Standard 3

Preventing and Controlling Healthcare Associated Infections

Safety and Quality Improvement Guide

October 2012

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The National Safety and Quality Health Service Standards

The *National Safety and Quality Health Service (NSQHS) Standards*[1] were developed by the Australian Commission on Safety and Quality in Health Care (the Commission) in consultation and collaboration with jurisdictions, technical experts and a wide range of other organisations and individuals, including health professionals and patients.

The primary aims of the *NSQHS Standards* are to protect the public from harm and to improve the quality of care provided by health service organisations. These Standards provide:

- a **quality assurance** mechanism that tests whether relevant systems are in place to ensure minimum standards of safety and quality are met

- a **quality improvement** mechanism that allows health service organisations to realise developmental goals.

Safety and Quality Improvement Guides

The Commission has developed Safety and Quality Improvement Guides (the Guides) for each of the 10 *NSQHS Standards*. These Guides are designed to assist health service organisations to align their quality improvement programs using the framework of the *NSQHS Standards*.

The Guides are primarily intended for use by people who are responsible for a part or whole of a health service organisation. The structure of the Guides includes:

- introductory information about what is required to achieve each criterion of the Standard

- tables describing each action required and listing:
  - key tasks
  - implementation strategies
  - examples of the outputs of improvement processes

- additional supporting resources (with links to Australian and international resources and tools, where relevant).

Direct links to these and other useful resources are available on the Commission's web site:

www.safetyandquality.gov.au

The Guides present **suggestions** for meeting the criteria of the Standards, which should not be interpreted as being mandatory. The examples of suggested strategies and outputs of improvement processes are **examples only**. In other words, health service organisations can choose improvement actions that are specific to their local context in order to achieve the criteria. The extent to which improvement is required in your organisation will heavily influence the actions, processes and projects you undertake.

You may choose to demonstrate how you meet the criteria in the Standards using the example outputs of improvement processes, or alternative examples that are more relevant to your own quality improvement processes.

Additional resources

The Commission has developed a range of resources to assist health service organisations to implement the *NSQHS Standards*. These include:

- a list of available resources for each of the *NSQHS Standards*

- an *Accreditation Workbook for Hospitals* and an *Accreditation Workbook for Day Procedure Services*

- *A Guide for Dental Practices* (relevant only to Standards 1–6)

- a series of fact sheets on the *NSQHS Standards*

- frequently asked questions

- a list of approved accrediting agencies

- slide presentations on the *NSQHS Standards*.

Overarching NSQHS Standards

Standard 1: Governance for Safety and Quality in Health Service Organisations, and *Standard 2: Partnering with Consumers* set the overarching requirements for the effective application of the other eight *NSQHS Standards* which address specific clinical areas of patient care.

Standard 1 outlines the broad criteria to achieve the creation of an integrated governance system to maintain and improve the reliability and quality of patient care, and improve patient outcomes.

Standard 2 requires leaders of a health service organisation to implement systems to support partnering with patients, carers and other consumers to improve the safety and quality of care. Patients, carers, consumers, clinicians and other members of the workforce should use the systems for partnering with consumers.

Core and developmental actions

The *NSQHS Standards* apply to a wide variety of health service organisations. Due to the variable size, structure and complexity of health service delivery models, a degree of flexibility is required in the application of the standards.

To achieve this flexibility, each action within a Standard is designated as either:

CORE
- considered fundamental to safe practice

OR

DEVELOPMENTAL
- areas where health service organisations can focus activities or investments that improve patient safety and quality.

Information about which actions have been designated as core or developmental is available on the Commission's web site.

Quality improvement approaches in health care

Approaches to improving healthcare quality and safety are well documented and firmly established. Examples of common approaches include Clinical Practice Improvement or Continuous Quality Improvement. The Guides are designed for use in the context of an overall organisational approach to quality improvement, but are not aligned to any particular approach.

Further information on adopting an appropriate quality improvement methodology can be found in the:

NSW Health Easy Guide to Clinical Practice Improvement[2]

CEC Enhancing Project Spread and Sustainability[3]

Institute for Healthcare Improvement (US)[4]

The National Safety and Quality Health Service Standards (continued)

Roles for safety and quality in health care

A range of participants are involved in ensuring the safe and effective delivery of healthcare services. These include the following:

- **Patients and carers**, in partnership with health service organisations and their healthcare providers, are involved in:
  - making decisions for service planning
  - developing models of care
  - measuring service and evaluating systems of care.

  They should participate in making decisions about their own health care. They need to know and exercise their healthcare rights, be engaged in their healthcare, and participate in treatment decisions.

  Patients and carers need to have access to information about options and agreed treatment plans. Health care can be improved when patients and carers share (with their healthcare provider) issues that may have an impact on their ability to comply with treatment plans.

- The role of **clinicians** is essential. Improvements to the system can be achieved when clinicians actively participate in organisational processes, safety systems, and improvement initiatives. Clinicians should be trained in the roles and services for which they are accountable. Clinicians make health systems safer and more effective if they:
  - have a broad understanding of their responsibility for safety and quality in healthcare
  - follow safety and quality procedures
  - supervise and educate other members of the workforce
  - participate in the review of performance procedures individually, or as part of a team.

  When clinicians form partnerships with patients and carers, not only can a patient's experience of care be improved, but the design and planning of organisational processes, safety systems, quality initiatives and training can also be more effective.

- The role of the **non-clinical workforce** is important to the delivery of quality health care. This group may include administrative, clerical, cleaning, catering and other critical clinical support staff or volunteers. By actively participating in organisational processes – including the development and implementation of safety systems, improvement initiatives and related training – this group can help to identify and address the limitations of safety systems. A key role for the non-clinical workforce is to notify clinicians when they – have concerns about a patient's condition.

- The role of **managers in health service organisations** is to implement and maintain systems, resources, education and training to ensure that clinicians deliver safe, effective and reliable health care. They should support the establishment of partnerships with patients and carers when designing, implementing and maintaining systems. Managing performance and facilitating compliance across the organisation is a key role. This includes oversight of individual areas with responsibility for the governance of safety and quality systems. Managers should be leaders who can model behaviours that optimise safe and high quality care. Safer systems can be achieved when managers in health service organisations consider safety and quality implications in their decision making processes.

- The role of **health service senior executives and owners** is to plan and review integrated governance systems that promote patient safety and quality, and to clearly articulate organisational and individual safety and quality roles and responsibilities throughout the organisation. Explicit support for the principles of consumer centred care is key to ensuring the establishment of effective partnerships between consumer, managers, and clinicians. As organisational leaders, health service executives and owners should model the behaviours that are necessary to implement safe and high quality healthcare systems.

Terms and definitions

Antibiotic: A substance that kills or inhibits the growth of bacteria, fungi or parasites.

Antimicrobial: A chemical substance that inhibits or destroys bacteria, viruses, fungi, yeasts or moulds.

Antimicrobial stewardship: An ongoing effort by a health service organisation to optimise antimicrobial use in order to improve patient outcomes, ensure cost-effective therapy and reduce adverse sequelae of antimicrobial use, including antimicrobial resistance.[5]

Aseptic technique: An aseptic technique aims to prevent microorganisms on hands, surfaces and equipment from being introduced to susceptible sites. Therefore, unlike sterile techniques, aseptic techniques can be achieved in typical ward and home settings.

Blood stream infection: The presence of live pathogens in the blood, causing an infection.

Bundle: A set of evidence-based practices that have been shown to improve outcomes when performed collectively and consistently. The concept was developed by the Institute for Healthcare Improvement in the United States to improve the care process and patient outcomes.

Flexible standardisation: Flexible standardisation recognises the importance of standardisation of processes to improve patient safety. However, the standardisation of any process, and related data sets and participants, must be designed and integrated to fit the context of health service organisations, including varying patient and staffing profiles. These will vary widely as health service organisations will have differing functions, size and organisation with respect to service delivery mode, location and staffing. Tools, processes and protocols should be based on best available evidence and the requirements of jurisdictions, external policy and legislation.

Governance: The set of relationships and responsibilities established by a health service organisation between its executive, workforce, and stakeholders (including consumers). Governance incorporates the set of processes, customs, policy directives, laws, and conventions affecting the way an organisation is directed, administered, or controlled. Governance arrangements provide the structure through which the objectives (clinical, social, fiscal, legal, human resources) of the organisation are set, and the means by which the objectives are to be achieved. They also specify the mechanisms for monitoring performance. Effective governance provides a clear statement of individual accountabilities within the organisation to help in aligning the roles, interests, and actions of different participants in the organisation in order to achieve the organisation's objectives. The Commission's definition of governance includes both corporate and clinical governance and where possible promotes the integration of governance functions.

Hand hygiene: A general term applying to processes aiming to reduce the number of microorganisms on hands. The *5 Moments for Hand Hygiene*[6] is the basis of the National Hand Hygiene Initiative developed by World Health Organisation (WHO) and adopted by Hand Hygiene Australia. This includes:

- application of a waterless antimicrobial agent (e.g. alcohol-based hand rub) to the surface of the hands and

- use of soap/solution (plain or antimicrobial) and water (if hands are visibly soiled), followed by patting dry with single-use towels.

Healthcare associated infections (HAI): Infections acquired in healthcare facilities ('nosocomial' infections) and infections that occur as a result of healthcare interventions ('iatrogenic' infections), and which may manifest after people leave the healthcare facility.

Terms and definitions (continued)

High-risk patients: Patients with an increased probability of infection due to their underlying medical condition. Often refers to patients in intensive care units, those receiving total parenteral nutrition, and immunocompromised patients.

Infectious agent: An infectious agent (also called a pathogen or germ) is a biological agent that causes disease or illness to its host. Most infectious agents are microorganisms, such as bacteria, viruses, fungi, parasites and prions.

Invasive devices: Medical devices capable of entering tissue, the vascular system, cavities or organs including surgical or medical devices and implants.

Multi-drug resistant organisms: In general, bacteria that are resistant to one or more classes of antimicrobial agents and usually are resistant to all but one or two commercially available antimicrobial agents.

Surveillance: Disease surveillance is an epidemiological practice by which the spread of disease is monitored in order to establish patterns of progression. The main role of disease surveillance is to predict, observe and minimise the harm caused by outbreak, epidemic and pandemic situations, as well as increase knowledge as to what factors might contribute to such circumstances.

Targeted surveillance: A process in which data are collated on the susceptibilities and resistances of disease-causing microbes to various antimicrobial treatments. Targeted surveillance gathers data that is not generated by routine testing: specific species or groups of species are examined in detail to answer important questions that cannot be addressed by passive surveillance.

Standard 3: Preventing and Controlling Healthcare Associated Infections

Clinical leaders and senior managers of a health service organisation implement systems to prevent and manage healthcare associated infections and communicate these to the workforce to achieve appropriate outcomes. Clinicians and other members of the workforce use the healthcare associated infection prevention and control systems.

The intention of this Standard is to:

Prevent patients from acquiring preventable healthcare associated infections and effectively manage infections when they occur by using evidence-based strategies.

Context:

It is expected that this Standard will be applied in conjunction with *Standard 1: Governance for Safety and Quality in Health Service Organisations*, S*tandard 2: Partnering with Consumers*.

Introduction

The intention of Standard 3 is to minimise the risk for patients in acquiring preventable infections and to enable the effective management of infections when they occur by using evidence-based strategies.

At least half of healthcare associated infections are thought to be preventable. Australian and overseas studies have shown that mechanisms exist to reduce the rate of infections caused by healthcare. Infection prevention and control practice aims to reduce the development of resistant infectious agents and minimise risk of transmission through isolation of patients with infectious agents. However, just as there is no single cause of infection, there is no single solution to preventing infections. Successful infection prevention and control practice requires a range of strategies across the healthcare system.

The aim of this guide is to assist with the implementation of Standard 3. The guide provides examples that can be used to demonstrate evidence that the criteria have been met. It is likely that implementation strategies will be tailored to reflect the complexity of services offered and the risk associated with the delivery of those services.

Key points for implementing systems to prevent and control healthcare associated infections

Undertaking a gap analysis of current governance arrangements, systems, processes and practices, and their effectiveness, would be a strategy to assist the health service organisation to identify areas that do not require any additional interventions and those areas that may need to be improved or changed. The gap analysis or baseline review is a good starting point to assist with the development of an action plan and prioritisation of how to best utilise resources. Undertaking a risk assessment can strengthen the gap analysis. The results of both will determine priorities for improvement and action required throughout the Standard.

The *Australian Guidelines for the Prevention and Control of Infections in Health Care (NHMRC, 2010)*[7] provide detailed information about risk assessment processes for infection prevention and control. A template for undertaking a baseline assessment/ gap analysis is provided in Section 1.6.4 of the *OSSIE Toolkit for the Implementation of Australian Guidelines for the Prevention and Control of Infections in Health Care*.[8] Both of these documents are available on the Commission's web site.

- While all infection prevention and control programs have essential elements that must be considered, it is expected programs will be tailored to reflect the local context and risk.

- Regardless of the size or type of health service organisation, the success of implementation of the Standard depends on clinicians and executive leaders working together.

- Standard 3 has been developed in line with the recommendations and evidence found in the *Australian Guidelines for the Prevention and Control of Infections in Health Care (NHMRC 2010).*[7] To address gaps and priorities identified it is suggested that groups or departments in the health service organisation work collaboratively to achieve improved outcomes to support quality and safety of the patients, consumers and workforce.

Criteria to achieve the Preventing and Controlling Healthcare Associated Infections Standard:

Governance and systems for infection prevention, control and surveillance

Effective governance and management systems for healthcare associated infections are implemented and maintained.

Infection prevention and control strategies

Strategies for the prevention and control of healthcare associated infections are developed and implemented.

Managing patients with infections or colonisations

Patients presenting with, or acquiring an infection or colonisation during their care are identified promptly and receive the necessary management and treatment.

Antimicrobial stewardship

Safe and appropriate antimicrobial prescribing is a strategic goal of the clinical governance system.

Cleaning, disinfection and sterilisation

Healthcare facilities and the associated environment are clean and hygienic. Reprocessing of equipment and instrumentation meets current best practice guidelines.

Communicating with patients and carers

Information on healthcare associated infections is provided to patients, carers, consumers and service providers.

For the purposes of accreditation, please check the Commission's web site regarding actions within these criteria that have been designated as core or developmental.

Criterion: Governance and systems for infection prevention, control and surveillance

Effective governance and management systems for healthcare associated infections are implemented and maintained

The intention of this criterion is to ensure the presence of a governance framework that incorporates executive responsibility and commitment to a risk management approach in minimising infection risk to patients and the workforce. The framework is outlined in the *Australian Guidelines for the Prevention and Control of Infections in Health Care (NHMRC 2010)*.[7] The quality and safety governance body can develop strategies to assist the prevention and control program to decrease infection which ideally form part of the quality and safety plan of the organisation. To be successful in implementing the necessary systems and processes to reduce infection, the prevention and control program requires leadership and support from executive, senior managers and clinicians.

The principles of clinical governance apply regardless of the setting, while the management structure associated with infection control will differ with the size of the organisation and complexity of services delivered.

Risk management is an integral part of a successful infection prevention and control program in reducing harm arising from infection. Development or review of policies, procedures and protocols and monitoring systems should be based on a risk assessment to determine actions relevant to the particular health service organisation. Policies, procedures and protocols should be endorsed by the executive of the health service organisation.

As infection risk varies in each health service organisation there is not a single risk management approach that can be undertaken although the basic principles of risk management can be applied across all settings. These risk management principles are outlined in Section A of the *Australian Guidelines for the Prevention and Control of Infections in Health Care (NHMRC 2010)*.[7]

The *Performance and Accountability Framework (2012)*[9] may also be helpful in addressing principles of equity, effectiveness, and efficiency of the infection prevention and control systems in the organisation.

nhpa.gov.au/internet/nhpa/publishing.nsf/Content/perfaccountframe-lp

Standard 3 includes the requirement that health service organisations show evidence of regular review, monitoring, audit or assessment. The regularity of these activities will be determined by several factors including the risk management assessment, the scope of the health service organisation activity or services provided, and retention and/or attrition rates with the workforce. It is reasonable to suggest that the effectiveness of infection prevention and control systems would be reviewed *at least annually* in small organisations and more frequently in larger organisations.

This Criterion and each of the actions should be considered in relation to the criterion and actions detailed in *Standard 1: Governance for Safety and Quality in Health Service Organisations*.

Actions required	Implementation strategies
3.1 Developing and implementing governance systems for effective infection prevention and control to minimise the risks to patients of healthcare associated infections	

3.1.1 A risk management approach is taken in policies, procedures and/or protocols and implemented for: • standard infection control precautions • transmission-based precautions • aseptic technique • safe handling and disposal of sharps • prevention and management of occupational exposure to blood and body substances • environmental cleaning and disinfection • antimicrobial prescribing • outbreaks or unusual clusters of communicable infection • processing of reusable medical devices • single-use devices • surveillance and reporting of data where relevant • reporting of communicable and notifiable diseases • provision of risk assessment guidelines to workforce • exposure-prone procedures *(continued)*	The intent of Item 3.1 is to minimise infections in patients and the workforce with the support of governance systems for effective infection prevention and control practice. **Key tasks:** • **Develop and/or review a policy, protocol and/or procedure for each of the priority areas identified in Action 3.1.1** • **Use the results of the organisational risk assessment to plan and prioritise actions to mitigate risk of infection** • **Review the effectiveness of the infection prevention and control systems against terms of reference, corporate and clinical risk profile and key performance indicators at least annually** **Suggested strategies:** Undertake a review of the infection prevention and control program to identify the effectiveness of policies, procedures and protocols. Consider: • accessibility (e.g. online, centralised location) • workforce awareness • version control systems • standardised format • evidence-based practice that incorporates technological changes in products and equipment • inclusion of risk management focus • how and to whom data collection or surveillance activities are reported • support by executive and governance systems • inclusion in education and orientation programs • use of reminder systems. Undertake audits to evaluate utilisation and compliance with policies, procedures and/or protocols. Examples include hand hygiene compliance auditing, environmental cleaning, waste management and cleaning, disinfection and sterilising activities. Where appropriate, implement a competency-based assessment program that is aligned with policies, procedures and protocols for the relevant workforce. Examples include hand hygiene compliance auditing, environmental cleaning, disinfection and sterilising activities, waste management. Develop or review the orientation program for the workforce to ensure it includes infection prevention and control information necessary for new employees to be able to undertake safe practice in the prevention of healthcare associated infections and management of patients with communicable infections. The development, review or introduction of an appraisal process that reviews: • workforce awareness and understanding of the policies, procedures and protocols • utilisation by the workforce of relevant policies, procedures and protocols • follow-up actions identified in the review processes and documented where relevant.

Actions required	Implementation strategies

3.1 Developing and implementing governance systems for effective infection prevention and control to minimise the risks to patients of healthcare associated infections (continued)

Actions required	Implementation strategies
(continued from previous page) **3.1.2** The use of policies, procedures and/or protocols is regularly monitored **3.1.3** The effectiveness of the infection prevention and control systems is regularly reviewed at the highest level of governance in the organisation **3.1.4** Action is taken to improve the effectiveness of infection prevention and control policies, procedures and/ or protocols. (Developmental for Day Procedures only)	**Explanatory notes:** An effective infection prevention and control program requires policies, procedures and protocols that are utilised and applied in a standardised manner across the health service organisation. Monitoring, revision and evaluation of policies, procedures and protocols ensure their utilisation and compliance by the workforce. Refer to the following sections in the *Australian Guidelines for the Prevention and Control of Infections in Health Care (NHMRC 2010)*[7] for additional information: • Section A provides information on risk management • Section C provides information on governance structures for infection prevention and control • Section C provides information on integrating monitoring and review processes into policy and procedures. **Outputs of improvement processes may include:** • Policies, procedures and protocols for the priority areas identified in Action 3.1.1 are available for the healthcare workforce and are regularly reviewed and evaluated for effectiveness. • Actions are documented in relevant committee meeting agendas and minutes. • The health service organisation risk management plan incorporates infection prevention and control activities. • Reports that show the results of process audits conducted. • Results of competency assessments conducted. • Content of orientation program includes infection prevention and control information. • The appraisal process includes assessment of awareness the workforce of policies, procedures and protocols, how they are to be utilised and any follow-up actions are documented. • Key performance indicators established by external bodies or internal systems are documented in the health service organisation business plan.

Actions required	Implementation strategies
3.2 Undertaking surveillance of healthcare associated infections	

3.2.1 Surveillance systems for healthcare associated infections are in place **3.2.2** Healthcare associated infection surveillance data is regularly monitored by the delegated workforce and/or committees	Surveillance systems play an essential role in providing data and reliable information of the incidence and costs of infections that can support good decision making in the prevention of healthcare associated infection. **Key tasks:** • **Utilise the risk assessment (undertaken as part of Action 3.1.1) to determine what surveillance activities are appropriate to the health service organisation to monitor healthcare associated infections** • **Review existing surveillance systems to determine gaps in current activities that need to be addressed** • **Ensure existing systems and supporting polices include reporting of infection and resistance data to the executive of the health service organisation** • **Ensure nationally agreed definitions (where available) or evidence based definitions are used when undertaking surveillance activities. National healthcare associated infection surveillance definitions can be found at:** www.safetyandquality.gov.au[10] **Explanatory notes:** Effective surveillance is the cornerstone of efforts to control infection. Surveillance systems support the infection prevention activities and are determined by national, jurisdictional, organisational and local requirements. Surveillance activities include data collection, data analysis, interpretation and dissemination of results. Regular monitoring and review of surveillance data requirements can be used to provide recommendations to the executive and to the clinical workforce. Surveillance data can also be used to inform policies and identify priorities for action. Section C4 of the *Australian Guidelines for the Prevention and Control of infections in Health Care (NHMRC 2010)*[7] provides further guidance for undertaking surveillance activities. The type and scope of surveillance of healthcare associated infections will be determined by the complexity of services provided by the health service organisation and jurisdictional departments of health requirements. **Outputs of improvement processes may include:** Surveillance data communicated in reports, briefs, agendas and minutes identifying issues, recommendations, actions and feedback. Healthcare associated infection data can be reported in: • surveillance data summaries • explanations and reports in newsletters • annual reports • relevant committee reports • education sessions • posters • web sites • consumer information • updates issued to key internal and external stakeholders as appropriate.

Actions required	Implementation strategies

3.3 Developing and implementing systems and processes for reporting, investigating and analysing healthcare associated infection, and aligning these systems to the organisation's risk management strategy

Actions required	Implementation strategies
3.3.1 Mechanisms to regularly assess the healthcare associated infection risks are in place **3.3.2** Action is taken to reduce the risks of healthcare associated infection	Local data systems provide timely and reliable feedback for management to effectively manage infections. Data can also inform prevention and improvement strategies; inform policy, resource allocation and programs; and be used for benchmarking against other similar organisations. **Key tasks:** • **Conduct a review of availability and accessibility of policies, procedures and protocols by the workforce in the health service organisation** • **Ensure the results of the risk assessment (undertaken as part of Action 3.1.1) are provided to the executive and workforce** **Explanatory notes:** Risk assessment can incorporate a range of data and information sources, including surveillance data, antimicrobial usage, surveys of the workforce, focus groups, incident reports, and results of other monitoring processes that are in place. Risk assessments can recommend priorities for action. Providing feedback to the senior executive and workforce can in and of itself lead to improved effectiveness of the HAI program, and assist in the engagement of the workforce. Section A2 in the *Australian Guidelines for the Prevention and Control of Infections in Health Care (NHMRC 2010)*[7] provides more detailed information and examples of risk assessment processes in relation to infection prevention and control. **Outputs of improvement processes may include:** • systems for identifying risks such as a risk register are in place • related policies, procedures and protocols are available for the health workforce which are regularly reviewed and evaluated for effectiveness • actions are documented in agendas, meeting minutes and/or reports of relevant committees.

Actions required	Implementation strategies
3.4 Undertaking quality improvement activities to reduce healthcare associated infections through changes to practice	

3.4.1 Quality improvement activities are implemented to reduce and prevent healthcare associated infections **3.4.2** Compliance with changes in practice are monitored **3.4.3** The effectiveness of changes to practice are evaluated	The intent of Item 3.4 is that the infection prevention and control program incorporates quality and safety theories to reduce infection rates. Safe and high quality infection prevention and control practices contribute to continual improvements in the quality of healthcare provided in any setting. These practices occur at the organisational, workforce and patient levels. **Key tasks:** • **Address infection prevention and control issues using a multi-component, facility-wide program** • **Use quality improvement methodologies to create a safety culture (individuals taking responsibility for ensuring safety and quality of themselves and others)** • **Use the results of the infection control risk assessment (undertaken as part of Action 3.1.1) and gap analysis to determine priorities for quality improvement activities** • **Review current activities to ensure all elements of the quality improvement cycle are incorporated** See www.ihi.com[11] **Explanatory notes:** Quality improvement programs provide a means by which processes and systems can be continuously monitored, evaluated and improved. Once changes are implemented as a result of quality improvement activities, ongoing monitoring of the compliance with the change (process) and the effectiveness of the change (outcomes) will complete the quality improvement cycle. Carer and patient experiences can also be considered alongside workforce and workplace outcomes when reviewing the effectiveness of changes to practice. Refer to Sections A3 and C1.3.3 of the *Australian Guidelines for the Prevention and Control of Infections in Health Care (NHMRC 2010)*[7] for more detailed information on quality improvement processes in infection prevention and control, and the additional resources at the end of this document. **Outputs of improvement processes may include:** Quality improvement activities can be demonstrated by: • a continuous quality improvement plan that shows implementation, regular review and revision, action, evaluation, feedback • an updated risk register and/or risk management plan • an updated log or register of implemented improvement activities and outcomes • a log of quality activities that have utilised a quality improvement model such as Plan, Do, Study, Act (PDSA). Examples of strategies to demonstrate compliance include: • reports from data systems and/or observational audits of areas where change has been made • improved usage rates of specified products and equipment • data collection and monitoring pre- and post- changes • awareness of workforce to revised policies, procedures, protocols and guidelines • records of completion of in-service and other education on practice changes • actions are documented in relevant agendas, meeting minutes and/or reports of relevant committees • updates on quality improvement activities provided to key internal and external stakeholders as appropriate.

Standard 3

Criterion: Infection prevention and control strategies

Strategies for the prevention and control of healthcare associated infection are developed and implemented

Infection control is a health and safety issue, which means that all those working in the healthcare facility – managers and clinicians – are responsible for providing a safe environment for patients and other members of the workforce.

Infectious agents transmitted during provision of health care come primarily from human sources, including patients, healthcare workers and visitors.

Successful infection prevention and control measures involve implementing work practices that prevent the transmission of infectious agents through a two-tiered approach including:

- routinely applying basic infection prevention and control strategies to minimise risk to both patients and healthcare workers, such as hand hygiene, personal protective equipment, cleaning and appropriate handling and disposal of sharps (standard precautions)

- effectively managing infectious agents where standard precautions may not be sufficient on their own – these specific interventions control infection by interrupting the mode of transmission (transmission-based precautions; formerly referred to as additional precautions).

If successfully implemented, standard and transmission-based precautions prevent any type of infectious agent from being transmitted.

Hand hygiene is the most important of the infection prevention and control strategies. The National Hand Hygiene Initiative identifies the *5 Moments for Hand Hygiene*[6] as a nationally consistent approach to preventing infections. A key aspect of this initiative is that hand hygiene must be performed before and after every patient contact to prevent patients becoming colonised with pathogens from other patients and the healthcare facility environment. Although the concept of hand hygiene is straightforward, improving hand hygiene practices involves changing attitudes and behaviour among healthcare workers.

Items under this criterion should be considered in relation to the criterion and actions detailed in *Standard 1: Governance for Safety and Quality in Health Service Organisations* and *Standard 6: Clinical Handover*.

Actions required	Implementation strategies
3.5 Developing, implementing and auditing a hand hygiene program consistent with the current national hand hygiene initiative	

3.5.1 Workforce compliance with current national hand hygiene guidelines is regularly audited

3.5.2 Compliance rates from hand hygiene audits are regularly reported to the highest level of governance in the organisation

3.5.3 Action is taken to address non-compliance, or the inability to comply, with the requirements of the current national hand hygiene guidelines

The intent of Item 3.5 is that health service organisations implement and support a hand hygiene program that is consistent with the National Hand Hygiene Initiative. In most health service organisations hand hygiene compliance is assessed by auditing compliance of the workforce. Some very small health service organisations are not required to undertake direct observational auditing and if unsure, they should check with their jurisdictional Department of Health or Hand Hygiene Australia www.hha.org.au[6]

Key task:

- **Implement systems and processes to meet the requirements of the National Hand Hygiene Initiative. Further information can be found at Hand Hygiene Australia:**

  www.hha.org.au[6]

Suggested strategies:

Review of compliance results by the health service organisation senior executive. You could also provide direction and support in meeting the requirements of the National Hand Hygiene Initiative by:

- determining how the hand hygiene program will be managed within the health service organisation
- supporting the health service organisation to meet the minimum requirements for observational compliance audits for hand hygiene or overall audit of the program
- developing a plan to respond to identified gaps, barriers or enablers to demonstrate improvement
- providing feedback to the audit areas of the results of audits undertaken
- where direct observational auditing is not required, identify appropriate alternate measurements to evaluate the hand hygiene program in your health service organisation.

Review or develop a process (policy or protocol) to address any issues of non-compliance or inability to comply with the national program. This can include:

- identification of reasons for non-compliance and identify solutions
- review or modifications to procedures, protocols or work practices to address issues of non-compliance
- reviews of equipment, supplies and products required to comply with hand hygiene requirements and their availability
- assess the workforce knowledge of hand hygiene
- provide feedback to key stakeholders on issues and outcomes relating to compliance.

Explanatory notes:

Hand hygiene is an essential key strategy in the prevention and control of healthcare associated infections. Good hand hygiene practice also protects the workforce and consumers.

Hand hygiene auditing should be undertaken in accordance with the minimum requirements set out in the National Hand Hygiene Initiative. Hand Hygiene Australia:

www.hha.org.au[6]

Actions required	Implementation strategies

3.5 Developing, implementing and auditing a hand hygiene program consistent with the current national hand hygiene initiative (continued)

(continued) **3.5.1** Workforce compliance with current national hand hygiene guidelines is regularly audited **3.5.2** Compliance rates from hand hygiene audits are regularly reported to the highest level of governance in the organisation **3.5.3** Action is taken to address non-compliance, or the inability to comply, with the requirements of the current national hand hygiene guidelines	Training in the principles and assessment of competence of hand hygiene would normally be considered part of the curriculum for training healthcare professionals. Health service organisations will build upon this training and tailor additional training for the workforce as part of maintaining compliance with current national hand hygiene guidelines and compliance rates. The activities undertaken will be determined by the jurisdictional Departments of Health and influenced by the complexity of services provided by the health service organisation. Detailed information on the National Hand Hygiene Initiative including auditing for hospitals and procedure centres, tools, education and training materials can be found at: www.hha.org.au[6] The health service organisation should determine a policy for workforce who are non-compliant or have an inability to comply. The health service organisation can assess knowledge of hand hygiene of their workforce through the Hand Hygiene Australia online learning packages www.hha.org.au.[6] A database of the workforce who have completed the learning packages can be maintained. The results of audits and assessments of compliance rates for hand hygiene are reported to the highest level in the organisation where action can be taken. Refer to Sections B 1.1 and C3.4 of the *Australian Guidelines for the Prevention and Control of infections in Health Care* (NHMRC 2010)[7] for further information on the principles of hand hygiene, the National Hand Hygiene Initiative and the importance of organisational support. **Outputs of improvement processes may include:** • results of hand hygiene compliance audits • action plan prioritising a response to the gaps identified in the gap analysis to sustain the National Hand Hygiene Initiative • actions are documented in relevant committee meeting agendas and minutes • policies, procedures and protocols for a hand hygiene program and associated activities that are consistent with the National Hand Hygiene Initiative. Activities to demonstrate compliance is being monitored and results responded to by the health service organisation could include: • audits and evaluation of the types of products available to the workforce • audits and evaluation of the amounts of hand hygiene products used • targeted audits on specific procedures may be undertaken as an indicator for compliance and the results can be used to promote improved practice • risk assessment (undertaken as part of Action 3.1.1) of the workforce to target or clinical areas in which to conduct audits • records of workforce who have completed hand hygiene education and training • analysis of trends in healthcare associated infection rates in the health service organisation.

Actions required	Implementation strategies
3.6 Developing, implementing and monitoring a risk-based workforce immunisation program in accordance with the current National Health Medical Research Council Australian immunisation guidelines	

3.6.1 A workforce immunisation program that complies with current national guidelines is in use	The intent of Item 3.6 is for health service organisations to have an immunisation program in place that meets the requirements of the *Australian Immunisation Handbook* (NHMRC current edition)[12] jurisdictional Departments of Health requirements and the identified risks of the organisation.

Key task:

* **Review the organisational immunisation program to ensure compliance with the requirements of the *Australian Immunisation Handbook***

    www.immunise.health.gov.au[12]

Suggested strategies:

Ensure policies procedures and protocols are in place to address the employer and employee responsibilities for managing occupational risks for vaccine preventable diseases and infections in your health service organisation.

An immunisation program that includes:

* relevant aspects of infection prevention and control
* workplace occupational health and safety
* health program requirements for the workforce
* maintenance of current vaccination records for the workforce
* provision of information about the relevant vaccine-preventable diseases
* the management of vaccine refusal (which should, for example, include reducing the risk of a healthcare worker transmitting disease to vulnerable patients)
* advising healthcare workers of the potential consequences if they refuse reasonable requests for immunisation. Such advice and refusal to comply should be documented.

Explanatory notes:

Consideration of the scope and workload of a workforce is important to the success of the immunisation program and it may include consultation with infection prevention and control team members.

Training and contractor organisations share the responsibility for workforce immunisation and would normally be considered part of the requirements for training and supply of healthcare workforce that is immunised prior to placement or employment.

Health service organisations will build upon this requirement and tailor additional assessment or review of the workforce as part of maintaining compliance with the *Australian Immunisation Handbook* (NHMRC current edition)[12] and jurisdictional departments of health requirements.

A health service organisation may undertake to manage the immunisation program themselves or they may choose:

* outsourcing services for immunisation of the workforce
* collaborating with other health service organisations to provide the program.

Whatever process is used, the health service organisation needs to be able to demonstrate compliance with the *Australian Immunisation Handbook* (current edition) and jurisdictional departments of health requirements.

Actions required	Implementation strategies

3.6 Developing, implementing and monitoring a risk-based workforce immunisation program in accordance with the current National Health Medical Research Council Australian immunisation guidelines[12] *(continued)*

(continued) **3.6.1** A workforce immunisation program that complies with current national guidelines is in use	Refer to Section C2 of the *Australian Guidelines for the Prevention and Control of infections in Health Care* (NHMRC 2010),[7] which provides further information on the health and safety of the workforce in relation to vaccine preventable infectious agents. The *Australian Immunisation Handbook* (NHMRC current edition), www.immunise.health.gov.au[12] provides details of the national immunisation guidelines. **Outputs of improvement processes may include:** • data on the number of members of the workforce who are immunised to meet the program and jurisdictional departments of health requirements • current policies, procedures and protocols are available for the health workforce which are regularly reviewed and evaluated for effectiveness • actions are documented in relevant committee meeting agendas and minutes • maintenance plan to ensure compliance of the workforce to the immunisation program requirements • if relevant, agreement with external agents and other health service organisations for provision of the workforce immunisation program against selected vaccine preventable infections.

3.7 Promoting collaboration with occupational health and safety programs to decrease the risk of infection or injury to healthcare workers

3.7.1 Infection prevention and control consultation related to occupational health and safety policies, procedures and/or protocols are implemented to address: • communicable disease status • occupational management and prophylaxis • work restrictions • personal protective equipment • assessment of risk to healthcare workers for occupational allergies • evaluation of new products and procedures	The intent of Item 3.7 is to ensure that the workforce have access to appropriate information, testing, training, counselling and vaccination programs. **Key tasks:** • **Review occupational health and safety policies, procedures and protocols to include areas where risk of injury or infection can be reduced for healthcare worker safety. This will include the priority areas identified in Action 3.7.1** • **Review quality activities that will measure risk or improvements with compliance with the priority areas identified in Action 3.7.1** **Suggested strategies:** Development or review of the orientation program for new employees to include: • avoiding occupational exposures • managing occupational exposures • access to prophylaxis management for occupational exposures • any increased risks relating to the workplace • process for introduction and evaluation of new products or procedures.

Actions required	Implementation strategies
3.7 Promoting collaboration with occupational health and safety programs to decrease the risk of infection or injury to healthcare workers (continued)	

(continued)

3.7.1 Infection prevention and control consultation related to occupational health and safety policies, procedures and/or protocols are implemented to address:

- communicable disease status
- occupational management and prophylaxis
- work restrictions
- personal protective equipment
- assessment of risk to healthcare workers for occupational allergies
- evaluation of new products and procedures

Quality activities that should be considered to demonstrate evaluation and management of risk include (but are not limited to):

- assessments of risk to the workforce for occupational allergies including:
  - skin conditions related to dermatitis, or
  - allergy to personal protective equipment, skin antiseptics or hand hygiene products
- improvements made to reduce risk from identified occupational allergies
- percentage of workforce who have completed competency assessments in the use of personal protective equipment
- hand hygiene compliance rates (from Item 3.5)
- nail status or wearing of jewellery in clinical settings
- new product reviews or evaluations
- exposure prone procedures
- work restriction protocols for members of the workforce with current infections that include risk management strategies.

Explanatory notes:

For additional information on the importance of collaboration and consultation between infection prevention and control and occupational (workplace) health and safety refer to Sections C 2 and C7.2 of the *Australian Guidelines for the Prevention and Control of infections in Health Care* (NHMRC 2010).[7]

Outputs of improvement processes may include:

- policies, procedures and protocols are available for the workforce and these are regularly reviewed and evaluated for effectiveness. These include:
  - the management of occupational exposures
  - communicable disease status and management
  - vaccination refusal and work placements and restrictions
  - minimising risk from occupational allergies
- actions are documented in relevant committee meeting agendas and minutes
- risk assessment (undertaken as part of Action 3.1.1) for the clinical workforce undertaking exposure prone procedures are undertaken
- reports on occupational exposure data show cases, management strategies used to support the introduction of safety devices and equipment to minimise risks to healthcare workers and patients
- incident reporting system or risk register is in place to identify, analyse, evaluate and treat risks of injury or infection that impact upon the health service organisation and its workforce
- flowcharts or signage instructions are available for the workforce on how to reduce or minimise risk of injury or infection relevant to the workplace.

Actions required	Implementation strategies
3.8 Developing and implementing a system for use and management of invasive devices based on the current national guidelines for the prevention and control of infections in health care	

3.8.1 Compliance with the system for the use and management of invasive devices is monitored

The intent of Item 3.8 is to ensure the use of aseptic insertion and safe maintenance of devices, which are critical to reducing infection risk.

Key task:

- **Review organisational compliance with relevant regulations covering invasive devices or develop and implement systems that address introduction, use and managing invasive devices used in the health service organisation**

Suggested strategies:

The development or review of policies, procedures and protocols for supply and procurement, introduction, use, reuse, disposal, storage, fault management, recall, and evaluation of invasive devices in the health service organisation.

Review the surgical and medical invasive devices in use in the health service organisation and ensure they are included in the policies, procedures and protocols for the health service organisation.

Identify risks associated with use. This could include:

- criteria for the insertion of an invasive device and time left in place e.g. venous access devices or urinary catheters
- assessment of aseptic technique is utilised for insertion
- assessment of compliance with the maintenance process for invasive devices during use e.g. venous access devices or urinary catheters
- if evidence-based safety engineered technology is being used
- evaluation of how clinicians choose the most appropriate device
- monitoring the patient for infection risk
- incident reports relating to invasive devices used – this could include review of appropriateness, infection, equipment failure, and other adverse events
- what patient education is provided.

Explanatory notes:

Invasive devices are utilised both in the procedural environment e.g. operating theatres and interventional radiology as well as in ward and clinical areas of a health service organisation.

Invasive devices are a common risk associated with HAIs and include surgical or medical devices and implants. The health service organisation needs to consider risk when considering compliance monitoring of invasive devices and should be determined by the scope of activity of the organisation together with the type of device and procedure.

Refer to Sections B4.1.2 and 4.2 of the *Australian Guidelines for the Prevention and Control of Infections in Health Care* (NHMRC 2010)[7] that outline appropriate use of devices and provide examples of therapeutic invasive devices.

Also refer to Therapeutic Goods Administration:

www.tga.gov.au/hp/information-devices.htm[13]

for information on medical devices.

Actions required	Implementation strategies
3.8 Developing and implementing a system for use and management of invasive devices based on the current national guidelines for the prevention and control of infections in health care (continued)	

(continued) **3.8.1** Compliance with the system for the use and management of invasive devices is monitored	**Outputs of improvement processes may include:** • policies, procedures and protocols are available for the health workforce, are regularly reviewed and evaluated for effectiveness • actions are documented in relevant committee meeting agendas and minutes • organisational strategic plan identifies, escalates and reviews the risks of invasive devices and is based on consultation across the health service organisation • register of reports contain reviews of invasive device risks • reports on interventions implemented to manage these risks. This could include results of observational and clinical audits on the use or management of invasive devices • an audit system that demonstrates evidence of evaluation of results, response and feedback relating to the integrity of invasive devices and instruments including systems and processes for reprocessing, packaging and storage of sterile stock • frequency of compliance auditing will be influenced by retention and attrition rates with the workforce.

Actions required	Implementation strategies
3.9 Implementing protocols for invasive device procedures regularly performed within the organisation	

3.9.1 Education and competency-based training in invasive devices protocols and use is provided for the workforce who perform procedures with invasive devices	The intent of Item 3.9 is to ensure protocols for invasive device procedures that minimise the risk of infection are in place.
	
	Key tasks:
	
	• Review protocols for procedures that include invasive devices to determine compliance with relevant regulations. Content will address:
	  – relevant regulations or policies with which the clinicians are required to comply
	  – scope of training required to use the invasive device
	  – if any supervision required
	  – if competency-based training and assessment is required prior to use
	  – scope of use
	  – safety issues including faults and recalls
	  – documentation and traceability (if required)
	  – evaluation process
	
	• Prioritise education, competency-based training and assessment to address highest risk and highest use areas first
	• Extend education and competency-based training to all areas in the health service organisation where invasive devices are used
	
	Explanatory notes:
	
	To minimise risk associated with the use of invasive devices, the health service organisation needs to consider how the workforce who perform procedures with invasive devices will be adequately educated and competent in the skills required for safe insertion, use and maintenance of the device. Education and competency-based training will be influenced by retention and attrition rates with the workforce.

Actions required	Implementation strategies

3.9 Implementing protocols for invasive device procedures regularly performed within the organisation (continued)

(continued) **3.9.1** Education and competency-based training in invasive devices protocols and use is provided for the workforce who perform procedures with invasive devices	Education materials used at orientation, planned education sessions or as part of competency assessment related to invasive device use include: • evidence-based content • cover all topic areas of the protocol • competency-based training that is validated or working towards being validated • an evaluation and review process is included. Invasive devices are utilised both in the procedural environment e.g. operating theatres and interventional radiology as well as in ward and clinical areas of a health service organisation. Additional information relating to the use of invasive devices can be found on the Therapeutic Goods Administration web site: www.tga.gov.au/hp/information-devices.htm[13] Refer to Sections B4.1.2 and 4.2 of the *Australian Guidelines for the Prevention and Control of Infections in Health Care* (NHMRC 2010)[7] for further information relating to risk when using invasive devices. **Outputs of improvement processes may include:** • records of attendance by clinical workforce at orientation and induction programs where introduction to the health service organisation requirements to the use of invasive devices is covered • records detailing the numbers or percentage of the workforce that have completed the required education and training related to invasive devices used in the health service organisation • a plan for ongoing education and assessment of competence for the clinical workforce who perform procedures with invasive devices.

Actions required	Implementation strategies
3.10 Developing and implementing protocols for aseptic technique	

3.10.1 The clinical workforce is trained in aseptic technique

3.10.2 Compliance with aseptic technique is regularly audited

3.10.3 Action is taken to increase compliance with the aseptic technique protocols

The intent of Item 3.10 is to prevent or minimise the risk of introducing harmful infectious agents into sterile areas of the body when undertaking clinical procedures.

Aseptic technique protects patients during invasive clinical procedures by employing infection prevention and control measures that minimise, as far as practicably possible, the presence of infectious agents.

Key task:

- **Use the risk assessment to identify areas where aseptic technique is required and prioritise compliance auditing to areas of highest risk and highest use**

Suggested strategies:

To assess compliance focus on areas of highest use and highest risk first. An example of high use and high risk may be emergency department or ICU but high use and lower risk would be areas where existing standards are likely to be in place e.g. operating theatres.

Determine what additional training and education in aseptic technique is required for the clinical workforce who performs procedures or utilises aseptic technique with specific procedures.

These procedures include (but are not limited to):

- intravenous (IV) therapy maintenance
- simple dressings
- complex or large dressings of wounds
- urinary catheterisation
- insertion and maintenance of vascular access devices including peripheral and central lines
- surgical procedures.

Review the results of auditing to determine the factors that assist with improving compliance. These factors may include (but are not limited to):

- compliance assessments that were unsuccessful or where clinicians have scored less than 100%
- targeting clinical areas that are affected by low retention and high attrition rates with the workforce.

Undertaking a review of surveillance data identifying healthcare associated infection that can be linked to procedures may be a factor to assist in identification of highest risk areas for training and assessment of aseptic technique.

Explanatory notes:

There are many examples of the principles of aseptic technique, one of which is identified in Sections B1.7 and B4 of the *Australian Guidelines for the Prevention and Control of Infections in Health Care* (NHMRC 2010).[7] An additional resource for insertion and management of central lines is Central Line Associated Blood Stream Infections (CLABSI):

www.clabsi.com.au/[14]

Training in the principles and assessment of competence of aseptic technique would normally be considered part of the curriculum for training healthcare professionals during undergraduate training. Building upon this training and tailoring additional training for the workforce can be a way of maintaining compliance rates.

The frequency of education and competency-based training will be influenced by workforce retention and attrition rates.

Actions required	Implementation strategies

3.10 Developing and implementing protocols for aseptic technique (continued)

Actions required	Implementation strategies
(continued) **3.10.1** The clinical workforce is trained in aseptic technique **3.10.2** Compliance with aseptic technique is regularly audited **3.10.3** Action is taken to increase compliance with the aseptic technique protocols	Training, education materials and learning packages related to aseptic technique to include the following features: • evidence-based content • cover all topic areas of the protocol • if competency-based training is used it is validated or working towards being validated • an evaluation and review process. The extent and frequency of auditing of compliance with aseptic technique for the health service organisation will be influenced by: • clinical areas where procedures requiring aseptic technique are undertaken • the frequency these procedures are performed, targeting the high use areas as a priority • the retention and attrition rates with clinical workforce • risk assessment (undertaken as part of Action 3.1.1) of patients • changes to the risk profile of the clinical area. Materials used for hand hygiene technique assessment, appropriate use of personal protective equipment (PPE), and CLABSI project assessment tools would be utilised as part of the education content for aseptic technique. Monitoring of education or competency-based training would be guided by clinical workforce feedback or results of evaluation of education and assessment resources. **Outputs of improvement processes may include:** • surveillance data for healthcare associated infections (HAIs) associated with procedures that require aseptic technique as part of their insertion and maintenance e.g. venous access devices, other indwelling devices and surgical procedures • orientation and induction programs containing content for the clinical workforce on aseptic technique • records detailing the numbers or percentage of the clinical workforce who have undertaken education and training in aseptic technique • demonstration of ongoing orientation and training of the workforce who perform procedures requiring aseptic technique • evaluation of education and competency-based training resources and needs is undertaken and reported • attendance or completion of ongoing education for aseptic technique • actions are documented in agendas, meeting minutes and/or reports of relevant committees • compliance rates of aseptic technique are reviewed to identify any possible areas of improvement.

Standard 3

Criterion: Managing patients with infections or colonisations

Patients presenting with, or acquiring an infection or colonisation during their care are identified promptly and receive the necessary management and treatment

All people potentially harbour infectious agents. Work practices to ensure a basic level of infection prevention and control, covered by the term 'standard precautions' are applied to everyone, regardless of their perceived or confirmed infectious status. Implementing standard precautions as a first-line approach to infection prevention and control in the health service environment minimises the risk of transmission of infectious agents from person to person, even in high-risk situations. Standard precautions are used by the workforce to prevent or reduce the transmission of infectious agents from one person or place to another, and to render and maintain objects and areas as free as possible from infectious agents (NHMRC 2010, p. 23).[7]

Standard precautions need to be routinely applied as an essential strategy for minimising the spread of infections.

Transmission-based precautions are required when there is an increased risk of transmission, with patients suspected or confirmed to be infected with agents transmitted by contact, droplet or airborne routes. Transmission-based precautions are recommended as extra work practices in situations where standard precautions alone may be insufficient to prevent transmission. Transmission-based precautions are also used in the event of an outbreak (e.g. gastroenteritis) to assist in containing the outbreak and preventing further infection.

Transmission-based precautions should be tailored to the particular infectious agent involved and its mode of transmission. This may involve a combination of practices.

For additional information on implementing systems for standard and transmission-based precautions refer to Section A 1.2 in the *Australian Guidelines for the Prevention and Control of Infections in Health Care* (NHMRC 2010).[7]

If successfully implemented, standard and transmission-based precautions prevent any type of infectious agent from being transmitted.

Strategies for monitoring compliance and use of policies are also considered under *Governance and systems for infection prevention, control and surveillance* in Standard 3.

This criterion should be read and considered in conjunction with *Standard 1: Governance for Safety and Quality in Health Service Organisations*; and *Standard 6: Clinical Handover*.

Actions required	Implementation strategies

3.11 Implementing systems for using standard precautions and transmission-based precautions

3.11.1 Standard precautions and transmission-based precautions consistent with the current national guidelines are in use
 	
3.11.2 Compliance with standard precautions is monitored
 	
3.11.3 Action is taken to improve compliance with standard precautions
 	
3.11.4 Compliance with transmission-based precautions is monitored
 	
3.11.5 Action is taken to improve compliance with transmission-based precautions
	The intent of Action 3.11 is to minimise infection risk to both patients and healthcare workers through the routine application of basic infection prevention and control strategies.
	
	Key tasks:
	• As part of the risk assessment and gap analysis undertaken in Action 3.1.1 a review would include:
	  – current policies, procedures and protocols to determine areas for review or action to achieve consistency and compliance with the national guidelines
	  – available equipment, supplies and products required to enable compliance with standard and transmission-based precautions
	  – results of audits and compliance rates with the safe work practices included in standard precautions
	  – compliance with occupational immunisation requirements
	  – environmental cleaning audits in clinical areas
	  – surveillance data and incidents to identify health care associated infections that may be related to compliance with transmission-based precautions
	  – content covered in the induction or orientation program
	• Prioritise gaps or areas where improvement can be made
	
	Suggested strategies:
	Work with individuals, departments and committees to determine where changes or improvement can be made to an action or quality improvement plan.
	
	Identify and prioritise when, where and how compliance with standard and transmission-based precautions can be monitored and reviewed.
	
	Review or develop signage and information or reminder systems and resources such as posters, labels and newsletter to ensure standardisation and consistency with the national guidelines.
	
	Review education and orientation programs to include key aspects of standard and transmission-based precautions. Refer to item 3.7 for additional areas to be included in an organisational orientation and education program.
	
	Review reminder systems to raise awareness of the need for standard and transmission-based precautions, and the specific precautions that need to be applied to infectious agents relevant to the health service organisation.
	
	Review environmental cleaning processes in clinical areas to ensure they are consistent with national guidelines.
	
	Evaluate attendance of the workforce at induction or orientation prior to commencing work in the health service organisation.

Actions required	Implementation strategies
3.11 Implementing systems for using standard precautions and transmission-based precautions	(continued)

(continued)

3.11.1 Standard precautions and transmission-based precautions consistent with the current national guidelines are in use

3.11.2 Compliance with standard precautions is monitored

3.11.3 Action is taken to improve compliance with standard precautions

3.11.4 Compliance with transmission-based precautions is monitored

3.11.5 Action is taken to improve compliance with transmission-based precautions

Explanatory notes:

Senior executives, managers and the workforce can work together to ensure consistency with the current national guideline recommendations for standard and transmission-based precautions and develop processes for monitoring and review of compliance with policies and use of guidelines.

Systems for monitoring, review and evaluation of compliance by the workforce with guidelines for standard and transmission-based precautions are necessary to determine and prioritise actions that can be taken to improve compliance. Processes and policies for addressing any issues of non-compliance or inability to comply with standard precautions will underpin these actions.

Refer to Section B of the *Australian Guidelines for the Prevention and Control of Infections in Health Care* (NHMRC 2010)[7] that outlines the principles for application and use of standard and transmission-based precautions.

Outputs of improvement processes may include:

- results of audits relating to standard and transmission-based precautions, audit results relating to hand hygiene; use of personal protective equipment (PPE) may be used as evidence of compliance
- actions are documented in relevant committee meeting agendas and minutes
- newsletters, briefings and presentations that are available outlining the systems used in the health service organisation
- an action plan including actions to improve consistency of practice with guideline recommendations
- policies, procedures and protocols that demonstrate consistency with current national guidelines that are available for the workforce and are regularly reviewed and evaluated for effectiveness
- records are kept of attendance of the workforce at induction or orientation prior to commencing work in the health service organisation
- standardised signage and other information resources consistent with current national guidelines for standard and transmission-based precautions are in use
- education resources and ongoing training related to standard precautions are available for the workforce
- incident management system, risk register or log available to address identified risks related to standard precautions, non-compliance or the inability to comply with transmission-based precautions and safe work practices
- quality improvement plan that includes actions to address issues identified
- examples of improvement activities that have been implemented and evaluated to improve compliance
- communication material developed for the workforce and/or patients
- records of targeted orientation, education and training to address compliance.

Actions required	Implementation strategies

3.12 Assessing the need for patient placement based on the risk of infection transmission

3.12.1 A risk analysis is undertaken to consider the need for transmission-based precautions including:

- accommodation based on the mode of transmission
- environmental controls through air flow
- transportation within and outside the facility
- cleaning procedures
- equipment requirements

The intent of Item 3.12 is to minimise exposure of other patients and the workforce to the infectious agent. This item is designed to build upon Item 3.11 and includes any infectious agent that may increase risk of transmission in the health service organisation e.g. gastroenteritis, seasonal influenza and multi-resistant organisms (MROs). Placing colonised or infected patients in single rooms, cohort rooms or cohort areas as a component of a multifaceted infection control policy can reduce acquisition rate and infection in acute care settings.

Key tasks:

- **Use the results of the risk assessment and gap analysis undertaken in Action 3.1.1 to ensure the priority areas identified in Action 3.12.1 have been included in the development and revision of policies on transmission based precautions**
- **Determine systems currently in place to assess risk related to transmission-based precautions**

Suggested strategies:

A suggested strategy you could use is to undertake a review of factors and sources of information which can inform a risk analysis, including:

- pathology reports on patients diagnosed with infectious agents requiring transmission-based precautions
- surveillance data and reports
- contract and service performance review by any external providers of goods and services
- incident reports relating to possible transmission of infectious agents
- consumer feedback reports
- data from admissions or emergency departments on delays in patient placement due to lack of appropriate accommodation or resources
- cleaning regimes
- maintenance and pathology reports to determine appropriate monitoring of air handling systems are in place.

You should prioritise actions based on a review of the above and develop an action plan to implement risk analysis for transmission-based precautions.

Explanatory notes:

Risk of infection transmission should be based on a risk assessment (undertaken as part of Action 3.1.1) to ensure patients are placed appropriately.

The risk assessment includes:

- patient accommodation based on the mode of transmission
- environmental controls including air flow
- transportation within and outside the facility
- cleaning procedures
- equipment requirements.

Section B of the *Australian Guidelines for the Prevention and Control of Infections in Health Care* (NHMRC 2010)[7] outlines the principles for application and use of standard and transmission-based precautions.

Actions required	Implementation strategies

3.12 Assessing the need for patient placement based on the risk of infection transmission
(continued)

(continued)

3.12.1 A risk analysis is undertaken to consider the need for transmission-based precautions including:

- accommodation based on the mode of transmission
- environmental controls through air flow
- transportation within and outside the facility
- cleaning procedures
- equipment requirements

Outputs of improvement processes may include:

- policies, procedures and protocols are available for the workforce which are regularly reviewed and evaluated for effectiveness
- actions are documented in relevant committee meeting agendas and minutes
- risk management plan in place that outlines the risks identified for patient placement and addresses actions to be undertaken to minimise or eliminate the risks
- surveillance data and reports that demonstrate review of results, action taken, outcomes, communication to senior executive, consumers (if relevant) and the key stakeholders within the health service organisation
- maintenance or pathology reports showing appropriate review of air handling systems to ensure the systems are maintained and monitored
- results of review of cleaning regimes and products used to undertake cleaning activities to ensure they meet the national guidelines and regulatory requirements
- agreement with external agents, other health service organisations, or terms of reference for a governance group/committee to oversee quality and safety initiatives related to:
  - the monitoring and maintenance of environmental controls used
  - transportation of patients within and outside the health service organisation
  - cleaning procedures undertaken for both standard and transmission-based precautions in clinical areas of the health service organisation
  - supply of equipment required.

3.13 Developing and implementing protocols relating to admission, receipt and transfer of patients with an infection

3.13.1 Mechanisms are in use for checking for pre-existing healthcare associated infection or communicable disease on presentation for care

3.13.2 A process for communicating a patient's infectious status is in place whenever responsibility for care is transferred between service providers or facilities

The intent of Item 3.13 is to minimise exposure of other patients and the workforce to the infectious agent from admitted or transferred patients.

This criterion should be read and considered in conjunction with *Standard 6: Clinical Handover*.

Key tasks:

- **Develop, implement or review systems to identify pre-existing healthcare infections or communicable diseases that will affect:**
  - **patient access to the health service organisation**
  - **patient placement**
  - **increased risk to workforce or other patients and customers of the health service organisation**
  - **transfer of care**

- **Review systems and processes used at admission and entry points and by bed managers and the clinical workforce including:**
  - **review of pre-admission information**
  - **alert, flagging or risk identification systems**
  - **protocols in clinics, emergency departments and doctors' rooms on how and what to assess regarding risks for healthcare associated infection or communicable disease**
  - **systems for transportation of patients within and outside the health service organisation**

Actions required	Implementation strategies

3.13 Developing and implementing protocols relating to admission, receipt and transfer of patients with an infection (continued)

Actions required	Implementation strategies
(continued) **3.13.1** Mechanisms are in use for checking for pre-existing healthcare associated infection or communicable disease on presentation for care **3.13.2** A process for communicating a patient's infectious status is in place whenever responsibility for care is transferred between service providers or facilities	**Suggested strategies:** Develop or review processes to communicate a patient's infectious status whenever responsibility for care is transferred between health service organisation workforce, departments or facilities. Develop or utilise information systems and materials to inform health providers of the risks and the requirements to minimise identified risks. These could be handover sheets, discharge and transfer summaries, and flagging systems for infectious status. **Explanatory notes:** Key times when a patient's infectious status should be evaluated and documented by service providers or health service organisations is when responsibility of care is transferred: • on admission or presentation • at every handover • during clinical review or consultation • on transfer or discharge. Refer to Section B of the *Australian Guidelines for the Prevention and Control of Infection in Health Care* (NHMRC 2010).[7] Item 3.13 should be read and considered in conjunction with *Standard 6: Clinical Handover*. **Outputs of improvement processes may include:** • policies, procedures and protocols available for the health workforce which are regularly reviewed and evaluated for effectiveness • inclusion on handover sheets • incident reports • surveillance data that is used for identification of healthcare associated infection transmission events or outbreaks • evidence of review of cases and actions taken as a result of events identified from incident reports and surveillance data • actions documented in relevant agendas, meeting minutes and/or reports of relevant committees.

Criterion: Antimicrobial stewardship

Safe and appropriate antimicrobial prescribing is a strategic goal of the clinical governance system

The intent of this criterion is to ensure appropriate prescribing of antimicrobials, as part of the broader systems within a health service organisation to prevent and manage health care associated infections and improve patient safety and quality of care.

This criterion aligns closely with *Standard 4: Medication Safety* and the actions should be considered in relation to the criterion and actions within that Standard and *Standard 1: Governance for Safety and Quality in Health Service Organisations*.

The emergence of antimicrobial resistant bacteria is closely linked with inappropriate antimicrobial use. Studies show that up to 50% of antimicrobial regimens prescribed for patients in hospitals, including Australian hospitals, are considered inappropriate. Comparison with data from northern Europe shows Australian hospitals have a higher overall rate of inpatient antimicrobial use and further work is required to optimise the use of antimicrobials in our hospitals.

An effective approach to improving antimicrobial use in hospitals is an organised antimicrobial management program, known as antimicrobial stewardship (AMS). AMS has been defined as '*an ongoing effort by a health-care institution to optimise antimicrobial use among hospital patients in order to improve patient outcomes, ensure cost-effective therapy and reduce adverse sequelae of antimicrobial use (including antimicrobial resistance)*'.[5] An antimicrobial

stewardship program is the combination of a range of complementary strategies and interventions that work together to support these efforts. AMS programs aim to change antimicrobial prescribing to reduce unnecessary use and promote the use of agents less likely to select resistant bacteria. This is done in line with treatment guidelines and with consideration of the demonstrated local incidence of antimicrobial-resistant pathogens.[15] AMS programs are multidisciplinary, where possible using the expertise and resources of infectious diseases physicians, medical microbiologists, infection control practitioners and pharmacists. Successful AMS programs contain a range of strategies and require the necessary structure and governance to support their implementation and sustainability.

Effective hospital AMS programs have been shown to reduce inappropriate antimicrobial use (in the order of 22–36%), improve patient outcomes and reduce adverse consequences of antimicrobial use (including antimicrobial resistance, toxicity and unnecessary costs). Along with infection control, hand hygiene and surveillance, antimicrobial management programs are a key strategy in preventing the emergence of antimicrobial resistance and decreasing preventable HAI.

As with all patient safety and quality improvement initiatives, the overall accountability for AMS lies with the clinicians and health service organisation management, who are jointly responsible for ensuring an antimicrobial stewardship program is developed, implemented, and outcomes evaluated. Support for the program from senior clinicians and health service organisation management is needed, including:

- working with clinicians to determine the resources needed to support a stewardship program
- developing a plan for antimicrobial stewardship that provides for necessary resource allocation (the workforce, time, infrastructure) to support the planned stewardship activities
- establishing access to a multidisciplinary AMS team with core membership (wherever possible) of an infectious diseases physician, medical microbiologist or nominated clinician (e.g. lead doctor), and a clinical pharmacist
- ensuring that AMS is incorporated within the hospital's quality improvement and patient safety plan, and clear lines of accountability exist between the chief executive; clinical governance; drug and therapeutics committee, and infection prevention and control committee; and the AMS team.

The strategies for AMS that should be considered in all health service organisations are:

- having the necessary governance structure to support AMS activity, and the explicit support of the facility leadership
- a prescribing policy consistent with therapeutic guidelines and access of prescribing clinicians to these (see Action 3.14.2)
- usage and resistance monitoring with feedback to prescribers (see Action 3.14.3)
- formulary and restriction systems that include restricting broad-spectrum and later generation antimicrobials to patients in whom their use is clinically justified
- systems for obtaining specialist advice for difficult clinical conditions
- a system for monitoring the effectiveness of these interventions.

The content and implementation strategies for this criterion have been drawn from the Commission publication *Antimicrobial Stewardship in Australian Hospitals*[16] which summarises current evidence about AMS programs and details strategies for implementing and sustaining these programs. The implementation strategies suggested below build on the information in the publication, provide links to specific sections and resources, and suggestions for further reading to assist a range of health service organisations to achieve the actions. It is recognised that there will be areas that do not have onsite access to onsite infectious diseases or medical microbiology expertise, and have limited onsite pharmacy services. Examples of ways in which strategies to support AMS might be implemented in different contexts are provided in Table 2. These examples can be used as a starting point for health service organisations and AMS teams to consider ways in which different strategies can be applied in their own settings.

Regardless of the size or type of health service organisation, the success of AMS programs depends on the explicit support of the senior executives and senior clinicians within the health service organisation. In addition, it is essential that executives, senior clinicians, infection prevention and control professionals, pharmacy services and quality and safety officers work together to consider local priorities and how best to implement a program, to help avoid unnecessary duplication and promote a comprehensive and effective AMS strategy. Programs may need to be tailored in each organisation, and depend on the specific context and factors such as the complexity, size and resources available for implementation, monitoring and evaluation. However, the goal of the AMS program is the same across all health service organisations – to effectively and measurably optimise antimicrobial use. The program should incorporate processes and systems that will enable the health service organisation to do this, using interventions described in the *Antimicrobial Stewardship in Australian Hospitals*[16] and this Guide that are appropriate to local needs, resources and infrastructure.

Requirements for implementing antimicrobial stewardship

- The success of AMS programs depends on the explicit support of executive leaders within the health service organisation.

- AMS programs are expected to evolve over time and there is no one single model that will be effective in all settings. Programs may need to be tailored in each organisation, and depend on the specific context and factors such as the complexity and size of the health service organisation and resources available for implementation, monitoring and evaluation. As improvements in prescribing are made and their effectiveness evaluated, it is expected that actions to spread and sustain improvements will be undertaken.

- Specialist infectious disease clinicians, medical microbiologists and pharmacists have an important role to play in engaging clinicians, providing expert advice, and in doing so providing education and improving antimicrobial prescribing. For a program to be effective, a facility should have arrangements in place or be working towards establishing systems for obtaining such specialist advice and input. Establishing organisational or network arrangements to contract necessary expertise to be available for AMS and provide individual patient advice to prescribers, will improve the effectiveness of the program and increase the likelihood of meaningful improvement. Actions required to negotiate such arrangements can be incorporated in the AMS program plan, with roles, responsibilities and timeframes clearly identified.

- A recommended starting point is to undertake a risk assessment to determine priorities and to map current governance arrangements, policies, processes and resources that can be used to support AMS. This will enable the health service organisation to better understand the local context for implementation. An approach to mapping systems is outlined in section 1.8 of *Antimicrobial Stewardship in Australian Hospitals*.[16] Whether seeking to initiate a new program or evaluate and improve an existing one, the steps listed on those pages should be considered. The results can be used to inform the development, testing and implementation of strategies that will comprise the AMS program.

- Prescribing guidelines for antimicrobials are an essential and expected component of AMS programs in all settings. *The Therapeutic Guidelines: Antibiotics*[17] are recognised as a national guideline for antimicrobial prescribing in Australia. The current version is available at www.tg.org.au/[18] and should be readily accessible to all prescribers.

- Any local clinical and prescribing guidelines should be consistent with the latest version of the *Therapeutic Guidelines: Antibiotic*.[17]

- A prescriber in this criterion refers to any clinician who has the authority to prescribe antimicrobial agents e.g. dentists, medical practitioners, nurses, podiatrists.

- Monitoring of antimicrobial usage and resistance is critical to understanding antimicrobial prescribing patterns and is an expected component of a program. Monitoring usage will be relevant to the size and complexity of the health service organisation. In some cases, such as in small hospitals or day procedure services, it may be appropriate to monitor antimicrobial usage in a high-risk area, in relation to a specific procedure, clinical condition, or of one broad spectrum or high-risk antimicrobial agent.

Table 2 provides suggestions for ways in which strategies to support antimicrobial stewardship (AMS) might be implemented in different settings.

Table 2: Options for implementation of antimicrobial stewardship in different facilities

Program elements	Health service organisation (e.g. Local Hospital Network/district or private hospital organisation)	Large urban hospital or tertiary facility (includes large private hospitals)
Executive leadership	Network/district/management group executive sponsorship and support for AMS program	Local executive sponsorship and support for AMS program
Governance arrangements, structure and lines of communication	Director of AMS program and multidisciplinary AMS committee comprising core representation of: • a member of executive • a pharmacist • an infectious diseases physician and/or medical microbiologist AMS part of safety and quality plan Links to committees responsible for drugs and therapeutics and infection prevention and control	Director of AMS program – pharmacist, infectious diseases physician or medical microbiologist with Multidisciplinary AMS team (see below) Links to committees responsible for drugs and therapeutics
AMS team	No	Yes • AMS director (appointed from multidisciplinary AMS team) pharmacist, infectious diseases physician or medical microbiologist and pharmacist with dedicated time for AMS • With inclusion of infection control practitioner, prescribing clinicians from key departments including intensive care
Antimicrobial policy with defined components	Yes • Outlines scope of program, is endorsed by network/district/management group executive and roles and responsibilities defined	Yes • Outlines scope of program; endorsed by senior executive and management group; roles and responsibilities defined • May be developed and implemented locally or as part of higher level process

	Other or rural/district hospital	Small hospital/multi-purpose service (MPS) (less than 50 beds)	Day surgery/procedure unit or services
	Local executive sponsorship and support for AMS program	Local executive sponsorship and support for AMS program	Owner/management support for AMS program
	Pharmacist (where possible) When no pharmacist available a clinician/nurse with dedicated time for AMS coordinates with input from local or network/district infectious diseases physician and medical microbiologist Links to committees responsible for drugs and therapeutics	Facility manager coordinates with input from local or network pharmacist, infectious diseases physician and medical microbiologist Links to committees responsible for drugs and therapeutics	Facility manager coordinates, with support from specialist visiting clinicians and/or pharmacist where available Links to committees responsible for drugs and therapeutics
	Yes • Onsite or network/district • Pharmacist recommended with dedicated time for AMS • Prescribing clinician and/or nurse • Coordinates with input from infectious diseases physician and medical microbiologist *(These services may be available onsite or as an agreed external consultancy)*	Yes • May be onsite or local network/district • Facility manager, prescribing clinician and pharmacist where available (onsite or as an agreed external consultancy) or nurse • External support from an infectious diseases physician and medical microbiologist *(As an agreed external consultancy)*	Yes • Facility manager, nurse and visiting medical officer (surgeon or anaesthetic representative or pharmacist where available)
	Yes • Preferably determined by a district-wide approach to outline scope of program	Yes • Preferably determined by a network/district-wide approach to outline scope of program	Yes • Preferably determined/developed/initiated and overseen by broader organisational management • Policy specifies agreed local approach to surgical prophylaxis

(Table continued next page)

Table 2: Options for implementation of antimicrobial stewardship in different facilities (continued)

Program elements	Health service organisation (e.g. Local Hospital Network/district or private hospital organisation)	Large urban hospital or tertiary facility (includes large private hospitals)
Clinical workforce prescribing antimicrobials have access to endorsed Therapeutic Guidelines on antibiotic usage (action 3.14.2)	Yes • Ensure prescribing clinicians have recommended guidelines readily accessible for use	Yes • Ensure prescribing clinicians have recommended guidelines readily accessible for use
Monitoring of antimicrobial usage and resistance (action 3.14.3)	Yes	Yes – could include: • point prevalence survey methodology • Quality Use of Medicines Indicators[19] • usage analysis and contribution of data to state-wide or national usage program • Gentamicin use • Medical Microbiology Service – resistance measurement • cost of antimicrobials
Action to improve the effectiveness of antimicrobial stewardship 3.14.4	Yes In addition to monitoring usage and resistance measures: • Regular review of data and development of action plan to improve • Prescriber education and feedback (see below) • Patient education (see below)	
Infectious diseases physician consultation	Yes • Appoint and support either an infectious diseases physician or medical microbiologist in a capacity to oversee AMS program	Yes • Onsite recommended or • Through agreed consultancy services for onsite visiting and telephone consultation
Medical microbiologist consultation and provision of medical microbiology services that support AMS		Yes – via agreed pathology service and/or telehealth, Skype. • Provide annual cumulative antibiotic susceptibility measurement and interpretation (cumulative antibiogram)

Other or rural/district hospital	Small hospital/multi-purpose service (MPS) (less than 50 beds)	Day surgery/procedure unit or services
Yes • Ensure prescribing clinicians have recommended guidelines readily accessible for use	Yes • Ensure prescribing clinicians have recommended guidelines readily accessible for use	Yes • Ensure prescribing clinicians have recommended guidelines readily accessible for use
Yes – could include: • point prevalence survey methodology • Quality Use of Medicines Indicators[19] • Gentamicin use • usage analysis and contribution of data to state-wide or national usage program • cost of antimicrobials	Yes – could include: • Point prevalence survey conducted over longer period to enable a valid sample – e.g. 1 month • Limited antimicrobial usage analysis – e.g. 3rd and 4th generation cephalosporins and fluoroquinolones, gentamicin	Yes – audit pre-procedure antimicrobial prophylaxis as per Quality Use of Medicines[19] indicator 2.1 and/or locally agreed guideline • Gentamicin use
Yes • Agreements in place for consultancy services to be provided • Options for service include onsite visits, telehealth linkage or Skype (unless onsite service available)	Yes • Agreements in place for consultancy services to be provided • Options for service include onsite visits, telehealth linkage or Skype (unless onsite service available)	No
Yes – via agreed pathology service • Options for consultation and support include telehealth, Skype, • Provide cumulative antibiotic susceptibility measurement and interpretation	Yes – via agreed pathology service • Options for consultation and support include telehealth, Skype	Yes – via agreed pathology service • Options for consultation and support include telehealth, Skype

(Table continued next page)

Table 2: Options for implementation of antimicrobial stewardship in different facilities (continued)

Program elements	Health service organisation (e.g. Local Hospital Network/district or private hospital organisation)	Large urban hospital or tertiary facility (includes large private hospitals)
Antimicrobial formulary, imprest controls and systems to manage restricted antimicrobials	Yes	Yes • Electronic management systems recommended
Prescriber education and feedback	Processes in place for regular education relevant to role and responsibility about antimicrobials, guidelines and antimicrobial stewardship: • medical, nursing and pharmacy undergraduates • pharmacists • rural nurses who take a role in imprest and pharmacy management • nurses in all facilities responsible for administration of antimicrobials • junior medical officers, registrars and career medical officers • general practitioner registrars • general practitioners, visiting medical officers (VMOs) and staff specialists Education provided in a variety of formats and includes the requirement for all new prescribers to complete the antibiotic prescribing modules available from: http://www.nps.org.au/health_professionals/online_learning/national_prescribing_curriculum[20]	
Consumer and patient education	Materials available to educate patients on antimicrobial resistance and use of antimicrobials	

	Other or rural/district hospital	Small hospital/multi-purpose service (MPS) (less than 50 beds)	Day surgery/procedure unit or services
	Yes	Yes • Controls on ward stock and imprest	Yes • Controls on ward stock and imprest

Actions required	Implementation strategies
3.14 Developing, implementing and regularly reviewing the effectiveness of the antimicrobial stewardship system	

Actions required	Implementation strategies
3.14.1 An antimicrobial stewardship program is in place **3.14.2** The clinical workforce prescribing antimicrobials have access to current endorsed therapeutic guidelines on antibiotic usage **3.14.3** Monitoring of antimicrobial usage and resistance is undertaken **3.14.4** Action is taken to improve the effectiveness of antimicrobial stewardship	The intent of this criterion is to encourage appropriate prescribing of antimicrobials, as part of the broader strategy to reduce development of resistant pathogens, prevent and manage health care associated infections and improve patient safety and quality of care. **Key tasks:** • **Undertake a risk assessment to determine priorities for AMS and map current governance structures, systems and processes to support AMS** • **Review or establish an AMS program plan** • **Review or establish governance arrangements, communication lines and roles and responsibilities of executive in supporting the program** • **Develop or review an implementation strategy for the program** • **Create or review an antimicrobial formulary and guidelines for treatment and prophylaxis that align with the latest version of** *Therapeutic Guidelines: Antibiotic*[17] • **Establish or review systems and processes for monitoring antimicrobial usage and resistance** • **Ensure prescribing clinicians have convenient and readily available access to the endorsed guidelines. Consider a range of accessible formats which may include printed/hard copy, electronic, personal digital assistant (PDA), and smart phone device** • **In the antimicrobial stewardship policy, specify that clinicians should follow** *Therapeutic Guidelines: Antibiotic*[17] **or state-based endorsed guidelines that are consistent with** *Therapeutic Guidelines: Antibiotic*[17] **advice on antimicrobial prescribing. Ensure the policy incorporates processes for informing prescribers of this requirement or state-wide endorsed guidelines consistent with** *Therapeutic Guidelines: Antibiotic*[17] **if available.** **Suggested strategies:** Strategies you could use include establishing a team that will coordinate AMS activities, relevant to the facility size (see Explanatory Notes). Ensure the team has clearly defined links with committees responsible for drug and therapeutics, infection prevention and control and patient safety and quality or clinical governance. Where there is no onsite specialist infectious disease, medical microbiology or pharmacy service, consider ways to contract necessary expertise and incorporate actions required to negotiate these arrangements into the AMS program plan. You should work with medical microbiology services to ensure reporting of selective susceptibilities. It is suggested that an antimicrobial policy should include the elements outlined in Chapter 1 of the *Antimicrobial Stewardship in Australian Hospitals 2011.*[16] Confirm there is a process for clinical prescribing guidelines to be regularly reviewed by the appropriate committee(s). In the plan, ensure there are actions and strategies for monitoring usage and resistance. Use results of usage and resistance monitoring to develop clinical advice on infection management consistent with *Therapeutic Guidelines: Antibiotic.*[17] Include additional process and outcome measures to monitor program effectiveness.

Actions required	Implementation strategies

3.14 Developing, implementing and regularly reviewing the effectiveness of the antimicrobial stewardship system (continued)

(continued) **3.14.1** An antimicrobial stewardship program is in place **3.14.2** The clinical workforce prescribing antimicrobials have access to current endorsed therapeutic guidelines on antibiotic usage **3.14.3** Monitoring of antimicrobial usage and resistance is undertaken **3.14.4** Action is taken to improve the effectiveness of antimicrobial stewardship	Review committee or antimicrobial stewardship team terms of reference to include monitoring indicators of effectiveness. Review current education programs provided to the clinical workforce to ensure information about antimicrobial resistance and stewardship is included relevant to clinical role. Require all new prescribers complete the antibiotic prescribing modules available from the Australian Commission on Safety and Quality in Health Care National Prescribing Service (ACSQHC/NPS) prescribing modules: www.nps.org.au/health_professionals/online_learning/national_prescribing_curriculum[20] Review materials to educate patients on antimicrobial resistance and use of antimicrobials. Undertake a search of relevant organisations including the National Prescribing Service (NPS) and National Health and Medical Research Council (NHMRC) to identify endorsed Australian patient education materials that can be approved and utilised locally. **Explanatory notes:** **3.14.1:** An antimicrobial stewardship program is in place In most circumstances, the AMS program will reside within the health service organisation's quality improvement and patient safety governance structure, and be included within their quality and safety strategic plan. The success of the program will depend on the explicit support of leaders in the health service organisations. Literature suggests the most effective approach to AMS involves a multidisciplinary team with the authority and resources to enable implementation of a program. An AMS team or committee requires clear lines of communication to committees responsible for drug and therapeutics, infection prevention and control, and patient safety and quality. In larger health service organisations, a team would be expected to include an appropriate lead clinician (an infectious diseases physician or medical microbiologist if available) and a pharmacist. Consideration could be given to including a range of prescribers, administrators, infection control experts, and an information systems expert. In smaller health service organisations team structure will reflect the size of the health service organisation and complexity of services offered. A team may be established within a health service organisation (onsite) or across a network, depending on the local circumstance (see Table 2 for examples). Where there are no onsite infectious diseases, physician, medical microbiology services or pharmacy, responsibility for the AMS program could be delegated to a committee such as drug and therapeutics committee, infection control committee or a quality committee, and important actions to improve antimicrobial prescribing can still be implemented. In some cases, a dedicated AMS pharmacist and specialist clinician may be responsible for coordinating stewardship activities across a number of facilities, working in collaboration with local committees. Establishing organisational or network arrangements to contract necessary expertise to be available for AMS and provide individual patient advice to prescribers will improve the effectiveness of the program and increase the likelihood of meaningful improvement. Actions required to negotiate such arrangements can be incorporated in the AMS program plan, with roles, responsibilities and accountabilities, and timeframes clearly identified. AMS programs are expected to evolve over time and there is no one single model that will be effective in all settings.

Actions required	Implementation strategies

3.14 Developing, implementing and regularly reviewing the effectiveness of the antimicrobial stewardship system (continued)

(continued)

3.14.1 An antimicrobial stewardship program is in place

3.14.2 The clinical workforce prescribing antimicrobials have access to current endorsed therapeutic guidelines on antibiotic usage

3.14.3 Monitoring of antimicrobial usage and resistance is undertaken

3.14.4 Action is taken to improve the effectiveness of antimicrobial stewardship

A program in a major teaching hospital with onsite specialist infectious diseases, medical microbiology and pharmacy services will be very different to that in a smaller hospital with fewer available resources. In any health service organisation in the early stages of program implementation, it would be appropriate to target specific areas of practice that are high risk, and then spread improvements and change based on the results of identified measures. Depending on the facility, areas for improvement could focus on intensive care units, surgical procedures and prophylaxis, guidelines for common clinical conditions, or use of a specific broad spectrum antimicrobial. In all cases strategies will focus on improved prescribing; as improvements are made it is expected programs will be expanded.

Refer to Chapter 1 of *Antimicrobial Stewardship in Australian Hospitals*[16] which provides a detailed overview of AMS program implementation, and Appendix 2 for examples of tools and resources to support stewardship.

Action 3.14.2: The clinical workforce prescribing antimicrobials have access to endorsed therapeutic guidelines on antibiotic usage

The *Therapeutic Guidelines: Antibiotic*[17] is recognised as a national guideline for antimicrobial prescribing in Australia. The current version should be readily accessible to all prescribers www.tg.org.au.[18] Where local clinical and prescribing guidelines are developed, they should be consistent with the latest version of the *Therapeutic Guidelines: Antibiotic*[17] and take into account local microbial susceptibility patterns, and be reviewed at least annually, or as changes are notified. Health service organisations require prescribing guidelines for treatment and prophylaxis for common infections that are relevant to the patient population, the local antimicrobial resistance profile and the surgical procedures performed in the health service organisation.

Action 3.14.3: Monitoring of antimicrobial usage and resistance is undertaken

Monitoring and analysis of antimicrobial usage is critical to understanding antimicrobial prescribing patterns and the success of the AMS program.

Usage can be measured in terms of quantity, expenditure and quality (i.e. appropriateness of prescribing according to guidelines). Volume of usage data can be accessed from the pharmacy information system. This data can provide trends in usage; identify areas requiring in depth review such as drug usage evaluation; and information on appropriateness of use. By contributing data to state-wide or national usage programs, health service organisations can benchmark their use against the national average.

Usage data should be reviewed in connection with resistance data to enable measurement of the success of an AMS program, and this will be relevant to the health service organisation's size and case-mix. For example, a small health service organisation can base monitoring on a patient- or drug-related risk; larger health service organisations could focus on monitoring in the ICU in the initial stages, as the control of resistance there can affect other areas of a health service organisation. Once implemented in the high-risk area a plan to spread the program can be developed and implemented throughout the organisation. Consideration could then be given to monitoring the quality of antimicrobial use against guidelines in relation to common clinical scenarios. Other examples include monitoring of specific drugs groups where there is a high risk of resistance, such as glycopeptide prescribing. This can be done through the use of antibiotic indicators(Quality Use of Medicines (QUM) Indicators).[19]

Refer to *Antimicrobial Stewardship in Australian Hospitals*, Appendix 1.[16]

Actions required	Implementation strategies

3.14 Developing, implementing and regularly reviewing the effectiveness of the antimicrobial stewardship system (continued)

Actions required	Implementation strategies

(continued)
 	
3.14.1 An antimicrobial stewardship program is in place
 	
3.14.2 The clinical workforce prescribing antimicrobials have access to current endorsed therapeutic guidelines on antibiotic usage
 	
3.14.3 Monitoring of antimicrobial usage and resistance is undertaken
 	
3.14.4 Action is taken to improve the effectiveness of antimicrobial stewardship
	Action 3.14.4: Action is taken to improve the effectiveness of antimicrobial stewardship.
	
	Monitoring usage and resistance will enable the effectiveness of the program to be assessed and actions to improve effectiveness to be prioritised. Additional measures may provide an indicator of effectiveness and help direct actions for improvement. Process measures that may be considered depending on local risk and resources include:
	
	• adherence of prescribing in accordance with guidelines
	• appropriateness and timeliness of therapy for a given infection
	• advice acceptance rates of prescribing advice provided by pharmacists and prescribing rates of concordance with susceptibility
	• attendance at orientation, training and education of prescribers and clinicians administering antimicrobials
	• cost savings in relation to antimicrobial programs
	• incidents, adverse events and near misses related to antimicrobial prescribing.
	
	Providing feedback to prescribers, clinicians and relevant committees and governance groups on the results of these measures can in and of itself improve effectiveness and assist with targeting initiatives to improve prescribing. Involving prescribers in development of strategies to improve effectiveness may also influence the impact of strategies.
	
	Education and awareness raising activities can further support effectiveness of AMS programs.
	
	Point prevalence studies, where antimicrobial use data is collected from all patients in a health service organisation on one day, provide a useful census on antimicrobial use that can be used to trend usage and measure effect of AMS interventions.
	
	Refer to *Antimicrobial Stewardship in Australian Hospitals*, Chapter 5.[16]
	
	Outputs of improvement processes may include:
	
	• a documented structure/organisational chart that includes the antimicrobial stewardship (AMS) program
	• agendas, meeting minutes and/or reports or action plans of issues discussed in senior executive, infection control, drug and therapeutics meetings
	• a quality and safety strategic plan that includes AMS
	• results of risk assessments to identify areas of priority
	• documented AMS program action plan
	• an AMS policy (at health service organisation or network level) incorporating :
	  – governance/reporting processes
	  – prescribing process in accordance with *Therapeutic Guidelines: Antibiotic*[17]
	  – list of restricted antimicrobials and approval processes
	  – specialist or senior clinician review and referral process
	  – education process
	  – policy review process
	• a team or committee at facility or network level that coordinates stewardship efforts

Actions required	Implementation strategies
3.14 Developing, implementing and regularly reviewing the effectiveness of the antimicrobial stewardship system	**(continued)**

(continued) **3.14.1** An antimicrobial stewardship program is in place **3.14.2** The clinical workforce prescribing antimicrobials have access to current endorsed therapeutic guidelines on antibiotic usage **3.14.3** Monitoring of antimicrobial usage and resistance is undertaken **3.14.4** Action is taken to improve the effectiveness of antimicrobial stewardship	• AMS team or committee terms of reference include: – clearly defined links with the drug and therapeutics committee, infection prevention and control committee, and clinical governance or patient safety and quality units – team member roles, responsibilities and accountabilities – processes for review – frequency of review • agendas, meeting minutes and/or reports and action plans of relevant AMS team meetings • presentations given by the AMS team to provide feedback to the workforce and senior executive about AMS activity • tools to support stewardship: – local clinical guidelines in accord with *Therapeutic Guidelines: Antibiotic*[17] – guidelines in a variety of formats – posters, pocket guides, electronic – reminder systems to support prescribing e.g. posters, electronic reminders – use of the *National Inpatient Medication Chart* to document allergies, duration of therapy and indication for therapy in all cases of antimicrobial prescribing • tools to support audit results • access to current edition of *Therapeutic Guidelines: Antibiotic*[17] hard copy or electronic • orientation programs for prescribers include education of prescribers in use of *Therapeutic Guidelines: Antibiotic*[17] • *Therapeutic Guidelines: Antibiotic*[17] accessible from within electronic prescribing systems • clinical decision support for AMS in electronic systems is in accordance with *Therapeutic Guidelines: Antibiotic*[17] • monitoring of usage based on risk assessment for facility and AMS action plan • records of antimicrobial consumption and expenditure from pharmacy records • contribution of data to state-wide or national usage programs • participation in benchmarking programs with other institutions and/or specialist units • results of point prevalence surveys • reviews of antibiotic usage or drug use evaluation (DUE) studies • feedback to prescribers of results of antimicrobial reviews or DUEs • reports of antimicrobial indicator data collections e.g. antibiotic therapy indicators – Indicators for Quality Use of Medicines in Australian Hospitals[19]

Actions required	Implementation strategies

3.14 Developing, implementing and regularly reviewing the effectiveness of the antimicrobial stewardship system (continued)

(continued) **3.14.1** An antimicrobial stewardship program is in place **3.14.2** The clinical workforce prescribing antimicrobials have access to current endorsed therapeutic guidelines on antibiotic usage **3.14.3** Monitoring of antimicrobial usage and resistance is undertaken **3.14.4** Action is taken to improve the effectiveness of antimicrobial stewardship	• meeting minutes of AMS and drugs and therapeutics committees show evidence that results of usage monitoring have been discussed • action plans developed, implemented and evaluated to address issues relating to usage • quality improvement activities undertaken to improve usage and resistance rates in specific clinical areas • analysis of antimicrobial resistance reported by pathology service • prescribing guidelines, policies and protocols updated to reflect changes in microbial susceptibilities • annual antibiograms available for the health service organisation and high risk areas such as intensive care units • documented AMS program plan includes performance measures including usage and resistance indicators • documented surveillance program • performance against indicators in line with the national performance and accountability framework • education and orientation programs for medical, nursing and pharmacy workforce include content on antimicrobial resistance and AMS relevant to role and responsibility • orientation, and education program attendance records demonstrate prescribers and the clinical workforce are informed and educated about antimicrobial resistance and local stewardship activities, and their roles and responsibilities • records of attendance of pharmacists and clinicians at relevant conferences or seminars specific to AMS supported by the health service organisation • record of prescribers completing Australian Commission on Safety and Quality in Health Care/National Prescriber Service (ACSQHC/NPS) antibiotic prescribing modules • patient education materials relevant to antimicrobial resistance and use.

Criterion: Cleaning, disinfection and sterilisation

Healthcare facilities and the associated environments are clean and hygienic. Reprocessing of equipment and instrumentation meets current best practice guidelines

This criterion addresses environmental cleaning and identifies key areas where quality and safety outcomes can be demonstrated. To support other aspects of infection prevention and control initiatives, it is important that health service organisation management oversees the systems and processes for the maintenance of a clean, hygienic environment.

The scope of this criterion includes maintenance and cleaning of the buildings and infrastructure, waste and linen handling and management.

This criterion also includes cleaning disinfection and sterilisation activities for reusable equipment and instrumentation used in the health service organisation.

Reprocessing of equipment and instrumentation is consistent with the *Australian Guidelines for the Prevention and Control of Infections in Health Care (NHMRC 2010)*[7] and meets current national and international Standards.

Undertaking a gap assessment and inclusion in the organisational risk management plan will assist the health service organisation address real and potential risks for the organisation.

This criterion links to the Criterion that addresses *Governance and systems for infection prevention, control and surveillance* in Standard 3.

This criterion should also be read and considered in conjunction with S*tandard 1: Governance for Safety and Quality in Health Service Organisations*.

Actions required	Implementation strategies

3.15 Using risk management principles to implement systems that maintain a clean and hygienic environment for patients and healthcare workers

3.15.1 Policies, procedures or protocols for environmental cleaning that address the principles of infection prevention and control are implemented, including:

- maintenance of building facilities
- cleaning resources and services
- risk assessment (undertaken as part of 3.1.1) for cleaning and disinfection based on transmission-based precautions and the infectious agent involved
- waste management within the clinical environment
- laundry and linen transportation, cleaning and storage

3.15.2 Policies, procedures and/ or protocols for environmental cleaning are regularly reviewed

(continued)

The intent of Item 3.15 is to provide a clean and hygienic environment for patients and the workforce to minimise infection risk to patients and the workforce.

Key tasks:

- Review policies, procedures and protocols to include implementation strategies for the principles of infection prevention and control covering the priority areas identified in Action 3.15.1. Implementation strategies include:
  - supported by executive and governance systems
  - evidence-based practice
  - risk management focused
  - centralised location
  - workforce or contractor awareness
  - version control systems
  - standardised format
  - accessible online
- Implementation strategy devised to ensure effective cleaning occurs across the health service organisation
- Review or develop a cleaning schedule and audit process that identifies:
  - frequency of activity
  - type of activity to be undertaken
  - products and equipment to be used
  - safety instructions
- Review job descriptions, duty lists or contract specifications as part of the appraisal or contract review process and provide feedback to the relevant person or group on achievements or areas for improvement

Explanatory notes:

There is increasing evidence of a link between a clean, hygienic healthcare environment and reduced risk of infection transmission to patients.

Systems are required for monitoring, review and evaluation of policies, procedures and protocols to ensure their utilisation and compliance by the workforce.

The health service organisation is responsible for overseeing services provided by an external service or contractor.

The health service organisation is responsible for overseeing the development and review of its environmental cleaning schedule particularly when services are provided by contractors or external service providers.

Job descriptions, duty lists or contract specifications need to reflect the requirements to complete environmental cleaning schedules in line with policies, procedures and protocols.

For additional information refer to *Australian Guidelines for the Prevention and Control of Infections in Health Care* (NHMRC 2010).[7]

Actions required	Implementation strategies

3.15 Using risk management principles to implement systems that maintain a clean and hygienic environment for patients and healthcare workers (continued)

(continued from previous page) **3.15.3** An established environmental cleaning schedule is in place and environmental cleaning audits are undertaken regularly	**Outputs of improvement processes may include:** • maintenance and cleaning schedules for infrastructure, buildings and facilities are available • current material safety data sheets or chemical register are available • audits of the collection, transport and storage of linen are available and reviewed • waste management plan is in place • auditing results and competency assessments against relevant policies, procedures and protocols are reviewed and actioned • policies, procedures and protocols are available for the health workforce which are regularly reviewed and evaluated for effectiveness • actions are documented in relevant agendas, meeting minutes and/or reports of relevant committees.

3.16 Reprocessing reusable medical equipment, instruments and devices in accordance with relevant national or international standards and manufacturers' instructions

3.16.1 Compliance with relevant national or international standards and manufacturer's instructions for cleaning, disinfection and sterilisation of reusable instruments and devices is regularly monitored	The intent of Item 3.16 is to minimise infection risk to patients and the workforce from reusable equipment, instruments and devices.
	
	 Key tasks:
	
	 • **Review and include in the organisational risk assessment (undertaken as part of Action 3.1.1):**
	    – the requirements of the health service organisation for reprocessed reusable equipment or instruments
	    – the equipment and consumables required to meet the reprocessing standards
	    – outsourcing of this service from an external provider
	    – purchase of sterile stock
	    – services to external providers
	
	 • Review policies, procedures and protocols to identify content addresses:
	    – infrastructure (e.g. sufficient dedicated space for reprocessing to be undertaken, appropriate storage facilities for sterile stock, record storage resources)
	    – quality control systems to monitor each stage of handling sterile stock or items requiring reprocessing
	    – fault or variance reporting system that includes responsibility, actions and risk management strategies
	    – document control system and record keeping system that allows retrieval of data at anytime
	    – environmental controls (air handling, access, maintenance schedules, cleaning activities)
	    – consumables (e.g. personal protective equipment (PPE), packaging materials)
	    – equipment supply and availability
	    – suitably trained workforce are available

Actions required	Implementation strategies

3.16 **Reprocessing reusable medical equipment, instruments and devices in accordance with relevant national or international standards and manufacturers' instructions** *(continued)*

(continued) **3.16.1** Compliance with relevant national or international standards and manufacturer's instructions for cleaning, disinfection and sterilisation of reusable instruments and devices is regularly monitored	**Suggested strategies:** Review the systems for product selection and introduction to identify possible deviations in policies, procedures and protocols. **Explanatory notes:** Developing local policies, procedures and protocols that are compliant with relevant national or international standards or manufacturer instructions for reprocessing reusable instruments or equipment will identify scope of reprocessing required by the health service organisation, support compliance and guide monitoring in the health service organisation. Refer to section B1.5 in the *Australian Guidelines for the Prevention and Control of Infections in Health Care* (NHMRC 2010).[7] **Outputs of improvement processes may include:** • policies, procedures and protocols are available for the health workforce which are regularly reviewed and evaluated for effectiveness • actions are documented in relevant committee meeting agendas and minutes.

3.17 **Implementing systems to enable the identification of patients on whom the reusable medical devices have been used**

3.17.1 A traceability system that identifies patients who have a procedure using sterile reusable medical instruments and devices is in place	The intent of Item 3.17 is that risk of infection to patients from reusable medical devices is minimised.
	
	Key task:
	
	• **Review existing systems used to reprocess reusable medical equipment, instruments or devices, to determine if any additional systems are required. Consideration to be given to identification of:**
	
	  – **batch numbers**
	  – **individual items or sets of items**
	  – **patient identification**
	  – **dates**
	  – **steriliser identification**
	  – **cycles**
	  – **operator responsible for release of item for use**
	  – **documentation, quality or traceability systems for sterile stock received from an external provider to be in place**
	
	Explanatory notes:
	
	Appropriate use of reusable medical devices is a key component of risk management and the ability to trace what items were used on what patients assists the health service organisation address risk minimisation as a strategy relating to the traceability of reusable devices.
	
	The traceability systems used will be relevant to the risks identified and the scope of practice of the health service organisation.
	
	Refer to the *Australian Guidelines for the Prevention and Control of Infections in Health Care* (NHMRC 2010)[7] for additional information.

Actions required	Implementation strategies

3.17 Implementing systems to enable the identification of patients on whom the reusable medical devices have been used (continued)

(continued) **3.17.1** A traceability system that identifies patients who have a procedure using sterile reusable medical instruments and devices is in place	**Outputs of improvement processes may include:** • policies, procedures and protocols that reflect the risk and scope of the requirements for the health service organisation • policies, procedures and protocols are available for the health workforce which are regularly reviewed and evaluated for effectiveness • actions are documented in relevant committee meeting agendas and minutes • tracking or traceability system that allows individual identification of patients and the reusable devices, equipment or instrumentation used.

3.18 Ensuring workforce who decontaminate reusable medical devices undertake competency-based training in these practices

3.18.1 Action is taken to maximise coverage of the relevant workforce trained in a competency-based program to decontaminate reusable medical devices	The intent of Item 3.18 is that risks to patients of infection from reusable medical devices is minimised. **Key tasks:** • **Provision of a competency-based program** • **Review initiatives used to increase competency training of the relevant workforce** **Suggested strategies:** The workforce responsible for reprocessing reusable instruments and equipment will be able to demonstrate that they are appropriately trained to undertake and complete the required processes. Training includes: • results of competency-based training • attendance at in-services • completion of mandatory education. **Explanatory notes:** When determining inclusion for competency-based training, consideration is given to: • the scope of activities required by the health service organisation for reprocessing medical equipment, instrumentation or devices • outsourcing of this service from an external provider • purchase of sterile stock • services to external providers • current training or qualifications of the workforce (if relevant). In addition, when considering initiatives used to increase training a review would include: • accessibility to training • recruitment criteria • inclusion in the appraisal process • recognition of other materials utilised as part of the education program e.g. hand hygiene technique assessment, appropriate personal protective equipment (PPE) use. This will be determined by risk and scope of practice of the health service organisation, and influenced by frequency of retention and attrition rates with workforce. Refer to the *Australian Guidelines for the Prevention and Control of Infections in Health Care* (NHMRC 2010)[7] for additional information.

Actions required	Implementation strategies

3.18 Ensuring workforce who decontaminate reusable medical devices undertake competency-based training in these practices (continued)

(continued)
 	
3.18.1 Action is taken to maximise coverage of the relevant workforce trained in a competency-based program to decontaminate reusable medical devices
	Outputs of improvement processes may include:
	
	• training records for workforce who decontaminate usable medical devices, instrumentation or equipment
	
	• timetable for competency assessments for the workforce that decontamination of reusable medical devices, instrumentation and equipment
	
	• examples of education materials and learning packages related to decontamination of reusable medical devices, instrumentation or equipment. Features of these materials should include:
	
	   – evidence-based content
	
	   – compliance with relevant national or international standards
	
	   – cover all topic areas of the policy, procedures and/or protocols
	
	   – competency-based training that is validated or working towards being validated
	
	   – an evaluation, audit, feedback and review process is included.

Criterion: Communicating with patients and carers

Information on healthcare associated infection is provided to patients, carers, the public and other service providers

This criterion should be considered in relation to the criterion and actions within *Standard 2: Partnering with Consumers*.

Provision of information and inclusion of consumers including patients, visitors, the public and other health service providers in decision making processes will support improved communication, awareness of risk and risk minimisation in relation to healthcare associated infections.

Actions required	Implementation strategies
3.19 Ensuring consumer-specific information on the management and reduction of healthcare associated infections is available at the point of care	

Actions required	Implementation strategies

3.19.1 Information on the organisation's corporate and clinical infection risks and initiatives implemented to minimise patient infection risks is provided to patients and/or carers
 	
3.19.2 Patient infection prevention and control information is evaluated to determine if it meets the needs of the target audience
	The intent of Item 3.19 is to ensure that clinical work practices provide patient-centred care – this is not only essential from a safety and quality perspective but out of consideration for patient preferences. This may require consultation with patients and relevant consumer groups in the development of healthcare services.
	
	Key task:
	• **Review the range and availability of information and other resources for consumers of the health service organisation**
	
	Suggested strategies:
	• Host a consumer forum to engage consumers and identify their priorities.
	• Review relevant committees to include consumer representation where appropriate.
	• Develop or review and evaluate that consumer information identifies risks associated with HAIs.
	• Review and evaluate signage and instructional information for consumers.
	
	Explanatory notes:
	It is important to identify existing processes for inclusion of consumers and carers in decision making about safety and quality activities relating to infection prevention and control.
	
	The health service organisation risk assessment Action 3.1.1 will support the direction and evaluation of corporate and clinical risks that require consumer engagement to highlight how to engage customers in assisting the health service organisation to minimise risks associated with infections.
	
	Engaging consumers to work with the health service organisation may further enhance evaluation of patient information relating to infection prevention and control and existing resources to inform and educate patients and carers about safety and quality activities relating to infection prevention and control. Confirm by consultation and evaluation that resources meet the needs of the workforce and customers of the health service organisation.
	
	Include responsibility for consumers and where relevant, consider limitations of target audience e.g. age, sight impaired, literacy, language, terminology, colour, etc.
	
	For further information refer to *Australian Guidelines for the Prevention and Control of Infections in Health Care* (NHMRC 2010).[7]
	
	Outputs of improvement processes may include:
	• policies, procedures and protocols are available for the health workforce which are regularly reviewed and evaluated for effectiveness
	• actions are documented in relevant committee meeting agendas and minutes
	• patient education materials that may be considered include:
	  – public health information
	  – publications that provide information of infection rates and risks
	  – web site information
	• outcomes of consumer forums
	• organisational resources that have been evaluated
	• information resources prepared by relevant jurisdictional departments of health.

References

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7. National Health and Medical Research Council. *Australian Guidelines for the Prevention and Control of Infection in Healthcare*. Canberra. NHMRC, 2010:260.

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18. Therapeutic Guidelines – Home. Therapeutic Guidelines. (Accessed 28 August 2012, at www.tg.org.au/)

19. Indicators for Quality Use of Medicines in Australian Hospitals. 2007. (Accessed 28 August 2012, at www.ciap.health.nsw.gov.au/nswtag/reviews/QUMIndicators.html)

20. National Prescribing Curriculum. NPS. (Accessed 28 August 2012, at www.nps.org.au/health_professionals/online_learning/national_prescribing_curriculum)

Appendix: Links to resources

International organisations

Centres for Disease Control and Prevention
www.cdc.gov

Agency for Healthcare Research and Quality
www.ahrq.gov

Canadian Patient Safety Institute
www.patientsafetyinstitute.ca

Institute for Healthcare Improvement
www.ihi.org

National Patient Safety Agency
www.npsa.nhs.uk

National Institute for Health and Clinical Excellence
www.nice.org.uk

Patient Safety First
www.patientsafetyfirst.nhs.uk

National organisations

Australian Commission on Safety and Quality in Healthcare
www.safetyandquality.gov.au

Department of Health and Ageing
www.health.gov.au

Hand Hygiene Australia (HHA) – National Hand Hygiene Initiative
www.hha.org.au

MyHosptials
www.myhospitals.gov.au

Therapeutic Goods Administration
www.tga.gov.au

Australian and New Zealand Intensive Care Society (ANZICS) – Central Line Associated Blood Stream Infections (CLABSI)
clabsi.com.au

National Prescriber Service (NPS)
www.nps.org.au

National Health and Medical Research Council (NHMRC)
www.nhmrc.gov.au

State and territory organisations

ACT Health
www.health.act.gov.au

NSW Department of Health
www.health.nsw.gov.au

NSW Clinical Excellence Commission – NSW
www.cec.health.nsw.gov.au

Northern Territory Department of Health and Families
www.health.nt.gov.au

Queensland Health
www.health.qld.gov.au

Centre for Healthcare related Infection Surveillance and Prevention (CHRISP) – QLD
www.health.qld.gov.au/chrisp/default.asp

Patient Safety and Quality Improvement Service – QLD
www.health.qld.gov.au/chi/psq/

SA Health
www.sahealth.sa.gov.au

Department of Health and Human Services – Tasmania
www.dhhs.tas.gov.au

Department of Health – Victoria
www.health.vic.gov.au

VICNISS Healthcare Associated Infection Surveillance System – Victoria
www.vicniss.org.au

Victorian Quality Council
www.health.vic.gov.au/qualitycouncil/index.htm

Western Australian Department of Health
www.health.wa.gov.au

Office of Quality and Safety– WA
www.safetyandquality.health.wa.gov.au

Appendix: Links to resources

Antimicrobial stewardship

Duguid and Cruickshank (eds) Antimicrobial Stewardship in Australian Hospitals 2011
www.safetyandquality.gov.au/our-work/healthcare-associated-infection/antimicrobial-stewardship/book/

Chapter One;
Appendix 1 – antibiotic usage – monitoring and analysis; Appendix2/2.1 – Example of committee terms of reference; policies and guidelines; formulary.

Australia Commission on Safety and Quality in Health Care – HAI program web site
www.safetyandquality.gov.au/our-work/healthcare-associated-infection/antimicrobial-stewardship/resource-materials/

Link to sample resources including – antimicrobial policy and forms, prescribing guidelines, audit and communication tools.

Australian Guidelines for the Prevention and Control of Infection in Health Care (NHMRC) 2010.

Part C: organisational SUPPORT; C1 Management and Clinical Governance; C5 Antibiotic Stewardship
www.nhmrc.gov.au/book/australian-guidelines-prevention-and-control-infection-healthcare-2010/part-c-organisational-su

ACSQHC (2010) OSSIE toolkit for the Implementation of the Australian Guidelines for the Prevention of Infection in Health Care

General information about implementation change including leadership, teams, quality improvement and choosing strategies to test.
www.safetyandquality.gov.au/publications/the-ossie-toolkit-for-the-implementation-of-the-australian-guidelines-for-the-prevention-of-infection-in-health-care-2010/

Change improvement

Australian Resource Centre for Healthcare Innovations
www.archi.net.au/resources/moc/making-change

Institute for Healthcare Improvement:

Register at www.ihi.org (free), then log in so that you can access resources on the IHI web site

- Change improvement white paper
- Engaging physicians in quality improvement

National Health and Medical Research Council, barriers to using evidence
www.nhmrc.gov.au/nics/materials-and-resources/materials-and-resources-subject/-subject-barriers-using-evidence

National Health and Medical Research Council, implementing guidelines
www.nhmrc.gov.au/nics/materials-and-resources/materials-and-resources-subject/-subject-guideline-implementation

Clinical governance

National Health Service (UK), Patient involvement and public accountability: a report from the NHS future forum
www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/documents/digitalasset/dh_127544.pdf

Queensland Health, Clinical governance resources
www.health.qld.gov.au/cpic/quality_strategy/clinical_governance.asp

Victorian Healthcare Association, clinical governance resources
www.vha.org.au/clinicalgovernanceresources.html
www.vha.org.au/clinicalgovernance.html

Victorian Quality Council, clinical governance guides, resources and tools
www.health.vic.gov.au/qualitycouncil/pub/improve/index.htm#_Clinical_governance
www.health.vic.gov.au/qualitycouncil/downloads/clingov_clin.pdf
www.health.vic.gov.au/qualitycouncil/downloads/clingov_exec.pdf

Patient-centred communication

Australian Commission on Safety and Quality in Health Care, Patient-centred care: improving quality and safety through partnerships with patients and consumers
www.safetyandquality.gov.au

Clinical Excellence Commission, Partnering with patients program
www.cec.health.nsw.gov.au/programs/partnering-with-patients#overview

Notes

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