Aseptic Technique Policy

1. Purpose

Aseptic technique (AT) is a set of practices aimed at minimising contamination and is particularly used to protect the patient from infection during procedures.[1] 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.

Although the causes of healthcare associated infections (HAIs) are wide ranging, it is broadly accepted that poor standards of 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 during the care and maintenance of invasive medical devices.

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

The purpose 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.

2. Policy

2.1 Types of aseptic technique

While the principles of AT remain constant for all clinical procedures, the level of aseptic practice differs depending upon the AT risk assessment. The HCW is to consider the technical difficulty of achieving asepsis by appraising a range of procedure variables including user competence. The HCW is required to assess 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 utilised.[1]

Differentiation between Standard AT and Surgical AT is intended to provide clarity and structure to aid understanding, but not polarise practice. Sequenced guidance help standardise practice, technique, and equipment levels. Refer to the Protocol for procedure requiring Standard Aseptic Technique and the Protocol for procedure requiring Surgical Aseptic Technique.

Standard AT

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 bag.
- nasogastric tube insertion / management
- simple dressings
- collecting of swabs and other specimens.

Surgical AT

Surgical AT practices are required when key-parts / sites are large and numerous or cannot be protected easily using 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.

Table 1: Types of aseptic technique[1]

	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. Cleaning / bed making activities in close proximity are to be avoided.	Work area and surfaces cleaned with detergent before and after a procedure. HCW activity strictly controlled. Environmental risk removed or avoided.

Table 2: Guide to use of aseptic technique for specific procedures[1]

Procedure	AT	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 central venous catheter (CVC) or peripherally inserted central catheter (PICC) line, invasiveness, numerous key parts and equipment and duration demands 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.

2.2 Aseptic technique training

The National Safety and Quality Health Service Standards (NSQHSSs) action 3.11 states that health service organisations are to have processes for AT that:

- identify the procedures where AT applies
- 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.

Refer to - NSQHS Standards Implementation guide for Action 3.11 Aseptic Technique.

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.

All clinicians who use AT in their practice need to have their competency assessed.

WACHS AT training and assessment consists of a once off theory and practical component with provision for retraining / reassessment via an AT Competency Management Flowchart. This process is to be initiated if poor practise / performance issues are identified during peer observation, auditing and/or investigation of a poor outcome.

Training requirements

All WACHS clinical HCWs performing AT (except medical staff employed by WACHS for less than 3 months) are required to:

- Complete Aseptic Technique: Theory (ICATC EL2) **within 3 months** of commencing at WACHS.
- Complete a practical AT assessment with an AT competency facilitator (*assessor*) **within 3 months** of commencing at WACHS.
  - either (as applicable) Aseptic Technique: Surgical Declaration (ICATS EL3) or Aseptic Technique: Standard Declaration (ICATC EL3)
  - recognition of an AT practical assessment competency obtained at other Australian Healthcare Facilities may be honoured if evidence can be provided and it meets the WACHS requirements

  - this is a once only assessment unless performance issues are identified (see AT compliance management process outlined above).
- All training records are maintained in the Learning Management System.

Competency facilitators

To become a WACHS AT competency facilitator, clinical HCWs are required to complete the Aseptic Technique: Competency Facilitator Declaration (ICATC 004) annually, following:

- successfully completing Aseptic Technique: Theory (ICATC EL2) package
- successfully completing a practical AT assessment (ICATC/ICATS 003)
- being recommended by their primary supervisor to be an AT competency facilitator
- assessing / auditing a minimum of five staff per year
- completing the reflective practice activity.

The ACSQHC AT Risk Matrix can be used to assist health services to prioritise competency assessments, and identify clinical areas and/or procedures of high risk. 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 assist in establishing requirements for enhanced training, competency assessment and/or auditing in relevant areas.

The WA Health Risk Management Policy – MP 0006/16 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 is to be built into all operational processes and underpin decision making.

2.3 Aseptic Technique Auditing

As a minimum, annual auditing is to be undertaken by all Health Services performing AT procedures, during a 3-month period from April to June, outlined in the WACHS Audit and Reporting Framework (refer to Table 3 for minimum standard AT audit sampling sizes).

Any standard AT practices undertaken in the areas outlined in Table 3 can be audited to monitor compliance with AT policy and assist with identifying areas of concern.

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
- epidural medication administration.

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 AT procedure audit tool and the Surgical AT procedure audit tool is to be utilised when auditing standard and surgical AT procedures. Prior to commencing an auditing role, clinical HCWs are to have completed WACHS Aseptic Technique: Theory [ICATC EL2] (via MyLearning).

It is the responsibility of each Health Service to review results of the auditing undertaken and to develop action plan/s as relevant. A regional review and analysis of concerns / issues / actions identified is to be completed and tabled as applicable at relevant committee meetings including the Regional IPC Committee and the Regional Safety and Quality Committee. Additionally, audit results are to be tabled at relevant local Health Service meetings for review and actioning of results as relevant.

Table 3: Minimum audit sample numbers for standard AT procedures.

Bed Numbers	Department (Exclude departments not relevant to the site)	Minimum sample size
> 100 beds	Emergency Department	20
	Operating Theatre	20
	DPU / Endoscopy	20
	ICU	20
	HDU	20
	SCN	20
	Maternity	20
	Paediatric Ward	20
	Surgical Ward	20
	Medical Ward	20
	Rehabilitation Ward	10
	Palliative Care	10
50 – 100 beds	Emergency Department	15
	Operating Theatre	15
	DPU / Endoscopy	15
	HDU	15
	Maternity (including SCN)	15
	Paediatric Ward	15
	Surgical Ward	10
	Medical Ward	10
	Rehabilitation Ward	10
	Palliative Care	10
25 – 50 beds	Total AT procedures across Health Service	25
< 25 beds / MPS	Total AT procedures across Health Service	15

3. Roles and Responsibilities

Executive and Regional Executive teams are responsible for ensuring the processes outlined in the NSQHSSs action 3.11 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 MyLearning. This learning resource is a Declaration program that includes WACHS policy awareness and Hand Hygiene Australia (HHA) training.

Regional IPC 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 IPC program.

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.

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

4. Monitoring and Evaluation

4.1 Monitoring

Monitoring of compliance to this policy is to be undertaken by:

- review of audit results of adherence to standard precautions, hand hygiene, aseptic technique and invasive device management
- review of process indicator audit results of clinical practice inclusive of aseptic technique are undertaken e.g. peripheral vascular device and central line insertion procedure.
- review of outcome indicators for identified healthcare associated infections e.g. staphylococcal aureus blood stream infections and surgical site infections reported to the Infection Prevention and Policy Surveillance Unit (IPPSU).
- reporting of identified concerns related to AT processes is managed via regional reporting processes.

4.2 Evaluation

- Outcomes of auditing and process and clinical indicator data is to be escalated as applicable with actions implemented documented and monitored via regional IPC Committees and other relevant committees.
- AT related complications are reported via the clinical incident management (CIMs) reporting system.

The WACHS Infection Control Advisory Forum (ICAF) is to review this policy every five years, or earlier if required.

5. Compliance

This policy is a mandatory requirement to meet the NSQHS Standard 3 Preventing and Controlling Healthcare Associated Infection. 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. References

1. National Health and Medical Research Council. Australian Guidelines for the Prevention and Control of Infection in Healthcare [Internet] Canberra; 2019 [accessed 24 April 2023] 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 (ACIPC). Aseptic Technique Resources [Internet] ACIPC Ltd; Hobart; 2019 [accessed 24 April 2023] Available from: https://www.ACIPC.org.au/aseptic-technique-resources/
3. Australian College of Perioperative Nurses Ltd (ACORN). 2023 Standards for Safe and Quality Care in the Perioperative Environment [Intranet] ACORN; Adelaide, South Australia; 2023; [accessed 24 April 2023] Available from: https://wachslibrary.health.wa.gov.au/home
4. Australian Commission on Safety and Quality in Health Care Aseptic Technique Risk Matrix [accessed 24 April 2023] Available from: https://www.safetyandquality.gov.au/sites/default/files/migrated/Aseptic-Technique-Risk-Matrix-Updated-November-2018.pdf

7. Definitions

Term	Definition
Asepsis	Freedom from infection or infectious (pathogenic) material.
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 sterile 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. In such cases, the Critical Aseptic Field demands to be managed as a Key-Part (i.e. only equipment that has been sterilised can come into contact with it). Such a Critical Aseptic Field demands the use of sterilised gloves

	and, often, full barrier precautions. Large main Critical Aseptic Fields are used in Surgical-AT, generally reflecting more complex and longer duration aseptic procedures.
Aseptic Field - Critical Micro	A sub-type of a critical aseptic field is the micro critical aseptic field which protects 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. Traditional aseptic / clean techniques protect key-parts by syringe caps, sheathed clean needles, covers or packaging etc.
Aseptic Field - General	General aseptic fields are used in standard AT when key parts can easily and optimally be protected by micro critical aseptic fields and a non-touch method of AT. The main general aseptic field isn't managed as a key-part and is essentially promoting, rather than ensuring, asepsis. Subsequently, the procedure is considerably simplified and typically involves non-sterile gloves.
Aseptic technique	Aseptic technique (AT) is a set of practices aimed at minimising contamination and is particularly used to protect the patient from infection during procedures. Many of the other work practices that form standard precautions are required for aseptic technique, however, adherence to these practices alone does not constitute aseptic technique. Sterile single-use equipment or instruments must be used according to manufacturer's instructions and in such a way that the sterility of the item is maintained.
Decontamination	Use of physical or chemical means to remove, inactivate, or destroy pathogens on a surface or item so that they are no longer capable of transmitting infectious particles and the surface or item is rendered safe for handling, use, or disposal.
Healthcare associated infection (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.
Invasive medical device	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.
Invasive procedure	Entry into tissues, cavities or organs or repair of traumatic injuries.
Key-Part	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.
Key-Site	Susceptible open / broken wounds, surgical or IV access sites.

Non-touch technique	A practice 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 is not to occur unless absolutely necessary.
Standard aseptic technique	Clinical procedures managed with Standard AT are characteristically technically simple to achieve asepsis, short in duration (approximately less than 20 minutes) and involve a relatively small key-site and few, small key-parts. Standard AT requires a main general aseptic field and typically non-sterile gloves. The use of micro critical aseptic fields and a non-touch method is essential to protect key-parts and key-sites individually.
Standard precautions	Work practices that constitute the first-line approach to infection prevention and control in the healthcare environment. These are recommended for the treatment and care of all patients.
Surgical aseptic technique	Surgical AT is demanded when procedures are technically complex to achieve asepsis. Procedures involve extended periods of time, a large open key-site and large or numerous key-parts. To counter these risks, a main critical aseptic field and sterile gloves are required and often full barrier precautions. Surgical AT is to still utilise Micro Critical Aseptic Fields where practical to do so.

8. Document Summary

Coverage	WACHS wide
Audience	Any registered medical doctor, nurses and midwives, allied health professionals, dental professions, or a student in any of those fields, as well as professionals from other health sciences who perform aseptic technique procedures.
Records Management	Clinical: Health Record Management Policy
Related Legislation	*Health Services Act 2016*
Related Mandatory Policies / Frameworks	• Clinical Incident Management Policy 2019 MP 0122/19 • Insertion and Management of Peripheral Intravenous Cannulae in Healthcare Facilities MP 0038/16 • Risk Management Policy MP 0006/16 • Clinical Governance, Safety and Quality Framework • Public Health Policy Framework
Related WACHS Policy Documents	• Clinical Audit Policy • Consumer and Carer Engagement Policy • Environmental Cleaning Policy • Hand Hygiene Policy • Infection Prevention and Control Policy • Nursing Management of the Neutropenic ADULT Haematology and Oncology Patient Procedure • Occupational Safety and Health Policy • Patient Identification Policy • Specimen Collection Procedure • Waste Management Policy
Other Related Documents	• AT action plan template • Protocol for procedure requiring Standard Aseptic Technique • Protocol for procedure requiring Surgical Aseptic Technique • Standard AT procedure audit tool • Surgical AT procedure audit tool • ACSQHC Aseptic Technique Risk Matrix • ACSQHC Management of Peripheral Intravenous Catheters Clinical Care Standard • ACSQHC Guidance on management and prevention of paediatric urinary tract infections (UTIs)
Related Forms	Nil
Related Training Packages	• WACHS Aseptic Technique training (ICATC EL2)
Aboriginal Health Impact Statement Declaration (ISD)	ISD Record ID: 2225

National Safety and Quality Health Service (NSQHS) Standards	3.01, 3.02, 3.03, 3.04, 3.05, 3.06, 3.07, 3.08, 3.09, 3.10, 3.11, 3.12.

9. Document Control

Version	Published date	Current from	Summary of changes
2.00	21 July 2023	21 July 2023	• Aseptic technique pictorial guidelines adapted from ANTT Tools removed. Links to the tools have been included in the Standard 3 Policy and Resources Map. • Updated references to the NSQHSS 3.11. • AT tools linked in the policy have been updated to WACHS Communication Templates.
2.01	5 December 2023	21 July 2023	• Updated broken link to Aseptic Technique Risk Matrix

10. Approval

Policy Owner	Executive Director Clinical Excellence
Co-approver	Executive Director Nursing & Midwifery Services
Contact	Clinical Nurse Consultant – Infection Prevention and Control
Business Unit	Nursing and Midwifery
EDRMS #	ED-CO-20-58657

This document can be made available in alternative formats on request.