



Aseptic Technique Policy

1. Background

Aseptic technique (AT) is a set of practices aimed at minimising contamination and is particularly used to protect the patient from infection during procedures¹. Although the causes of healthcare associated infections (HAIs) are wide ranging, it is broadly accepted that poor standards of aseptic technique (AT) are a fundamental cause of preventable HAIs. The healthcare worker (HCW) can be a potential vector for microorganism transmission during invasive clinical procedures and the maintenance of invasive medical devices.

AT is a component of Standard Precautions and is an important clinical practice that reduces the risk of patients acquiring an infection during invasive clinical procedures. AT aims to prevent pathogenic organisms, in sufficient quantity to cause infection, from being introduced to susceptible sites by hands, surfaces and equipment.

While the principles of AT remain constant for all clinical procedures, the level of aseptic practice will differ depending upon the AT risk assessment. The HCW will consider the technical difficulty of achieving asepsis by appraising a range of procedure variables including user competence. The HCW assesses whether the procedure can be performed easily without touching key-parts and key-sites directly. If yes, Standard AT is utilised. If no, Surgical AT is utilised¹.

Differentiation between **Standard AT and Surgical AT** is intended to provide clarity and structure to aid understanding, but not polarise practice. Sequenced procedure guidelines help standardise practice, technique and equipment levels. Types of aseptic technique are outlined in [Appendix 1](#) and a guide to the use of aseptic technique for specific procedures is contained in [Appendix 2](#) of this policy.

Standard AT practices are utilised during procedures such as:

- Venepuncture.
- Insertion of a peripheral vascular catheter.
- Maintenance of vascular access devices, including line or dressing changes, or medicine administration through these devices.
- Blood culture collection.
- Urinary catheterisation.
- Emptying or changing drainage bags.
- Nasogastric tube insertion/management.
- Simple dressings.
- Collecting of swabs and other specimens

Surgical AT practices are required when key parts/sites are large and numerous, or cannot be protected easily by the use of covers/caps, or managed with a non-touch technique. Surgical AT practices include surgical procedures and/or complex or large dressings, including invasive procedures performed in the operating room, procedure

room and in clinical areas, and insertion of vascular access devices such as central lines or epidurals.

2. Policy Statement


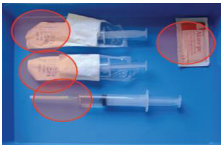
The purpose of this policy is to mandate the expected standard for AT for WACHS clinical HCWs performing AT procedures at WACHS Health Services, which include WACHS hospitals, smaller health centers, Nursing posts, Indigenous Health, Population Health, Community Health, Mental Health and Aged Care services.


The objective of this policy is to provide HCWs performing AT procedures with a standardised approach by which clinicians can be educated, assessed and monitored to ensure compliance to AT principles.

It is essential that all clinicians performing AT procedures are educated and trained in AT and apply the principles to ensure efficient, safe and standardised AT practices. Training requirements are set out in [Appendix 3](#) of this policy.

Annual auditing of AT is required, and as a minimum should be undertaken by all Health Services performing AT procedures. Audit requirements are set out in the [WACHS clinical audit schedule](#) and [Appendix 4](#) of this policy.

3. Definitions¹

| | |
|---------------------------------------|---|
| Aseptic/ Asepsis | Freedom from infection or infectious (pathogenic) material. |
| Aseptic technique (AT) | Aseptic technique protects patients during invasive clinical procedures by employing IP&C measures that minimise, as far as practicably possible, the presence of pathogenic microorganisms. |
| Aseptic field | A designated aseptic working space that contains and protects the procedure equipment from direct and indirect environmental contact contamination by microorganisms. (Traditionally called Sterile field) |
| Aseptic Field - Critical | Critical aseptic fields are used when key parts and/or key sites, due to their size or number, cannot easily be protected at all times with covers and caps, or handled at all times using non-touch technique, or when particularly open and invasive procedures demand large aseptic working areas for long durations, as in the operating room. The red line outlines the use of a main critical aseptic field.  |
| Aseptic Field - Critical Micro | Protecting key parts or sites within a main critical or general aseptic field. I.e. A small critical aseptic field used to protect a key-part, e.g. a syringe cap or needle cover. Red circles outline the use of a critical micro aseptic field.  |

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|---|---|
| <p>Aseptic Field - General</p> | <p>General aseptic fields are used in standard aseptic technique when key parts can easily and optimally be protected by critical micro aseptic fields and aseptic technique. Typically, non-sterile gloves are utilised. The outer yellow square highlights the general main aseptic field.</p>  |
| <p>Decontamination</p> | <p>General term that refers to one or more of the processes below: Cleaning: reduces the bio burden and removes foreign material. In healthcare it is typically performed with water and detergent and material such as lint free cloths, paper towels or impregnated wipes. Disinfection: Reduction of the number of viable microorganisms (by physical or chemical means) on a product to a level previously specified as appropriate for its intended further handling or use. Sterilisation: Use of a physical or chemical procedure to destroy all microorganisms including substantial numbers of resistant bacterial spores.</p> |
| <p>Healthcare Associated Infection (HAI)</p> | <p>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.</p> |
| <p>Invasive procedure</p> | <p>Entry into tissues, cavities or organs or repair of traumatic injuries.</p> |
| <p>Invasive devices</p> | <p>Devices which in whole or part enter the body through an orifice or through any surface of the body. This includes penetrating skin, mucous membranes, organs or internal cavities of the body. E.g. surgical instruments, implantable devices, dental equipment, intravascular devices, medical and therapeutic devices.</p> |
| <p>Key-Part</p> | <p>Parts of the procedure equipment or solutions that must remain aseptic throughout clinical procedures, in order to protect the patient from contamination or infection. E.g. a wound dressing, catheter lubrication, syringe tip, needle etc. In IV therapy, key parts are usually those that come into direct contact with the liquid infusion—for example needles, syringe tips and exposed central line lumens.</p> |
| <p>Key-Site</p> | <p>Susceptible open / broken wounds, surgical or IV access sites.</p> |
| <p>Non-touch Technique</p> | <p>This may be used to maintain asepsis. Measures are taken to ensure the HCW's hands do not touch the key parts and key sites e.g. use of sterile forceps or sterile gloves. However, even when sterile gloves are used, touching key parts and key sites should not occur unless absolutely necessary.</p> |

| | |
|---------------------------|--|
| <p>Standard AT</p> | <p>Promotes asepsis to reduce the risk of infection. Key parts can be easily protected with a non-touch technique or protected by the use of covers and caps. The use of critical micro fields is also important to protect key parts and key sites. Technically simple, short in duration and involve relatively few and small key sites and key parts.</p> |
| <p>Surgical AT</p> | <p>Ensures asepsis and includes procedures to eliminate microorganisms. Key parts / sites are large and numerous or cannot be protected easily by the use of covers / caps or managed with a non-touch technique. The invasive procedure may require a large aseptic working area or the critical field becomes a key part as it contains numerous pieces of sterile equipment. Technically complex and involve extended periods of time, key parts/key sites will be touched, procedure involves large open key sites or large/numerous key parts.</p> |

4. Roles and Responsibilities

All WACHS HCWs performing AT procedures have a responsibility to ensure they comply with:

- The WACHS AT Policy
- All elements of the declaration package in the WACHS Learning Management System (LMS) as relevant to their role
- Maintenance of a personal record of professional development achievements.

Training requirements are outlined in [Appendix 3](#).

WACHS Executive and Regional Executive teams are responsible for ensuring the processes outlined in the National Safety and Quality Health Service Standards NSQHSS [3.9](#) for AT are in place.

Managers and supervisors are responsible for monitoring and enabling all staff who are required to complete their mandatory e-learning, as per the [WACHS Learning Framework Structure](#) via Capabiliti LMS. This learning resource is a Declaration program that includes WACHS policy awareness and HHA training.

Regional Infection Prevention and Control (IP&C) Clinical Nurse Specialists are responsible to develop a regional [AT action plan](#) incorporating all key stakeholders, and to support and advise relevant Health Services through their IP&C program.

All Staff are required to work within policies and guidelines to make sure that WACHS is a safe, equitable and positive place to be.

5. Compliance

This policy is a mandatory requirement to meet the NSQHS Standard 3; version 2: Preventing and Controlling Healthcare Associated Infection Action 3.9. Mandatory training compliance is reported on a monthly basis via the LMS Dashboard reports.

Failure to comply with this policy may constitute a breach of the WA Health Code of Conduct (Code).

The Code is part of the [Integrity Policy Framework](#) issued pursuant to section 26 of the [Health Services Act 2016](#) (WA) and is binding on all WACHS staff which, for this purpose, includes trainees, students, researchers, contractors for service (including all visiting health professionals and agency staff) and persons delivering training or education within WACHS.

WACHS staff are reminded that compliance with all policies is mandatory.

6. Records Management

All WACHS clinical records must be managed in accordance with [Health Record Management Policy](#).

7. Evaluation

Policy review will be undertaken within a three – five year timeframe or sooner if evidence of decreased AT compliance through audit processes, or increased numbers of related poor outcomes such as HAIs.

8. Standards

[National Safety and Quality Health Service Standards](#)

Preventing and Controlling Healthcare Associated Infection Standard: 3.1, 3.2, 3.3 and 3.5 – 3.10

9. References

1. National Health and Medical Research Council. Australian Guidelines for the Prevention and Control of Infection in Healthcare [Internet] Canberra; 2019 [cited 2020 July 10] Available from: <https://www.nhmrc.gov.au/about-us/publications/australian-guidelines-prevention-and-control-infection-healthcare-2019>
2. Australasian College of Infection Prevention and Control (ACIP&C). Aseptic Technique Resources [Internet] ACIP&C Ltd; Hobart; 2019 [cited 2020 July 10] Available from: <https://www.ACIPC.org.au/aseptic-technique-resources/>
3. Australian College of Perioperative Nurses Ltd (ACORN). Standards for Perioperative Nursing in Australia [Intranet] ACORN; Adelaide, South Australia; 2018; 15th ed [cited 2020 July 10] Available from: <https://wachslibrary.health.wa.gov.au/home>
4. Australian Commission on Safety and Quality in Health Care Aseptic Technique Risk Matrix [cited 2020 July 10] Available from: <https://www.safetyandquality.gov.au/sites/default/files/migrated/Aseptic-Technique-Risk-Matrix-Updated-November-2018.pdf>

10. Related WACHS Policy Documents

- WACHS [Clinical Audit Policy](#)
- WACHS [Consumer and Carer Engagement Policy](#)
- WACHS [Environmental Cleaning Policy](#)
- WACHS [Hand Hygiene Policy](#)
- WACHS [Infection Prevention and Control Policy](#)
- WACHS [Patient Identification Policy](#)
- WACHS [Action plan template](#)

11. Related WA Health System Policies

- MP 0038/16 [Insertion and Management of Peripheral Intravenous Cannulae in Western Australian Healthcare Facilities](#)
- MP 0006/16 [Risk Management Policy](#)

12. Policy Framework

[Clinical Governance, Safety and Quality](#)

13. Appendices

- Appendix 1: [Types of Aseptic Technique](#)
- Appendix 2: [Guide to use of Aseptic Technique for specific procedures](#)
- Appendix 3: [AT Training requirements for all HCWs performing AT](#)
- Appendix 4: [Audit requirements](#)
- Appendix 5: [Procedure sequence for Standard Aseptic Technique](#)
- Appendix 6: [Procedure sequence for Surgical Aseptic Technique](#)
- Appendix 7: [Standard Aseptic Technique Competency Assessment Tool](#)
- Appendix 8: [Surgical Aseptic Technique Competency Assessment Tool](#)
- Appendix 9: [Standard Aseptic Technique \(AT\) Procedure Audit Tool](#)
- Appendix 10: [Surgical Aseptic Technique \(AT\) Procedure Audit Tool](#)
- Appendix 11: [Aseptic Technique Self-Assessment Checklist](#)
- Appendix 12: [Clinical Audit Action Plan Template](#)

**This document can be made available in alternative formats
on request for a person with a disability**

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|---------------------|--|------------------------|----------------|
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Appendix 1: Types of Aseptic Technique¹

| | Standard AT - Promotes asepsis | Surgical AT - Ensures asepsis |
|----------------------|---|--|
| Procedure | Technically simple. Short duration < 20 minutes. Few key sites. | Technically complex. Takes > 20 minutes. Large open key sites. |
| Aseptic Field | Use general aseptic field and/or critical micro aseptic field. | Use a critical aseptic field and critical micro aseptic field. |
| PPE | Non sterile gloves to remove dressing. Sterile gloves if key part at risk of being touched. Apron / face protection as per Standard Precautions. | Sterile gloves, sterile gown, mask, hair covering, sterile drapes. |
| Environment | Work surface cleaned with detergent before and after the procedure. e.g. dressing trolley. Bed making / cleaning activities in close proximity should be avoided. | Work area and surfaces cleaned with detergent before and after a procedure. HCW activity strictly controlled. Environmental risk removed or avoided. |

Appendix 2: Guide to use of Aseptic Technique for specific procedures¹

| Procedure | AT Type | Rationale / typical procedure |
|-------------------------------------|-----------------------|---|
| PIVC therapy / access | Standard AT | Key parts can typically be protected by optimal critical micro fields and non-touch technique. Key sites are small. Procedures are technically simple and < 20 mins duration. |
| PIVC Insertion | Standard AT | The close proximity of HCWs hands to the puncture site and key parts may demand the use of sterile gloves dependent upon the HCWs competency. |
| Simple wound dressings | Standard AT | Key parts and sites can be protected by optimal critical micro fields and non-touch technique. Procedures are technically simple and < 20 mins duration. |
| Complex/large wound dressing | Surgical AT | The complexity, duration or number of key parts may demand a critical aseptic field. |
| Urinary Catheterisation | Standard/ Surgical AT | An experienced HCW can perform catheterisation with the use of a main general aseptic field, micro-aseptic-fields and non-touch technique. However, less experienced HCWs may require a critical aseptic field. |
| PICC/CVC insertion | Surgical AT | The size of the CVC or PICC line, invasiveness, numerous key parts and equipment and duration will demand a critical aseptic field and full barrier precautions. |
| Surgery | Surgical AT | Surgical access involves deep or large exposed wounds, numerous key parts and equipment and long procedures. Standard operating room precautions required. |

Appendix 3: AT Training requirements for all HCWs performing AT

It is essential that all clinicians performing AT procedures are educated and trained in AT and apply the principles to ensure efficient, safe and standardised AT practices.

The [Australasian College for Infection Prevention and Control \(ACIP&C\) AT resources](#) have been adapted for use by relevant WACHS clinicians in a hard copy format and are linked within this policy. The use of electronic versions of both competency assessments and audit tools is planned for the future.

The [NSQHSS Action 3.9](#) states that health service organisations should have processes for AT that:

- Identify the procedures where AT applies. This includes performing a risk assessment utilising the [AT Risk Matrix](#)
- Assess the competence of the workforce in performing AT
- Provide training to address gaps in competency
- Monitor compliance with the organisation's policies on AT.

Action 3.9 also states that Health Services should:

- Identify the training needs of members of the workforce who perform procedures that require AT
- Consider the validity, currency and scope of previous training, and how often training should be repeated to maintain competence
- Assess the competence of members of the workforce who are required to perform AT and provide training to deal with gaps in competence
- Set priorities for training based on risk assessment.

All clinicians who use AT in their practice need to have their competency assessed from time to time. If necessary, they should be retrained where practice is identified to be below accepted levels of performance.

An [AT Risk Matrix](#) can be used to assist health services prioritise competency assessments, and identify clinical areas and/or procedures of high risk.²

A risk rating is determined by adding the scores for the risk factors outlined. This information can assist in planning the organisation's response to improve AT in practice. The higher the risk rating, the greater the risk and need for action to be taken. When the AT risk matrix has been completed for each Health Service, the risk scores achieved will assist in establishing requirements for enhanced training, competency assessment and/or auditing in relevant areas.

The WA Health MP0006/16 Risk Management Policy establishes the minimum standards to be implemented by Health Service Providers in order to effectively manage risk at all organisational levels. An organisation's risk management practices are a critical component of good governance and fundamental to support the achievement of objectives. Risk management should be built into all operational processes and underpin decision making.

WACHS AT training and assessment will consist of a once off theory and practical component with provision for retraining/reassessment via an [AT Compliance management process](#). This process will be initiated if poor practise / performance issues are identified during peer observation, auditing and/or investigation of a poor outcome.

To meet the WACHS AT training requirements, all WACHS clinical HCWs performing AT (except Medical staff employed by WACHS for less than 3 months) are required to:

- Complete the e-learning module (ICATC EL2) **within 3 months** of commencing at WACHS
- Complete a practical AT assessment with an AT Assessor **within 3 months** of commencing at WACHS. (Recognition of an AT practical assessment competency obtained at other Australian Healthcare Facilities may be honoured, if evidence can be provided) This is a once only assessment unless performance issues are identified. (see AT compliance management process outlined above)
- All training records are to be maintained in the Learning Management System.

To become a WACHS AT assessor, clinical HCWs are required to complete an AT assessor declaration in the LMS initially and annually (ICATC 004), following:

- Successfully completing the WACHS AT e-learning (ICATC EL2) package
- Successfully completing a practical AT assessment (ICATC 003)
- Being recommended by their primary supervisor to be an AT assessor
- Assessing / auditing a minimum of five staff per year
- Completing the reflective practice activity.

Appendix 4: Audit requirements

As a minimum, annual auditing should be undertaken by all Health Services performing AT procedures, during a 3 month period from April to June, as documented in the [WACHS clinical audit schedule](#). (Refer to Table 1 for audit sample numbers).

Furthermore, additional AT auditing can be undertaken by Health Services as deemed necessary, based on identified concerns with AT practices and / or increased risk rating scores. The adapted [ACIPC Standard and Surgical AT Audit tools](#) (refer to appendix E and F) should be utilised when auditing standard and surgical AT procedures.

A number of pictorial guidelines (adapted for use throughout WACHS from the Aseptic Non touch Technique [ANTT] UK packages) are available for the following procedures:

1. [Blood Culture Guideline](#)
2. [Peripheral Cannulation Guideline](#)
3. [Indwelling Urinary Catheterisation Guideline](#)
4. [Venepuncture Guideline](#)
5. [Simple Wound Care Guideline](#)
6. [Intravenous Drug Administration in the Operating Room](#)
7. [PICC Dressing change Guideline](#)

Prior to commencing an auditing role, clinical HCWs will have completed the WACHS Aseptic Technique eLearning package [ICATC EL2] ([via Capabiliti LMS](#)).

Safety and Quality teams in conjunction with IP&C teams are responsible for the coordination of auditing at their respective site and for collation of audit results, as per the Health Service’s clinical audit schedule and program.
Any standard AT practices undertaken in the areas outlined in Table 1 can be audited to monitor compliance with AT policy and assist with identifying areas of concern.

| Table 1: Minimum Health Service audit sample numbers for standard AT procedures to be undertaken from April 1st – June 30th each year. | | |
|--|---------------------------------------|--------------------|
| Bed Numbers | Department (as applicable) | Sample Size |
| > 150 beds | Emergency Department | 20 |
| | Operating Theatre | 20 |
| | ICU/HDU | 20 |
| | SCN | 20 |
| | Maternity | 20 |
| | Paediatric Ward | 20 |
| | DPU / Endoscopy Unit | 20 |
| | Surgical Ward | 20 |
| | Medical Ward | 20 |
| | Rehabilitation Ward | 10 |
| | Palliative Care | 10 |
| Total AT procedure audits for bed numbers > 150 | | 200 |
| 50 – 150 beds | Emergency Department | 15 |
| | Operating Theatre | 15 |
| | Maternity / Paediatric Ward | 15 |
| | Surgical Ward / Medical Ward | 15 |
| | Rehabilitation Ward / Palliative Care | 10 |
| Total AT procedure audits for bed numbers 50 - 150 | | 50 |
| 25 – 50 beds | Across Health Service | 25 |
| < 25 beds / MPS | Across Health Service | 15 |

Standard AT procedures that are recommended to be audited include PIVC insertion / venepuncture / venous access management (including venous medication administration and line management) / simple wound dressings / blood culture collection / IDC insertion and Epidural medication administration.

It is the responsibility of each Health Service to review results of the auditing undertaken and to develop an [action plan](#) as relevant. A regional review and analysis of concerns / issues / actions identified should be completed and tabled at the Regional Patient Safety and Quality committee meeting generally held in the month of August each year.

Additionally, audit results should be tabled at relevant local Health Service meetings and at the Regional IP&C Committee meeting for review and actioning of results as relevant. Data relating to summary AT audit results and identified successes / concerns will be tabled at the WACHS IP&C Committee meeting as relevant.