewardship programs. ['Internet']: Centers for Disease Prevention and Control and European Center for Disease Prevention and Control; 2015 Available from: https://www.cdc.gov/drugresistance/pdf/summary_of_tatfar_recommendation_1.pdf (accessed Sep 2017).
4. Pulcini C, Binda F, Lamkang AS, Trett A, Charani E, Goff DA, et al. Developing core elements and checklist items for global hospital antimicrobial stewardship programmes: a consensus approach. Clinical Microbiology and Infection. 2018.
5. Pollack LA, Plachouras D, Sinkowitz-Cochran R, Gruhler H, Monnet DL, Weber JT. A concise set of structure and process indicators to assess and compare antimicrobial stewardship programs among EU and US hospitals: results from a multinational expert panel. Infection Control and Hospital Epidemiology. 2016;37(10):1201-11.
6. Australian Commission on Safety and Quality in Health Care. National Safety and Quality Health Service Standards (second edition). ['Internet'] Sydney: Australian Commission on Safety and Quality in Health Care; 2017 Available from: https://www.safetyandquality.gov.au/our-work/assessment-to-the-nsqhs-standards/nsqhs-standards-second-edition/.
7. Australian Commission on Safety and Quality in Health Care. Antimicrobial Stewardship Clinical Care Standard. ['Internet'] Sydney: Australian Commission on Safety and Quality in Health Care; 2014 [updated 2014 Nov 18] Available from: https://www.safetyandquality.gov.au/publications/antimicrobial-stewardship-clinical-care-standard/.
8. Writing group for Therapeutic Guidelines: Antibiotic. Therapeutic Guidelines: Antibiotic. Version 15. Melbourne, Australia: Therapeutic Guidelines; 2014.
9. Margolis CZ. Uses of clinical algorithms. JAMA. 1983;249(5):627-32.
10. Australian Commission on Safety and Quality in Health Care. Specification for Hospital Cumulative Antibiograms. ['Internet'] Sydney: Australian Commission on Safety and Quality in Health Care; 2013 [updated 2013 Dec 16] Available from: https://www.safetyandquality.gov.au/publications/specification-hospital-cumulative-antibiograms/.
11. Australian Commission on Safety and Quality in Health Care. Overview of the Clinical Care Standard. ['Internet'] Sydney: Australian Commission on Safety and Quality in Health Care; 2018 Available from: https://www.safetyandquality.gov.au/our-work/clinical-care-standards/overview-of-the-clinical-care-standards/.

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