

# ASEPTIC NON TOUCH TECHNIQUE

## POLICY®

### DOCUMENT SUMMARY/KEY POINTS

- **Aseptic technique** protects patients during invasive clinical procedures by employing infection control measures that minimise, as far as practicably possible, the presence of microorganisms. In aseptic technique, asepsis is ensured by identifying and then protecting key parts and key sites from contamination.
- **Aseptic non touch technique (ANTT®)** is a theoretical and clinical practice framework for aseptic technique that is utilised at the SCHN for all clinical procedures.
- ANTT must be performed in a particular sequence to ensure contamination of key parts or key site(s) does not occur. Any variation may cause a breach with the aseptic technique and place the patient at risk of a healthcare associated infection (HAI).
- ANTT procedures should be performed in an area where environmental contamination will not occur with equipment, key sites and sterile consumables.
- The purpose of hand hygiene is to minimise the number of pathogenic organisms which may be carried on the hands, equipment and environmental surfaces; to help to protect patients from infectious pathogens (including their own) during procedures; and to protect staff from acquiring patients' infectious agents and reduce contamination of the healthcare environment.
- All clinical staff are required to complete: Aseptic technique available on HETI online (HETI Code: 40027445), watch SCHN ANTT presentation and complete ANTT quiz. Additionally, all clinical nursing staff and allied health staff who perform invasive procedures will complete all components of the ANTT Clinical Standards Assessment (CSA) at a minimum three yearly. ANTT assessment may be undertaken concurrently with other CSA's that incorporate use of a non-touch aseptic technique
- Documentation of all procedures that involve ANTT must be recorded in the patients' healthcare record.

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

<b>Approved by:</b>	SCHN Policy, Procedure and Guideline Committee	
<b>Date Effective:</b>	1 <sup>st</sup> September 2019	<b>Review Period:</b> 3 years
<b>Team Leader:</b>	Nurse Educator	<b>Area/Dept:</b> SCHN Education

## CHANGE SUMMARY

- SCHN has adopted ANTT, as the principle technique to achieve Aseptic Technique (AT) Principles of AT and ANTT are congruent.
- All clinicians must follow the ANTT principles when performing procedures requiring an aseptic technique

## READ ACKNOWLEDGEMENT

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

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

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## Definitions

**Asepsis:** Free from pathogenic organisms

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

**Critical aseptic fields:** a sterile drape or dressing pack. The critical aseptic field itself is managed as a key part – only sterilised equipment may come in contact with it. Sterile gloves are required.

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

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

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

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

**Sterile:** Free from microorganism.

## Introduction

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

- define the terminology and definitions used for aseptic non touch technique
- describes four principles and safeguards for aseptic non touch technique.
- describe the steps in performing an aseptic non touch technique procedure

## Principles of Aseptic Non Touch Technique (ANTT®)<sup>1</sup>

ANTT technique aims to prevent pathogenic organisms, in sufficient quantity to cause infection, from being introduced to susceptible sites by hands, surfaces and equipment. It protects patients during invasive clinical procedures by utilizing infection prevention measures that minimize the presence of micro-organisms.

### Principle 1: Asepsis for patient safety

**Aseptic technique** protects patients during invasive clinical procedures by employing infection control measures that minimise, as far as practicably possible, the presence of microorganisms. In aseptic technique, asepsis is ensured by identifying and then protecting key parts and key sites from contamination

There are three recognised techniques. These are:

- **Sterile Technique:** is the complete absence of microorganisms. Near sterile techniques can only be achieved in controlled environments such as specially equipped operating theatres (laminar flow) or pharmacies (clean room).

- **Aseptic Technique:** is the minimisation of pathogenic organisms into a wound or other susceptible site from the health care professional, procedure, equipment or immediate environment. There are two types, standard and surgical aseptic technique
- **Clean Technique:** is the removal of visible contamination or debris e.g. cleaning a grazed area on a patient's knee

Non touch technique is the principle safeguard for achieving aseptic technique.

ANTT will ensure asepsis is maintained to protect patients from infection during all clinically invasive procedures which includes insertion, maintenance and use of invasive clinical devices.

## Principle 2: Key- part and Key- site protection

Key- parts and Key- sites require protection from organisms during the insertion, maintenance or care of invasive devices.

Key- parts and Key- sites must only come in contact with other Key- parts and Key- sites

If key sites or key parts are contaminated, they present a significantly high risk of infection to the patient.

## Principle 3: ANTT is efficient and safe

Different procedures require different levels of complexity.

To maintain efficiency clinicians need to decide what type of ANTT and precautions are required for simple and complex procedures.

Aseptic fields are increased in size and sterile drapes added on the basis of procedure complexity. There are 2 types of aseptic non touch technique:

### ***Standard Aseptic Non Touch Technique***

- Technically simple procedures
- Short duration (less than 20 minutes)
- Involves one or two key sites e.g. wound/s or IV cannula site
- Few key parts e.g. basic dressing pack items
- Uses general and/or micro critical aseptic fields to maintain aseptic technique
- Generally uses non-sterile gloves with a non-touch technique

### ***Surgical Aseptic Non Touch Technique***

- Technically difficult procedures
- Long duration
- Large open wound/s
- Equipment with a large number of key parts
- Critical aseptic field and sterile gloves are required

## Principle 4: Risk Assessment

The need for Surgical or Standard ANTT is determined by risk assessment based on the difficulty of the procedure in attaining asepsis.

To determine the type of ANTT consider the following risks:

- The procedure environment
- Procedure invasiveness
- Number of key parts and key sites
- Clinician competency
- Length of procedure

Appendix 1 provides a risk assessment tool to assist with decision making

Appendix 2 provides examples of clinical decision making

Decision to use Standard or Surgical ANTT is based on the items above and the clinician performing the procedure. If the procedure requires multiple access to key parts or key sites or the clinician is not clear/confident, Surgical ANTT principles should be applied.

## Safeguard 1: Basic Infection Prevention and Control Precautions

### Hand hygiene

In the healthcare setting, the most common way for potentially harmful bacteria to transfer between patients is on the hands of healthcare workers. Improving the hand hygiene of health care workers is an integral strategy for infection control, and also the most effective intervention to reduce the risk of healthcare associated infection.<sup>2</sup>

Activity	Skin cleansing agent	Action	Duration of handwash/hand-rub
<b><u>Aseptic procedures</u></b> For example - Wound dressing, insertion of IDC, post-insertion CVAD management.	Alcohol-based hand rub (ABHR)	Dispense solution into cupped dry hands. Rub vigorously over all areas of the fingers, hands and wrists until the solution has evaporated and hands are dry.	20 secs
	Antiseptic handwash and running water	Recommended dose of liquid directly onto hands and work up lather on all areas of the fingers, hands and wrists. Rinse and dry hands with single use towel.	60 secs
<b><u>High risk aseptic procedures</u></b> For example: - Central venous catheter insertion, lumbar puncture	Antiseptic handwash and running water	Wet hands using warm water, apply recommended dose of liquid directly onto hands and work up lather on all areas of the fingers, hands and wrists. Rinse and dry hands with sterile towel.	2 minutes
<b><u>Surgical procedure</u></b>	Surgical hand scrub and running water.	Wet hands using warm water, apply recommended dose of liquid directly onto hands and work up lather on all areas of the fingers, hands, wrists and forearms. Remove debris from under fingernails. Rinse and dry hands with sterile towel.	5 minutes prior to first operative procedure for the day, then 3 minutes prior to subsequent operative procedures

Please refer to the **SCHN-Hand Hygiene Policy**

<http://webapps.schn.health.nsw.gov.au/epolicy/policy/4305> for information on the 5 moments of hand hygiene, hand washing technique and the use of alcohol based hand rubs.

## Managing the environment

ANTT procedures should be performed in an area where environmental contamination will not occur with equipment, key sites key parts and sterile consumables.

Reducing risk in the environment should include, but not limited to:

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

## Glove choice

- Non sterile gloves may be used where it is possible to undertake the procedure without touching any key parts or key sites, using a non-touch technique e.g. IV medication administration, using forceps for basic dressing procedures
- Sterile gloves must be worn when a non-touch technique cannot be used to maintain the aseptic technique i.e. key parts or key sites require touching/handling. Examples of this are: performing a lumbar puncture, insertion of indwelling urinary catheter, accessing a totally implanted device, or a complicated wound dressing.

Standard Precautions - [PPE for infection control precautions-SCHN](http://webapps.schn.health.nsw.gov.au/epolicy/policy/2609)

<http://webapps.schn.health.nsw.gov.au/epolicy/policy/2609>

## Safeguard 2: identification of key parts and Key Sites

- Key-Sites are open wounds, including insertion and puncture sites.
- Key-Parts are the critical parts of the procedure equipment that come into direct or indirect contact with active Key-Parts connected to the patient, any liquid infusion or Key-Site.

## Safeguard 3: ANTT is a critical skill

***Non-touch technique is a critical skill that protects Key-Parts & Key- Sites from the healthcare worker and the procedure environment (In Surgical and Standard-ANTT).***

Appropriate identification of Key-Parts/Sites and not touching them directly or indirectly, is a vital safeguard of achieving asepsis.

## Safeguard 4: Aseptic fields protect key part and key sites

During clinical procedures, the use of aseptic fields is important in controlling the procedure environment and protecting Key-Parts and Key-Sites.

There are two types of aseptic fields:

### 1. Critical Aseptic Field (Ensuring asepsis)

Critical Aseptic Fields are utilized, when due to their size or quantity, Key-Parts and Key-Sites cannot always easily be protected with covers and caps or handled by a non-touch technique. Examples of this are: intravenous central line placement or for invasive surgery with large open wounds requiring large aseptic working areas for extended lengths of time. For these procedures only equipment that has been sterilized and is aseptic can be introduced onto the Critical Aseptic Field (Surgical-ANTT). As a result, management of the aseptic field is more complicated, as in effect, the whole aseptic field must be managed as a Key-Part (i.e. the whole working space must only encounter other aseptic equipment).

### 2. General Aseptic Fields (Promoting asepsis)

When Key-Parts can easily be protected by caps and covers (Micro Critical Aseptic Fields) the main aseptic field is termed a General Aseptic Field (Standard-ANTT). This is because it does not require Critical Management as it is **promoting** rather than **ensuring** asepsis of Key-Parts and Key-Sites.

Further information on ANTT and educational step by step guides can be located through these links:

- <https://intranet.schn.health.nsw.gov.au/antt-aseptic-non-touch-technique>
- NSW Health Education and Training Institute (HETI) online learning module: Aseptic Technique <http://nswhealth.moodle.com.au/>

HETI Code: 40027445

## Antiseptics and Wound Cleansers

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

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

Correct procedural preparation can be found within each relevant policy.

## Standard Equipment and Principles

### Standard ANTT

General Aseptic Field (using green/ plastic tray)

Disinfectant wipe

Micro Critical Aseptic Fields (such as combination stopper to protect syringe tips)

Non Sterile Gloves

General Aseptic Field (using trolley)

Cleaner for field- disinfectant wipes

Micro Critical Aseptic Fields (such as combination stopper to protect syringe tips)

Non Sterile Gloves

### **Surgical ANTT**

Clean procedure trolley

Disinfectant wipes

Critical Aseptic Field (e.g. sterile drape/dressing pack)

Sterilized Gloves

Procedural equipment

### **General practice guidelines when performing ANTT:**

***Ideally, all procedures should be set up at patient's bedside where appropriate***

1. Perform risk assessment and identify if standard or surgical ANTT procedure is required
2. Perform hand hygiene
3. Identify and gather equipment for procedure
4. Clean trolley/work surface and tray with separate disinfectant wipes
5. Perform hand hygiene and DON gloves
6. Open equipment and prepare for procedure
7. DOFF gloves and perform hand hygiene
8. Prepare patient (reposition, expose equipment to be accessed) – use gloves where contact precautions are required such as when removing a bloodstained dressing.  
*\*Remove gloves, perform hand hygiene*
9. Perform hand hygiene and DON gloves (Patient bedside gloves are not to be used. Gloves must be designated gloves from clean area or from designated trolley)
10. Perform procedure ensuring all key parts and key sites are protected: sterile items are used once and disposed into waste bag, only sterile items contact the key site, sterile items do not come into contact with non-sterile items.
11. DOFF gloves and perform hand hygiene.
12. Set appropriate pumps/ machines as required

13. Perform hand hygiene
14. Clean trolley/work surface with appropriate disinfectant wipes after use and perform hand hygiene.
15. Dispose of waste appropriately
16. Perform hand hygiene

## Operating Theatre

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

- S2 Aseptic Technique
- S7 Infection Prevention
- S11 Perioperative attire
- S18 Skin Preparation of the patient
- S21 Surgical scrubbing, gowning and gloving
- S26 Specimen Identification, Collection and Handling

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

## Waste Management

### General & Clinical Waste

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

### Safe handling, use and disposal of sharps

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

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

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

## Clinical Handover

Clinical Handover includes:

- Clinical notes are written in the patient's healthcare record and verbally stated at shift to shift handover along with other charts that relate to procedures and practices involving aseptic technique
- Possible or known breaches of aseptic technique
- Adverse events such as healthcare acquired infection, multiple attempts for IV cannulation
- Changes to procedures requiring aseptic technique
- Allergies to products or antiseptics used for aseptic procedures
- Patients condition or behaviour that will impede aseptic procedures

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

## Documentation

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

## Competency

All clinical staff are required to complete the following prior to undertaking Clinical Standards Assessment for Standard or Surgical ANTT:

My Health Learning:

- Aseptic technique
- Hand Hygiene

All nursing and allied health staff that perform invasive procedures must complete the following as well as the above e-learning modules:

PowerPoint presentation:

- Attend in service or watch ANTT principles PowerPoint

Complete:

- ANTT Theory Quiz
- Aseptic Non-Touch Technique Clinical Skills Assessment (SCHN CSA)

***Please note all appropriate staff are required to complete and submit the quiz individually. Staff must receive 100% on the Quiz prior to moving forward in the accreditation process.***

Practical components of aseptic technique are incorporated within existing clinical assessments such as:

- Central venous access device management
- Peripheral intravenous cannulation
- Blood culture collection
- Insertion of urethral catheter
- Administration of intravenous medication

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

<https://intranet.schn.health.nsw.gov.au/antt-aseptic-non-touch-technique>

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

#### **ANTT Reaccreditation:**

Minimum requirement is every 3 years.

Reaccreditation involves:

- Completing the same components as per accreditation
- ANTT reaccreditation may occur coinciding with other relevant accreditations, e.g. IV assessment, CVAD CSA, etc.

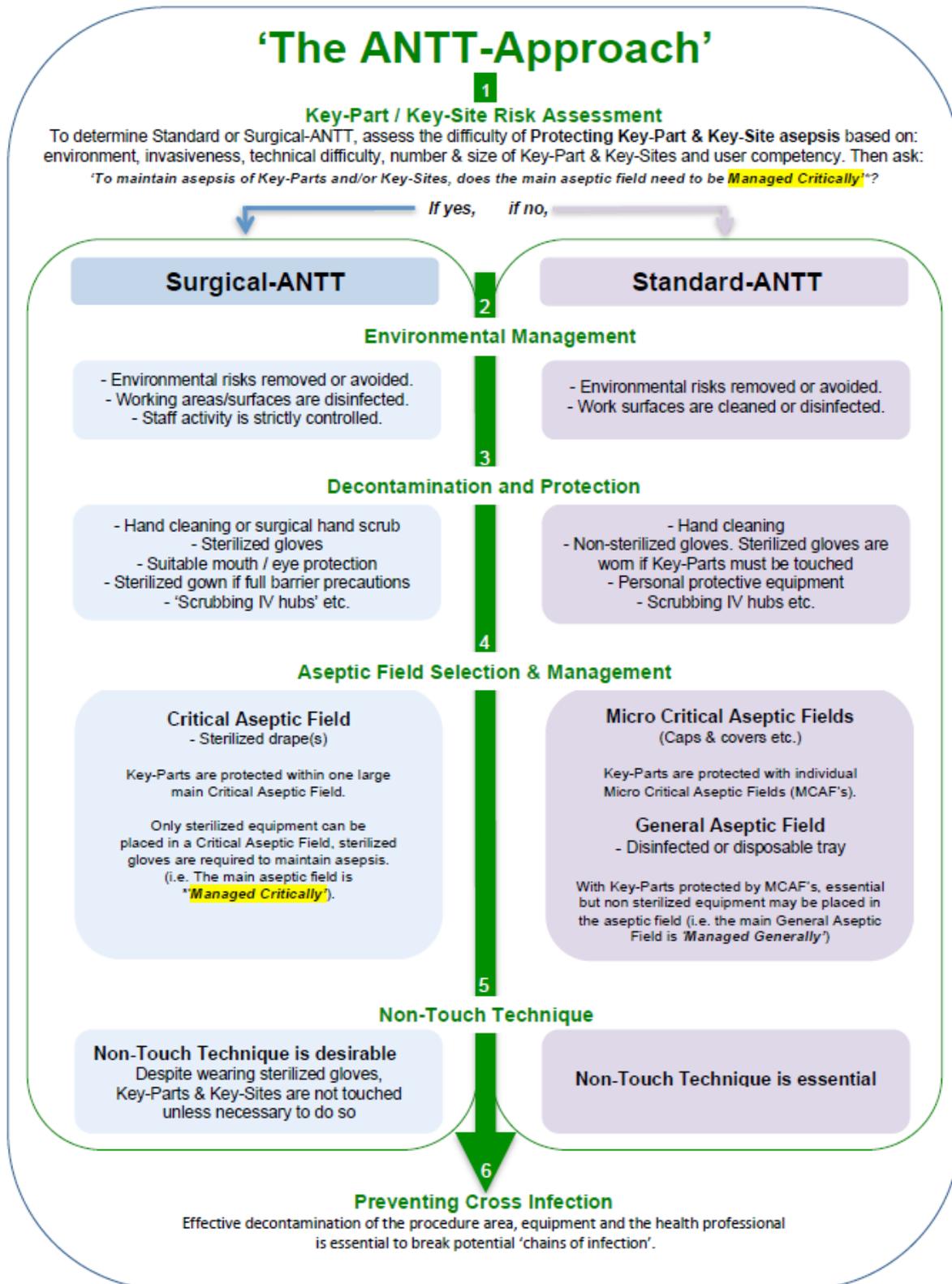
## References

1. The Association for Safe Aseptic Practice. (2015). *Aseptic Non Touch Technique (ANTT): Aseptic Non Touch Technique: The ANTT Clinical Practice framework. For all invasive procedure from surgery to community care. Version 4.0* The Association for Safe Aseptic Practice (The-ASAP): London.
2. Clinical Excellence Commission (2016) Infection prevention and control practice handbook. Principles for NSW public health organisations. Clinical Excellence Commission, Sydney, Australia.
3. Australasian College for Prevention and Infection Control (2015). Aseptic Technique during invasive procedures. Available <https://www.acipc.org.au/aseptic-technique-resources/>
4. National Health and Medical Research Council (2010). Australian guidelines for the prevention and control of infection in healthcare. National Health and Medical Research Council: Canberra. Available: <https://www.nhmrc.gov.au/about-us/publications/australian-guidelines-prevention-and-control-infection-healthcare-2010>

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# Appendix 1



## Appendix 2

### The 'ANTT-Approach': Practice Examples

This table provides examples of risk factors and decision making when applying the ANTT-Approach to invasive clinical procedures. It is not prescriptive or exhaustive

Procedure Type	Procedure Risks 1 →	Type of ANTT	Environment Management 2 →	Decontaminate / Protection (PPE) 3 →	Aseptic Field Management 4 →	Non-Touch Technique 5
<b>Cannulation</b>	<ul style="list-style-type: none"> <li>Few <b>Key-Parts</b></li> <li>Moderately invasive.</li> <li>Small <b>Key-Parts</b></li> <li>Single small <b>Key-Site</b></li> </ul>	<b>Standard ANTT</b>	<ul style="list-style-type: none"> <li>Remove or avoid any environmental risks</li> </ul>	<ul style="list-style-type: none"> <li>Hand cleaning</li> <li>Non-sterilized gloves</li> <li>Tray cleaning for <b>General Aseptic Field</b></li> </ul>	<ul style="list-style-type: none"> <li><b>Micro Critical Aseptic Fields</b></li> <li>Supported by a <b>General Aseptic Field</b></li> </ul>	<ul style="list-style-type: none"> <li><b>Non-touch technique is essential</b></li> </ul>
<b>PICC Insertion</b>	<ul style="list-style-type: none"> <li>Many <b>Key-Parts</b></li> <li>Highly invasive</li> <li>Large <b>Key-Part</b></li> <li>High activity environment</li> <li>Large procedure area</li> </ul>	<b>Surgical ANTT</b>	<ul style="list-style-type: none"> <li>Remove or avoid any environmental risks</li> </ul>	<ul style="list-style-type: none"> <li>Surgical hand-scrub</li> <li>Sterilized gloves</li> <li>Other full barrier precautions</li> </ul>	<ul style="list-style-type: none"> <li><b>Critical Aseptic Field</b></li> <li><b>Micro Critical Aseptic Fields</b> where practical e.g. Handling of PICC line</li> </ul>	<ul style="list-style-type: none"> <li><b>Non-touch technique is desirable where practical</b></li> </ul>
<b>IV Preparation/ Administration</b>	<ul style="list-style-type: none"> <li>Few <b>Key-Parts</b></li> <li>Small <b>Key-Parts</b></li> <li>Moderately invasive procedure</li> </ul>	<b>Standard ANTT</b>	<ul style="list-style-type: none"> <li>Remove or avoid any environmental risks</li> </ul>	<ul style="list-style-type: none"> <li>Hand cleaning</li> <li>Non-sterilized gloves &amp; apron</li> <li>Tray cleaning for <b>General Aseptic Field</b></li> </ul>	<ul style="list-style-type: none"> <li><b>Key-Parts</b> protected by <b>Micro Critical Aseptic Fields</b></li> <li>Supported by a <b>General Aseptic Field</b></li> </ul>	<ul style="list-style-type: none"> <li><b>Non-touch technique is essential</b></li> </ul>
<b>Wound Cleaning &amp; Dressing (Large exudating wound) in the community</b>	<ul style="list-style-type: none"> <li>Multiple <b>Key-Parts</b></li> <li>Large <b>Key-Site</b></li> </ul>	<b>Surgical ANTT</b>	<ul style="list-style-type: none"> <li>Remove or avoid any environmental risks</li> </ul>	<ul style="list-style-type: none"> <li>Hand cleaning</li> <li>Non-sterilized or sterilized gloves as required</li> <li>Irrigation or soaking performed with aseptic receptacle</li> </ul>	<ul style="list-style-type: none"> <li><b>Critical Aseptic Field</b></li> </ul>	<ul style="list-style-type: none"> <li><b>Non-touch technique is desirable where practical</b></li> </ul>
<b>Venepuncture</b>	<ul style="list-style-type: none"> <li>Minimally invasive</li> <li>Few <b>Key-Parts</b></li> <li>Small <b>Key-Parts</b></li> </ul>	<b>Standard ANTT</b>	<ul style="list-style-type: none"> <li>Remove or avoid any environmental risks</li> </ul>	<ul style="list-style-type: none"> <li>Hand cleaning</li> <li>Non-sterilized gloves &amp; apron</li> <li>Tray cleaning for <b>General Aseptic Field</b></li> </ul>	<ul style="list-style-type: none"> <li><b>Key-Parts</b> protected by <b>Micro Critical Aseptic Fields</b></li> <li>Supported by a <b>General Aseptic Field</b></li> </ul>	<ul style="list-style-type: none"> <li><b>Non-touch technique is essential</b></li> </ul>
<b>Surgical Intervention in the operating room</b>	<ul style="list-style-type: none"> <li>Multiple <b>Key-Parts</b></li> <li>Large <b>Key-Parts</b></li> <li>Large <b>Key-Site</b></li> <li>Long duration</li> <li>Highly invasive</li> <li>Controlled area but many personnel</li> </ul>	<b>Surgical ANTT</b>	<ul style="list-style-type: none"> <li>Full Theatre Room Precautions</li> </ul>	<ul style="list-style-type: none"> <li>Surgical scrub</li> <li>Sterilized gowns &amp; gloves</li> <li>Full barrier precautions</li> </ul>	<ul style="list-style-type: none"> <li><b>Critical Aseptic Field</b></li> </ul>	<ul style="list-style-type: none"> <li>Scrub nurse</li> <li><b>Non-touch technique is still desirable where practical</b></li> </ul>