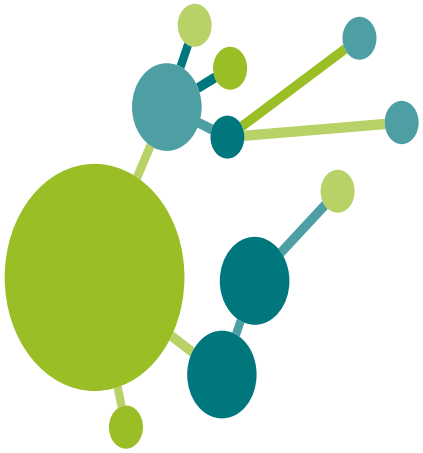

ACIPC

Australasian College
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# Aseptic Technique Symposium

**Sue Atkins**
Grampians Region Infection Control Consultant
Service and Workforce Development
Department of Health
Victoria

ACIPC
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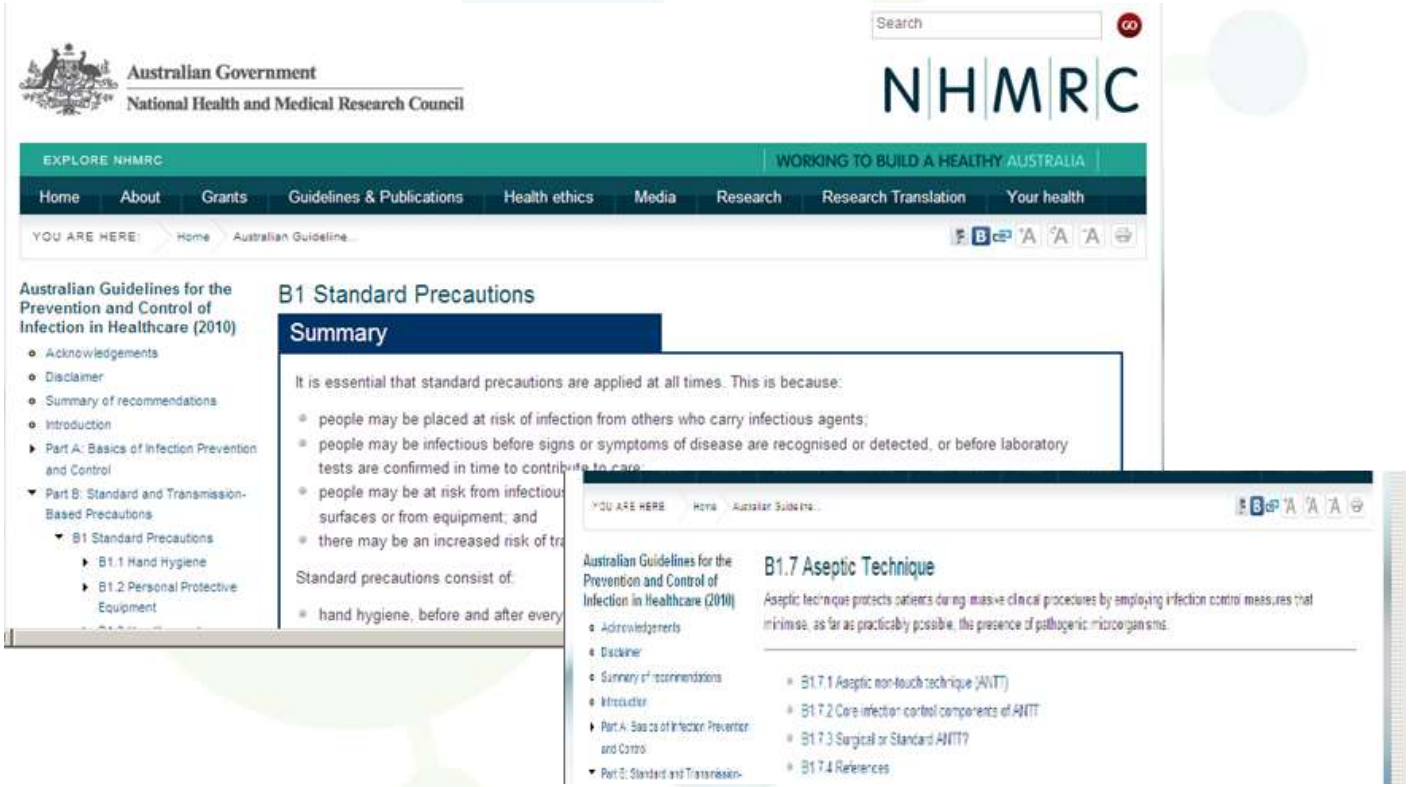
# Session One

- Aseptic technique in relation to standard precautions
- National standards 2014 requirements for aseptic technique
- Risk rating of aseptic technique competencies
- Choice and overview of an aseptic technique framework
- Issues identified in pre-training auditing
- Training the clinical workforce
- Issues identified during training and competency assessments
- Solutions to issues

# Aseptic Technique

# Standard precautions



# Historically associated with wound care

# Now associated with all clinical practice

# National Safety and Quality Health Service Standards

When practised well, these three clinical skills can have a significant impact on the reduction of healthcare associated infection (HAI). Improvement is required!


# What does this mean for you!

National Safety and Quality Health Service (NSQHS) Standards

Standard 3 Preventing and Controlling HAI

39 Core

2 Developmental

**3.10.1** The clinical workforce is trained in aseptic technique

**3.10.2** Compliance with aseptic technique is regularly audited

**3.10.3** Action is taken to increase compliance with the aseptic technique protocols

# ACSQHC Advisory No:A13/08 flexible arrangements from 2014

AUSTRALIAN COMMISSION ON SAFETY AND QUALITY IN HEALTH CARE | NSQHS STANDARDS

ATTACHMENT 2

**Flexible arrangements from 2014 for hospitals and day procedure services**

| Action | Description | Requirements to satisfactorily meet the action from 2014 |
|---|---|---|
| 3.10.1 | Clinical workforce is trained in aseptic technique<br><br>NB: See Advisory A13/05: Assessment of training requirements for Credentialed Medical and Other Clinical Practitioners and Visiting Medical Officers | Health service organisations provide evidence that:<br>• a comprehensive organisational risk analysis of aseptic technique competencies has been undertaken<br>• a plan has been developed to assess the clinical practice of aseptic technique for clinicians working in high risk areas<br>• a training package for clinicians on aseptic technique is available<br>• it is anticipated the initial focus will be on employed nursing, allied health and medical staff. This action is in place until 31 December 2015. |

# Clinical workforce definition

The *Clinical Workforce* in the NSQHS Standards is defined as:

"***the nursing, medical and allied health staff who provide patient care and students who provide care under supervision. This may also include laboratory scientists.***"


# Getting started!

- Risk assess procedure competency
- Pre-training audit of clinical process and practice
- Introduce
- Training
- Assessment and competency
- Post-training audit of clinical process and practice
- Ongoing monitoring of compliance

# NSQHS Standards -frequently asked questions

**Q: Does aseptic technique need to be applied organisation wide, or can it focus on a specific procedure or clinical area?**

As a starting point the baseline assessment/gap analysis may be used to review the whole organisation to determine and prioritise areas of risk, gaps in policy, training and/or education and assessment. For example, if there is an area where many high risk procedures are undertaken, look at systems in place for assessment and monitoring competency and compliance with protocols currently in place, or take action to address gaps (also includes assessing risks in departments and specific procedures).

For further information on the risk management approach and an example of how it can be applied to aseptic technique refer to the following link

http://www.safetyandquality.gov.au/publications/risk-management-approach/

# Risk analysis of aseptic technique competencies

**Calculating the level of risk (assess and score each factor separate**

| 1. Clinical context | | | |
|---|---|---|---|
| Frequency | Controlled | Semi-controlled | Uncontrolled |
| Infrequent | 1 = Low | 4 = Low | 6 = Medium |
| Occasional | 4 = Low | 6 = Medium | 8 = High |
| Frequent | 6 = Medium | 8 = High | 10 = Very High |

| 2. Treatment type | | | |
|---|---|---|---|
| Frequency | Simple procedure | Complex procedure | Invasive procedure |
| Infrequent | 1 = Low | 4 = Low | 6 = Medium |
| Occasional | 4 = Low | 6 = Medium | 8 = High |
| Frequent | 6 = Medium | 8 = High | 10 = Very High |

| 3. Assessment of skills in aseptic technique | | | |
|---|---|---|---|
| Recent | Recent but changed clinical context | Assessed 1-3 years | Assessment unknown of >3 years |
| 1 = Low | 4 = Medium | 4 = Medium | 8 = High |

**Risk Score**

| Risk Factors | Score |
|---|---|
| Clinical Context | |
| Treatment Type | |
| Recency of Assessment | |
| Risk Rating (total score) | |

**Overall Risk Rating**

| Risk Factors | Score |
|---|---|
| Low risk | 3 - 9 |
| Medium | 10 -16 |
| High | 17 – 24 |
| Very High | 25 – 28 |

ACSQHC Aseptic Technique Risk Matrix 16 September 2013

# Risk rate yourself!

# Peripheral IV Cannulation in Emergency

| Risk Factors | Score |
|---|---|
| Clinical context | 10 uncontrolled/ frequently performed |
| Treatment type | 10 invasive/ frequently performed |
| Recency of Assessment | 8 assessment unknown ≥ 3 years |
| Risk Rating (total score) | 28 |
| | |
| **Overall Risk Rating** | **Score** |
| Low | 3 - 9 |
| Medium | 10 - 16 |
| High | 17 - 24 |
| Very High | 25 - 28 |

# Risk rate yourself!

# IDC Insertion in a Surgical Unit

| Risk Factors | Score |
|---|---|
| Clinical context | 6 controlled/ frequently performed |
| Treatment type | 10 invasive/ frequently performed |
| Recency of Assessment | 8 assessment unknown ≥ 3 years |
| Risk Rating (total score) | 24 |
| | |
| **Overall Risk Rating** | **Score** |
| Low | 3 - 9 |
| Medium | 10 - 16 |
| High | 17 - 24 |
| Very High | 25 - 28 |

# Risk rate yourself!

# Wound Care in the Home

| Risk Factors | Score |
|---|---|
| Clinical context | 10 uncontrolled/ frequently performed |
| Treatment type | 4 simple procedure/ frequently performed |
| Recency of Assessment | 6 assessment unknown ≥ 3 years |
| Risk Rating (total score) | 20 |
| | |
| **Overall Risk Rating** | **Score** |
| Low | 3 - 9 |
| Medium | 10 - 16 |
| High | 17 - 24 |
| Very High | 25 - 28 |

# Risk Analysis

- Outcomes of the risk assessments will drive the decision making process on areas to commence training and procedures requiring updates:

# Training the clinical workforce : Choice of aseptic technique framework

**Table 1: A confusion in terms**

| | |
|---|---|
| Transfer technique | Button (1984) |
| Glove technique | Broome (1973) |
| Medical or clean asepsis | Ayliffe et al (2000). |
| Hampshire dressing technique | Broome (1973) |
| Surgical asepsis | Weller (1997) |
| Sterile technique | Meers et al (1992) |
| Non-sterile technique | Hollinworth and Kingston (1998) |
| Alternative technique | Kelso (1989) |
| Surgical asepsis | Pierce (1997) |
| Clean technique | Preston (2005) |
| ANTT | Rowley (1993) |
| Clean non-touch technique | Hart (2007) |
| Surgical aseptic technique | Pratt (1997) |
| No touch technique | Department of Health (2001) |
| Strict aseptic technique | Department of Health (2003) |

British Journal of Nursing, 2010: Intravenous Supplement, Vol 19, No 5

# NSQHS Standards -frequently asked questions

**Q: Do we have to use Aseptic Non-Touch Technique (ANTT) for aseptic technique?**

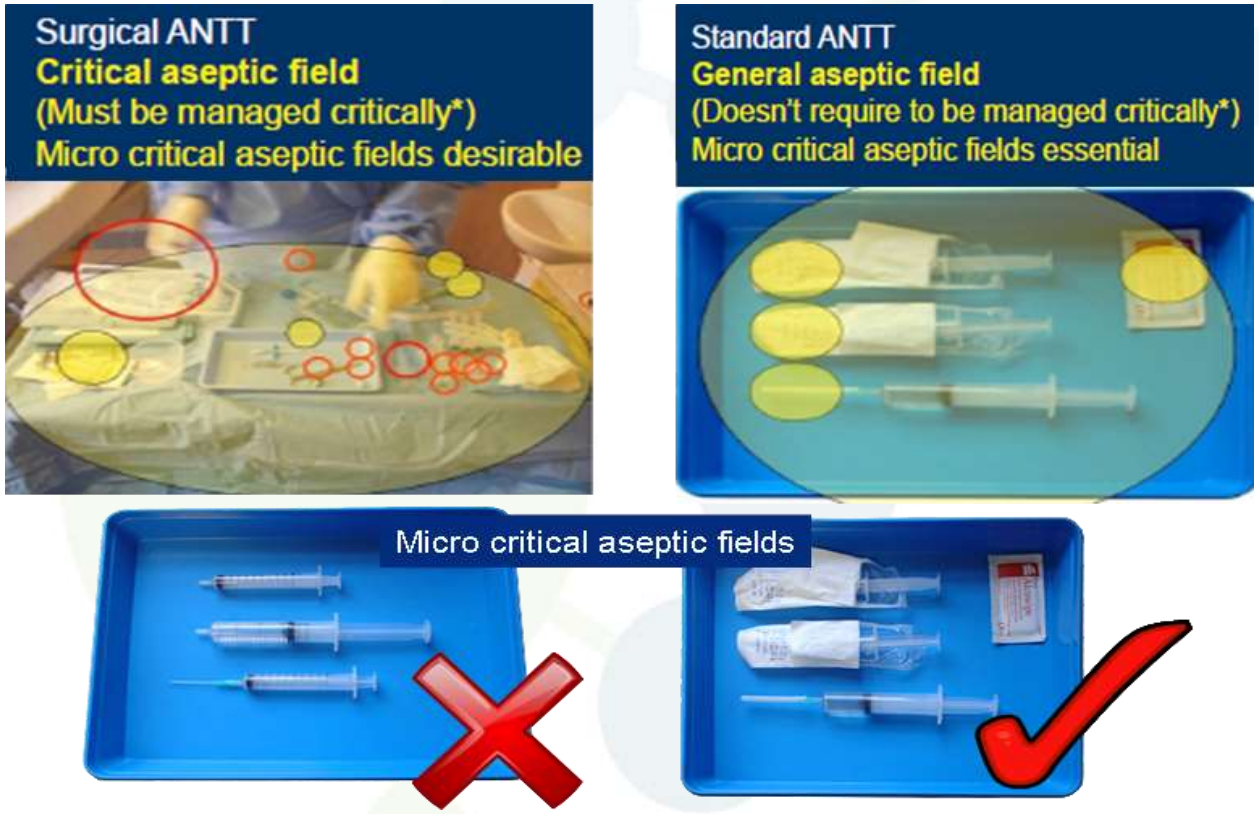
No, aseptic technique protects the patient during a procedure that is invasive or dealing with tissue or equipment that under normal circumstances would be considered sterile. Aseptic technique is designed to minimise the transmission of infectious agents occurring during a procedure.

ANTT is a registered proprietary name for aseptic non-touch technique by the ANTT project and is an example of aseptic technique. ANTT provides a framework for aseptic practice that was developed in the UK. There is no requirement for a health service organisation to use ANTT but if ANTT is chosen the health service organisation needs to ensure that it meets the identified risks and is consistent with other required activities including hand hygiene in the Australian context.

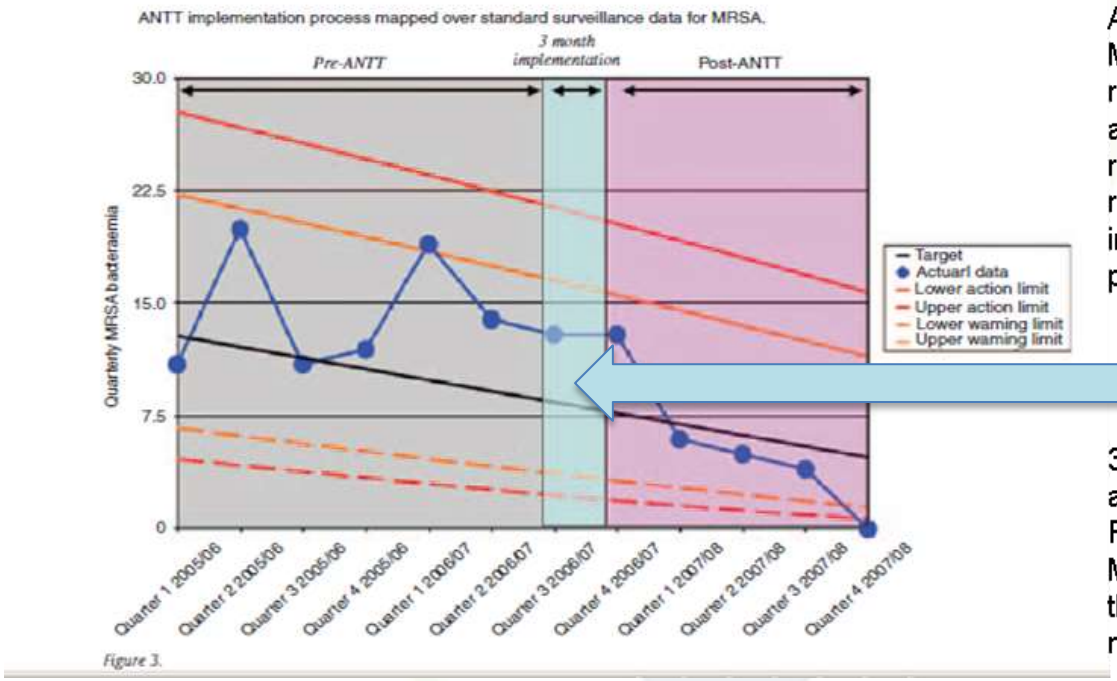
# Reasons for choice of ANTT®

- Based on principles
- Clear and concise terminology
- Able to be implemented in all clinical settings
- Standardised approach
- Evidence of reduction in HAI with effective implementation service wide
- Outlined in an Australian document
- Tested in clinical practice

# Simple and standardised!



# ANTT® implementation process mapped over standard surveillance data - MRSA



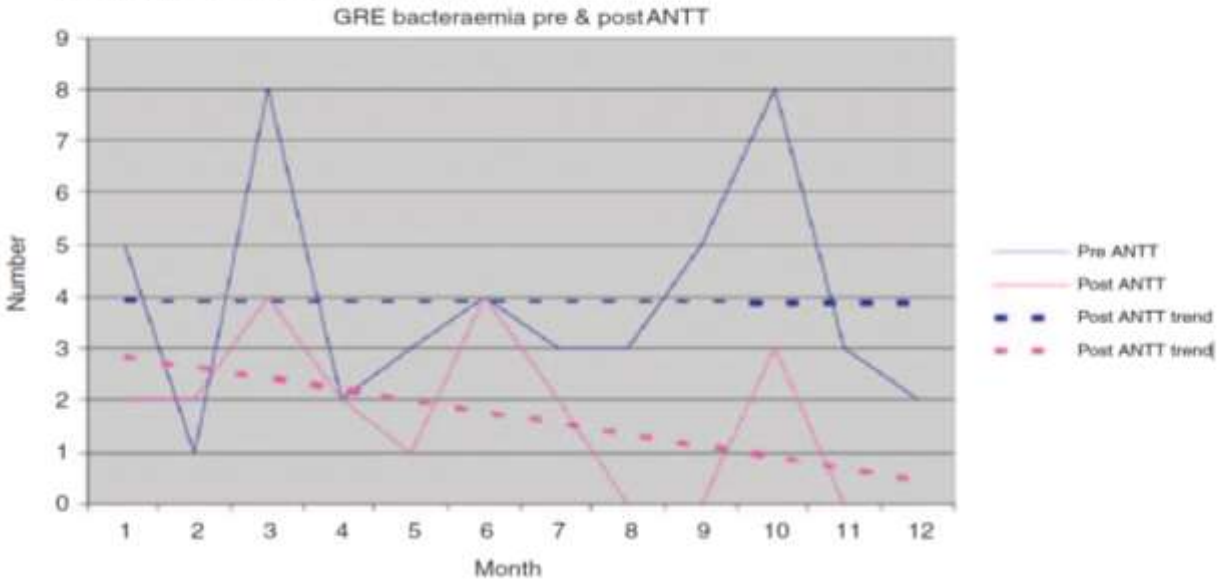

A 1200 bed Hospital in Manchester UK reduced hospital acquired infection rates as a result of a robust ANTT® implementation process

3000 staff trained and assessed in ANTT® Reduction of 74% in MRSA Bacteraemia in the following 12 months

Journal of Infection Prevention 2009: Vol 10, Supplement 1

# ANTT® implementation process mapped over standard surveillance data - GRE

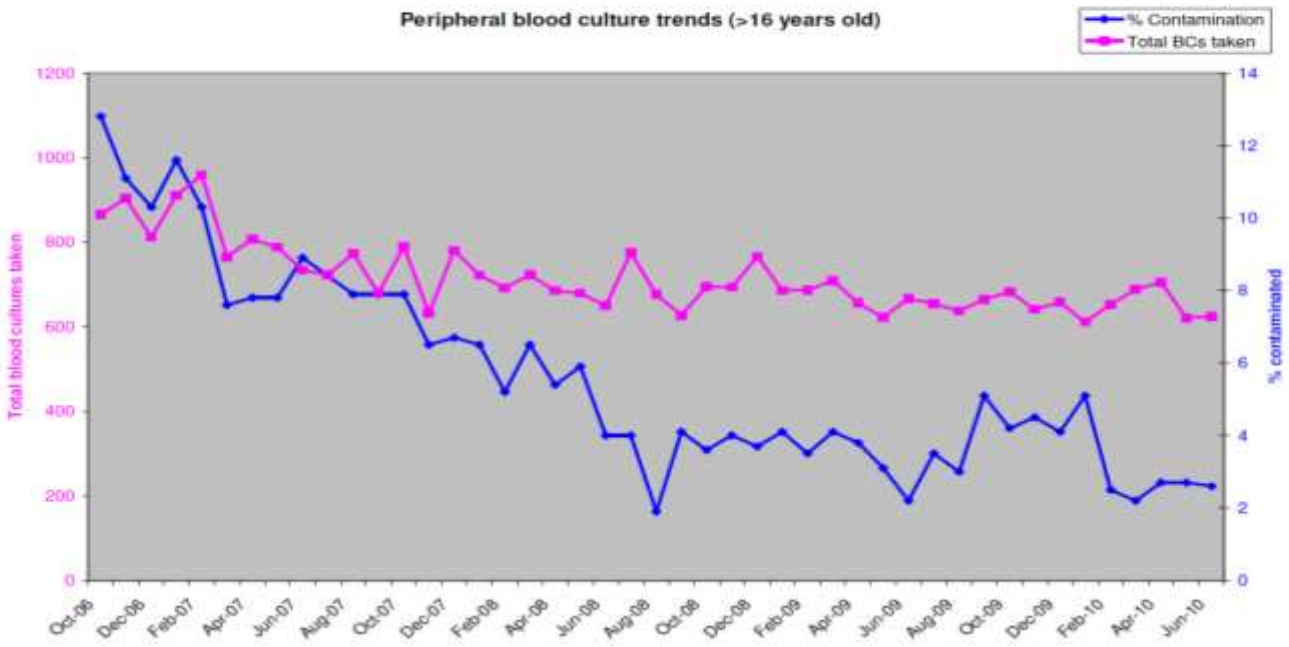
ANTT implementation process mapped over standard surveillance data for glycopeptide resistant enterococci (GRE).




Journal of Infection Prevention 2009: Vol 10, Supplement 1

# Standardised ANTT ® procedure for blood cultures

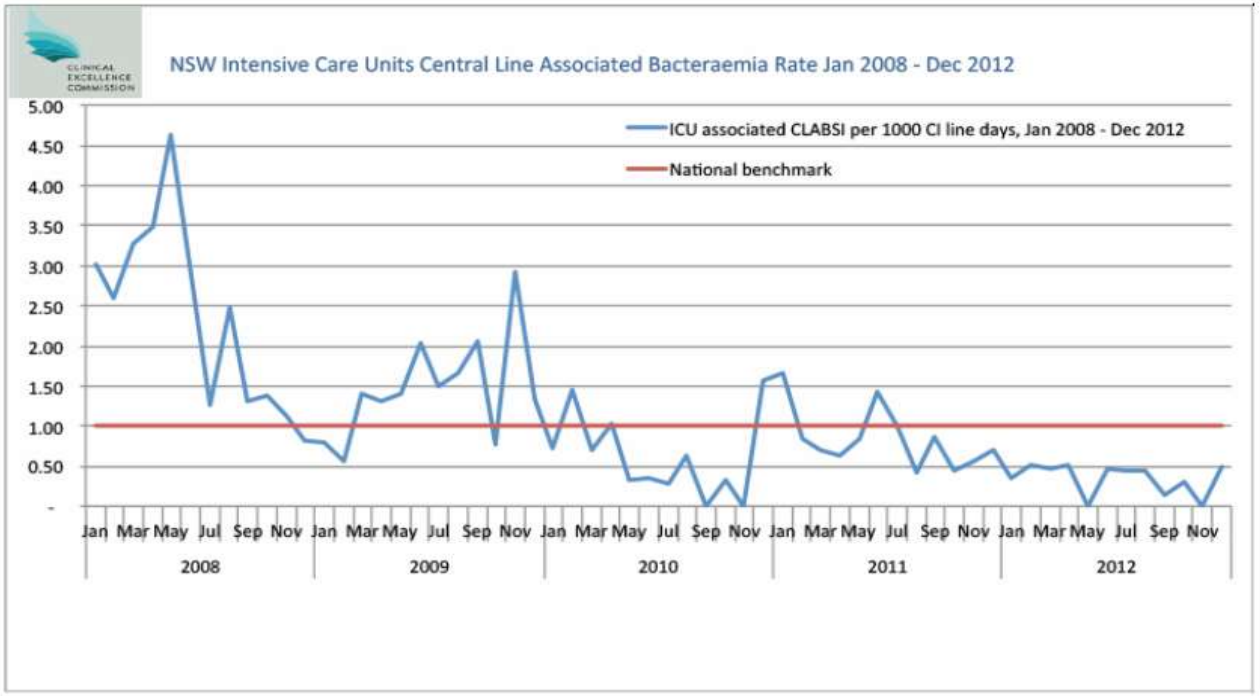
**Peripheral blood culture contamination rates for patients greater than 16 years of age**




Central Manchester University Hospital 2010/2011 Annual report

# Aseptic Technique

The use of the CVL bundle and standardisation of aseptic technique for line insertion has greatly reduced the central line associated bacteraemia (CLAB) rates in NSW ICU's.



# Resources

Training

Auditing/ Monitoring

Introduction

Risk Assess/Audit

# NSQHS Standards -frequently asked questions

**Q: Is there a recommended sample size for auditing aseptic technique?**

The sample size is not easily defined as it will depend on the risk associated with the activity being audited. For example, if you audit 5 people and none of them are performing aseptic technique correctly that may be sufficient to alert you to a problem. The results you have obtained from this small sample have highlighted an increased risk in that particular activity or procedure and the organisation needs to respond with action.

Alternatively, you may audit another activity requiring aseptic technique where a larger sample is required to gather sufficient evidence. It is difficult to identify the minimum number of audits required as it will vary from facility to facility and with the activity being audited based on risks.

One option to review risk may be to look at hand hygiene compliance before and after moments 2 and 3 in your facility. This may assist you target areas where aseptic technique needs to be targeted as aseptic technique and compliance with hand hygiene in Moments 2 and 3 are linked.

It is also important that you use your evidence and data to demonstrate improvements over time.

# Common breaches in aseptic technique identified during pre-training audits

- Hand hygiene not performed
- Failure to clean reusable equipment before use
- Removing equipment/dressings from packaging by ri[illegible]
- Not using a non touch technique whenever poss[illegible] when wearing gloves
- Key part falling outside the general asepti[illegible] micro-critical aseptic fields are not used
- Inadequate skin disinfection
- Blowing or fanning skin to [illegible]
- Touching area of [illegible] after skin cleaning
- Fail[illegible] key parts as required
- Po[illegible] sterile dressings
- Ina[illegible]quate securing of access devices/ catheters
- Disconnecting IV infusions of any kind for showering

Preventable

# Training the Clinical Workforce: Train the trainer model of delivery


Face to face
education

On line
power point/ videos and
assessment
(workbook)

Practice
simulated or actual

Posters
clinical procedure guides
(framework reinforcement)

Competency
simulated or actual
(competency checklist)

# Issue identified during competency

80% chose wound care for their competency assessment as this was the procedure they associated aseptic technique with.

Many staff had learnt the steps of a procedure, but were not able to articulate rational for practice choices when asked:

What type of aseptic technique are you using?

What type of aseptic field have you chosen?

Are you promoting or ensuring asepsis using this aseptic field?

What are key parts and key sites?

Why have you chosen to use non-sterile gloves?

When would you use sterile gloves?

When do you use a non touch technique?

# Addressing issues

## One sheet framework overview to support learning

# How to use in clinical practice

# Addressing issues

## Connection with standard precautions to encourage use for all procedures

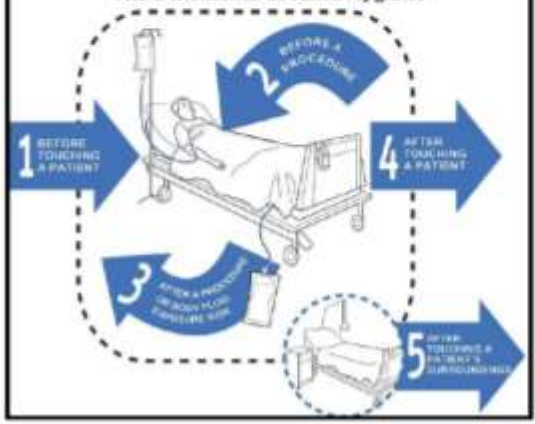
### Infection Prevention and Control - Standard Clinical Practice Frameworks

**Hand Hygiene**

**The 5 Moments Framework**

1. Before touching a patient
2. Before a procedure
3. After a procedure or body fluid exposure risk
4. After touching a patient
5. After touching a patients surroundings

The 5 Moments of Hand Hygiene




**Standard Precautions**

**Infection Prevention Framework**

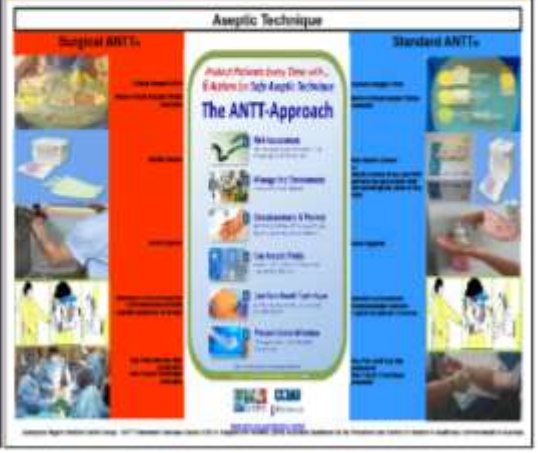
It is essential that standard precautions are applied at all times regardless of a patients, client or residents actual or perceived infection status

- Hand hygiene
- PPE
- ANTT®
- Safe use and disposal of sharps
- Environmental cleaning
- Reprocessing of reusable equipment and instruments
- Respiratory hygiene
- Waste management
- Appropriate handling of linen

**Aseptic Technique**

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

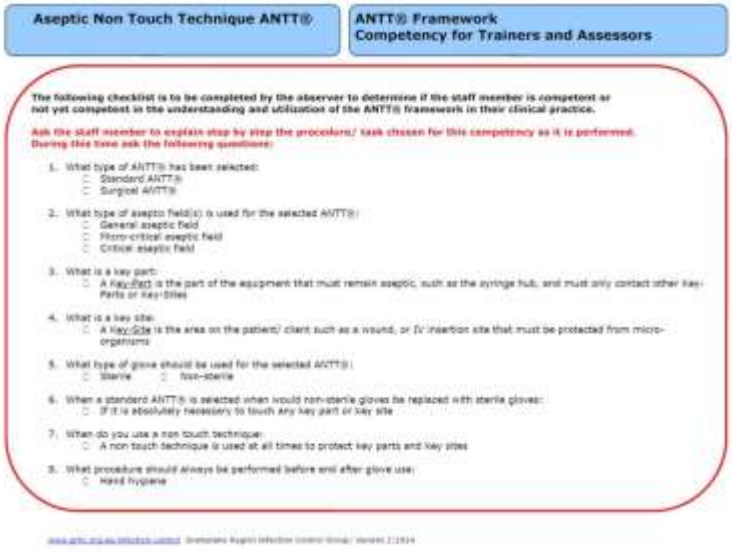
1. Key part and key Site identification and protection
1. Hand hygiene
2. Glove use and no touch technique
3. Aseptic fields—Surgical/Standard ANTT®
4. Environmental controls
5. Logical sequencing of events




www.gprc.org.au/infection-control
Grampians Region Infection Control Group. Infection Prevention and Control Standard Clinical Frameworks Version 3.2014
Adapted from NHMRC (2010) Australian Guidelines for the Prevention and Control of Infection in Healthcare. Commonwealth of Australia

# Addressing issues

## Competency observer checklist – must be able to answer correctly



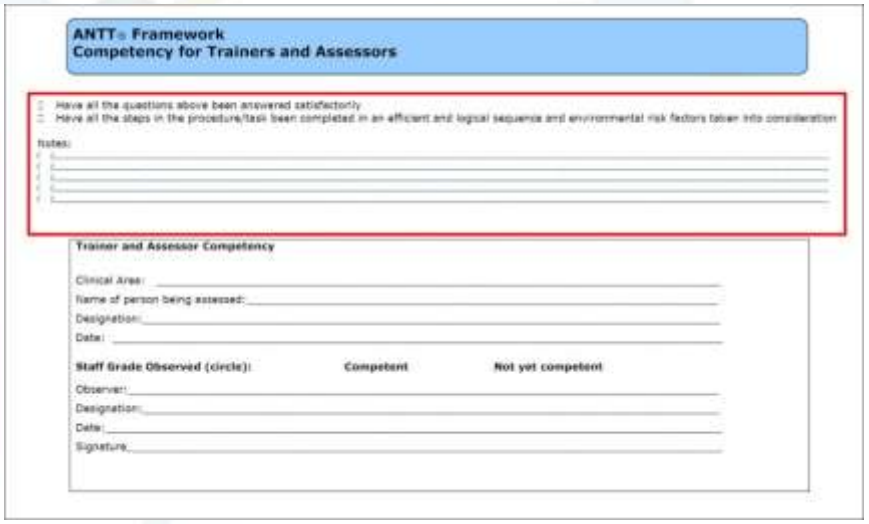
**Aseptic Non Touch Technique ANTT®**

**ANTT® Framework**
**Competency for Trainers and Assessors**

**The following checklist is to be completed by the observer to determine if the staff member is competent or not yet competent in the understanding and utilization of the ANTT® framework in their clinical practice.**

**Ask the staff member to explain step by step the procedure/ task chosen for this competency as it is performed. During this time ask the following questions:**

1. What type of ANTT® has been selected:
   - ☐ Standard ANTT®
   - ☐ Surgical ANTT®
2. What type of aseptic field(s) is used for the selected ANTT®:
   - ☐ General aseptic field
   - ☐ Micro-critical aseptic field
   - ☐ Critical aseptic field
3. What is a key part:
   - ☐ A Key Part is the part of the equipment that must remain aseptic, such as the syringe hub, and must only contact other key Parts or key Sites
4. What is a key site:
   - ☐ A Key Site is the area on the patient/ client such as a wound, or IV insertion site that must be protected from micro-organisms
5. What type of glove should be used for the selected ANTT®:
   - ☐ Sterile ☐ Non-sterile
6. When a standard ANTT® is selected when would non-sterile gloves be replaced with sterile gloves:
   - ☐ If it is absolutely necessary to touch any key part or key site
7. When do you use a non touch technique:
   - ☐ A non touch technique is used at all times to protect key parts and key sites
8. What procedure should always be performed before and after glove use:
   - ☐ Hand hygiene



**ANTT® Framework**
**Competency for Trainers and Assessors**

☐ Have all the questions above been answered satisfactorily
☐ Have all the steps in the procedure/task been completed in an efficient and logical sequence and environmental risk factors taken into consideration

Notes:

**Trainer and Assessor Competency**

Clinical Area: _____
Name of person being assessed: _____
Designation: _____
Date: _____

**Staff Grade Observed (circle):** **Competent** **Not yet competent**

Observer: _____
Designation: _____
Date: _____
Signature: _____

# Summary

The quality of practice will improve, leading to better patient outcomes, and a reduction in HAI if we:

- ✓ Reduce the variables in aseptic practice across large workforces
- ✓ Use a standardised aseptic technique framework
- ✓ Provide opportunity for training and assessment for all the clinical workforce
- ✓ Monitor frequently
- ✓ Report outcomes to the highest level

The current driver is the NSQHSS, however it is the responsibility of each organisation to take the wheel and embed this process into daily activity.

All members of the healthcare team must willingly support and participate in these activities if we are to be successful in reducing HAI.

# References / Acknowledgments

This presentation has largely been based on the national infection control guidelines listed below to ensure the content reflects healthcare in Australia. These guidelines can be accessed from the below web link.

NHMRC. (2010). Australian guidelines for the prevention and control of infection in healthcare. Commonwealth of Australia. Sections B1.7 and B5.4.

www.nhmrc.gov.au/node/30290/

This presentation has also been based on the resources provided by the Association for Safe Aseptic Practice (ASAP) UK to maintain the integrity of the ANTT® framework founded by ASAP. These resources can be accessed from the below web link.

Aseptic Non Touch technique (ANTT®) A Practice Framework for Clinical Practice V2.8 2012. The Association for Safe Aseptic Practice (ASAP)

www.antt.org.uk

ACIPC
Australasian College for Infection Prevention and Control

# Questions or Access to Resources

Sue Atkins
Grampians Region Infection Control Consultant
Service and Workforce Development
Department of Health
Victoria
sue.e.atkins@health.vic.gov.au