



## Model Policy

# Aseptic Non-Touch Technique (ANTT®):

### A national, standardised approach to aseptic technique

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<p><b>Documents to be read alongside this model policy:</b></p>	<p><a href="#">ANTT Principles</a><sup>1</sup>  NHS Scotland's National Infection Prevention and Control Model Policies <a href="#">NIPCM</a> on-line<sup>2</sup>  <a href="#">Welsh Health Circular WHC/2018/020</a> (Welsh Government, May 2018)<sup>3</sup>  <a href="#">Code of Practice for the Prevention and Control of Healthcare Associated Infections</a> (Welsh Government, May 2014)<sup>19</sup>  <a href="#">Commitment to purpose: Eliminating preventable healthcare associated infections</a> (Welsh Government, (December 2011)<sup>18</sup>  <a href="#">Welsh Health Circular WHC/2015/026</a> (Welsh Government (June 2015)<sup>20</sup>  <a href="#">Welsh Health Circular WHC/2015/047</a> (Welsh Government, October 2015)<sup>21</sup>  <a href="#">epic 3: National Evidence-Based Guidelines for the Prevention of Healthcare-Associated Infections in Hospitals in NHS Hospitals in England</a> (Loveday et al, 2014)<sup>9</sup>  The Royal Marsden Hospital Manual of Clinical Nursing Procedures 9<sup>th</sup> Edition (2015)<sup>7</sup>  National Institute of Clinical Excellence (NICE) Infection prevention and control of healthcare-associated infections in primary and community care (2017)<sup>11</sup></p>
<p><b>Executive Summary:</b>  This model policy outlines the current national standardised approach for raising clinical standards of aseptic technique and achieving asepsis in non-invasive and invasive clinical procedures. The aim is to provide a standardised approach termed Aseptic Non Touch Technique (ANTT®) and to reduce variation in aseptic technique and practice across Wales in the prevention of healthcare associated infections (HCAI). As agreed previously by Nurse Directors, the intention is that this model policy is adopted as national policy by Health Boards and Trusts in Wales. This policy requires relevant managers and leaders to organise and support its implementation and ongoing evaluation. This will ensure relevant clinical staff are appropriately trained and competency assessed in ANTT® so that it is embedded into everyday asepsis practice.  This is the first review of the original ANTT model policy, first publication July 2017.</p>	
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## 1. Introduction

**Asepsis** is generally considered to mean 'Freedom from pathogenic material in sufficient quantity to cause infection'. During clinical procedures, the goal of asepsis is to prevent patient contamination by creating an environment that is low in microbe volume, the use of sterile devices, materials and instruments and aseptic technique.

Aseptic technique is a core nursing and medical skill but is also used by other allied healthcare professionals (AHP) and healthcare support workers. The standard of aseptic technique practice can be inconsistent, and if not undertaken correctly may be instrumental in causing a healthcare-associated infection (HCAI) within primary, community, secondary and out of hospital care.

Historically, aseptic technique has been seen to be confusing and ambiguous with practice terms and principles having different meanings for different users. This has led to inconsistency and some substandard practices.

In the challenge to reduce HCAI, 'Aseptic Non Touch Technique' (ANTT®) is used internationally as a safe and effective practice framework for aseptic technique for all aseptic clinical procedures<sup>20,21</sup>.

The Association of Safe Aseptic Practice (ASAP), in collaboration with Public Health Wales and supported by Welsh Government, have been providing [ANTT® resources](#) and practice and implementation support to all healthcare workers across Wales since June 2015.

Standardising aseptic technique with ANTT® across Wales will reduce variability in practice and further raise standards for the greater benefit of patients.

Welsh Government has directed all healthcare organisations to 'roll-out' ANTT® competency training to all relevant staff within their organisation ([WHC/2015/026](#))<sup>20</sup>. The principles of ANTT® align with the principles of prudent healthcare<sup>28</sup>. The need for asepsis, especially in the use of invasive procedures and wound management, is evidenced in the [epic3 Guidelines](#)<sup>9</sup>.

### What is ANTT®?

The ANTT® Approach is an International Campaign designed to promote a clear understanding of asepsis and the essential elements of aseptic technique. This approach is a three-way 'partnership' between patients, healthcare professionals and healthcare organisations, to actively promote the essential '6 Actions for Safe Aseptic Technique' (Appendix 4).

The ANTT® Practice Framework was originated by Stephen Rowley (2001)<sup>15</sup>, and is defined as, 'A *specific type of aseptic technique with a unique theoretical and clinical practice framework*'<sup>15</sup>.

The framework is applicable to all non-invasive and invasive clinical procedures including major surgery, the insertion and maintenance of indwelling medical devices, wound management and all primary, community and out of hospital based care that requires aseptic practice.

ANTT® Practice Framework developments and dissemination is overseen by The Association for Safe Aseptic Practice (ASAP), a non-profit non-governmental organisation (NGO). The ASAP is working in partnership with NHS Wales and Public Health Wales to standardise aseptic technique across as a national standard, and provides Welsh healthcare staff with updates to all ANTT® resources as they are reviewed and developed. The current resources and full ANTT® framework (last review and update February 2019) can be found following this [link](#). A summarised version is given in Rowley et al (2010)<sup>16</sup>.

ASAP can be contacted for on-going support on practice and implementation issues via [www.antt.org](http://www.antt.org).

## 2. Purpose

The purpose of this national model policy is to support the implementation of the ANTT® practice framework to enable standardisation of technique and 'practice language' for all aseptic procedures. ANTT® must be embedded into every day clinical procedures as part of a robust commitment to reducing the risks of HCAI. Welsh Government set HCAI reduction expectations for *Clostridium difficile*, *staphylococcus aureus* bacteraemia and Gram-negative bacteraemia up to end of March 2019 ([WHC/2018/020](#))<sup>3</sup>. Compliance with ANTT® will support Health Boards/Trusts in reducing HCAs and antimicrobial prescribing, to achieve future reduction expectations, including positively impacting on MRSA and MSSA rates.

[1000 Lives Improvement Programme for HCAI and AMR](#) provides support to all Welsh healthcare organisations to reduce HCAs. Working collaboratively with 1000 Lives Programme in implementing ANTT® will promote HCAI reduction.

## 3. Aims and Objectives

This model policy provides a well tried and tested evidence-based framework for establishing ANTT® as the safe and effective technique for all aseptic procedures in healthcare organisations across Wales.

Objectives are:

- To identify the role of ANTT® in the reduction of HCAI
- To identify key roles and responsibilities in ANTT® implementation

- To describe the implementation and uses of ANTT®
- To identify the principles of ANTT® and its application to practice
- To outline the requirements for learning and competency assessment for staff undertaking clinical aseptic procedures
- Provide resources and toolkit to support ANTT® in practice
- To be relevant in acute, community and primary care settings, including emergency out of hospital care.

#### **4. Scope of the Policy**

This model policy is applicable in all settings that provide healthcare to patients and/or service users and to all healthcare workers (HCW) who perform a clinical procedure that requires an aseptic technique.

#### **5. Roles and Responsibilities within Organisations**

The Board and Chief Executive Officer (CEO) has ultimate responsibility for Infection Prevention and Control within Health Boards and NHS Trusts. This responsibility, together with responsibility for ANTT® is delegated to the executive Team under the leadership of the Executive Director of Nursing.

##### **5.1 The Executive Director of Nursing:**

- Has overall responsibility to ensure that ANTT® is fully implemented and effectively sustained within their organisation<sup>17,18</sup>
- Must ensure that this and local ANTT® policy/procedures are adhered to.
- Must nominate an organisational lead for ANTT®
- Must review progress of ANTT® implementation and report to the Board

*The operational and professional responsibility lies with the individual performing the procedure.*

##### **5.2 Senior Clinical Leads, Departmental and Nurse Managers will:**

- Be responsible for the effective implementation and monitoring of compliance with ANTT®, ensuring appropriate action is taken when staff fail to comply with policy and required training
- Identify an ANTT® lead and key trainers for their area
- Ensure additional resources and/or equipment is available to facilitate the HCW undertaking the theory and practice of ANTT®
- Facilitate completion of the All-Wales e-learning programme for ANTT® by all HCWs involved in aseptic procedures e.g. protected work time and access to a computer
- Facilitate completion of competency assessment for all HCWs undertaking any type of aseptic procedure
- Monitor and report on competency level of the team
- Support HCWs in achieving compliance with all statutory and mandatory training, including Infection Prevention and Control (IPC) mandatory training

- Bring this model policy to the attention of all health professionals or workers involved in ANTT®
- Embed ANTT® into routine aseptic practice

### 5.3 Healthcare Workers (HCWs) will:

- Have a responsibility to be familiar with [NIPCM](#) policies<sup>2</sup> and adhere to this model policy and other relevant local IPC policies to reduce the risk of transmission of infection
- Always act in the patients' best interest
- Perform invasive and other procedures in accordance with the principles and process of ANTT® (appendices 2-5) and this policy
- Take personal responsibility for attendance at mandatory training or completion of relevant e-learning and act in accordance with the '[Code of Practice for the Prevention and Control of Healthcare Associated Infections](#)'<sup>6</sup>
- Be accountable for their practice in accordance with their job description and professional codes of conduct, for example, [NMC Code of Professional Practice](#)<sup>12</sup> and [GMC Good Medical Practice](#)<sup>8</sup>
- Undertake the required ANTT® training and competency assessment if performing any aseptic clinical procedures
- Embed ANTT® into all aseptic practice

### 5.4 Primary and Community Care Healthcare Staff, including Welsh Ambulance NHS Trust (WAST)

In any out of hospital care settings (e.g. Community Nursing, Primary Care, Long Term Care Facilities, Welsh Ambulance Service NHS Trust) there may be challenges in the application of ANTT® principles relating to equipment and the environment. A local risk assessment (appendix 7) should be undertaken to assess how the principles can be adopted and any adaption (if necessary) should be documented, minimising patient risk. Resources to assist with this risk assessment are available on Public Health Wales [website](#) and via [www.antt.org](http://www.antt.org).

Whilst recognising the application of ANTT® in challenging situations, it is still possible to aim to minimise patient risk by applying ANTT® '4 Actions for Safe Aseptic Technique' (Appendix 3). Tools and resources specific to community settings and ambulance staff can be accessed via this [link](#). Appendix 6 provides an example template for 'Ambulance Peripheral Cannulation Guideline'.

See also 9.6 – Emergency ANTT®.

ANTT® principles will be applied and adapted to the management of chronic wounds. While it is recognised some chronic wound procedures e.g. leg ulcer cleansing and dressing in a patients' own home, can be simplified, the aim is always asepsis, with the aim being not to introduce any further microorganisms into the wound. Guidance should be sought from the Tissue Viability Nurse on aspects that do require ANTT®.



**5.5 Consultant Medical Staff** will:

- Undertake the required ANTT® training and competency assessment
- Comply with [Good Medical Practice framework](#) (GMC 2014)<sup>8</sup>
- Be responsible for ensuring their junior doctors and teams adhere to and embed the principles of ANTT® and undertake the required training

**5.6 Infection Prevention and Control Team (IPCT), Tissue Viability Nurse (TVN), Contenance Teams and Intravenous Access Teams**

These specialist teams will participate in the National ANTT® Steering Group supporting ANTT® rollout across Wales. They have a pivotal role in assisting relevant organisational teams to: coordinate ANTT® implementation, ensure training in their specialist fields conforms to ANTT principles as well as risk-management and evaluating effectiveness of its use.

**The IPCT will:**

- Provide expert advice in accordance with this policy
- Support managers and staff with the implementation of ANTT®
- Provide information, advice and training to enable managers and users to undertake necessary risk assessment
- Support investigations in areas with specific risk to advise on safe practice
- Ensure local or adapted procedures/policy remains consistent with the evidence-base for safe practice and review/update local policy and procedures at least every 3 years
- Identify areas for improvement and report to Infection Prevention and Control Managers, local Infection Prevention and Control Committee, and local Clinical Risk or Patient Safety, Health and Safety and national groups
- Support education and training programme for ANTT® across primary and secondary care

**5.7 Nominated ANTT® Lead** will:

- Provide local leadership for the roll-out of ANTT®
- Participate in PHW-led all-Wales ANTT® Steering Group to enable sharing of best practice from and within their organisation
- Provide guidance to their organisation on future developments, e.g. primary care roll out, updated resources, standardised packs
- Ensure that local training, policies, procedures and guidelines are ANTT® compliant

**5.8 Nominated Key-Trainers/Facilitators** from each clinical area or professional group will:

- Facilitate completion of All Wales ANTT® e-learning training by all HCWs involved in aseptic processes
- Provide supplementary electronic/paper ANTT® training and competency assessment to relevant staff within their department

- Keep accurate records of staff trained
- Instil a culture for asepsis and of ANTT® practice across their clinical area/professional group
- Ensure compliance with ANTT® practice is achieved, challenging unsafe practice appropriately
- Maintain own compliance with ANTT® competence and practice
- Identify and support additional resources needed for compliance with ANTT® key principles
- Identify and address challenges and share areas of good practice via the Quality, Safety and Experience structures

## 5.9 Procurement Leads

Prior to purchase of any re-usable patient equipment, discussion must take place with manufacturers, local infection prevention and control leads and local decontamination leads, where applicable, to ensure that such items can be safely decontaminated within the organisation. Equipment in use is required to facilitate ANTT® e.g. insertion packs, trays, trolleys. These should be made readily available and accessible across the organisation. There should be rationalisation and standardisation of equipment choices across Wales to help reduce practice variation in aseptic technique.

## 5.10 Higher Education Institutes (HEI):

Universities across Wales will work to standardise their curriculum regarding teaching and learning competencies in ANTT® for all healthcare professional students e.g. nursing, medical, podiatry, paramedicine and allied health in respect of ANTT®, at the point of registration.

## 6 Implementation of ANTT®

The implementation of ANTT® will require:

- Executive level commitment
- A robust ANTT® training and assessment programme
- Equipment and appropriate resources
- Raising ANTT® awareness across the whole organisation
- A locally agreed ANTT® audit programme
- External audit programme, as agreed with ASAP and HARP, PHW
- Robust monitoring and recording processes for compliance

### 6.1 ANTT® Accreditation for Healthcare Providers:

[ANTT® Accreditation](#) overseen freely by ASAP, provides healthcare organisations with a mechanism to demonstrate effective clinical governance for aseptic technique, and commitment to infection prevention and patient safety. This can be useful to demonstrate an organisations hard work in infection prevention to external regulators, patients and the public. There are three levels of accreditation:

- [Bronze Accreditation](#)
- [Silver Accreditation](#)
- [Gold Accreditation](#)

Accreditation criteria is based upon the following pre-requisites for safe and best practice:

- ANTT® Policy
- ANTT® Education
- ANTT® Assessment
- ANTT® Monitoring

For support with ANTT Accreditation please contact [enquiries@antt.org](mailto:enquiries@antt.org)

## 7 Training:

Wales commenced ANTT® programme roll out in June 2015 ([WHC/2015/026](#))<sup>20</sup>. Substantial progress has been made across Wales despite limited resources to support this; however, all organisations are required to continue to aim for 100% compliance for those who will be performing procedures requiring the principles of aseptic technique.

As new employees join the organisation, compliance with ANTT® should be mandated as part of their induction programme.

Priority for training should be given to staff working within augmented care units, staff carrying out invasive procedures, and all new employees.

Professional registrants must recognise their accountability in accordance with their own code of conduct<sup>8,12</sup>, e.g. The Code (Nursing and Midwifery Council 2015)<sup>12</sup> states that nurses must have a good knowledge base before performing any clinical procedure and should be trained appropriately and have achieved competency within their clinical area. The General Medical Council (2014)<sup>8</sup> states that doctors must recognise and work within the limits of their competence.

- All HCWs across Wales who are involved in aseptic procedures will complete the nationally agreed ANTT® training in the principles and theory for ANTT® i.e. current e-learning module at learning@ NHS Wales: <https://learning.wales.nhs.uk/>
- ANTT® will also be taught locally within departments by means of trained key-trainers/facilitators, using ANTT® resources: [http://antt.org/ANTT\\_Site/resources.html](http://antt.org/ANTT_Site/resources.html) within an implementation framework set out by the local organisation.
- All taught procedures involving asepsis will be undertaken using ANTT®.
- All HCWs performing ANTT® must be assessed as competent in the application of ANTT® utilising either the [Standard ANTT® Competency Assessment Tool](#) (CAT) or [the Surgical CAT](#).
- It is recommended that ANTT® competency assessment should be undertaken within 3 months of completing the ANTT® e-learning programme.

- HCWs performing aseptic procedures must maintain their ANTT® competency with at least three-yearly practical competency assessment, monitored via local annual appraisal process.
- HCWs have an individual responsibility to ensure their competencies are maintained and must inform their line manager of any obstacles preventing them to achieve this, or lapse in competency.
- Should a HCW change specialties or commence a new post within the HB/Trust requiring competence in different skill sets, the need for further ANTT® training/assessment must be risk assessed and agreed with their line manager. Advice can be sought from the local ANTT® Lead.

For staff who are unable to access ANTT® [e-learning programme on-line](#), arrangements need to be made for electronic/paper educational resources, which must include the main principles of ANTT®.

It is acknowledged there remains a period of time when not all staff performing aseptic technique will have undergone the appropriate training and assessment in ANTT®, therefore, existing aseptic practice skills may be used to ensure service delivery is not affected following individual local risk assessment.

## 8 Standard Terminology

Aseptic technique is historically confused with ambiguous terms used interchangeably. The ANTT® Practice Framework defines aseptic practice explicitly:

- ***Sterile Technique***

ANTT® does not use the word “sterile” for describing technique; due to the natural multitude of organisms in the atmosphere, it is not possible to achieve a true sterile technique in any setting. The term sterilized is used to identify products and equipment that have been sterilized. However, once opened to air equipment and products are said to be aseptic.

- ***Asepsis / Aseptic technique***

The term ‘asepsis’ means, ‘*Freedom from pathogenic material in sufficient quantity to cause infection*’. It is possible to achieve asepsis in health care delivery by taking steps to reduce patient contamination. Aseptic technique is a generic term for aseptic practice and has no explicitly defined practice framework.

- ***Aseptic Non-Touch Technique (ANTT®)***

ANTT® is a specific type of aseptic technique with a unique theoretical and clinical practice framework<sup>10,11,12</sup>. The ANTT® Practice Framework includes a set of Principles and Safeguards that, if followed, will ensure asepsis for all types of invasive procedures ‘from the operating theatre to the

community setting'. It is based on a novel concept termed 'Key-Part and Key-Site Protection'.

The 'ANTT-Approach' involves a combination of methods aimed at achieving and supporting best practice aseptic technique; including the ANTT<sup>®</sup> Practice Framework, a set of ANTT<sup>®</sup> Guidelines for the most common invasive procedures and a standard implementation process.

- **Non-Touch Technique**

Non-touch technique is not a technique in itself. It is however an important component of ANTT<sup>®</sup>.

## 9 ANTT<sup>®</sup> Practice Framework outline

(Appendix 5)

This model policy is not intended as an educational tool for ANTT<sup>®</sup>. It is important that Practice Leads refer to the full ANTT<sup>®</sup> Practice Framework available on the Public Health Wales [website](#) or [www.antt.org](http://www.antt.org).

A snapshot of the framework is outlined below:

- The aim of ANTT<sup>®</sup> is always asepsis (see section 8)
- **Key-Parts:** are the critical parts of any equipment that come into contact with Key-Sites; any liquid infusion; or with any other active Key-Parts connected to the patient via a medical device. If contaminated during a procedure, Key-Parts provide a route for the transmission of pathogens onto or into the patient, and present a significant infection risk.
- **Key-Sites:** open wounds, including insertion and puncture sites for invasive medical devices.
- **There are two types of ANTT<sup>®</sup> (Surgical and Standard) determined by a simple ANTT<sup>®</sup> Risk Assessment:**
- **Standard-ANTT<sup>®</sup>** is used for procedures that are technically simple to achieve asepsis. Typically, such a procedure will be of short duration and involve few small Key-Parts and Key-Sites. In Standard-ANTT, primarily non-touch technique and individual Micro Critical Aseptic Fields protect Key-Parts.
- **Surgical-ANTT<sup>®</sup>** is required for procedures that are technically complex to achieve asepsis, are of longer duration, involve large open-sites and large or numerous Key-Parts. In contrast to Standard-ANTT, in Surgical-ANTT, Key-Parts are managed on one main Critical Aseptic Field (sterile drape) and sterile gloves are essential.

- **Aseptic Fields in ANTT®:** the type of aseptic field and how it is managed is dependent upon the type of ANTT® being utilized.

ANTT® uses three types of aseptic field:

- ✓ **Critical Aseptic Field:** a large sterile drape that is managed 'critically'
- ✓ **Micro Critical Aseptic field:** sterilized caps and covers etc. including the inside of some equipment packaging
- ✓ **General Aseptic Field:** A disinfected plastic tray, suitable sized single-use cardboard tray. NB: General Aseptic Fields are not relied upon to maintain asepsis. They are used to promote asepsis whilst Key-Parts within them are protected by Micro Critical Aseptic Fields. (See above).

*A pre-requisite to safe ANTT® is compliance with standard infection prevention and control precautions:*

### **9.1 Important basic infection prevention practice for aseptic technique:**

This outline policy is not intended as a comprehensive educational tool, however, as well as providing an outline of the ANTT® Framework above, some important general aspects of aseptic technique are outlined below.

### **9.2 Use of Standard Infection Prevention and Control Precautions (SIPCP) such as hand hygiene:**

SIPCPs should be performed in line with [epic3 Guidelines](#)<sup>9</sup>. Health Protection Scotland's model policies on-line ([NIPCM](#))<sup>2</sup> have been adopted across healthcare in Wales (April 2018) and replace WHAIP's all-Wales model policy for Standard Infection Control Precautions and Transmission Based Precautions.

HCAI transmission is associated with direct contact with the contaminated hands of HCWs. Hand decontamination is the single most significant procedure in preventing cross infection<sup>2,9,22,27</sup>. It is essential that hands are effectively decontaminated in accordance with '[WHO Five moments for hand hygiene](#)'<sup>22</sup> prior to, during, and if necessary, after all aseptic procedures are performed. Gloves must be worn correctly and removed with care to prevent shedding or spreading of microorganisms.

### **9.3 Use of personal protective equipment (PPE)**

Gloves and aprons provide a barrier between microorganisms on hands, clothing and the susceptible sites. Gloves must be worn for standard procedures where there is contact with non-intact skin, mucous membranes, and any activity where there is a risk of exposure to blood or body fluids. The use of non-sterile gloves are typically used for Standard-ANTT® procedures e.g. intravenous medication, parenteral nutrition, venepuncture, and cannulation, as per local policies. Sterile gloves must be worn for Surgical ANTT® procedures such as surgery, urinary catheterisation or central venous catheter insertion. Facial protection such

as visors or surgical facemasks should be worn according to [NIPCM](#) recommendations<sup>2</sup> and local risk assessment.

#### **9.4 Environmental / Air contamination**

Airborne microorganisms in hospitals are increasingly being shown to present a risk of infection. Sensible precautions can be taken to reduce the risk of environmental contamination and include:

- Preparation of drugs to be undertaken in an appropriate designated area away from the bedside
- Do not undertake ANTT® when bacteria levels are likely to be at their highest e.g. ward/department cleaning, adjacent to portable electric fans or close to open windows or building refurbishment
- Do not undertake ANTT® following recent bed making or patient undressing/dressing

#### **9.5 Pre-requisite support of effective aseptic technique**

The risk of microbiological contamination during ANTT® procedures can be reduced by important pre-requisite measures including:

- Effective environmental cleaning
- Safe storage of procedure equipment
- Compliance with decontamination procedures and policies
- Ergonomically designed clinical preparation areas
- Rationalisation and standardisation of procedure and equipment choices

#### **9.6 Emergency ANTT (NEW February 2019)**

*For WAST frontline emergency staff, including advanced paramedic practitioners, paramedics, advanced technicians, technicians, urgent care services staff, sub-contracted emergency staff, non-NHS organisations, Bank and agency frontline staff.*

The use of ANTT® is widespread within acute hospitals, yet ANTT's simple but robust practice principles are equally effective in the most challenging and emergency situations and environments. Emergency life-saving time-critical procedures undertaken in the out of hospital environment justify reason for non-compliance with ANTT® and Emergency ANTT® is the pragmatic approach to ANTT®, focusing specifically on:

- What is possible to deliver at that moment
- Prioritise the points at which 'Key-Parts' and 'Key-Sites' interact (the moments microbes can transfer)
- Dynamic risk assessment to determine preparation steps, and if they cannot be delivered, the most essential components of aseptic technique are prioritised first

The intention is not to dilute ANTT® or reduce standards, but to focus the practitioners' attention to the most important elements of safe practice first, in relation to time, setting and equipment permitting.

Emergency ANTT® should only be selected following risk assessment of the situation, for example: 'Do I have the time, the equipment and the environment to apply Standard or Surgical ANTT?'

If the answer is 'yes' – use Standard or Surgical ANTT

If the answer is 'no' – use Emergency ANTT

It is important for the practitioner to document and handover when emergency ANTT is used and clarify if asepsis was maintained or compromised due to the 'emergency' situation. WAST intend to introduce the use of ANTT coded colour labels, which will be applied to any invasive procedures performed to alert receiving staff of ANTT procedures used (see Appendix 7).

## **10 [Resources](#)**

### **10.1 ANTT® Procedure Guidelines**

These simple picture based procedure guidelines are a highly effective way for the organisation to make practice expectancy explicit, setting out procedure sequence and equipment. They should be displayed prominently in relevant clinical areas.

### **10.2 [The ANTT-Approach](#)**

'The ANTT-Approach' is an International Campaign designed to promote the essential elements of aseptic technique. This approach is a three-way 'partnership' between patients, HCWs and healthcare organisations to actively promote the essential '6 Actions for Safe Aseptic Technique' to be used every time.

Three posters simplify this framework:

- Patient poster – *Appendix 3*
- Clinical Staff Poster – *Appendix 4*
- ANTT® Clinical Practice Framework poster – *Appendix 5*

### **10.3 Steps for ANTT® procedure – see Appendix 2**

## **11 Dissemination and Implementation**

This revised and updated policy (July 2019) will be implemented via the following routes:

- Circulation to all Health Board/Trust Executive leads, IPCT leads, WAST leads, Primary & Community Care leads
- Available via local Health Board/Trust Document library
- Available via PHW/HARP website
- Available to all HCWs via local Health Board/Trust intranet

Each Health Board/Trust is responsible for the full implementation of this revised policy and must ensure all relevant staff have access to the policy.



## 12 Audit and Monitoring of ANTT® Implementation

Monitoring will be undertaken through:

- The percentage of staff that have completed ANTT® theory and ANTT® Competency Assessments.
- Audit observation of clinical practice and aseptic procedures.
- Targeted patient feedback.
- Documentation/policy review.
- As part of the 1000 plus lives initiatives e.g. bundle use and catheter-associated urinary tract infection (CAUTI) prevention, peripheral venous catheter (PVC) and central venous catheter (CVC) care, prevention of surgical site infection (SSI).
- Identifying impact of ANTT® on investigating HCAI, e.g. *Staphylococcus aureus* bacteraemia or surgical site infection (SSI) through root cause analysis (RCA) and post-incident review (PIR).
- Annual IPC rolling programme of audit, including external audit by ASAP and HARP team, PHW
- Target audit programme where deemed necessary following incident or outbreak.
- Required changes in practice identified and actioned.
- ANTT® accreditation.

*Any 'lessons learnt' should be shared locally and nationally across Wales to support and promote best practice.*

## 13 Policy Conformance / Non-Compliance

If any Health Board employee fails to comply with this policy, the matter may be dealt with in accordance with their local Disciplinary Policy. The action taken will depend on the individual circumstances and will be in accordance with the appropriate disciplinary procedures. Under some circumstances, failure to follow this policy could be considered gross misconduct.

## 14 Distribution

The all-Wales policy will be available on the PHW/HARP internet site and via local Health Board/Trust Intranet site. Where staff do not have access to the intranet, their line manager must ensure that they have access to a paper copy of this policy.

## 15 Review

This policy will be reviewed every 2 years.

## 16 Legislation

The Control of Substances Hazardous to Health (COSHH) Regulations 2002 (as amended), Health and Safety Executive, L5 (6<sup>th</sup> edition) 2013.

## **17 Equality**

An Equality Impact Assessment has been undertaken at an all-Wales level on completion of version 1 (July 2017). This has been reviewed (June 2019) and no change required.

A Verification report has been completed for HARP, Public Health Wales to support version 2 (July 2019).

## 18 References and bibliography

1. ANTT principles: [www.antt.org](http://www.antt.org)
2. NHS Scotland's National Infection Prevention and Control Model Policies (NIPCM) on-line: [www.publichealthwales.org/nipcm](http://www.publichealthwales.org/nipcm) and [www.iechydcyhoedduscymru.org/nipcm](http://www.iechydcyhoedduscymru.org/nipcm)
3. Welsh Government: Welsh Health Circular ([WHC/2018/020](http://www.welsh.gov.uk/whc/2018/020)) Issue date: 04 May 2018: AMR improvement goals and HCAI reduction expectations by March 2019: Primary and secondary Care Antimicrobial Prescribing Goals; Cdifficile, S.Aureus, Bacteraemias and Gram Negative Bacteraemias.
4. Implementing the Aseptic Non Touch Technique (ANTT®) clinical practice framework for aseptic technique: a pragmatic evaluation using a mixed methods approach in two London hospitals. Volume 9, Issue 1. January 2018. Journal of Infection Prevention, SAGE Journals. <https://journals.sagepub.com/doi/full/10.1177/1757177417720996>
5. The Control of Substances Hazardous to Health (COSHH) Regulations 2002 (as amended). Health and safety Executive, L5 (6th edition) 2013: <http://www.hse.gov.uk/pUbns/priced/l5.pdf>
6. Department of Health (2009), the Health and Social Care Act (2008). Code of Practice for health and adult social care on the prevention and control of infections and related guidance. London. Last update 24 July 2015: [http://www.suttonccg.nhs.uk/Documents/Code\\_of\\_practice\\_280715\\_acc.pdf](http://www.suttonccg.nhs.uk/Documents/Code_of_practice_280715_acc.pdf)
7. Dougherty L. Lister S (2015) Aseptic Technique In: L Dougherty & S Lister (eds) The Royal Marsden Hospital Manual of Clinical Nursing Procedures 9th Ed. UK. Wiley-Blackwell 110-112 Chapter 3. March 2015.
8. [General Medical Council \(GMC\) Good Medical Practice](http://www.gmc-uk.org/gmc/good_medical_practice/working_with_doctors/working_for_patients), Working with doctors Working for patients. 29 April 2014.
9. Loveday H.P., Wilson J.A., Pratt R.J., Golsorkhi M., Tingle M., Bak A., Browne J., Prieto J., Wilcox M. (2014) [epic 3: National Evidence - Based Guidance for Preventing Healthcare Associated Infections in NHS Hospitals in England](http://www.journals.hogrefe.com/doi/full/10.1185/17445019.2014.280715). Journal of Hospital Infection. S1.
10. [Healthcare Associated Infections – NICE resources](http://www.nice.org.uk/guidance/NG53), last update 11 April 2019.

11. [NICE Infection prevention and control of healthcare-associated infections in primary and community care: Clinical guideline \(CG139\)](#). Last update February 2017.
12. NMC (2015) Code of Professional Practice. London. NMC. Last update: 10 October 2018:  
<https://www.nmc.org.uk/globalassets/sitedocuments/nmc-publications/nmc-code.pdf>
13. Rowley, S. (2009) Improving standards of aseptic technique practice through an ANTT trust-wide implementation process: a matter of prioritisation and care. *Journal of Infection Prevention*, 10(1)
14. Rowley, S and Clare S (2011) ANTT: a standard approach to aseptic technique. *Nursing Times*; 107 :( 36) Rowley, J.
15. Rowley, S (2001) Aseptic Non Touch Technique *Nursing Times*. *Infection Control Supplement* Feb 15 97(7) p V1-V111.
16. Rowley S, Clare S, Macqueen S, Molyneux, R (2010) ANTT v2: An updated practice framework for aseptic technique. *British Journal of Nursing* 2010: 19(5); S5-S11.
17. [Wales Governance e-manual, Standard 13: Infection Prevention and Control and Decontamination](#).
18. Welsh Government (2011).Commitment to Purpose: eliminating preventable healthcare associated infections (HCAI):  
<https://gov.wales/docs/dhss/publications/111216commithcaien.pdf>
19. Welsh Government (May 2014). [Code of Practice for the Prevention and Control of Healthcare Associated Infections](#).
20. Welsh Government: Welsh Health Circular ([WHC/2015/026](#)) 5 June 2015: Aseptic Non-Touch Technique (ANTT): Implementation of a National Standardised Approach (Welsh Government, June 2015).
21. Welsh Government: Welsh Health Circular ([WHC/2015/047](#)) 9 October 2015: Aseptic Non Touch Technique (ANTT): Implementation of a National Standardised approach- Follow-up (Welsh Government, October 2015).
22. WHO '[5 moments for hand hygiene](#)'.
23. Welsh Government: [WHC/2018/020](#): AMR Improvement Goals & HCAI Reduction Expectations by March 2019: Primary & Secondary Care

Antimicrobial Prescribing Goals; *C.difficile*, *S.aureus* bacteraemias and Gram-negative bacteremia. Issue date: 04/05/2018.

24. Khurana, S., Saini, S.S., Sundaram, V., Dutta, S. and Kumar, P., 2018. Reducing Healthcare-associated Infections in Neonates by Standardizing and Improving Compliance to Aseptic Non-touch Techniques: A Quality Improvement Approach. *Indian pediatrics*, 55(9), pp.748-752.
25. Aziz, A.M., 2018. Winter and the key infection prevention and control practices. *British journal of community nursing*, 23(11), pp.530-533.
26. Haesler, E., Thomas, L., Morey, P. and Barker, J., 2016. A systematic review of the literature addressing asepsis in wound management. *Wound Practice & Research: Journal of the Australian Wound Management Association*, 24(4), p.208.
27. *Preventing Healthcare Associated Infections in NHS Hospitals in England*. Journal of Hospital Infection. S1-S70.
28. Welsh Government/Public Health Wales/1000 Lives: [Making prudent healthcare happen](#) (2015): Accessed 15/01/2019:
29. 1000 Lives Programme, Public Health Wales: Reducing harm and Improving patient safety: Reducing Healthcare associated Infection and Antimicrobial Resistance in Wales:  
<http://www.1000livesplus.wales.nhs.uk/hcai>

## 19 APPENDICES

### Appendix 1: Definitions / Glossary

#### **Asepsis**

Freedom from pathogenic material in sufficient dose to cause infection.

#### **Aseptic field**

A working area that has been rendered aseptic in order to reduce the risk of contamination of procedure equipment. See above for the types of aseptic field used in ANTT®.

#### **Aseptic Technique**

A generic term and variable process for describing the precautions taken to reduce the risk of infection during invasive clinical procedures.

#### **Aseptic Non Touch Technique (ANTT®)**

A specific type of aseptic technique with a unique theoretical and clinical practice framework (NICE 2012).

#### **Decontamination**

Removing, or killing pathogens on an item or surface to make it safe for handling, re-use or disposal by cleaning, disinfection and/or sterilisation.

#### **Direct contact transmission**

Spread of infectious agents from one person to another by direct skin-to-skin contact.

#### **Disinfectant**

A cleaning chemical used to remove infectious agents from objects and surfaces.

#### **Disinfection**

A process, for example using a chemical disinfectant, to reduce the number of infectious agents from an object or surface to a level that means they are not harmful to your health.

#### **Hand Hygiene (HH)**

HH is the single most important procedure for preventing the spread of HCAI. Effective HH is essential to ANTT® and must take place prior to and after all invasive techniques. HH applies to hand washing, antiseptic hand wash, antiseptic hand rub or surgical hand antisepsis.

#### **Healthcare-associated Infection (HCAI)**

Any infection acquired by a person as a consequence of healthcare interventions regardless of where care is delivered.

**Indirect contact transmission** – The spread of infectious agents from one person to another via a contaminated object.

**Invasive device** – A device which penetrates the body, either through a body cavity or through the surface of the body. Central Venous Catheters (central line), Peripheral Arterial Lines and Urinary Catheters are examples of invasive devices.

### **Invasive Procedures**

A medical/nursing procedure that invades (enters) the body, usually by cutting or puncturing the skin or by inserting instruments into the body cavity.

**Microorganism (microbe)** – Any living thing (organism) that is too small to be seen by the naked eye. Bacteria, viruses and some parasites are microorganisms.

**Mode of transmission** – The way that microorganisms spread from one person to another. The main modes or routes of transmission are airborne (aerosol) transmission, droplet transmission and contact transmission.

**MRSA** – Strains of the infectious agent (bacterium) *Staphylococcus aureus* that are resistant to many of the antibiotics commonly used to treat infections.

### **Personal Protective Equipment (PPE)**

Equipment a person wears to protect themselves from risks to their health or safety, including exposure to infections e.g. disposable gloves and disposable aprons.

### **Spore**

A form that some types of bacteria take under certain environmental conditions. Spores can survive for long periods of time and are very resistant to heat, drying and chemicals.

### **Sterile**

Free from all live bacteria or other microorganisms.

### **Sterilisation**

The procedure of making some object free of all germs, live bacteria or other microorganisms (usually by heat or chemical means).

**Appendix 2: Steps to an ANTT® procedure**

Step 1.	ANTT® risk assessment: Does this procedure need the ANTT® principles applied? Is a Standard or Surgical-ANTT® required? Gain patient's consent and explain procedure Draw curtains around patient or take to appropriate room
Step 2	Decontaminate hands
Step 3	Clean trolley/tray with appropriate detergent wipe Gather equipment including alcohol hand rub
Step 4	Create suitable working environment. If procedure is performed at the bedside ensure no cleaning or bed making are ongoing within the area for at least 30 minutes. Ensure windows are closed and no fans are on
Step 5	Decontaminate hands
Step 6	Apply single use disposable apron
Step 7	If required open dressing pack/sterile drape
Step 8	Open and prepare all equipment on the tray/trolley. Keep all equipment within their packaging. Identify Key-Parts
Step 9	Decontaminate hands
Step 10	Apply gloves if required
Step 11	Perform procedure using ANTT®
Step 12	Remove gloves and aprons and other PPE
Step 13	Dispose of waste
Step 14	Decontaminate hands
Step 15	Take patient back to the bedside if required and ensure patient is comfortable
Step 16	Clean trolley/tray/environment
Step 17	Decontaminate hands



**Appendix 3: ANTT® Patient Poster**

*Protecting YOU Every Time with...*  
**4 Actions for Safe Aseptic Technique**

## The ANTT-Approach

*Aseptic Technique describes the measures we take to protect you from infection during invasive clinical procedures, such as surgery, insertion of medical devices and administration of intravenous medications. ANTT is a unique type of aseptic technique (NICE 2012).*



**1 Hand Cleaning**  
*We clean our hands immediately prior to commencing your procedure, and use protective equipment like gloves*



**2 Using Aseptic Fields**  
*We protect procedure equipment from microorganisms by using a cleaned procedure tray and individual equipment covers or, for more complex procedures, use a sterilized drape*



**3 Using Non-Touch Technique**  
*We avoid touching the 'Key-Parts' of procedure equipment & any open wound or procedure skin site. If we must touch them we wear sterilized gloves*



**4 Preventing Cross Infection**  
*We remove our gloves and wash our hands immediately after we have tidied up your procedure*

*If you have questions or concerns about aseptic technique please ask the Nurse in Charge*

[www.antt.org](http://www.antt.org)



**Appendix 4: ANTT® Clinical Staff Poster**

*Protect Patients Every Time with...  
6 Actions for Safe Aseptic Technique*

# The ANTT-Approach



1

## Risk Assessment

*Select Standard or Surgical-ANTT according to the technical difficulty of achieving asepsis*



2

## Manage the Environment

*Avoid or remove contamination risks*



3

## Decontaminate & Protect

*Hand cleaning, personal protective equipment (PPE).  
Disinfecting equipment, surfaces and Key-Parts*



4

## Use Aseptic Fields

*General, Critical and Micro Critical Aseptic Fields  
protect Key-Parts & Key-Sites*



5

## Use Non-Touch Technique

*Key-Parts must only come into contact with other  
Key-Parts & Key-Sites*



6

## Prevent Cross Infection

*Safe equipment disposal, decontamination  
& hand cleaning*

*ANTT is a unique type of aseptic technique (NICE 2012)*

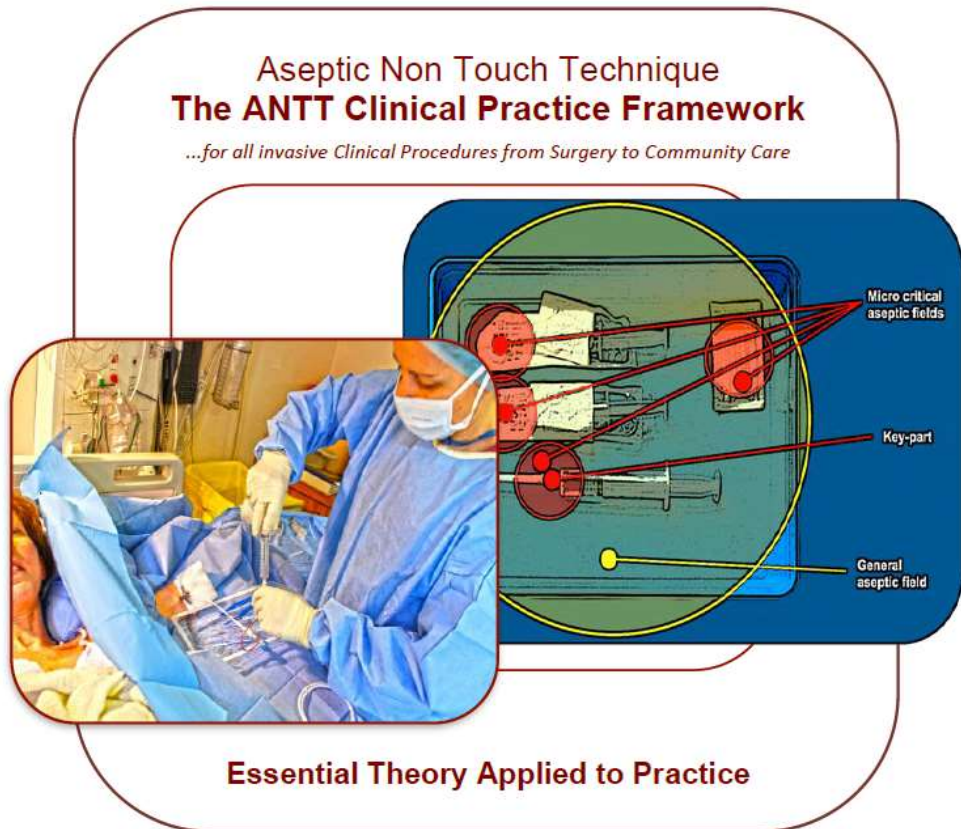
For the ANTT Clinical Practice Framework see - [www.antt.org](http://www.antt.org)



## Appendix 5: ANTT® Clinical Practice Framework Poster:



www.antt.org



*First,  
do no  
harm*



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## Appendix 6: Example template for Ambulance Staff: Peripheral Cannulation Guideline (2017)

ANTT

Ambulance Peripheral Cannulation Guideline

for the ANTT practice principles see: [www.antt.org](http://www.antt.org)

Preparation Zone

1



If using a tray clean with universal sanitising wipe; allow tray to dry

2



Gather all equipment to hand

3



Decontaminate hands

4



Open IV pack creating a general aseptic field

5



Open cannula into the field. Protect Ray-Parc using protective sleeve & non-touch technique (NTT)

6



Prepare 10ml H<sub>2</sub>O flush. Return syringe to packet & place on the field. Add unopened skin prep

Procedure (Patient) Zone

7



Apply tourniquet (single use and disposable)

8



Palpate the vein

9



Decontaminate hands & apply non sterile gloves

11



Clean skin using back & forth & left to right strokes for 30 secs

12



Allow skin to dry. Do not re-palpate the vein. Re-clean the skin if re-palpation is unavoidable

13



Insert cannula to PICC guidelines ensuring insertion site is not touched. Safe disposal of sharp. Remove tourniquet, flush with NS

Post Procedure Zone

14



Secure cannula with semi-permeable, transparent dressing

15



Remove gloves, & decontaminate hands

16



Decontaminate hands

17



Apply a white 'replace in 72 hrs' label

If any of the previous steps could not be performed, e.g. for life-threatening or environmental conditions, use a yellow 'not optimal' label. Advise the receiving hospital to replace the cannula as soon as possible



18



Record the date, time and type of insertion on the Patient Report Form



Arlyll Ischyl  
Cymador Gwyn  
Public Health  
Wales Observatory

Ref: ANTT HARP PHW FINAL Version 1 04 July 2019 Page 28 of 29  
 Title: Aseptic Non Touch Techniques (ANTT): Principles for the implementation and application of asepsis in clinical care  
 Paper copies of this document should be kept to a minimum and checks made with the electronic version to ensure the version to hand is the most recent.

## Appendix 7: Emergency ANTT Risk Assessment

### Emergency-ANTT® Risk Assessment

It is important that emergency ANTT® is only selected when necessary


Decided by risk assessment ...

***“Do I have the time, the equipment and the environment to apply Standard or Surgical-ANTT?”***


If yes – use Standard or Surgical-ANTT

If no – use **Emergency-ANTT®**

Document and handover whether you used Emergency-ANTT® and maintained asepsis, or had to use Emergency-ANTT and may have compromised asepsis



Aseptic Non Touch Techniques

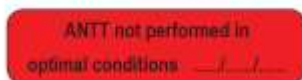


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**Use of colour coded labels to alert receiving healthcare staff of ANTT procedure used:**

**Red Label applied to the procedure site. ANTT not performed in optimal conditions. Date.**



**Green Label applied to the procedure site. ANTT performed in optimal conditions. Date.**

