

INFECTION PREVENTION AND CONTROL ASEPTIC NON-TOUCH TECHNIQUE (ANTT) PROTOCOL

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VALIDITY – protocols should be accessed via the Trust intranet to ensure the current version is used.

CHANGE RECORD

Version	Date	Change details
1.00	18/09/18	Policy reviewed and amended to a protocol. Minor changes made within the document to improve clarity. Additional updated guidance documents included in Appendix 1.
1.01	10/10/18	Minor formatting and spelling check made following comments from the Physical Health and Medical Devices Group.
1.02	Sept 2021	Scheduled protocol review. Infection Prevention Society Audit tool added (appendix 2) Reference section updated <i>Approved at HAIG 3 November 2021</i>

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1. INTRODUCTION

Hundreds of millions of patients are affected by healthcare associated infections (HCAI) worldwide each year, leading to significant mortality and financial burden for healthcare organisations worldwide.

Although the causes of HCAI are wide ranging, poor standards of aseptic technique are noted to be one of the causes of preventable HCAI with the healthcare worker potentially being the main vector for microorganism transmission whilst performing clinical procedures and the maintenance of invasive medical devices.

The Health and Social Care Act 2008: Code of Practice on the prevention and control of infections (Department of Health 2015) outlines the key principles that need to be adhered to in relation to preventing and controlling the risks of healthcare associated infections and it states that

- 'clinical procedures should be carried out in a manner that maintains and promotes the principles of asepsis'
- 'education, training and assessments in aseptic technique should be provided to all persons undertaking such procedures'
- 'the technique should be standardised across the organisation'
- 'an audit should be undertaken to monitor compliance with the technique'

This protocol outlines the Trust approach to assessing and applying a safe technique when undertaking any clinical procedure on behalf of Humber Teaching NHS Foundation Trust.

2. SCOPE

The contents of this protocol apply to all clinical staff employed by, or are working on behalf of Humber Teaching NHS Foundation Trust who are required to undertake an aseptic procedure as part of their clinical duties in any clinical setting.

3. POLICY STATEMENT

It is essential that all healthcare workers within Humber Teaching NHS Foundation Trust understand the principles and process of aseptic technique and they demonstrate clinical competency in the completion of all procedures.

Where aseptic procedures are performed, they must be carried out in accordance with The Aseptic Non-Touch Technique (ANTT) Clinical Practice Framework (2015).

4. DUTIES & RESPONSIBILITIES

The Chief Executive will:

- Ensure that all care service division leads, and clinicians accept ownership for all aspects of this protocol.

The Director of Infection Prevention and Control will:

- Monitor the impact of this protocol and have the authority to challenge inappropriate practice.

The Care Service Divisions will:

- Provide senior management and leadership to ensure full implementation of this protocol.
- Have responsibility for ensuring the contents of this protocol are embedded in practice.

- Ensure that adequate resources are available to clinicians in order to maintain compliance with this protocol.
- Review compliance with this protocol through the Trust-approved Infection Prevention and Control Audit Programme and staff training records.
- When a variance is seen the care service division is responsible for ensuring all recommendations and action plans are managed via the clinical network and operational groups.

The Clinical Lead will: -

- Ensure that this protocol is fully implemented by all members of the clinical team within their sphere of responsibility. Any concerns that cannot be resolved at unit/team level should be highlighted to the matron/clinical lead.
- Ensure that there are designated members of their team who have received training on the ANTT Clinical Practice Framework (2015) and are able to train and assess others.
- Ensure that all staff within their designated area of responsibility who utilise ANTT as part of their clinical practice are aware of this protocol have had the appropriate training, have passed competency assessments in practice and adhere to the principles at all times. This will be evidenced through the supervision and appraisals process.
- Ensure an annual audit of aseptic technique compliance is undertaken annually as a minimum requirement.

Each healthcare worker undertaking procedures requiring the use of ANTT will:

- Ensure that they have completed an ANTT educational training programme and maintain their competency with evidence of competency within their professional portfolio.
- Be responsible for ensuring their practice and that of staff and students they supervise complies with this protocol and they are competent to undertake such tasks.
- Develop and maintain the knowledge and skills required to undertake the duties and responsibilities for their post.
- Report any breaches of this protocol to their line manager.
- Alert their manager if they feel that they need further education or training.

The Infection Prevention and Control Team will:

- Provide up to date advice and information on ANTT principles.
- Work with other clinical specialist teams where the use of ANTT is applicable to ensure standardisation of practice is achieved (e.g. tissue viability specialists, bladder and bowel specialists etc.)

The Learning and Organisational Development Department will:

- Provide a variety of resources to facilitate training and competency assessment in practice.
- Incorporate ANTT competencies into all relevant clinical skills training and competency packages where the use of ANTT is required.

5. PROCEDURES

5.1. The Concept of ANTT

The ANTT Clinical Practice Framework (2015) is a simple framework designed to standardise aseptic practice across a wide range of clinical procedures. Its research-based best practice approach ensures any clinical practitioner has the knowledge and skills to perform any intervention to a high standard.

The framework incorporates a set of principles and safeguards which provide a rationale and foundation for best practice, and all staff undertaking any clinical procedures which require use of ANTT should have an understanding of these and be able to demonstrate this understanding in practice. All details on the safeguards of ANTT can be found in the Clinical Skills resource section

on the Training department's intranet homepage. It can also be accessed by clicking on the following link [Home \(antt.org\)](http://Home(antt.org))

International ANTT Clinical Guidelines have been formulated to standardise common clinical invasive procedures. These guidelines aim to reduce practice variability and to ensure that hand decontamination occurs at appropriate times during the ANTT procedure. They also aim to ensure that susceptible key sites and key parts are protected at all times by using a non-touch technique. The collections of Hospital and Community Home Care ANTT Procedure Guidelines are included in appendix 1.

'Aseptic Technique is a critical clinical competency. Patients are protected more effectively when health care professionals and health care organisations around the world, practice to the same set of principles and rules using the same 'practice language'. ANTT is now established as this single standard and is used in over 30 countries variously and growing' The Association for Safe Aseptic Practice (2021).

5.2. Who can undertake an Aseptic Technique?

Adherence to the principles of asepsis plays a vital role in preventing the transmission of micro-organisms in any environment. It is the responsibility of each member of staff who undertake an aseptic technique to understand the meaning of these principles and to incorporate them into their everyday practice. Only staff who have been trained and have been assessed as competent should undertake any procedure requiring asepsis.

Education, training and assessment of aseptic technique should be provided for all persons before undertaking such procedures.

Any staff member who undertakes an aseptic technique must be free from infection, e.g., colds, sore throats, septic lesions.

5.3. The Clinical Practice Principles and Safeguards of ANTT

For an aseptic technique to be safe and efficient the staff member **must** assess every clinical procedure to assess the level of approach that is required by referring to Appendix 1 prior to undertaking the procedure.

Standard ANTT: *the technique of choice when procedures involve minimal/small key parts and are not significantly invasive, are technically uncomplicated to achieve asepsis and are short in duration. The use of a general field is required for standard ANTT, i.e. a clean surface or tray in which to place equipment with parts protected, e.g. caps and covers.*

Surgical ANTT: *the technique of choice when procedures involve large or numerous key parts are significantly invasive, are technically difficult or involves extended procedure time. The use of a critical aseptic field is required for surgical ANTT, i.e. a sterile procedure pack.*

Whilst these two approaches differ to accommodate different levels of procedural complexity they both adhere to the same underlying principles.

5.4. Preparation of the Patient

Staff should inform the patient about the procedure, what is involved and gain consent. Written consent may be required for some procedures. Privacy and dignity must be maintained at all times throughout the procedure.

5.5. Hand Hygiene

Healthcare workers hands are the most common vehicle for the transmission of pathogens from patient to patient and within the healthcare environment. Effective hand decontamination is essential to ANTT and adherence to Bare Below the Elbow principles must be adopted at all times. Hand Decontamination must take place prior to after all invasive techniques and after the removal of gloves.

5.6. The Use of Personal Protective Equipment

A risk assessment should be undertaken to determine the personal protective equipment (PPE) required due to the anticipated level of exposure.

Disposable aprons must be worn when there is a risk of contact with blood or body fluids or direct contact. The disposable apron must be changed for each patient prior to commencing the procedure and/or between different procedures on the same patient.

Non sterile gloves can be used for the administration of intravenous medication, wound care, venepuncture or cannulation when it is possible to undertake the procedure without touching any key parts of equipment or the patient.

Sterile gloves **must** be worn when the touching of a key part or site cannot be avoided e.g. for urinary catheterisation or central venous catheter insertion.

If gloves become contaminated during the procedure then they must be removed and hands decontaminated prior to donning a new pair.

Eye and face protection may also be required if the procedure has a risk of splashing.

5.7. The Management of Key Parts

A core component of ANTT is maintaining asepsis during invasive procedures. Key parts are those parts of equipment that if contaminated by micro-organisms increase the risk of infection. Not touching them is the single most important component of achieving asepsis. In intravenous (IV) therapy for example, key parts are usually those which come into direct contact with the liquid infusion e.g. needles, syringe tips, exposed central line lumens. In wound care, consider all of the dressing pack equipment as key parts.

5.8. Management of the Aseptic Field

A clean working environment and an aseptic field are essential precautions for all clinical procedures.

When preparing for an aseptic technique a designated trolley or reusable tray (designed for this purpose) must be used. These trolleys and trays must only be used for aseptic procedures and they must be kept in a designated clean clinical area only. They must be cleaned at the start and end of the session, between each patient use and when visibly soiled. When a designated trolley or tray is not available a work surface within the clinic room that can be effectively cleaned can be utilised. The same cleaning principles apply to the trolley/tray/work surface.

5.9. Preparation of the Environment according to Location

5.9.1. Management of procedures undertaken in the inpatient or clinic setting

The ideal environment for all clinical procedures is a designated clinical area. Where this is impractical some clinical procedures may be performed at the patient bed side. However, prior to undertaking the intervention staff **MUST**:

- Ensure the environment is clean and tidy
- Ensure windows are closed
- Ensure that all cleaning activities such as dusting, mopping bed making have been discontinued for a minimum of 30 minutes prior to the procedure.
- Draw curtains around door/bed
- Limit the number of people who will be entering the area
- Ensure fans must be turned off 30 minutes prior to the procedure and not turned back on until after the procedure has been completed
- Check that the following are clean prior to commencing the procedure:
 - Patients' clothing
 - Bedding materials, or examination bed/couch cover
 - Any equipment which is to be used

5.9.2. Procedures undertaken in the community setting e.g. a patient's home

It is acknowledged that some community settings such as patient homes, schools, residential care homes may pose a challenge for undertaking ANTT clinical procedures.

Staff may not have ready access to hand wash facilities, trolleys or other equipment and satisfactory standards of environmental cleanliness cannot always be guaranteed.

In the community setting or patients home a risk assessment must be made to establish a safe working area in which asepsis can be maintained. A clean surface, e.g. a table or a tray, should be used to arrange the necessary equipment on. Where this is not possible a dressing pack containing a sterile field should be placed as near to the patient as possible.

Every effort must be made to minimise the risk of contamination of the aseptic field and any barriers to maintaining this should be documented in the patient's notes.

Re-usable aseptic fields such as plastic trays (designed for this purpose) must be cleaned prior to and after each use and left to air dry.

All packs/single use equipment, e.g. dressing packs, syringes, dressings must be intact, in date and showing no visible signs of contamination.

Items of medical equipment should be stored in a designated box/bag away from the floor.

Any pets present should be temporarily moved from the room during the procedure.

6. EQUALITY & DIVERSITY

An Equality and Diversity Impact Assessment has been carried out on this document using the Trust-approved EIA and a low score has been attained.

7. IMPLEMENTATION

This policy will be disseminated by the method described in the Policy and Procedural Documents Development and Management Policy.

Additional measures will include awareness sessions for clinicians, both in the Learning Centre and team base where appropriate.

8. MONITORING & AUDIT

Compliance with this policy will be monitored by:

- The completion of an annual audit of ANTT compliance utilising the Infection Prevention Society Audit Tool in Appendix 2
- The analysis of any incident investigations including Root Cause Analysis (RCA) and Post Infection Reviews (PIR).

The results of any audits completed and any subsequent actions to be taken will be included as part of the quarterly infection prevention and control matron reports for inpatient and primary care services. Any areas of concern will be escalated to the care service divisions.

9. REFERENCES/EVIDENCE/GLOSSARY/DEFINITIONS

References

Department of Health (2015) Health and Social Care Act 2008 Code of Practice on the prevention and control of infections and related guidance

National Institute for Health and Clinical Excellence (2012) Prevention and control of healthcare-associated infections in primary and community care NICE clinical guideline 139 available at [1 Guidance | Healthcare-associated infections: prevention and control in primary and community care | Guidance | NICE](#)

Pratt RJ Pellowe CM Wilson JA Loveday HP Harper PJ Jones SR McDougall C & Wilcox MH (2014) epic3: National evidence-based guidelines for preventing healthcare-associated infections in NHS hospitals in England in The Journal of Hospital Infection Volume 65 Supplement 1 pS1-S59

The Association for Safe Aseptic Practice (The-ASAP) (2015) The ANTT Clinical Practice Framework Version 4.0

The Royal Marsden Manual of Clinical Nursing Procedures (10th edition) The Royal Marsden NHS Foundation Trust 2020 [Royal Marsden Clinical Procedures \(humber.nhs.uk\)](#)

[RCN 2020 Understanding Aseptic Technique](#) An RCN investigation into clinician views to guide the practice of aseptic technique. RCN clinical professional resource.

Stephen Rowley and Simon Clare British Journal of Nursing, 2020, Vol 29, No 16 How widely has ANTT been adopted in NHS hospitals and community care organisations in England and Scotland?

[How widely has ANTT been adopted in NHS hospitals and community care organisations in England and Scotland?](#)

[ANTT Resources Website](#)

Glossary

- **Asepsis:** the process for keeping away or preventing transmission of harmful micro-organisms.
- **Aseptic:** the absence of microorganisms
- **Aseptic field:** a designated aseptic working space that contains and protects the procedure equipment from direct and indirect environmental contact-contamination by micro-organism.
- **Aseptic Non-Touch Technique (ANTT):** a specific type of aseptic technique with a unique theory and practice framework.
- **Cleaning, disinfection, sterilisation:** during ANTT, Key Parts are either pre-sterilized and then protected, or already in situ, such as an IV lumen port, and prior to use must be made aseptic by cleaning and disinfection:
- **Cleaning:** reduces the bio burden and removes foreign material. In healthcare it is typically performed with water, soap or detergent and material such as paper towels or impregnated wipes.
- **Disinfection:** the destruction of pathogenic microorganisms, usually by thermal or chemical means.
- **Sterilisation:** A process by which all viable forms of microorganisms (including spores) are destroyed.
- **Critical Aseptic Field:** the main aseptic field that **ensures** asepsis during procedures by providing essential & primary protection from the procedure environment.
- **General Aseptic Field:** the main aseptic field that **promotes** asepsis during procedures by providing basic protection from the procedure environment. General Aseptic Fields are used when the procedure Key Parts are easily and primarily protected by Micro Critical Aseptic Fields (caps and covers).
- **Invasive:** involving puncture or incision of the skin for insertion of an instrument, device or foreign material.
- **Key Part (active):** a critical part of the procedure equipment which comes into contact with Key Sites, any liquid infusion or other active Key Part connected to the patient (e.g. sterile dressing, needle, syringe, urinary catheter).
- **Key Part (inactive):** when Key Parts such as closed IV ports are not active it is not practical to maintain them as aseptic. Inactive Key Parts must be rendered aseptic prior to re-use by effective cleaning and disinfection (e.g. hub cleaning).
- **Key Site:** the site on the patient which is the subject of the procedure (e.g. open wounds, insertion and puncture sites for invasive medical device).
- **Key Part/Site Protection:** (from harmful microorganisms):- during clinical procedures this is achieved by a range of methods including non- touch technique, aseptic field management, basic infection precautions such as hand cleaning and glove usage. In between clinical procedures, wounds and medical devices may have Sustained Key Part Protection from medical equipment or supplies (e.g. a wound care dressing, a passive IV hub cap protector).
- **Micro Critical Aseptic Field (MCAF):** a small Critical Aseptic Field used to protect a Key Part, e.g. a syringe cap or needle cover.
- **Primary Intention:** where wound edges are brought together and held in place by mechanical means, e.g. adhesive strips, staples or sutures.
- **Secondary Intention:** where the wound is left 'open' (although usually covered with an appropriate dressing) and the edges come together naturally by means of granulation and contraction.
- **Standard ANTT:** the technique used typically for procedures involving small and/or few Key Parts, are uncomplicated, minimally invasive and short in duration.
- **Surgical ANTT:** the technique used typically for procedures involving large and/or numerous Key Parts, are complex, significantly invasive and lengthy in duration.

Appendix 1: ANTT Guidance documentation according to procedure

Link to Humber intranet page - [Aseptic Non Touch Technique](#)

PROCEDURE	PROCEDURE RISKS	TYPE OF ANTT REQUIRED	DECONTAMINATION/ PROTECTION	Guidance document to be followed
Cannulation	<ul style="list-style-type: none"> • Few key parts • Moderately invasive • Small key parts • Single small key site 	Standard ANTT	<ul style="list-style-type: none"> • Hand decontamination • Non sterile gloves • Tray cleaning 	Peripheral cannulation standard - ANTT
Preparation and administration of peripheral and central intravenous medications	<ul style="list-style-type: none"> • Few key parts • Small key parts • Moderately invasive 	Standard ANTT	<ul style="list-style-type: none"> • Hand decontamination • Non sterile gloves • Tray cleaning 	ANTT guidelines for prep and admin of IV's
Urinary catheter insertion	<ul style="list-style-type: none"> • Whilst some of the key parts can be protected using a micro critical filed. The urinary catheter cannot 	Surgical ANTT	<ul style="list-style-type: none"> • Hand decontamination • Sterile gloves 	Urinary Catheter insertion surgical - ANTT
Venepuncture	<ul style="list-style-type: none"> • Few key parts • Small key parts • Minimally invasive 	Standard ANTT	<ul style="list-style-type: none"> • Hand decontamination • Non sterile gloves • Tray cleaning 	Venepuncture community standard - ANTT
Wound cleansing and dressing Uncomplicated wound	<ul style="list-style-type: none"> • Few key parts • Small key site 	Standard ANTT	<ul style="list-style-type: none"> • Hand decontamination • Non sterile gloves • Tray cleaning 	Wound care standard - ANTT
Wound cleansing and dressing (e.g. large exudation wound in the community)	<ul style="list-style-type: none"> • Multiple key parts • Large key site 	Surgical ANTT	<ul style="list-style-type: none"> • Hand decontamination • Irrigation or soaking performed with an aseptic receptacle • Sterile gloves to be considered 	Complex wound care surgical - ANTT

Appendix 2: Aseptic Technique - Quality Improvement Tool ([For printable version follow link](#))

A - Before the aseptic procedure

No	Standard statement	Guidance	Yes	No	N/A	Comments
1	Is the area chosen for the procedure preparation free from possible splash contamination?	Observe the area and the activity going on therein; also observe the closeness to taps.				
2	Is the trolley, or surfaces , from which the procedure will be performed and/or equipment placed cleaned with detergent and water / detergent/disinfectant wipe and then dried?	Observe the procedure.				
3	Is all equipment required for the procedure gathered and checked to ensure:	Check that all equipment is as stated in the bullet points.				
	• It is within expiry date?					
	• Packaging is not damaged?					
	• Single-use equipment is not being reused?					
	• Has been appropriately stored pre use?					
	• Is devoid of obvious contamination, e.g. drugs are clear?					
4	Is an assessment made for possible exposure to blood or body fluids during the procedure?	Talk to the nurse / doctor and ask when they think blood and body fluid exposure might be required.				
	• If a risk is present appropriate equipment is selected?					
5	Is an assessment made of the possible infection risk to the patient and the appropriate sterile protective equipment selected (if required)?	Can the staff explain the rationale for using / not using sterile protective equipment.				

B - During the aseptic procedure

No	Standard statement	Guidance	Yes	No	N/A	Comments
1	Is the patient aware of the procedure to be performed (and the staff have introduced themselves)?	Observe the staff informing the patient (use a mock procedure if not possible to watch).				
2	Is the pack opened without touching the inner contents?	Observe the staff informing the patient (use a mock procedure if not possible to watch).				
3	Hand Hygiene Moment 2: Is hand hygiene been performed using an alcohol-based hand rub?	Before clean aseptic technique Observe the procedure.				
4	Is a sterile area created , by opening the pack contents by the corners?	Observe the procedure (use a mock procedure if not possible to watch).				
5	Without touching the sterile equipment , are all sterile items opened and placed onto the sterile surface?	Observe the procedure (use a mock procedure if not possible to watch).				
6	Hand hygiene Moment 1: Is hand hygiene performed using an alcohol-based hand rub before touching the patient (e.g. to remove a dressing / disinfect a needleless connector)?	Moment 1 - Before touching a patient. Observe for the hand hygiene being done.				
	<ul style="list-style-type: none"> If possible, blood or body fluid exposure have gloves been used before starting the procedure? 					
7	Hand hygiene Moment 3: Is hand hygiene been performed after removal of PPE / touching a patient?	Moment 3 – after possible body fluid exposure This may be after removing a dressing or touching other surface which could contaminate the gloves / hands. It is required even if gloves used.				
8	If sterile gloves are required are, they put on without contaminating the outer surface?	Observe the procedure (use a mock procedure if not possible to watch)..				
9	Is the antiseptic used in accordance with manufacturer's instructions – including drying time?	Observe the procedure. This may be before accessing a catheter or to cleanse a wound.				

10	Is the procedure performed without touching any critical parts of the sterile equipment, e.g. syringe luers?	Observe the procedure (use a mock procedure if not possible to watch).				
11	Is the procedure completed with the safe placement of a sterile dressing (if required)?	Observe the procedure (use a mock procedure if not possible to watch).				
12	Is the patient kept informed throughout the procedure?	Observe the procedure (use a mock procedure if not possible to watch).				
13	Before leaving the patient area, are all contaminated equipment /sundries safely placed in a healthcare waste bag for transport to the dirty utility room?	Observe the procedure (use a mock procedure if not possible to watch).				
14	Hand hygiene Moment 4 or 5 Hand hygiene is performed after removal of Personal Protective Equipment, Or at this point if no PPE is not used)?	Moments 4 & 5 are after touching a patient and after touching patient surroundings. NB If it is safe to do so WASTE may be discarded first				

C - After the aseptic procedure

No	Standard statement	Guidance	Yes	No	N/A	Comments
1	Is the waste discarded into the appropriate waste stream?	Observe the discarding of waste.				
2	Hand hygiene Moment 3 Hand hygiene is performed after discarding waste?	After possible body fluid exposure. Observe for the procedure.				
3	Is the trolley surface cleaned with detergent and water / detergent/disinfectant wipes and then dried?	Observe the procedure. NB disinfectant may be required if there is blood or body fluid contamination.				
4	Are the patient's notes updated with a report of the procedure performed?	Confirm done.				