

ASEPTIC TECHNIQUE POLICY®

DOCUMENT SUMMARY/KEY POINTS

- **Aseptic technique** protects patients during invasive clinical procedures by employing infection control measures that minimise, as far as practicably possible, the presence of microorganisms. In aseptic technique, asepsis is ensured by identifying and then protecting key parts and key sites from contamination.
- Aseptic technique must be performed in a particular sequence to ensure contamination of key parts or key site(s) does not occur. Any variation may cause a breach with the aseptic technique and place the patient at risk of a healthcare associated infection (HAI).
- Aseptic technique procedures should be performed in an area where environmental contamination will not occur with equipment, key sites and sterile consumables.
- The purpose of hand hygiene is to minimise the number of pathogenic organisms which may be carried on the hands, equipment and environmental surfaces; to help to protect patients from infectious pathogens (including their own) during procedures; and to protect staff from acquiring patients' infectious agents and reduce contamination of the healthcare environment.
- Waste must be segregated into general and clinical waste. Waste management is simpler if segregation of the waste produced occurs during the procedure.
- All clinical staff are required to complete the theoretical component of aseptic technique via HETI online.
- A practical assessment is also required to fulfil clinical competency.
- Documentation of all procedures that involve aseptic technique must be recorded in the patients' healthcare record.

This document reflects what is currently regarded as safe practice. However, as in any clinical situation, there may be factors which cannot be covered by a single set of guidelines. This document does not replace the need for the application of clinical judgement to each individual presentation.

Approved by:	SCHN Policy, Procedure and Guideline Committee	
Date Effective:	1 st February 2017	Review Period: 3 years
Team Leader:	CNC	Area/Dept: IPC

CHANGE SUMMARY

- N/A – New document

READ ACKNOWLEDGEMENT

- Training/Assessment Required – All staff performing clinical procedures need to undergo training and assessment described in this policy.

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Aseptic Technique

Aseptic technique protects patients during invasive clinical procedures by employing infection control measures that minimise, as far as practicably possible, the presence of microorganisms. 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:** is the minimisation of pathogenic organisms into a wound or other susceptible site from the health care professional, procedure, equipment or immediate environment. There are 2 types, standard and surgical aseptic technique
- **Clean Technique:** is the removal of visible contamination or debris e.g. cleaning a grazed area on a patient's knee

The focus of this procedure is Aseptic Technique. The aims of this procedure are to:

- define the terminology and definitions used for aseptic technique
- describes the 5 major principles for aseptic technique.
- describe the steps in performing an aseptic technique procedure

Principles of 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 utilizing infection prevention measures that minimize the presence of micro-organisms.

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 may cause a breach with the aseptic technique and place the patient at risk of a healthcare associated infection (HAI).

The sequence includes:

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

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:

- Ensure dressing and procedure trolleys are cleaned thoroughly before use to prevent contamination of equipment. Patient's bedside table are not to be used as a procedure trolley as this will contaminate equipment and products
- Not placing products and equipment on the patients bed as this will contaminate equipment and products
- Cease any environmental cleaning occurring at the time of procedure
- Reduce patient and staff movements occurring at the time of procedure.
- Removing food and refraining from eating at the time of the procedure
- Removing any toys or belongings from the immediate area

Principle 3: Hand Hygiene

The purpose of hand hygiene is to minimise the number of pathogenic organisms which may be carried on the hands, equipment and environmental surfaces; to help to protect patients from infectious pathogens (including their own) during procedures; and to protect staff from acquiring patients' infectious agents and reduce contamination of the healthcare environment.

Hand Hygiene Procedure (NSW Ministry of Health Hand Hygiene Policy)

Activity	Skin cleansing agent	Action	Duration of handwash/hand-rub
<u>Aseptic procedures</u> For example - Wound dressing, insertion of IDC, post-insertion CVAD management.	Alcohol-based hand rub (ABHR)	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.	20 secs
	Antiseptic handwash and running water	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 secs
<u>High risk aseptic procedures</u> For example: - Central venous catheter insertion, lumbar puncture	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 sterile towel.	2 minutes
<u>Surgical procedure</u>	Surgical hand scrub 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. Remove debris from under fingernails. Rinse and dry hands with sterile towel.	5 minutes prior to first operative procedure for the day, then 3 minutes prior to subsequent operative procedures

Please refer to the [SCHN-Hand Hygiene Policy](#) for information on the 5 moments of hand hygiene, handwashing technique and the use of alcohol based hand rubs.

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

- Technically simple procedures
- Short duration
- Involves one or two key sites e.g. wound/s 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 procedures
- Long duration
- Large open wound/s
- Equipment with a large number of key parts
- Critical aseptic field and sterile gloves are required

An educational step by step guide can be located through these links:

http://sch.sesahs.nsw.gov.au/education/at/resources/at_for_central_and_peripheral_intravenous_therapy_step_by_step_guide.pdf

http://sch.sesahs.nsw.gov.au/education/at/resources/at_for_peripheral_cannulation_step_by_step_guide.pdf

NSW Health Education and Training Institute (HETI) online learning module: Aseptic Technique <http://nswhealth.moodle.com.au/>

HETI Code: 40027445

Principle 5: Personal Protective Equipment

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 dressing procedures
- Sterile gloves must be worn when a non-touch technique cannot be used to maintain the aseptic technique ie key parts or key sites require touching/handling. Eg. Performing a lumbar puncture

Standard Precautions - [PPE for infection control precautions-SCHN](#)

Antiseptics and Wound Cleansers

Effective skin preparation assists in the reduction of infection by reducing the risk that the patient's own skin pathogens will not enter the wound.

Effective site and equipment preparation reduces the risk of infection from transmission of microorganisms from the Health Care Worker and the environment.

Correct procedural preparation can be found within each relevant policy.

Operating Theatre

At CHW the Perioperative Suite members of the multidisciplinary team participating in surgical procedures must comply with current version of the Australian College of Operating Room Nurses (ACORN) Standards(S) 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

The ACORN Standards are available at: <http://www.acorn.org.au/standards>

Waste Management

General & Clinical Waste

Waste must be segregated into general and clinical waste. Waste management is simpler if segregation of the waste produced occurs during the procedure. Consider using additional bags for waste segregation e.g. plastic packaging (from dressing packs) can be recycled, blood soiled items disposed of in clinical waste bag and a separate bag to be used for general waste.

Safe handling, use and disposal of sharps

The potential for transmission of blood borne viruses is greatest when medical devices, such as needles, scalpels, and other sharp instruments are used.

Sharps containers must be placed as close as practical to the immediate area where sharps are used (known as the "point of use") to limit the distance between the area of use and disposal.

Please refer to the [Waste management policy](#) for further details

Clinical Handover

Clinical 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

Please refer to the [SCHN Clinical handover-Standard key principles](#)

Competency

All clinical staff are required to complete the theoretical component of aseptic technique via HETI online. Practical components of aseptic technique are incorporated within existing clinical assessments such as:

- Central venous access device insertion
- Peripheral intravenous cannulation
- Accessing CVAD's
- Blood culture collection
- Insertion of urethral catheter
- Administration of intravenous medication

If staff would like to undertake an assessment for aseptic technique for any other procedures, then the general assessment tool below can provide evidence of competency.

http://sch.sesahs.nsw.gov.au/education/at/resources/at_clinical_competency_aseptic_technique_SCHN.pdf

All new clinical skills require time and education to achieve the expected practice standards. All staff will have periods of clinical supervision whilst attaining proficiency

Documentation

Documentation of all procedures that involve aseptic technique must be recorded in the patients' healthcare record.

Definitions

Asepsis: Free from pathogenic organisms

Aseptic technique: refers to the identification of 'key parts' and 'key sites' and not touching them either directly or indirectly. This is the single most important step to achieve asepsis

Critical aseptic fields

Critical micro aseptic fields: this is the protection of key parts and sites by sterile packaging or covers such as syringe caps, sheathed needles.

Key parts: refer to the parts that if contaminated with microorganisms increase the risk of infection

Key sites: refer to the parts of the body that if contaminated with microorganisms increase the risk of infection

Sequencing: A procedure must be performed in a particular order to ensure that contamination of key parts and key sites does not occur

Sterile: Free from microorganism