Infection Control Clinical Protocol Outlining the Principles of Asepsis and Aseptic Technique

IC/372/09

Executive Summary

Aseptic technique is often performed as a nursing ritual and has been based more on tradition than on rational reason or evidence based research. This clinical protocol outlines the principles of asepsis and aseptic technique based on recent evidence and best practice standards. It reflects both local and national guidelines on infection prevention and control and clarifies the roles of every staff in this aspect of clinical practice. This clinical protocol applies to all BNHFT staff who carry out aseptic procedure as part of their clinical responsibilities.
Implementation Plan

Summary of changes

There is currently no Trust clinical protocol on Aseptic Technique. This is a new clinical protocol that outlines the principle of asepsis and aseptic technique.

Action needed and owner of action

- All clinical staff (medical and non-medical) working within BNHFT should ensure that their practice is in line with this clinical protocol at all times.
- The Infection Control Team together with the matrons and ward/department managers are responsible for monitoring compliance and auditing practice in the clinical areas.
- The Infection Control Team will ensure that this clinical protocol is reviewed and updated regularly.
- The Infection Control Team and Learning, Development and Leadership Department will ensure that training provisions are available for staff to access on all aspects of aseptic technique.
Table of Contents

1. Introduction 4
2. Purpose 5
3. Definition of Terms 5 - 6
4. Roles and Responsibilities 6 - 7
5. Infection Control Principles 8 - 10
6. Principles of Asepsis 10 - 14
7. Types and Indications of Aseptic Procedure 15 - 16
8. WHITE Tray Procedure 16 - 17
9. Training and Awareness 17
10. Monitoring 18
11. Policy Review 18
References 19 - 21
Acknowledgment 22
Contributors 22
Appendix A: WHITE Tray Procedure (Wound Care) 23 - 26
Appendix B: WHITE Tray Procedure (VAD Dressing) 27 - 30
Appendix C: Commonly Performed Aseptic Procedure 31 - 32
Appendix D: Recommended Disinfectant Swab 33
1. Introduction

- Modern healthcare has brought unprecedented benefits but also risks and no risk is more fundamental than the risk of infection (DH, 2003). Hospital acquired infections (HAIs) or Healthcare Associated Infections (HCAIs) can have serious consequences for patients and may be costing the NHS as much as £1 billion a year (NAO, 2000).

- The Chief Medical Officer's December 2003 report, “Winning Ways: Working together to reduce healthcare associated infection in England” acknowledges that infection in hospitals cannot be completely eliminated but they can be substantially reduced. It is therefore important that all reasonable steps are taken to reduce the extent of avoidable hospital acquired infection within individual NHS Trust.

- Research shows that one of the most effective ways of containing hospital acquired infections is through the application of a standardised aseptic technique for clinical procedures.

- The Health Act (2006) laid out a number of Clinical Care Protocols in relation to preventing and controlling the risks of HCAIs and states the following:
  a. Clinical procedures should be carried out in a manner that maintains and promotes the principles of asepsis.
  b. Education, training and assessment in the aseptic technique should be provided to all persons undertaking such procedures.
  c. The technique should be standardised across the organisation.
  d. Audit should be undertaken to monitor compliance with aseptic technique.

- This clinical protocol embraces the recommendations from National and Local guidelines on infections control and reflects BNHFT commitment in reducing Hospital Acquired Infections.

- This clinical protocol must be read in conjunction with the following Infection Control Policies:
  a. Hand Hygiene Policy (IC/230/07)
  b. Standard Precautions Policy (IC/277/07)
  c. Cleaning, Disinfection and Sterilisation Policy (IC/32/07)
  d. Prevention and Management of Sharps and Contamination Injuries (IC/194/07)
2. Purpose

- This clinical protocol outlines the principles of asepsis and aseptic technique and provides all healthcare workers at BNHFT with evidence-based aseptic technique guidelines for the prevention of cross infection when performing clinical procedures.

- This clinical protocol applies to all BNHFT staff in all areas including temporary employees, locums, agency staff, contractors and visiting clinicians.

3. Definition of Terms

- **Asepsis** - Refers to the ‘absence of pathogenic organisms or their toxins from the blood or tissues’ (Wilson, 1995). The principle of asepsis includes the ‘prevention of microbial contamination of living tissue/liquid or sterile material by excluding, removing or killing micro-organisms’ (Vernon Carus, 1991; Xavier, 1999).

- **Aseptic Technique** - Refers to the clinical procedures that have been developed to prevent contamination of wounds or other susceptible body sites (e.g. urinary tract, blood vessels, etc.) by ensuring that only sterile equipment or fluids will come in contact with these sites and that the risks of airborne contamination are minimised.

- **Aseptic Non Touch Technique (ANTT)** - A standard for safe and best practice that can be applied to all aseptic procedures such as intravenous (IV) therapy, wound care, urinary catheterisation, etc. ANTT means that when handling sterile equipment, only the part of the equipment not in contact with the susceptible site is handled/ manipulated.

- **Cleaning** - The physical removal of micro-organisms and organic material on which they thrive.

- **Disinfection** - The removal or killing of potential pathogenic micro-organisms but not usually spores.
• **Equipment** - Any item of equipment that has direct contact with the patient, be it diagnostic, therapeutic, or for direct patient care (e.g. bedpans, bed, commode, mattresses).

• **Invasive Procedure** - Any clinical procedures that by-passes the body’s natural defence (e.g. skin or mucous membrane) which includes (but not limited to) insertion of intravascular devices, suturing and insertion of urinary catheters.

• **Micro-organisms** - Are living organisms that are too small to be seen without aid of a microscope.

• **Single Patient Use** - Should be used for single patient only.

• **Single Use Only** - Should be used once and discarded.

• **Sterilisation** - The complete removal or destruction of all forms of microbial life including spores.

### 4. Roles and Responsibilities

#### 4.1 Director of Infection Prevention and Control
- Responsible for identifying and overseeing the effective implementation of this clinical protocol in all clinical areas across the Trust.

#### 4.2 Infection Control Team
- Responsible for monitoring and supporting all staff in implementing this clinical protocol.
- Together with the Learning, Development and Leadership Department are responsible for developing and providing training courses (formal and informal) on aseptic technique.
- Responsible for updating and reviewing this clinical protocol every three years or earlier if necessary.
- The team, together with each ward/department managers and Infection Control Champions, will also be responsible for auditing staff’s compliance with this policy.
4.3 Ward/Area/Department Managers

- Responsible for ensuring all his/her staff are aware, and have access (hard copy or electronically) to this clinical protocol.
- Responsible for ensuring that all his/her staff have read and understood this clinical protocol and work within the principles set in this document.
- Responsible for identifying training needs of their staff for the effective implementation of this clinical protocol and address these where necessary.
- Responsible for ensuring that regular audits are carried out to measure compliance with this clinical protocol and follow-up agreed action plan as identified in the audit.
- Ensure that any incidents involving the practice of aseptic technique are reported, reviewed, action planned and monitored as per Trust Incident Reporting Policy and are escalated to the Matron and/or Division General Manager appropriately.

4.4 Each individual staff (medical and non-medical)

- Responsible for ensuring that he/she has read and understood this clinical protocol.
- Responsible for ensuring that his/her own practice is in line with this clinical protocol.
- Responsible for informing his/her line manager of his/her training needs as well and his/her limitations and take necessary action to address these where necessary.
- Responsible for ensuring that information regarding failure to comply with this clinical protocol is reported to his/her line manager and that incident reporting system is used where appropriate.

4.5 Matrons and Lead Clinicians

- Responsible for ensuring that any serious incidents are reviewed, action planned, and monitored as per Trust’s Incident Reporting Policy.

4.6 Trust Policy Co-ordinator

- Ensure that an electronic copy of this policy is maintained and available for staff to access either through the Trust intranet or e-mail system.
- Initiate the review of this policy by informing the Infection Control Team six months prior to the review date.
5. Infection Control Principles

5.1 Hand Hygiene

- Hand hygiene is widely acknowledged to be the single most important activity for reducing the spread of infection.
- Hands should be decontaminated before direct contact with patient and after any activity or contact that contaminates the hands, including following the removal of gloves.
- Hands must be properly decontaminated in accordance with the Trust Hand Hygiene Policy (IC/230/07).
- Hands that are visibly dirty or potentially grossly contaminated must be washed with soap and water and dried thoroughly.
- While alcohol hand gels and rubs are a practical alternative to soap and water, alcohol is not a cleaning agent and proper hand washing must be carried out for visibly soiled hands.
- To increase the effectiveness of hand decontamination, the following should be observed:
  a. bare below elbow;
  b. keep nails short, clean and polish free;
  c. remove wrist watches and jewellery, especially rings with ridges or stones (one plain wedding band is allowed);
  d. do not wear artificial nails;
  e. cover any cuts and abrasions with waterproof dressing;

5.2 Personal Protective Equipment (PPE)

- PPE is used for the following reasons (Royal Marsden Hospital Manual of Clinical Nursing Procedures):
  a. To prevent the user’s clothing becoming contaminated with pathogenic micro-organisms which may subsequently be transferred to other patients in their care;
  b. To prevent the user’s clothing becoming soiled, wet or stained during the course of their duties;
  c. To prevent transfer of potentially pathogenic micro-organisms from user to patient;
  d. To prevent the user acquiring infection from the patient.
- It is the responsibility of the practitioner undertaking any aspect of aseptic procedure, including decontamination of equipment, to assess the need for suitable PPE. This should be based upon the assessed risk of exposure to blood and body fluids to prevent the transfer of micro-organisms to or from patients, staff or their uniforms, equipments, etc.
**Disposable Gloves**
- Well fitting gloves must be worn whenever there might be contact with blood and body fluids, mucous membranes or non-intact skins and contaminated instruments (Pratt et al., 2007).
- The choice of glove should be made following a suitable and sufficient risk assessment of the task, the risk to the patient and risk to the health care worker (ICNA, 2002).
- Wearing gloves is not a substitute for hand washing.
- Gloves should be put on immediately before the task is performed, then removed and discarded as soon as the procedure is completed.
- Hands must always be washed following their removal.

**Disposable Plastic Aprons**
- Must be worn whenever there is a risk of contaminating clothing with blood and body fluids and when a patient has a known infection.
- Must be discarded as soon as the intended task is completed and hands are washed in accordance with the Trust Policy.
- Impervious gowns should be used when there is a risk of extensive contamination of blood or body fluids (RCN, 2005).

**Mask, Visors and Eye Protection**
- Should be worn when a procedure is likely to cause blood and body fluids or substances to splash into the eyes, face or mouth.
- This equipment should fit correctly and is handled as little as possible and changed between patients or procedures.
- Masks should be discarded immediately after use.
5.3 Safe Use and Disposal of Sharps

- Sharps include needles, scalpels, stitch cutters, glass ampoules and any sharp instruments.
- Any sharps used for an aseptic procedure must be disposed of at point of use into an approved sharps container and in accordance with the Trust Policy (IC/194/07).
- Whenever possible, the use of safety devices (epic2, 2007; NPSA, 2007; RCN, 2005) that can reduce the risk of sharps injuries should be considered.

5.4 Safe Handling and Disposal of Waste

- Any waste generated by an aseptic procedure must be correctly disposed of in accordance with the Trust Policy (HS/16/2007).

6. Principles of Asepsis

- The principles of asepsis should not only include the technique used but also the effective decontamination of any equipment/instruments used for the intended procedure.

- Aseptic technique must be used when performing any invasive procedure that by-passes the body’s natural defences (e.g. the skin or mucous membranes). Poor asepsis can lead to the risk of cross contamination from the healthcare worker’s hands (HCW) and/or the equipment to susceptible patient sites which can result in serious life threatening infections (Pratt et al, 2007).

- There are two type of aseptic techniques used in healthcare setting: medical and surgical asepsis (Ayliffe et al, 2000).
  
  a. **Medical asepsis** aims to reduce the number of organisms and prevent their spread and is mainly employed in ward areas and some other treatment areas (e.g. outpatients’ clinics).
  
  b. **Surgical or sterile asepsis** is a strict process and includes procedures to eliminate micro-organisms from an area and is practiced by healthcare workers in operating theatres and some other treatment areas. This involves carrying out a procedure using maximum sterile barrier (e.g. sterile gown, drapes and gloves) in a controlled environment (e.g. operating theatre).

- This clinical protocol focuses primarily on medical asepsis outlining the principles of aseptic non-touch technique (ANTT) and clean technique.

- The aims of aseptic technique are:
a. To prevent the introduction of potentially pathogenic micro-organisms into susceptible sites such as wounds, bladder or other organs/vessels.

b. To prevent the transfer of potentially pathogenic micro-organisms from one patient to another.

c. To prevent staff from acquiring an infection from the patient.

6.1 Preparation and Decontamination of Equipment

- Decontamination is the combination of processes (cleaning, disinfection and sterilisation) used to ensure that a re-usable medical device is safe for further use (RCN, 2005).

- Any item of equipment that is used in the care of patient must be decontaminated before and after use.

- Any disinfectants used for the decontamination of equipment must comply with manufacturer’s recommendation and Trust’s Infection Control Policy.

- Whenever possible, single use equipment is preferable.

- Single use equipment (where the item can only be used once) must not be reprocessed or re-used.

- Re-usable equipment must be decontaminated following the Trust Policy and the manufacturer’s recommendation.

- The following principles should be applied in relation to decontamination and use of equipment for an aseptic procedure:
  a. All equipment must be decontaminated before and after use in accordance with manufacturer’s and Infection Control Guidelines.
  b. All equipment should be stored in a clean, dry designated area.
  c. Where practical, equipment should not be stored on the floor.
  d. Appropriate storage/racking system should be used where possible and this should be kept clean and in good order.

- Whenever possible, the Trust Theatre Sterile Services Unit (TSSU) should be used for the sterilisation of aseptic procedure equipment.

- Before using any equipment supplied by TSSU, the practitioner must check:
  a. Any equipment/instrument and its packaging are clean, dry and intact with no breaches.
  b. The process indicator has changed colour
  c. That the item is not marked as a single use item.
  d. That the item is still in date.

- After using any equipment supplied by TSSU, the practitioner must ensure that:
  a. When returning any items to TSSU, all sharps are disposed of into an approved container.
b. Any equipment which has been used on a patient with a known or suspected infection must be returned in an appropriate bag and labelled with infection precaution sticker.

6.2 Use of an Aseptic Procedure/Other Suitable Procedure Trolley

- For the majority of aseptic procedures, a dressing/aseptic procedure trolley should be used. This is a multi use piece of equipment and as such is important that we minimise the risk of cross infection by effective decontamination.
- The trolley should be fit for purpose (e.g. no evidence of rust on any surfaces and in good working condition).
- The trolley should be decontaminated before and after use leaving all surfaces physically clean and should be stored in a suitable clean area.
- The following procedure must be adhered to for the proper decontamination of an aseptic procedure trolley:

| 1. Clean | • Use a detergent solution with a disposable wipe or detergent impregnated single use wipe.  
• Ensure the trolley is free from organic matter. |
|----------|-------------------------------------------------------------------------------------------------|
| 2. Disinfect | • Use 2% chlorhexidine gluconate in 70% alcohol wipes (Ayliffe et al, 2000) or;  
• A chlorine-releasing agent.  
NB: Use chlorine-releasing agent for patients who have diarrhoea and/or vomiting as alcohol and chlorhexidine solution will not be effective. |

- All equipment required to carry out the aseptic procedure should be collected and placed on the lower shelf of the properly decontaminated trolley.

6.3 Aseptic Non-Touch Technique (ANTT)

- ANTT is a clinical guideline for aseptic technique based on a theoretical evidence-based framework (Rowley, 2001).
- The ultimate goal of ANTT is asepsis and not sterility. It involves ensuring that key/critical parts (e.g. cannula, syringe tip, needle and needle hub, access port, patient’s skin post disinfection, etc.) are not touched/contaminated and only parts of the equipment not in contact with the susceptible/sterile site are handled (ANTT, 2001).
- The following principles **must** be observed when a clinical procedure requiring ANTT is performed:
a. Always wash hands effectively 
b. Never contaminate key parts  
c. Touch non key/critical parts with confidence  
d. Take appropriate infection control precautions

- The flowchart below should be used in deciding whether to use sterile or non-sterile clean gloves in performing aseptic procedure.

**Can the procedure be performed without touching the key/critical parts?**
(e.g. cannula/catheter material, needle, introducer, hubs, access ports, dressings, etc.)

**YES**
- Use Non-sterile Clean Gloves

**NO**
- Use Sterile Gloves

Flowchart devised based on the ANTT Guidelines (Rowley, 2001)

### 6.4 Skin/Site Disinfection
- Prior to the insertion of any invasive device, the skin/site **must** be properly cleansed (if indicated using soap and water) and disinfected in accordance with the Trust Policy.
- The need and extent of skin/site disinfection will depend on the intended procedure.
- Where available, sterile single-use skin preparation should be used (e.g. Chloraprep ®), otherwise care should be taken when decanting the disinfectant solution into a suitable sterile receptacle (NB: manufacturer’s recommendation **must** be adhered to if this practice is observed).

### 6.5 Environmental Cleanliness
- Prior to performing an aseptic procedure, the patient’s area **must** be visibly clean, free of dust and soilage.
• Cleaning should not be carried out or should be suspended when an aseptic procedure is being performed (Ayliffe et al, 2000).

• If possible, avoid exposing sterile procedure packs or performing any aseptic procedure for at least 30 minutes after bed making or after domestic cleaning has been carried out.

• If possible, ensure that window/s in the bay or next to the patient is/are closed.
7. Types and Indications of Aseptic Procedure

- Three types of aseptic procedures are described in the table below (see Appendix C for more detailed indications):

<table>
<thead>
<tr>
<th>INDICATIONS</th>
<th>ENVIRONMENT</th>
<th>TECHNIQUE</th>
<th>OTHER REQUIREMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Surgical Sterile Procedure</strong></td>
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<td></td>
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</tr>
<tr>
<td>• Any surgical procedure requiring the use of an operating Theatre</td>
<td>• Operating Theatre (or other similar environment)</td>
<td>• Strict/Full sterile technique</td>
<td>• Maximum sterile barrier (sterile drapes and gowns)</td>
</tr>
<tr>
<td>• Insertion of Central Venous Access Devices (Tunneled or Non-tunneled)</td>
<td></td>
<td>• Surgical hand scrub</td>
<td>• Sterile procedure packs</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Sterile equipments</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Sterile gloves</td>
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<tr>
<td><strong>Medical Aseptic Procedure (WHITE Tray Procedure)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Insertion of PICC Lines</td>
<td>• Ward</td>
<td>• Aseptic Non-touch Technique (ANTT)</td>
<td>• Sterile gloves</td>
</tr>
<tr>
<td>• Insertion of Midlines</td>
<td>• Treatment room</td>
<td>• Antimicrobial hand washing (using hibiscrub) whenever indicated or;</td>
<td>• Sterile procedure/dressing packs</td>
</tr>
<tr>
<td>• Insertion of urinary catheter</td>
<td>• Clinics</td>
<td>• Routine hand washing (using soap and water)</td>
<td>• Sterile equipment</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Maximum sterile barrier may be required for some procedures (e.g. insertion of PICC and Midlines)</td>
</tr>
<tr>
<td><strong>Clean Aseptic Procedure (WHITE Tray Procedure)</strong></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>• Preparation and administration of IV medications</td>
<td>• Ward</td>
<td>• Aseptic Non-touch Technique (ANTT)</td>
<td>• Non-sterile clean gloves</td>
</tr>
<tr>
<td>• Administration of TPN</td>
<td>• Treatment room</td>
<td>• Routine hand washing (using soap and water)</td>
<td>• Sterile dressing pack</td>
</tr>
<tr>
<td>• Venepuncture (inc. Blood Culture)</td>
<td>• Clinical</td>
<td></td>
<td>• Sterile equipment</td>
</tr>
<tr>
<td>• Peripheral Short Cannula Insertion</td>
<td>• Community (including patient’s home)</td>
<td></td>
<td></td>
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<tr>
<td>• ABG Sampling</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>• Wound dressing (including changing venous access dressing)</td>
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</tbody>
</table>

15 of 33
7.1 Surgical Sterile Procedure
- This type of procedure is carried out in a controlled environment (e.g. operating theatre) using strict/full sterile technique.
- It involves the use of maximum sterile barrier (e.g. sterile drapes and gowns).
- Please refer to Appendix C for some of the common indications of this procedure.

7.2 Medical Aseptic Procedure
- This procedure involves the use of sterile and aseptic technique without the need for maximum sterile barrier (NB: Maximum sterile barrier may be required for some procedure e.g. insertion of PICC and Midlines).
- This procedure is commonly performed in the ward, clinics or treatment rooms.

7.3 Clean Aseptic Procedure
- A clean procedure involves the use of a modified aseptic technique and does not require the use of sterile gloves (e.g. during application of a dressing to a wound that is healing by secondary intention which includes pressure sores and leg ulcers).
- This procedure incorporates the use of ANTT ensuring that key/critical parts are not touched/contaminated and that non-sterile parts are manipulated with confidence.
- This procedure can be performed in the ward, clinical, treatment room or in the community (including patient’s home).

8. WHITE Tray Procedure
- **WHITE Tray Procedure** refers to all clinical procedures performed in clinical areas at BNHFT that require the use of either medical aseptic or clean aseptic technique.

- When performing a **WHITE Tray Procedure**, practitioner **must** use the following as minimum acceptable standard:
  a. Clean WHITE tray (square or round depending on the procedure)
  b. Clean procedure/dressing trolley
  c. Disposable gloves (clean or sterile depending on the procedure)

- The use of paper tray is not acceptable when carrying out a clinical procedure that is considered a **WHITE Tray Procedure** (see Appendix C for the list of most commonly performed aseptic procedure that are classified as **WHITE Tray Procedure**).
• The following **WHITE** trays are widely available across all clinical areas at BNHFT:

<table>
<thead>
<tr>
<th>TYPES OF WHITE TRAY</th>
<th>INDICATION FOR USE</th>
</tr>
</thead>
</table>
| Round White Tray with Sharps Box          | • Insertion of Peripheral Intravenous Short Cannula  
• Venepuncture                           |
|                                           | • Blood culture                                                                    |
|                                           | • ABG Sampling                                                                     |
|                                           | • IM/SC injections                                                                 |
|                                           | • Diabetic blood sampling                                                          |
| Square White Tray without Sharps Box      | • Wound care/dressing                                                              |
|                                           | • Preparation and Administration of Intravenous Medications                        |
|                                           | • Administration of TPN                                                            |
|                                           | • Insertion of Urinary Catheter                                                    |
|                                           | • IUD Insertion                                                                    |
|                                           | • Suctioning (Laryngeal, Endotracheal, Tracheostomy)                               |

9. Training and Awareness

• Training on aseptic technique will be provided by the Infection Control Team as part of the different clinical skills programme (e.g. cannulation, venepuncture, IV Drugs Preparation and Administration, etc) that are being co-ordinated by the Learning, Development and Leadership Department.

• Additional bespoke training can be organized depending on the need and individual ward/department requirement.

• It is the responsibility of the ward/department manager to ensure that all staff undertaking any clinical procedure where an aseptic technique is required are adequately trained in the correct application of the technique.

10. Monitoring

• Aseptic technique will be audited as part of the ‘Saving Lives Programme’.
Audit will be co-ordinated by the Infection Control Team and delegated to the ward/department managers and Infection Control Champions. Progress results of this audit should be monitored and followed up by the ward/department managers and matrons.

11. Policy Review

This clinical protocol will be reviewed in 3 years time. Earlier review may be required in response to exceptional circumstances, organisational changes or changes to relevant legislations or national/local guidelines.
References


Aseptic Non Touch Technique (ANTT) intellectual property remains the property of www.antt.co.uk
Acknowledgement

Cardale and Huddersfield NHS Foundation Trust’s- Aseptic Technique (March 2008).

Hertfordshire Partnership NHS Foundation Trust- Aseptic Technique Guidelines (December 2007).

North East London Mental Health NHS Trust- Aseptic Technique Policy (June 2007).


Wirral Primary Care Trust- Procedure for Aseptic & Clean Technique (July 2007).

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**Appendix A: WHITE Tray Procedure (Wound Care)**

## STANDARD FOR BEST AND SAFE PRACTICE

**WHITE Tray Procedure: Wound Care**

<table>
<thead>
<tr>
<th>Author</th>
<th>Sherwin Criseno</th>
<th>Ref. No.</th>
<th>SBSP-AT0001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Practice Standard</td>
<td>Version</td>
<td>001</td>
</tr>
</tbody>
</table>

### 1. Aim:

To provide a step-by-step guide for applying, changing and removing wound dressing following aseptic technique.

### 2. Objectives:

Each practitioner involved in applying, changing and removing wound dressing will be able to:

- a. Perform the procedure using aseptic technique;
- b. Decontaminate equipment appropriately according to the Trust’s Policy;
- c. Decide and select the appropriate equipment;
- d. Apply standard infection control and other health and safety measures;
- e. Document the procedure properly;

### 3. Criteria for practice:

**Policy Statement:**

5.1 Hands should be decontaminated before direct contact with patient and after any activity or contact that contaminates the hands, including following the removal of gloves.

5.2 It is the responsibility of the practitioner undertaking any aspect of aseptic procedure, including decontamination of equipment, to assess the need for suitable PPE...

6.2 For the majority of aseptic procedures, a dressing/aseptic procedure trolley should be used...

### 4. Scope of Practice:

This practice standard covers the practice of applying, changing and removing wound dressing. This clinical protocol is based on the Royal Marsden Manual of Clinical Nursing Procedure and incorporates recent national and local guidelines on aseptic technique.

### 5. Specific Role Definition:

- a. Medical Staff
  - a.1 May apply, change and remove wound dressing.
- b. Qualified Non-medical Healthcare professional (e.g. Nurses, midwives, respiratory therapists, radiographers, ODA/ODPs)
  - b.1 May apply, change and remove wound dressings.
- c. Student nurses/midwives
  - c.1 May apply, change and remove wound dressings under direct supervision of a qualified practitioner following appropriate training/teaching on aseptic technique.
Principles of Asepsis and Aseptic Technique

- Sterile, transparent, semi-permeable intravascular device dressing (e.g. IV3000™)
- Hypo-allergenic tape
- Appropriate dressing/procedure trolley
- WHITE procedure tray
- Appropriate wound dressing
- Appropriate hand hygiene preparation
- Any other material/equipment required (depending on the nature of the wound to be dressed and patient’s clinical care plan) including sterile scissors if necessary.
- Chlorhexidine gluconate wipe in 70% IPA (e.g. Sani-Cloth CHG 2%) for cleaning trolley.
- Total traceability system for surgical instruments.
- Patient record.

6. Equipment:

<table>
<thead>
<tr>
<th>Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Sterile, transparent, semi-permeable intravascular device dressing (e.g. IV3000™)</td>
</tr>
<tr>
<td>• Hypo-allergenic tape</td>
</tr>
<tr>
<td>• Appropriate dressing/procedure trolley</td>
</tr>
<tr>
<td>• WHITE procedure tray</td>
</tr>
<tr>
<td>• Appropriate wound dressing</td>
</tr>
<tr>
<td>• Appropriate hand hygiene</td>
</tr>
<tr>
<td>preparation</td>
</tr>
<tr>
<td>• Any other material/equipment</td>
</tr>
<tr>
<td>required (depending on the nature of the wound to be dressed and patient’s clinical care plan) including sterile scissors if necessary.</td>
</tr>
<tr>
<td>• Chlorhexidine gluconate wipe in 70% IPA (e.g. Sani-Cloth CHG 2%) for cleaning trolley.</td>
</tr>
<tr>
<td>• Total traceability system for surgical instruments.</td>
</tr>
<tr>
<td>• Patient record.</td>
</tr>
</tbody>
</table>

7. Procedure:

<table>
<thead>
<tr>
<th>Action</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explain and discuss the procedure with the patient.</td>
<td>To ensure that the patient understands the procedure and gives his/her valid consent.</td>
</tr>
<tr>
<td>Clean hands with soap and water</td>
<td>Hands must be cleaned before and after every patient contact and before commencing the preparations for aseptic technique, to prevent cross-infection.</td>
</tr>
<tr>
<td>Place all the equipment required for the procedure on the bottom shelf of a clean dressing trolley.</td>
<td>To maintain the top shelf as a clean working surface.</td>
</tr>
<tr>
<td>Take the patient to the treatment room or screen the bed. Position the patient comfortably so that the area to be dealt with is easily accessible without exposing the patient unduly.</td>
<td>To allow any airborne organisms to settle before the sterile field (and in the case of a dressing, the wound) is exposed. Maintain the patient's dignity and comfort.</td>
</tr>
</tbody>
</table>
6. Put on a disposable plastic apron for all procedures. This is especially important for infected wounds with heavy exudate.

   To reduce the risk of cross-infection.

7. Take the trolley to the treatment room or patient's bedside, disturbing the screens as little as possible.

   To minimize airborne contamination.

8. Loosen the dressing tape.

   To make it easier to remove the dressing.

9. Clean hands with a antimicrobial solution (hibiscrub)

   To reduce the risk of wound infection.

10. Check the pack is sterile (i.e. the pack is undamaged, intact and dry. If autoclave tape is present, check that it has changed colour from beige to beige and brown lines), open the outer cover of the sterile pack and slide the contents onto the top shelf of the trolley.

   To ensure that only sterile products are used.

11. Open the sterile field using only the corners of the paper.

   So that areas of potential contamination are kept to a minimum.

12. Check any other packs for sterility and open, tipping their contents gently onto the centre of the sterile field.

   To prepare the equipment and, in the case of a wound dressing, reduce the amount of time that the wound is uncovered. This reduces the risk of infection and a drop in temperature of the wound which will delay wound healing (Stronge 1984).

13. Clean hands with a bactericidal alcohol rub.

   Hands may become contaminated by handling outer packets, etc.


   To maintain sterility of pack.

15. Remove used dressing with hand covered with the disposable bag, invert bag and stick to trolley.

   To minimize risk of contamination, by containing in bag.

16. Where appropriate, swab along the 'tear area' of lotion sachet with chlorhexidine in 70% spirit/swab saturated with 70% isopropyl alcohol. Tear open sachet and pour

   To minimize risk of contamination of lotion.
lotion into gallipots or on indented plastic tray after removal of dressing.

17 Put on sterile gloves, touching only the inside wrist end. To reduce the risk of infection. Gloves provide greater sensitivity than forceps and are less likely to cause trauma to the patient.

**Carry out procedure**

18 Make sure the patient is comfortable.

19 Dispose of waste in yellow plastic clinical waste bags. Remove gloves wash hands with soap and water. To prevent environmental contamination. Yellow is the recognized colour for clinical waste.

20 If necessary, draw back curtains or, if appropriate, help the patient back to the bed area and ensure the patient is comfortable.

21 Check that the trolley remains dry and physically clean. Wash with liquid detergent and water and dry thoroughly with a paper towel if trolley becomes contaminated. To reduce the risk of spreading infection.

22 Wash hands and clean with bactericidal alcohol handrub. To reduce the risk of spreading infection.

23 Place sterility label from the outside of any surgical instrument packs used during the procedure on the patient record form which is to be placed in the patient's notes. Provides a record, as the sterility label proves the pack has gone through a sterile process and that prior to release has been inspected by a trained person in the Sterile Services Department.

* Please note that for some procedures it may be more appropriate to use different types of sterile packs (e.g. cannulation packs).
STANDARDS FOR BEST AND SAFE PRACTICE

WHITE Tray Procedure: Applying, Changing and Removing Intravascular Device Dressing

<table>
<thead>
<tr>
<th>Author</th>
<th>Sherwin Criseno</th>
<th>Ref. No.</th>
<th>SBSP-AT0002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Practice Standard</td>
<td>Version</td>
<td>001</td>
</tr>
</tbody>
</table>

1. **Aim:**

To provide a step-by-step guide for applying, changing and removing intravascular dressing following the principles of aseptic clean technique.

2. **Objectives:**

Each practitioner involved in applying, changing and removing intravascular device dressing will be able:

a. Perform the procedure using aseptic clean technique;

b. Decontaminate equipment appropriately according to the Trust’s Policy;

c. Decide and select the appropriate equipment;

d. Apply standard infection control and other health and safety measures;

e. Document the procedure properly; and

3. **Criteria for Practice:**

**Policy Statement:**

5.3 Hands should be decontaminated before direct contact with patient and after any activity or contact that contaminates the hands, including following the removal of gloves.

4. **Scope of Practice:**

This practice standard covers the practice of applying, changing and removing intravascular devise dressing following the principles of clean technique.

5. **Specific Role Definition:**

a. Medical Staff
   a.1 May apply, change and remove intravascular dressing.

b. Qualified Non-medical Healthcare professionals (e.g. Nurses, midwives, respiratory therapists, radiographers, ODA/ODPs)
   b.1 May apply, change and remove intravascular dressing dressings.

c. Student nurses/midwives
   c.1 May apply, change and remove intravascular device dressings under direct supervision of a qualified
practitioner following appropriate training/teaching on aseptic technique.

d. Non-Registered/Non-qualified staff (e.g. Healthcare Assistants and Nursing Auxillaries)
d.1 May assist in applying, changing and removing intravascular device dressing
d.2 HCAs or NAs who completed appropriate training on changing and removing intravascular device dressing using aseptic clean technique may perform the procedure under direct instruction from a qualified practitioners.

6. Equipment:

- WHITE procedure tray
- Appropriate dressing/procedure trolley
- Sterile, transparent, semi-permeable intravascular device dressing (e.g. IV3000™)
- Sterile dressing pack
- 2% Chlorhexidine in 70% IPA wipe (e.g. chloraprep) if exit site needs cleaning
- Appropriate hand hygiene preparation
- Chlorhexidine gluconate wipe in 70% IPA (e.g. Sani-Cloth CHG 2%) for cleaning trolley.
- Patient record.

7. Procedure:

<table>
<thead>
<tr>
<th>Action</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Explain and discuss the procedure with the patient.</td>
</tr>
<tr>
<td>2</td>
<td>Clean hands with soap and water</td>
</tr>
<tr>
<td>3</td>
<td>Clean WHITE procedure tray and trolley with soap and water and disinfect with chlorhexidine alcoholic wipes (e.g. Sani-Cloth CHG 2%). Wash hands with soap and water</td>
</tr>
<tr>
<td>4</td>
<td>Place WHITE procedure tray at the top of the trolley and all other equipment required for the procedure on the bottom shelf of the dressing trolley.</td>
</tr>
<tr>
<td>5</td>
<td>Take the patient to the treatment room or screen the bed. Position the patient comfortably so that the area to be dealt with is easily accessible without</td>
</tr>
</tbody>
</table>
Principles of Asepsis and Aseptic Technique

1. Exposing the patient unduly. and comfort.

2. Put on a disposable plastic apron for all procedures.

3. To reduce the risk of cross-infection.

4. If dressing pack is required (i.e. cleaning of catheter exit site is to be carried out), check the pack is sterile (i.e. the pack is undamaged, intact and dry. If autoclave tape is present, check that it has changed colour from beige to beige and brown lines), open the outer cover of the sterile pack and slide the contents onto WHITE procedure tray.

5. To ensure that only sterile products are used.

6. Open the sterile field using only the corners of the paper.

7. So that areas of potential contamination are kept to a minimum.

8. Check and open the intravascular device dressing, tipping its content gently onto the centre of the sterile field.

9. To prepare the equipment without contamination.

10. If required, open the Chloroprep® and tip its content gently onto the centre of the sterile field.

11. Clean hands with a bactericidal alcohol rub.

12. Hands may become contaminated by handling outer packets, etc.

13. Place hand in disposable bag, arrange contents of dressing pack.

14. To maintain sterility of pack.

15. Put on a pair of non-sterile clean gloves (NB: if sterile gloves are provided in the dressing pack, use these gloves).

16. As a personal protection and to reduce the risk of infection.

17. Remove old dressing following manufacturer's recommended technique and inspect catheter the exit site noting for signs of complications (e.g. phlebitis, infection, etc.).

18. To assess current state of the intravascular exit site and identify complications that requires immediate action.

19. If the exit site is soiled with blood or fluids, cleanse with single use 70% alcohol with 2% chlorhexidine gluconate swab (e.g. Chloraprep).

20. To reduce the risk of line infection.
Allow the solution to air dry. To allow effective disinfection.

15 Apply new sterile, transparent, semi-permeable dressing (e.g. IV3000™) according to the manufacturer’s recommendation. To ensure aseptic application of the dressing.

Avoid touching key parts (adhesive part of the dressing) and catheter exit site.

16 Dispose of waste in yellow plastic clinical waste bags. Remove gloves wash hands with soap and water. To prevent environmental contamination. Yellow is the recognized colour for clinical waste.

17 If necessary, draw back curtains or, if appropriate, help the patient back to the bed area and ensure the patient is comfortable.

18 Check that the trolley remains dry and physically clean. Wash with liquid detergent and water and dry thoroughly with a paper towel if trolley becomes contaminated. To reduce the risk of spreading infection.

19 Wash hands and clean with bactericidal alcohol handrub. To reduce the risk of spreading infection.
## Appendix C: Commonly Performed Aseptic Procedures

<table>
<thead>
<tr>
<th>PROCEDURE</th>
<th>REQUIRED TECHNIQUE</th>
<th>OTHER REQUIREMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cervical Smear</td>
<td>Clean Aseptic Procedure (WHITE Tray Procedure)</td>
<td>• Use a sterilised speculum</td>
</tr>
<tr>
<td>Chest Drain Insertion</td>
<td>Surgical Aseptic Procedure</td>
<td>• As specified in Section 7</td>
</tr>
<tr>
<td>CVAD (Central Venous Access Device) Insertion</td>
<td>Surgical Aseptic Procedure</td>
<td>• As specified in Section 7</td>
</tr>
<tr>
<td>Epidural</td>
<td>Surgical Aseptic Procedure</td>
<td>• As specified in Section 7</td>
</tr>
<tr>
<td>Gastrostomy or jejunotomy tube insertion</td>
<td>Surgical Aseptic Procedure</td>
<td>• As specified in Section 7</td>
</tr>
<tr>
<td>Indwelling urinary catheter insertion</td>
<td>Medical Aseptic Procedure (WHITE Tray Procedure)</td>
<td>• As specified in Section 7</td>
</tr>
<tr>
<td>Intravenous medication (Preparation and Administration)- peripheral or central route</td>
<td>Clean Aseptic Procedure (WHITE Tray Procedure)</td>
<td>• As specified in Section 7</td>
</tr>
<tr>
<td>IUD Insertion</td>
<td>Medical Aseptic Procedure (WHITE Tray Procedure)</td>
<td>• As specified in Section 7</td>
</tr>
<tr>
<td>Lumbar Puncture</td>
<td>Medical Aseptic Procedure (WHITE Tray Procedure)</td>
<td>• As specified in Section 7 • Use maximum sterile barrier precaution</td>
</tr>
<tr>
<td>PROCEDURE</td>
<td>REQUIRED TECHNIQUE</td>
<td>OTHER REQUIREMENTS</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| Midline Insertion                                                        | Medical Aseptic Procedure (WHITE Tray Procedure)                                  | • As specified in Section 7  
• Use of maximum sterile barrier precaution                                       |
| PICC (Peripherally Inserted Central Catheter) insertion                   | Medical Aseptic Procedure (WHITE Tray Procedure)                                  | • As specified in Section 7  
• Use of maximum sterile barrier precaution                                       |
| PVAD (Peripheral Venous Access Device) insertion (excluding Midline insertion) | Clean Aseptic Procedure (WHITE Tray Procedure)                                   | • As specified in Section 7                                                     |
| Suctioning (Laryngeal, Endotracheal, Tracheostomy)                       | Clean Aseptic Procedure (WHITE Tray Procedure)                                   | • As specified in Section 7                                                     |
| TPN Administration                                                       | Clean Aseptic Procedure (WHITE Tray Procedure)                                   | • As specified in Section 7                                                     |
| Venepuncture (including Blood Culture)                                    | Clean Aseptic Procedure (WHITE Tray Procedure)                                   | • As specified in Section 7                                                     |
| Wound Care (Wound healing by primary intention e.g. surgical wound)      | Medical Aseptic Procedure (WHITE Tray Procedure)                                  | • As specified in Section 7                                                     |
| Wound Care (Wound healing by secondary intention e.g. pressure ulcer)    | Clean Aseptic Procedure (WHITE Tray Procedure)                                   | • As specified in Section 7                                                     |
# Appendix D: Recommended Disinfectant Swabs

<table>
<thead>
<tr>
<th>Item</th>
<th>Order Code</th>
<th>Indication/s</th>
</tr>
</thead>
</table>
| Clinell Skin        | IBCA2CSKIN (Available through Southern Syringe) | • For skin disinfection prior to venepuncture and insertion of peripheral short cannula.  
                      |                                                      | **NB:** Should NOT be used for patient who are allergic to Chlorhexidine                                                                                       |
| Alcotip (70% IPA)   | VJT 083    | • For skin disinfection prior to insertion of peripheral short cannula and venepuncture  
                      |                                                      | **NB:** Only to be used for patient who are allergic to Chlorhexidine                                                                                           |
| Sani-Cloth® CHG 2% | VJT 103    | • For disinfecting access hubs, ports and medical devices.                                                                                                                                                   |
| Chloraprep® Frepp (1.5 ml) | MRB 303 | • For skin disinfection prior to taking blood cultures.  
                      |                                                      | **NB:** For patients who are allergic to Chlorhexidine, use several Alcotip Swabs (3-4).                                                                     |
| Chloraprep® (3 ml)  | MRB 306    | • For skin disinfection prior to insertion of midlines and central venous access devices (including PICC lines).  
                      |                                                      | • For cleaning CVAD exit site (e.g. when changing dressing)                                                                                                  |