

# SESLHD POLICY COVER SHEET



**Health**  
South Eastern Sydney  
Local Health District

<b>NAME OF DOCUMENT</b>	Aseptic Technique
<b>TYPE OF DOCUMENT</b>	Policy
<b>DOCUMENT NUMBER</b>	SESLHDPD/271
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<b>RISK RATING</b>	Medium
<b>LEVEL OF EVIDENCE</b>	National Safety and Quality Health Service Standards: Standard 3 - Preventing and Controlling Infections NHMRC grade A - Body of evidence can be trusted to guide practice
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<b>FORMER REFERENCE(S)</b>	Not Applicable
<b>EXECUTIVE SPONSOR or EXECUTIVE CLINICAL SPONSOR</b>	Director Clinical Governance and Medical Services
<b>AUTHOR</b>	Infection Control Policy Working Party <a href="mailto:SESLHDInfectionContro@Health.nsw.gov.au">SESLHDInfectionContro@Health.nsw.gov.au</a>
<b>POSITION RESPONSIBLE FOR THE DOCUMENT</b>	Infection Control Policy Working Party
<b>KEY TERMS</b>	Aseptic technique, Asepsis, sterile technique, clean technique
<b>SUMMARY</b>	<p>Aseptic technique is a framework for aseptic practice. In aseptic technique, asepsis is ensured by identifying and then protecting key parts and key sites from contamination.</p> <p>The five principles for aseptic technique:</p> <ol style="list-style-type: none"> <li>1. Sequencing</li> <li>2. Environmental Control</li> <li>3. Hand Hygiene</li> <li>4. Maintenance of Aseptic Technique</li> <li>5. Use of Personal Protective Equipment (PPE)</li> </ol> <p>The principles of aseptic technique are underpinned by a risk assessment.</p>

**COMPLIANCE WITH THIS DOCUMENT IS MANDATORY**  
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**1. POLICY STATEMENT**

The focus of this policy is Aseptic technique, which is a framework for aseptic practice. In aseptic technique, asepsis is ensured by identifying and then protecting key parts and key sites from contamination.

There are three recognised techniques. These are:

- **Sterile technique:** Is the complete absence of microorganisms. Near sterile techniques can only be achieved in controlled environments such as specially equipped operating theatres (laminar flow) or pharmacies (clean room)
- **Aseptic Technique:** To minimise the contamination of a key site, equipment or the immediate environment by pathogenic organisms
- **Clean Technique:** Is the removal of visible contamination or debris e.g., cleaning a grazed area on a patient’s knee

**2. AIMS**

The aims of this policy are to:

- define the terminology used for aseptic technique
- provide information on how to reduce the risk of the patient acquiring an infection

**3. TARGET AUDIENCE**

All clinicians who perform procedures that require an aseptic technique.

**4. RESPONSIBILITIES**

**4.1 General Managers are to:**

- Provide resources to enable compliance with this Policy
- Ensure compliance with this Policy is monitored and evaluated.

**4.2 Directors of Clinical Operations and Directors of Nursing and Midwifery are to:**

- Delegate the day-to-day responsibility of establishing and monitoring the implementation of this policy to the relevant clinical teams
- Make appropriate education and training available to all relevant clinical staff (e.g., Nursing, Junior Medical Officers, and Pharmacists who perform procedures in Clean Rooms).

**4.3 Allied Health Managers and Pathology Collection Managers are to:**

- Delegate the day-to-day responsibility of establishing and monitoring the implementation of this policy to the relevant clinical teams
- Make appropriate education and training available to all relevant clinical staff (e.g., Physiotherapists, Speech Pathologists and Occupational Therapists)

**4.4 All clinical staff that perform procedures that require an aseptic technique are to:**

- Comply with this policy to perform safe clinical procedures to reduce the risk of the patient acquiring a healthcare associated infection
- Notify breaches of aseptic technique incidents in the incident reporting system (e.g., IIMS) in accordance with the NSW Health Incident Management Policy
- Complete the NSW Health Education and Training Institute (HETI) online learning module: Aseptic Technique (Course Code: 40027445)

5. DEFINITIONS

Term	Definition	Examples
<b>Aseptic/Asepsis</b>	Free from pathogenic organisms	
<b>Aseptic Fields</b>	These provide a controlled aseptic working space. Aseptic fields are increased in size and sterile drapes added on the basis of procedure complexity.	
<b>Aseptic Technique</b>	<p>Is a set of specific practices and procedures performed under carefully controlled conditions?</p> <p>Its primary aim is to prevent pathogenic organisms, in sufficient quantity to cause infection and/or contamination, from being introduced to susceptible sites by hands, surfaces and equipment. It protects patients during clinical procedures by utilising infection prevention measures that minimise the presence of micro-organisms. While the principles of aseptic technique remain constant for all procedures, the level of practice will change depending upon a standard risk assessment.</p>	
<b>Critical aseptic fields; ensuring asepsis (Sterile Technique):</b>	Used when key parts/sites cannot be protected with covers and caps, or handled at all times by a non-touch technique, or when open and invasive procedures require large working areas for long durations. The critical aseptic field itself is managed as a key part – only sterilized equipment may come in contact with it. Sterile gloves and often, full barrier precautions are required.	Insertion of Central Line, insertion of chest drain, operating theatre set up for general surgery
<b>Critical micro aseptic fields</b>	This is the protection of key parts and sites by syringe caps, sheathed needles, covers/packaging and non-touch technique. Critical micro aseptic fields are used as part of both surgical and standard aseptic non touch technique, and may be used as a component of a larger critical aseptic field, or as the critical component of a general aseptic field.	IV injection
<b>Glove (sterile) use</b>	If it is necessary to touch key parts or key sites directly, sterile gloves are used to minimise risk of contamination, body fluid exposure and / or exposure to any drugs that may be administered during the procedure.	Insertion of urethral catheter
<b>Glove (non-sterile)</b>	Are used to minimise risk of contamination, body fluid exposure and / or exposure to any drugs that may be administered during the procedure	Basic dressing

**Aseptic Technique**

**SESLHDPD/271**

<b>Term</b>	<b>Definition</b>	<b>Examples</b>
<b>Hand hygiene</b>	Effective hand hygiene is an essential part of aseptic technique.	
<b>Key Parts</b>	Key parts are those parts of equipment that if contaminated by infectious material increase the risk of infection. Parts of the procedure equipment that come into direct or indirect contact with the key sites, other key-parts, or liquid infusions.	Examples of key-parts are: tips of forceps, scissor tips, dressings to be applied over the wound, needles or introducers; surgical instruments such as scalpel blades, forceps, and retractors; invasive devices such as PICC lines or urinary catheters.
<b>Key Site</b>	Is the area on the patient that must be protected from pathogenic micro-organisms	Wound, IV insertion site
<b>Risk Assessment</b>	<p>A risk assessment, that is conducted prior to performing an aseptic procedure and it includes (but not limited to):</p> <ul style="list-style-type: none"> <li>determining factors such as the technical difficulty of the procedure</li> <li>the type of aseptic field required for the procedure (determining if a surgical or general aseptic technique is required)</li> <li>how long the procedure should take</li> <li>patient pain assessment</li> <li>patient education, compliance and consent</li> <li>cleanliness of the environment and the equipment used</li> <li>if assistance is required</li> <li>PPE requirements</li> </ul>	
<b>Standard Aseptic technique</b>	<ul style="list-style-type: none"> <li>Typically short duration procedures (less than 20 minutes)</li> <li>Technically simple procedures</li> <li>Involve relatively few and small key sites and key parts</li> <li>Require main general aseptic field and non-sterile gloves</li> <li>Use of critical micro aseptic fields and non-touch technique is essential to protect key parts and key sites</li> </ul> <p>The safest way of protecting a key part is to use a non-touch technique which is a core element of aseptic technique</p>	IV therapy, simple wound dressings, and if staff member is experienced in urinary catheterisation and IV cannulation.
<b>Sequencing</b>	Aseptic technique must be performed in a particular sequence to ensure contamination of key parts or key site(s) does not occur. Any	

Term	Definition	Examples
	variation has the potential to cause a breach with the aseptic technique and place the patient at risk of a Healthcare Acquired Infection (HAI)	
<b>Sterile</b>	Free from micro-organisms	
<b>Surgical Aseptic technique</b>	<ul style="list-style-type: none"> <li>Technically complex procedures</li> <li>Involve extended period of time</li> <li>Large open key sites or large or numerous key parts</li> <li>Require main critical aseptic field and sterile gloves and full barrier precautions</li> </ul> <p>The safest way of protecting a key part is to use a non-touch technique which is a core element of surgical aseptic technique</p>	<p>Examples include:</p> <ul style="list-style-type: none"> <li>urinary catheterisation by a non-experienced staff member,</li> <li>IV cannulation by a non-experienced staff member</li> <li>complex/large dressings, PICC/CVC insertion &amp; surgery.</li> </ul>

**6. DOCUMENTATION**

**Principles for Aseptic Technique**

Aseptic technique aims to prevent pathogenic organisms, in sufficient quantity to cause infection, from being introduced to susceptible sites by hands, surfaces and equipment. It protects patients during invasive clinical procedures by utilising infection prevention measures that minimise the presence of micro-organisms.

Aseptic technique is a framework for aseptic practice. In aseptic technique, asepsis is ensured by identifying and then protecting key parts and key site(s) from contamination.

**6.1 Principle 1: Sequencing**

Aseptic technique must be performed in a particular sequence to ensure contamination of key parts or key site(s) does not occur. Any variation has the potential to cause a breach with the aseptic technique and place the patient at risk of a HAI.

The sequence includes:

- Performing a risk assessment
- Pre-procedure preparation
- Performing the procedure
- Post procedure practices and documentation

**6.2 Principle 2: Environmental Control**

Aseptic technique procedures should be performed in an area where environmental contamination will not occur with equipment, key sites and sterile consumables.

Reducing risk in the environment should include, but not limited to:

- Not using patient’s bedside table or bed as a procedure trolley as this will contaminate equipment and products

- Cleaning dressing and procedure trolleys before use to prevent contamination of equipment
- Cease immediate environmental cleaning occurring at the time of procedure eg, vacuuming, buffing floors
- Reduce patient and staff movements in the immediate vicinity occurring at the time of procedure, as well as bed making

**6.3 Principle 3: Hand Hygiene**

See [NSW Health PD2017 013 Infection Prevention and Control Policy](#) and [Clinical Excellence Commission Infection Prevention and Control Practice Handbook](#)

Activity	Skin cleansing agent	Action	Duration
<b>Aseptic procedures</b> eg, wound dressing, insertion of IDC, insertion of a PIVC	Alcohol-based hand rub	Dispense solution into cupped dry hands. Rub vigorously over all areas of the fingers, hands and wrists until the solution has evaporated and hands are dry	30 – 60 secs
	Antiseptic handwash and running water	Wet hands using warm water, apply recommended dose of liquid directly onto hands and work up lather on all areas of the fingers, hands and wrists. Rinse and dry hands with single use towel.	30 – 60 secs
<b>Surgical (aseptic) procedures</b> <b>Surgical hand scrub</b>	Antiseptic handwash and running water	Wet hands using warm water, apply recommended dose of liquid directly onto hands and work up lather on all areas of the fingers, hands, wrists and forearms for 2 minutes then rinse and repeat for a further 2 minutes. Rinse then dry hands with a sterile towel	4 minutes for first operative procedure for the day.  3 minutes for subsequent operative procedures.
	Alcohol-based hand rub	Dispense two pumps of solution into cupped palm of one hand then rub over the opposite forearm from the wrist to the elbow for 1 minute. Repeat step for other forearm for 1 minute. Then dispense two pumps solution into cupped hand and rub over all sides of both hands and fingers for 1 minute until hands are dry.	3 minutes

**6.4 Principle 4: Maintenance of Aseptic Technique**

Aseptic fields are important in providing a controlled aseptic working space to protect key parts and key sites from the immediate procedure environment. Aseptic fields are increased in size and sterile drapes added on the basis of procedure complexity. There are 2 types of aseptic technique:

**Standard Aseptic Technique**

- Relatively simple procedures
- Short duration
- Involves one or two key sites e.g., wound or IV cannula site
- Few key parts e.g., basic dressing pack items
- Uses general and/or micro critical aseptic fields to maintain aseptic technique
- Generally uses non-sterile gloves with a non-touch technique

**Surgical Aseptic Technique**

- Technically difficult
- Long duration
- Large open wound
- Equipment with a large number of key parts
- Critical aseptic field and sterile gloves are required

**Aseptic Field Management as demonstrated in the HETI Online Module**

**General Aseptic Field**

**General aseptic field: promoting asepsis during standard aseptic technique**

**Using general aseptic field**  
Used when key parts can be protected by micro critical aseptic fields or a non touch technique.

**Managing general aseptic fields**  
All key parts are fully protected by micro critical fields or a non touch technique and the main general field does not have to be managed as a key part.

*Examples – IV preparation/administration, venepuncture and simple wound dressing.*



**Critical Aseptic Field**

**Critical aseptic field; ensuring asepsis during a surgical aseptic technique**

**Using critical aseptic fields**  
Used when key parts cannot be protected by covers and caps. Sterile gown and gloves must be worn to maintain a critical aseptic field. Handling tips of instruments should be avoided. See the red circles.

**Managing critical aseptic fields**  
The critical aseptic field itself is managed as a key part. See the green oval.

*Examples – surgical procedures, large complex wound dressings, CVL insertion.*

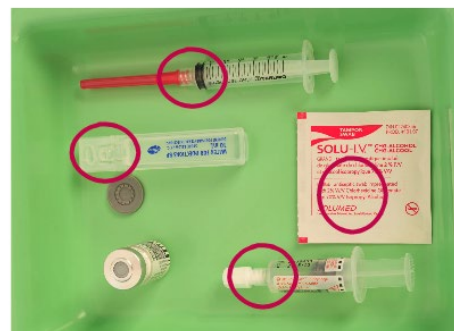


**Micro Critical Aseptic Field**

**Micro critical aseptic fields: this is the protection of key parts and sites by syringe caps, needle sheaths, covers/packaging.**

**Using micro critical aseptic field**

Micro critical aseptic fields are used as part of both standard and surgical aseptic techniques. Equipment, with key parts protected with a cover or cap, can be placed on a cleaned surface.





**6.5 Principle 5: Personal Protective Equipment**

**6.5.1 When to wear Clean or Sterile Gloves**

- Non sterile gloves may be used where it is possible to undertake the procedure without touching any key parts or key sites, using a non-touch technique e.g. IV drug administration, using forceps for basic dressings
- Sterile gloves must be worn for when a non-touch technique cannot be used to maintain the aseptic technique i.e. key parts or key sites require touching/handling

**6.5.2 Standard and Transmission Based Precautions contained in [Clinical Excellence Commission Infection Prevention and Control Practice Handbook](#)**

**6.5.3 Perioperative attire – See Australian College of Operating Room Nurses (ACORN) Standards (latest edition)**

**7. ANTISEPTICS AND WOUND CLEANSERS**

- Good skin preparation assists in the reduction of infection by reducing the risk that the patient’s own skin flora will not enter the wound
- Predominantly sterile water or normal saline is to be used for cleaning of wounds prior to dressings
- For insertion of invasive devices, refer to either specific procedural policies for type of skin preparation required i.e. [NSW Health PD2019\\_040 Intravascular Access \(IVAD\) – Infection Prevention and Control](#)

**8. OPERATING THEATRE**

The Perioperative Suite members of the multidisciplinary team participating in surgical procedures are to comply with current version of the Australian College of Operating Room Nurses (ACORN) Standards in:

- S2 – Aseptic Technique
- S7 – Infection Prevention
- S11 – Perioperative attire
- S18 - Skin Preparation of the patient
- S21 - Surgical scrubbing, gowning and gloving
- S26 - Specimen Identification, Collection and Handling

**9. WASTE MANAGEMENT**

Waste management is simpler if segregation occurs during the procedure. Consider using two bags for waste segregation e.g. plastic packaging (from dressing packs) can be recycled for clinical waste and a bag to be used for general waste.

Refer to [NSW Health PD2020\\_049 Clinical and Related Waste Management for Health Services](#)

**10. STAFF TRAINING**

- Participation in clinical training involving aseptic technique procedures
- Participation in in-service programs involving procedures that require aseptic technique
- Participation in Orientation Programs

- Participation in Competency Based training programs e.g. medical staff for the insertion of a central venous catheter, venepuncture, IV cannulation
- Completion of NSW Health Education and Training Institute (HETI) online learning module: Aseptic Technique
- Completion of National Hand Hygiene online learning package: HETI Online (Course Code: 42063430)

**11. CLINICAL HANDOVER**

Handover includes:

- what is written in the patient’s healthcare record and verbally at shift to shift handover and other charts that relate to procedures and practices involving aseptic technique
- possible or known breaches of aseptic technique
- adverse events such as healthcare acquired infection, multiple attempts for IV cannulation
- changes to procedures requiring aseptic technique
- allergies to products or antiseptics used for aseptic procedures
- patients condition or behaviour that will impede aseptic procedures

Refer to SESLHD Procedure [‘Clinical Handover: Implementation of ISBAR Framework and Key Standard Principles’ SESLHDPR/303](#)

**12. COMPETENCY**

Use local guidelines/ Existing Competency/Clinical Assessments/Learning Packages that include Aseptic Technique within the healthcare facility

- Central line insertion
- Peripheral intravenous cannulation
- Accessing intravascular devices
- Blood culture collection
- Insertion of an indwelling urinary catheter
- Speciality dressings e.g. eye
- Venepuncture

Clinical supervision also ensures the patient receives skilled and effective care from clinicians who are performing aseptic technique procedures. See relevant policies and professional standards of practice related to supervision.

**13. DOCUMENTATION**

Documentation of all procedures that involve aseptic technique in:

- Patient’s healthcare record, e.g. Progress Notes, Wound Care Chart, Patient Care Plan and/or
- Electronic Medical Record, e.g. PowerChart, SurgiNet, FirstNet, Anaesthetic Record

**14. Audit Requirements**

- Based on local facility requirements in response to incident/s, and to comply with National Standards. Audit tools available on QARS, hospital wide and unit specific.

**15. REFERENCES**
**15.1 Internal References**

- [NSW Health Policy Directive PD2017\\_013 Infection Prevention and Control Policy](#)
- [NSW Health Policy Directive PD2020\\_022 Cleaning of the Healthcare Environment](#)
- [NSW Health Policy Directive PD2012\\_069 - Health Care Records - Documentation and Management](#)
- [NSW Health Policy Directive PD2020\\_049 Clinical and Related Waste Management for Health Services](#)
- [NSW Health Policy Directive PD2019\\_040 Intravascular Access \(IVAD\) – Infection Prevention and Control](#)
- [Clinical Excellence Commission Infection Prevention and Control Practice Handbook](#)
- [‘Clinical Handover: Implementation of ISBAR Framework and Key Standard Principles’ SESLHDPR/303](#)

**15.2 External References**

- [Australian Guidelines for the Prevention and Control of Infection in Healthcare \(2010\).](#)
- The Australian College of Operating Room Nurse’s (ACORN) Standards
- [© 2013 Aseptic Non-Touch Technique \(ANTT\) ® Adapted from ANTT.org The international standard for safe aseptic technique](#) Program purchased by SESLHD Clinical Governance Unit for usage across the SESLHD hospitals
- Australian Commission Quality and Safety in Healthcare: National Standard: Standard 3 Preventing and Controlling Healthcare Associated Infection

**16. REVISION & APPROVAL HISTORY**

Date	Revision No.	Author and Approval
Jan 2014	0	Developed by Joe-Anne Bendall, CNC Infection Control
Feb – Mar 2014	1	Re-formatted by District Policy Officer
Apr 2014	1	Finalised by Author. Approved by Executive Clinical Sponsor, Prof. George Rubin. Submitted to CQC for approval for meeting to be held in May 2014
Jun 2014	1	Approved by CQC
July 2015	2	Review of references Addition of HETI Online Module course codes Change to author and responsibility Endorsed by Executive Sponsor
August 2018	3	Minor review and update of references Endorsed by Executive Sponsor
May 2021	4	Minor review: Referencing updates
June 2021	4	Endorsed by SESLHD Infection Prevention and Control Committee and Executive Sponsor