

healthcare associated infection

A C T I O N G U I D E



AUSTRALIAN SAFETY
AND QUALITY GOALS
FOR HEALTH CARE

AUSTRALIAN SAFETY AND QUALITY GOALS FOR HEALTH CARE

What are the goals?

The Australian Safety and Quality Goals for Health Care set out some important safety and quality challenges for Australia that would benefit from a coordinated national approach to improvement over the next five years. They are relevant across all parts of the health care system and aim to focus attention on a small number of key safety and quality challenges which:

- have a significant impact on the health and wellbeing of individuals, or on the healthcare system as a whole
- can be improved through implementation of evidence-based interventions and strategies
- are amenable to national action and collaboration.

➤ GOAL 1 SAFETY OF CARE:

That people receive their health care without experiencing harm.

➤ PRIORITY AREA 1.2 HEALTHCARE ASSOCIATED INFECTION:

Reduce harm to people from healthcare associated infections through effective infection control and antimicrobial stewardship.

What is the problem that needs to be addressed?

Healthcare associated infections (HAIs) are one of the most common, significant and preventable patient safety issues today. Each year in Australia 180,000 patients suffer healthcare associated infections that prolong hospital stay and consume 2 million hospital bed days. The impact of HAIs include increased patient morbidity and mortality risks, prolonged hospital stay, reduced quality of life and additional costs for consumable items used to treat the infection for both the patient and the system. HAIs generate considerable health and economic burden for both the individual and the health system. For example one Australian state found that the excess costs associated with only 126 surgical site infections was over \$5 million.

In addition, prolonged use of antibiotics as a first line of defence to an increased number of infections has led to the rise of antimicrobial resistant bacteria. These bacteria are considered to have a greater impact on morbidity and mortality, hospital stays and costs compared to those that result from infections from antimicrobial susceptible bacteria.

Why should this issue be a national goal?

HAIs are a common and preventable risk to patient safety, including health and outcomes. For issues such as hand hygiene, infection control and antimicrobial prescribing, there is a gap between what is known to be best practice, and the care that is delivered. Despite the fact that there are guidelines and strong evidence regarding best practice, hand hygiene compliance is not optimal, preventable infections occur, and antimicrobial resistance is an increasing issue.

There are well researched strategies and actions which can be undertaken across the healthcare system to contribute to a significant change in HAI's rates within Australia. Coordination, focus of effort and collaboration between stakeholders through the framework of a national goal on HAI can contribute to significant change within the next five years.

What is the purpose of this document?

This action guide aims to provide detail on **Priority area 1.2 Healthcare associated infection**, including describing key outcomes that contribute towards meeting the Goal and possible actions that individuals and organisations across the health system could undertake to contribute to these changes. The actions described in this document are provided as guidance only: they are not exhaustive and are generally not mandatory. Where indicated, some actions relate to components of the National Safety and Quality Health Service Standards (NSQHSS). However, they should not be considered as an alternative to actions identified within the NSQHSS.

Key outcomes have been chosen based on the criteria above, as well as feedback and input from a range of stakeholders.

“Healthcare associated infections are a common and preventable risk to patient safety.”

- **Outcome 1.2.1: Healthcare providers, consumers and patients use effective evidence-based hand hygiene practices**

There is considerable evidence that hand hygiene reduces the incidence of HAIs. Yet there is also evidence that compliance is variable.

- **Outcome 1.2.2: Antimicrobials are prescribed appropriately and people experience fewer infections from resistant pathogens linked to inappropriate antimicrobial use**

Inappropriate antimicrobial prescriptions have contributed to the emergence of antimicrobial resistant bacteria and there is evidence that antimicrobial stewardship programs can help slow this trend.

- **Outcome 1.2.3: Fewer people experience central line associated bloodstream infections, surgical site infections and catheter associated urinary tract infections**

These infections are some of the most common, costly and lethal healthcare associated infections.

Who is this guide for?

This action guide can be used as a guide for consumers, healthcare providers, healthcare organisations and other individuals and organisations to make improvements and reduce harm. However, many other changes and actions can be implemented to contribute to these outcomes outside the ones suggested in this guide. Individuals and organisations should consider their current programs, policies, priorities, structure and governance arrangements, as well as characteristics, needs and preferences of their population when changing systems, processes and practice.

Examples of organisations and individuals who can make improvements in safety and quality

CATEGORY	EXAMPLES OF ORGANISATIONS AND INDIVIDUALS THAT MAY BE INCLUDED IN THIS CATEGORY
Consumers	Advocates, carers, consumers, families, friends, patients and support people
Healthcare providers	Aboriginal health workers, allied health workers, ambulance officers, community health professionals, general practitioners, medical and nurse specialists, nurses, paramedics, pharmacists and prescribers
Organisations that provide healthcare services or support services at a local level	Allied health care services, day surgeries, community healthcare services, community pharmacies, Local Hospital Networks, Medicare Locals, primary healthcare services, public and private hospitals
Government organisations, regulators and bodies that advise on or set health policy	Australian Health Practitioner Regulation Agency, Commonwealth government, Health Workforce Australia, Independent Hospital Pricing Authority, National Health Performance Authority, National Lead Clinicians Group, National Medicare Local Network, National Prescribing Service, State and Territory governments
Education and training organisations	Colleges, private training organisations, training and further education organisations, universities, and other registered training providers
Other organisations	Accreditation agencies, colleges, consumer organisations, non-government organisations, support groups, university and other research groups

Note: These examples are not intended as a comprehensive list of all individuals and organisations within these categories.

GOAL 1: SAFETY OF CARE

PRIORITY AREA 1.2: HEALTHCARE ASSOCIATED INFECTION

OUTCOME 1.2.1	Healthcare providers, consumers and patients use effective evidence-based hand hygiene practices
WHAT WOULD SUCCESS LOOK LIKE AFTER FIVE YEARS?	There is a measureable increase in the proportion of healthcare providers complying with the 'Five moments for hand hygiene'.
HOW WILL WE KNOW THAT SUCCESS HAS BEEN ACHIEVED?	By monitoring: <ul style="list-style-type: none"> • rates of hand hygiene compliance. • accreditation against the National Safety and Quality Health Service Standards (Standard 3: Preventing and controlling healthcare associated infections).
WHAT ACTIONS ARE NEEDED TO ACHIEVE THIS OUTCOME?	
POSSIBLE ACTIONS BY CONSUMERS	Discuss hand hygiene and the risks of infection with their healthcare provider, and follow hand hygiene guidance. Talk to their healthcare provider or organisation if they have concerns about hand hygiene.
POSSIBLE ACTIONS BY HEALTHCARE PROVIDERS	Perform hand hygiene according to the 'Five moments for hand hygiene' Consistently perform hand hygiene and encourage colleagues to do the same. Participate in hand hygiene programs implemented by their healthcare organisation. Participate in hand hygiene education sessions annually to refresh their knowledge and skills.
POSSIBLE ACTIONS BY ORGANISATIONS THAT PROVIDE HEALTHCARE SERVICES OR SUPPORT SERVICES AT A LOCAL LEVEL	Implement and audit a hand hygiene program that includes education, assessment, audit, review, data collection and evaluation of the program as described in the National Hand Hygiene Initiative (NSQHSS 3.5). Collect data on hand hygiene compliance, review the data and develop improvement strategies where required as part of a national approach to hand hygiene reporting. Provide information for patients and consumers on the management and reduction of healthcare associated infection at the point of care (NSQHSS 3.19). Demonstrate an organisational commitment to hand hygiene by consistently promoting hand hygiene practices to consumers and healthcare providers. Maintain standards of collecting and reporting data on hand hygiene rates to provide confidence in hand hygiene audits. Develop, implement and monitor hand hygiene promotion interventions and strategies at a Medicare Local or Local Hospital Network level. Ensure maintenance of the knowledge and skills of the health workforce in hand hygiene techniques and auditing.

<p>POSSIBLE ACTIONS BY GOVERNMENT ORGANISATIONS, REGULATORS AND BODIES THAT ADVISE ON OR SET HEALTH POLICY</p>	<p>Maintain a national focus on hand hygiene in hospitals.</p> <p>Extend the national approach to hand hygiene and support for hand hygiene initiatives into primary and community health care.</p> <p>Embed the requirement that all healthcare providers maintain their knowledge and skills in hand hygiene as part of professional registration processes.</p>
<p>POSSIBLE ACTIONS BY EDUCATION AND TRAINING ORGANISATIONS</p>	<p>Include hand hygiene in undergraduate, postgraduate and ongoing professional development education and training for healthcare providers.</p> <p>Produce graduates with knowledge, skills and behaviour to perform effective hand hygiene and implement the <i>Australian Guidelines on Infection Control and Prevention</i>.</p>
<p>POSSIBLE ACTIONS BY OTHER ORGANISATIONS</p>	<p>Identify systems and processes that promote hand hygiene compliance, and effective implementation strategies and approaches.</p> <p>Support the development of consumer materials and resources which raise awareness of infection control risks, including the role consumers can play in preventing healthcare associated infections.</p>
<p>POSSIBLE ACTIONS BY THE AUSTRALIAN COMMISSION ON SAFETY AND QUALITY IN HEALTH CARE</p>	<p>Lead national coordination and promotion of hand hygiene strategies.</p> <p>Liaise with education and training providers to incorporate key safety and quality issues such as hand hygiene into educational curricula.</p> <p>Facilitate reporting of timely and appropriate national hand hygiene data.</p>

“Healthcare providers, consumers, and patients use effective evidence-based hand hygiene practices.”

GOAL 1: SAFETY OF CARE

PRIORITY AREA 1.2: HEALTHCARE ASSOCIATED INFECTION

<p>OUTCOME 1.2.2</p>	<p>Antimicrobials are prescribed appropriately</p> <p>People experience fewer infections from resistant pathogens linked to inappropriate antimicrobial use.</p>
<p>WHAT WOULD SUCCESS LOOK LIKE AFTER FIVE YEARS?</p>	<p>Antimicrobial stewardship programs are implemented in healthcare facilities.</p> <p>The rate of inappropriate antimicrobial prescriptions decreases in hospitals and primary care settings.</p> <p>The development of antimicrobial resistance is contained.</p>
<p>HOW WILL WE KNOW THAT SUCCESS HAS BEEN ACHIEVED?</p>	<p>By monitoring:</p> <ul style="list-style-type: none"> national usage of antimicrobials reported through programs such as the National Antimicrobial Utilisation Surveillance Program (hospital) and the Drug Usage Subcommittee of the Pharmaceutical Benefits Advisory Committee (community). accreditation against the National Safety and Quality Health Service Standards (Standard 3: Preventing and controlling healthcare associated infections). <p>By undertaking point prevalence studies to measure appropriateness of use.</p>
<p>WHAT ACTIONS ARE NEEDED TO ACHIEVE THIS OUTCOME?</p>	
<p>POSSIBLE ACTIONS BY CONSUMERS</p>	<p>Discuss the risks and benefits of antimicrobials and the most appropriate treatment option for their situation with their healthcare provider.</p> <p>Ensure they only take antimicrobials when they are needed and do not self-medicate with left over medicines from previous courses of antimicrobials.</p>
<p>POSSIBLE ACTIONS BY HEALTHCARE PROVIDERS</p>	<p>Consult and prescribe using antimicrobial stewardship decision support tools and resources.</p> <p>Prescribe in accordance with the latest clinical guidelines including the currently endorsed therapeutic guidelines for antibiotics, taking into account local microbiology and antimicrobial susceptibility patterns.</p> <p>Prescribe broad spectrum and later generation antimicrobials only when clinically justified.</p> <p>De-escalate therapy to a narrow spectrum antibiotic once susceptibilities are available.</p> <p>Optimise the dose and duration of the medication.</p> <p>Consult infectious diseases experts when managing patients with difficult infections.</p> <p>Explain to consumers when antimicrobials are not appropriate and provide advice on self-management of the condition.</p>
<p>POSSIBLE ACTIONS BY ORGANISATIONS THAT PROVIDE HEALTHCARE SERVICES OR SUPPORT SERVICES AT A LOCAL LEVEL</p>	<p>Develop, implement and audit a multifaceted antimicrobial stewardship program which addresses local priorities and is feasible within available resources (NSQHSS 3.14). Approaches which may be adapted to local organisational requirements could include establishing:</p> <ul style="list-style-type: none"> formulary restriction and approval systems that include restricting broad spectrum and later generation antimicrobials to patients in whom use is clinically justified a process of review of antimicrobial prescribing with direct feedback to prescribers a processes to ensure that healthcare providers complete appropriate education, training and professional development on antimicrobial stewardship, antimicrobial resistance and safe and appropriate prescribing annual reporting of facility-specific antimicrobial susceptibility data.

<p>POSSIBLE ACTIONS BY ORGANISATIONS THAT PROVIDE HEALTHCARE SERVICES OR SUPPORT SERVICES AT A LOCAL LEVEL</p>	<p>Develop antimicrobial formulary and guidelines for antimicrobial treatment and prophylaxis that align with currently endorsed therapeutic guidelines for antibiotics, and ensure they are regularly reviewed.</p> <p>Monitor indicators such as volume and appropriateness of antimicrobial use.</p> <p>Review regional antimicrobial usage and resistance patterns to inform policy and planning at a regional level.</p> <p>Consider information technology approaches to support antimicrobial stewardship such as e-prescribing with clinical decision support, or online medication approval systems.</p> <p>Use cascade reporting consistent with local antimicrobial treatment guidelines.</p>
<p>POSSIBLE ACTIONS BY GOVERNMENT ORGANISATIONS, REGULATORS AND BODIES THAT ADVISE ON OR SET HEALTH POLICY</p>	<p>Embed antimicrobial stewardship principles into safety and quality policies, frameworks, standards and reporting structures.</p> <p>Provide information, education and supportive resources for healthcare organisations and providers which raise awareness of antimicrobial resistance and strategies for minimising resistance.</p> <p>Develop and implement a state-wide antimicrobial stewardship policy and coordinate antimicrobial stewardship activities.</p> <p>Review statewide antimicrobial usage and resistance patterns to inform policy and planning.</p> <p>Support continuing consumer education campaigns on appropriate use of antimicrobials and risks of developing resistant pathogens with antimicrobial use.</p>
<p>POSSIBLE ACTIONS BY EDUCATION AND TRAINING ORGANISATIONS</p>	<p>Include antimicrobial stewardship, antimicrobial prescribing and antimicrobial resistance in undergraduate, postgraduate and ongoing professional development education and training for healthcare providers.</p> <p>Produce graduates with knowledge, skills and behaviour to prescribe, dispense, administer and monitor antimicrobials safely and effectively.</p>
<p>POSSIBLE ACTIONS BY OTHER ORGANISATIONS</p>	<p>Examine the most effective antimicrobial stewardship strategies, stratified into different healthcare settings, contexts and populations.</p> <p>Evaluate the implementation of antimicrobial stewardship programs.</p> <p>Support the development of consumer information and resources about appropriate use of antimicrobials and risks of developing resistant pathogens with inappropriate antimicrobial use.</p>
<p>POSSIBLE ACTIONS BY THE AUSTRALIAN COMMISSION ON SAFETY AND QUALITY IN HEALTH CARE</p>	<p>Deliver a national framework for antimicrobial stewardship to enhance antimicrobial prescribing and management in Australia.</p> <p>Develop, adapt and promote materials and resources which improve education about antimicrobial resistance, antimicrobial stewardship and appropriate use of antimicrobials.</p> <p>Lead and coordinate the development of methodologies for monitoring appropriate antimicrobial use nationally, including monitoring the changing pattern of antimicrobial resistance. This could include tools for point prevalence studies and use of indicators.</p> <p>Liaise with education and training providers to embed antimicrobial stewardship principles into curricula.</p> <p>Develop examples and models of antimicrobial stewardships programs which combine surveillance, education, feedback and prescription controls, including models applicable to regional and rural hospitals.</p> <p>Explore and support a national approach to the management of antimicrobial resistance.</p>

GOAL 1: SAFETY OF CARE

PRIORITY AREA 1.2: HEALTHCARE ASSOCIATED INFECTION

<p>OUTCOME 1.2.3</p>	<p>Fewer people experience central line associated bloodstream infections, surgical site infections and catheter associated urinary tract infections</p>
<p>WHAT WOULD SUCCESS LOOK LIKE AFTER FIVE YEARS?</p>	<p>There is a measurable reduction in <i>Staphylococcus aureus</i> bacteraemia (SAb) infections, central line associated bloodstream infections (CLABSI), catheter associated urinary tract infections (CAUTI), and surgical site infections (SSI).</p>
<p>HOW WILL WE KNOW THAT SUCCESS HAS BEEN ACHIEVED?</p>	<p>By monitoring:</p> <ul style="list-style-type: none"> • <i>Staphylococcus aureus</i> bacteraemia infection rates • central line associated bloodstream infections • accreditation against the National Safety and Quality Health Service Standards (Standard 3: Preventing and controlling healthcare associated infections). <p>Work will need to be undertaken to develop data collection systems for catheter associated urinary tract infections and surgical site infections, as well as extending collection of data on central line associated bloodstream infections to areas outside intensive care.</p>
<p>WHAT ACTIONS ARE NEEDED TO ACHIEVE THIS OUTCOME?</p>	
<p>POSSIBLE ACTIONS BY CONSUMERS</p>	<p>Ask their healthcare provider about infection control risks and what they can do to minimise the risk of infection.</p> <p>Talk to their healthcare provider or organisation if they have concerns about infection control.</p>
<p>POSSIBLE ACTIONS BY HEALTHCARE PROVIDERS</p>	<p>Ensure that appropriate guidelines and protocols on infection control are followed (NSQHSS 3.5, 3.8, 3.9, 3.10, 3.11, 3.12 and 3.13).</p> <p>Discuss infection control practices with consumers and provide written information, particularly in high risk situations when self-management is required (NSQHSS 3.19).</p> <p>Support and encourage consumers to participate in infection control practices and to talk about their concerns.</p>

<p>POSSIBLE ACTIONS BY ORGANISATIONS THAT PROVIDE HEALTHCARE SERVICES OR SUPPORT SERVICES AT A LOCAL LEVEL</p>	<p>Include infection control in core healthcare safety and quality policies and frameworks at a Medicare Local and Local Hospital Network level.</p> <p>Deliver local infection control systems and processes which are consistent with the <i>Australian Guidelines on Infection Control and Prevention</i> (NSQHSS 3.1).</p> <p>Provide information for consumers on the management and reduction of healthcare associated infection (NSQHSS 3.19).</p> <p>Establish processes to ensure that healthcare providers complete appropriate education, training and ongoing professional development on infection control, and include education on infection prevention and control in the general staff development programs.</p> <p>Develop local infection control strategies and protocols that include checklists and bundles of care.</p> <p>Establish systems for monitoring infection rates and ensure they are followed and results are reported to the hospital executive and used as a basis for quality improvement (NSQHSS 3.2, 3.3 and 3.4).</p> <p>Include reporting on infection control rates as part of safety and quality audits.</p> <p>Provide support to healthcare organisations in the implementation of strategies to address infection control including through the provision of education, resources, policies and programs.</p>
<p>POSSIBLE ACTIONS BY GOVERNMENT ORGANISATIONS, REGULATORS AND BODIES THAT ADVISE ON OR SET HEALTH POLICY</p>	<p>Include infection control in core healthcare safety and quality policies and frameworks.</p> <p>Include the requirement for infection control programs within healthcare agreements and contractual arrangements.</p> <p>Develop and support implementation of a framework for considering infection control risk in non-acute settings.</p> <p>Explore options for monitoring healthcare associated infection rates in non-acute settings.</p> <p>Develop and refine data collection systems for CLABSI, CAUTI, SAb and SSIs.</p>
<p>POSSIBLE ACTIONS BY EDUCATION AND TRAINING ORGANISATIONS</p>	<p>Include infection control practices and guidelines in undergraduate, postgraduate and ongoing professional development education and training for all healthcare providers.</p> <p>Produce graduates with the knowledge, skills and behaviours to implement effective infection control practices.</p>
<p>POSSIBLE ACTIONS BY OTHER ORGANISATIONS</p>	<p>Explore the clinical effectiveness and comparative effectiveness of infection control interventions.</p> <p>Explore and identify how the benefits of preventing and controlling HAI's can be returned to the healthcare system.</p> <p>Support the development of consumer materials and resources which raise awareness of infection control risks, including the role consumers can play in preventing healthcare associated infections.</p>
<p>POSSIBLE ACTIONS BY THE AUSTRALIAN COMMISSION ON SAFETY AND QUALITY IN HEALTH CARE</p>	<p>Ensure a consistent evidence-based approach to management of healthcare associated infections is available nationally.</p> <p>Provide a platform for collaboration for a robust national healthcare associated infection surveillance program.</p> <p>Continue to lead, influence, and facilitate strategic approaches to infection prevention and control, working in partnership with key stakeholders.</p>

APPENDIX: DEFINITIONS

Antibiotic:

A substance that kills or inhibits the growth of bacteria.

Antimicrobial:

A chemical substance that inhibits or destroys bacteria, viruses and fungi, including yeasts or moulds.

Antimicrobial stewardship:

A program implemented in a health care organisation to reduce the risks associated with increasing microbial resistance and to extend the effectiveness of antimicrobial treatments. Antimicrobial stewardship may incorporate a broad range of strategies including the monitoring and reviews of antimicrobial use.

Consumers:

When referring to consumers the Commission is referring to patients, consumers, families, carers and other support people.

Five moments for hand hygiene:

A hand hygiene initiative from the World Health Organisation that defines the key moments for hand hygiene.

Hand hygiene:

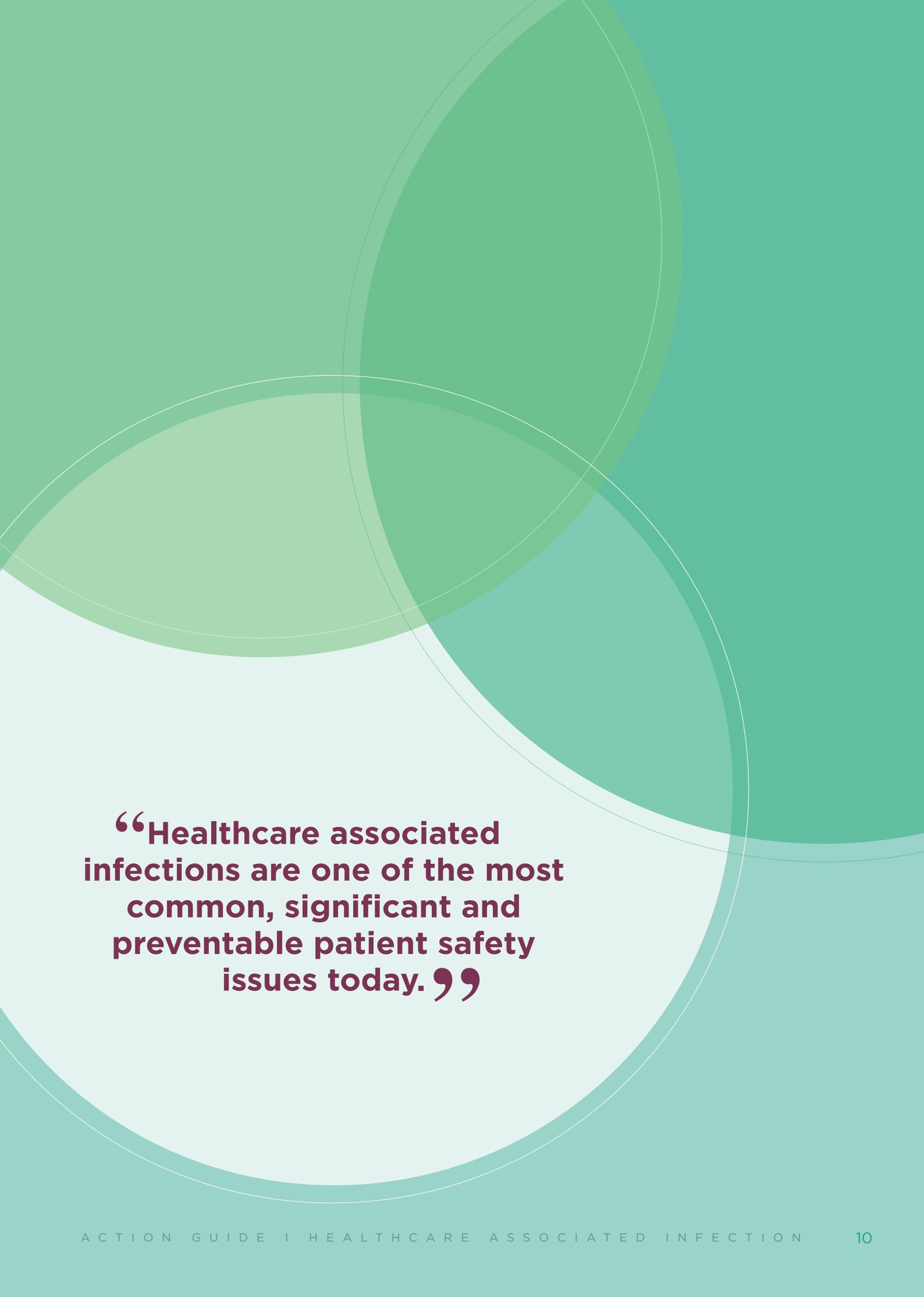
A general term referring to any action of hand cleansing.

Healthcare associated infections:

Infections that are acquired in healthcare facilities (nosocomial infections) or that occur as a result of healthcare interventions (iatrogenic infections). Healthcare associated infections may manifest after people leave the healthcare facility.

Infection control:

Actions to prevent the spread of pathogens between people in a healthcare setting. Examples of infection control measures include targeted healthcare associated infection surveillance, infectious disease monitoring, hand hygiene and personal protective equipment.



“Healthcare associated infections are one of the most common, significant and preventable patient safety issues today.”

**AUSTRALIAN COMMISSION ON SAFETY
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