


Aseptic Technique



1. Purpose


This procedure outlines the requirement for health care workers (HCW) to safely perform clinical procedures by using an Aseptic Technique (AT) framework to minimise the risk of health care associated infections (HCAI) at the Women's Parkville and Sandringham.

2. Definitions

Aseptic	Free from pathogenic (disease causing) microorganisms
Aseptic field	Controlled workspace that promotes asepsis during a clinical procedure. The size of the field required will depend upon the procedure being performed
Aseptic technique (AT)	<p>A standardised technique to prevent pathogenic microorganisms from being introduced to susceptible sites by contaminated hands, surfaces or equipment. The framework for AT can be divided into standard aseptic technique and surgical aseptic technique- See 4.2 for more details</p> <p>Standard</p> <p style="padding-left: 40px;">shorter duration and technically simple eg. IV cannulation, simple wound dressing</p> <p>Surgical</p> <p style="padding-left: 40px;">longer duration and technically complex eg. Insertion of CVC, urinary catheterisation, perineal suturing</p>
Clean	Free from foreign material or visible soiling. Clean is not a satisfactory standard for invasive procedures
Environmental control	Environmental risk factors such as bed making, curtains or cleaning activities can compromise an aseptic field and must be avoided
Hand hygiene	The cleaning of hands by washing or applying alcohol based hand rub (ABHR). Refer to Hand Hygiene procedure
Invasive procedure	A clinical procedure that involves piercing the skin or insertion of an instrument or device into a body cavity
Key Parts	<p>The sterile equipment or solutions that must remain aseptic (protected) throughout the clinical procedure Key parts must only have contact with other key parts or key sites during an aseptic procedure</p> 

Aseptic Technique



	Key parts are the sterile component of equipment used during the procedure, e.g syringe tips, dressing trays
Key Sites	<p>The area on the patient such as insertion or access site that must be protected from microorganisms.</p>  <p>Key sites include urinary devices, open wounds as well as IV devices</p>
Non-touch technique	The technique of not touching key parts or sites during a procedure to ensure the sites remain aseptic
Sequencing	The logical order of the procedure that ensures the protection of the key parts and sites by minimising the risk of moving from contaminated to clean areas.
Scrub the hub	<p>The practice of rendering the port/bung of an invasive device aseptic before accessing it</p> <p>Refer to Scrub the hub</p>

3. Responsibilities

All clinical staff who perform invasive procedures at the Women's Parkville and Sandringham.

4. Guideline/Procedure

4.1 Aseptic Technique Core Principles

Environmental factors- consider how to manage the environment to minimise contamination of the key parts and sites prior to commencing the procedure, e.g. close doors, windows, curtains etc.

Sequencing – the process of gathering all equipment required prior to commencing procedure and performing the procedure in a systematic order to ensure key parts and sites are protected.

Packaging - ensure packaging is intact, undamaged and within expiry date. Once opened, items must be managed to protect the key parts.

Identification and protection of key parts and key sites– identify the sites that must remain aseptic. Aseptic key parts must only to come in to contact with other aseptic key parts and/or key sites. If a key part or key site is to be touched directly then sterile gloves must be worn. Non-touch technique is used to protect the key parts and key sites at all other times.

Aseptic Technique



Key parts and sites are protected by:

- Hand Hygiene
- Glove use
- Aseptic Fields

4.2 Risk assessment: Surgical or Standard Aseptic Technique

The type of aseptic technique required for a procedure is determined through a risk assessment which takes into account the complexity (ie. technical difficulty), clinician's competence, environmental factors and duration of the procedure.

Factors to consider	Surgical Aseptic Non Touch Technique	Standard Aseptic Non Touch Technique
Environmental control	Less controlled	Controlled
Level of expertise	Novice and Competent	Competent
Duration	Complex, longer procedure	Simple, shorter procedure
Key parts and sites	Large open key sites and/or numerous key parts	Few key parts and sites
Aseptic field	Large	Small
Gloves	Sterile gloves	Non sterile gloves / sterile gloves
Personal Protective Equipment (PPE)	Full barrier precautions	Standard precautions
	Small aseptic fields and non-touch techniques may still be utilised as appropriate.	

5. Evaluation, monitoring and reporting of compliance to this guideline or procedure

Compliance to this guideline or procedure will be monitored, evaluated and reported through:

- Audits to determine compliance with hospital policy/procedure and national and international standards.
- Quarterly targeted surveillance activities of health care associated infections.
- Staff education program.
- Hand Hygiene and Infection Prevention annual mandatory competencies

Reporting:

- Executive Sponsor
- Infection Control Committee
- Quality and Safety Committee

Aseptic Technique



- VICNISS (Victorian Healthcare Associated Infection Surveillance System)

6. References

Aseptic Non Touch technique (ANTT) http://www.antt.org/ANTT_Site/home.html
Last accessed 22.2.17

National Health and Medical Research Council (NHMRC). Australian guidelines for the Prevention and Control of Infection in Healthcare. Commonwealth of Australia. Canberra 2010.

<https://www.nhmrc.gov.au/guidelines-publications/cd33>

Last accessed 22.2.17

Australian College for Infection Prevention and Control (ACIPC) (2015) Aseptic Technique Policy and Practice Guidelines

<https://www.acipc.org.au/Professional-Development/ACIPC-Resources/Aseptic-Technique-Resources>

Last accessed 22.2.17

7. Legislation/Regulations related to this guideline or procedure

Australian Guidelines for the Prevention and Control of Infection in Healthcare. Australian Commission on Safety and Quality in Health care (2010)

<https://www.nhmrc.gov.au/guidelines-publications/cd33>

8. Appendices

Appendix 1: Use of surgical and standard (*higher and lower risk*) AT for procedures; table of examples

Appendix 2a: Standard AT competency checklist

Appendix 2b: Surgical AT competency checklist

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Appendix 1

Use of surgical and standard (*higher and lower risk*) AT for procedures - table of examples



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Surgical Aseptic Technique – <i>Large aseptic fields</i>		Standard Aseptic Technique - <i>Small aseptic fields</i>	
		Higher risk	Lower risk
Key components	<ul style="list-style-type: none"> Sterile gloves Gown Mask Drapes 	<ul style="list-style-type: none"> Sterile gloves Non touch technique 	<ul style="list-style-type: none"> Non-sterile gloves (if potential for contact with bodily fluids) No touch technique
Procedures	<ul style="list-style-type: none"> • Central line insertion • Chest drain insertion • Complex or large wound dressings • Lumbar puncture • Repair of Perineum • Instrumental vaginal birth • Epidural/Spinal Insertion • Epidural Blood Patch • Pudendal Nerve Block • Urinary catheterisation¹ 	<ul style="list-style-type: none"> • Application of Foetal Scalp Electrode (FSE) • Artificial Rupture of Membranes • Blood culture collection • Central line change • Exchange transfusion • Peripheral² / arterial cannulation • Removal of central line • Surfactant administration • Insertion of Vacuum Assisted Closure (VAC)TM dressing • Vaginal Examination (VE) during labour 	<ul style="list-style-type: none"> • Blood collection • Peripheral/arterial lines change • Naso/orogastric tube insertion • IV therapy (e.g. fluid bag changes) • Removal of peripheral/arterial catheter • Simple wound dressings • Urinary catheter removal • Epidural catheter removal • Standard Vaginal Examination (VE) not in labour

¹ At a minimum, sterile gloves and drapes should be used for urinary catheterisation.

² The level of aseptic technique required depends on the level of expertise of the clinical

Standard AT competency checklist



STANDARD ASEPTIC TECHNIQUE (AT) AUDIT TOOL

Instructions:

Observe up to two procedures requiring Standard AT. If the key step is attended mark box with , if the key step is not attended mark box with . After the procedure has been observed total the score of correct steps. Submit the completed audit tool to Infection Prevention and Control.

Audit completed by: _____

Date observed:				
Procedure observed:				
Clinician observed (e.g. Nurse/Midwife/Doctor)				
	✓X	Comments	✓X	Comments
Cleans trolley/ tray/work surface.				
Allows to dry before use.				
Gathers equipment. Inspects packaging for damage, check sterility indicators & expiry dates.				
Performs hand hygiene (<i>moment 2</i>).				
Prepares aseptic field by opening packaging and preparing equipment using a non-touch technique. Protects key parts at all times.				
Performs hand hygiene (<i>moment 1</i>).				
Positions and prepares patient, using gloves where appropriate to protect from potential body fluid exposure or harmful substances.				
Removes gloves, if used. Performs hand hygiene (<i>moment 4&2</i>).				
Applies non sterile gloves to protect from potential body fluid exposure if required. Uses sterile gloves if appropriate.				
Applies skin preparation/ surface disinfection for appropriate time				
Allows solution to dry for a minimum 30 seconds				
Performs the procedure using non touch technique. Key parts and key sites are protected at all times. Sterile items are only used once then disposed of.				
Discards all sharp devices into sharps containers.				
Discards waste, gloves and cleans equipment.				
Performs hand hygiene (<i>moment 3</i>).				
Environmental factors appropriately managed. **				
TOTAL CORRECT STEPS:				

Standard AT competency checklist



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Was appropriate AT used for this procedure? *				
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Surgical Aseptic technique competency checklist



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SURGICAL ASEPTIC TECHNIQUE (AT) AUDIT TOOL

Instructions:

Observe up to two procedures requiring Surgical AT. If the key step is attended mark box with , if the key step is not attended mark box with . After the procedure has been observed total the score of correct steps.

Submit the completed audit tool to Infection Prevention and Control.

Audit completed by: _____

Date observed:				
Procedure observed:				
Clinician observed (e.g. Nurse/Midwife/Doctor)				
	✓X	Comments	✓X	Comments
Cleans trolley/ tray/work surface.				
Allows to dry before use.				
Gathers equipment. Inspects packaging for damage, check sterility indicators & expiry dates.				
Applies PPE as required (eg.hat,mask,eyeshield)				
Performs hand hygiene (<i>moment 2</i>).				
Prepares aseptic field by opening packaging and preparing equipment using a non-touch technique. Protects key parts at all times.				
Performs hand hygiene (<i>moment 1</i>).				
Positions and prepares patient, using gloves where appropriate to protect from potential body fluid exposure or harmful substances.				
Removes gloves, if used. Performs hand hygiene (<i>moment 4&2</i>).				
Applies sterile gown and gloves				
If required add sterile drapes				
Applies skin preparation for appropriate time				
Allows solution to dry for a minimum 30 seconds				
Performs the procedure using non touch technique. Key parts and key sites are protected at all times. Sterile items are only used once then disposed of.				
Discards all sharp devices into sharps containers.				
Discards waste, gloves and cleans equipment.				
Performs hand hygiene (<i>moment 3</i>).				
Environmental factors appropriately managed. **				
TOTAL CORRECT STEPS:				

Surgical Aseptic technique competency checklist



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Was appropriate AT used for this procedure? *				
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Surgical Aseptic technique competency checklist



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*Standard AT is sufficient if:

The procedure is technically simple	Shorter in duration	Clinician is experienced/competent at performing procedure	Involves few and small key sites and key parts	Key parts or sites will not be touched
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*Surgical AT is sufficient if:

The procedure is technically complex	Longer in duration (more than 20 minutes)	Clinician is experienced / competency may require touching of key sites or parts	Involves multiple key parts or large open key sites	Key parts or sites will not be touched
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**Manages environmental factors

Ensure that there are no avoidable nearby environmental risk factors. This might include (but is not limited to):

- Waste management eg. emptying of bins
- Cleaning of the nearby environment
- Bed making
- Patient using commode
- Patient bed curtains across work area.
- Staff/visitors walking near aseptic field

Consider Infection Prevention Components

Hand Hygiene – Clinical wash or ABHR	Gloves – Non sterile or sterile	Personal Protective Equipment- Gown or apron Goggles Mask	Aseptic Field Size- Small or large	Skin prep/ surface disinfection – Solution type, application time & drying time
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Definitions

Surgical Aseptic technique competency checklist**Definitions**

Key Part	The procedure equipment or solutions that must remain aseptic throughout the clinical procedures by ensuring that key parts only have contact with other aseptic key parts and sites in order to protect the patient from contamination or infection.
Key Site	The area on the patient such as a wound or IV site that must be protected from microorganisms.