

An Introduction to Aseptic Technique

**National Safety and Quality Health Service
Standard 3 : Preventing and Controlling Healthcare
Associated Infections**

Objectives

- To introduce Aseptic Technique
- To provide a framework which standardise Aseptic Technique for every clinical practice at RCH

Why is aseptic Technique important?

- To ensure the avoidance of Healthcare associated infections (HAIs) that occur as a result of healthcare interventions.
- Each year in Australia there are about 200,000 HAIs. Many of these infections are preventable.
- Prevention of HAI is the responsibility of all healthcare workers (HCWs). HAI is not considered an unpredictable 'complication', but rather a potentially preventable 'adverse event'.

Aseptic Technique

A technique which aims to prevent pathogenic microorganisms from being introduced to susceptible sites by hands, surfaces and/or equipment

There are three types of Aseptic Technique:

- Sterile Technique
- Surgical Aseptic Technique
- Standard Aseptic Technique

Key Terms



- Aseptic Non-touch Technique
- Key sites
- Key parts
- Aseptic Field
- General Aseptic Field
- Critical Aseptic Field
- Micro Critical Aseptic Field
- Aseptic technique
 - Standard Aseptic Technique
 - Surgical Aseptic Technique
- Sterile technique

Aseptic Non-Touch Technique

- **Aseptic:** A technique which aims to prevent pathogenic microorganisms from being introduced to susceptible sites by hands, surfaces and/or equipment
- **Non touch:** refers to preventing contamination of susceptible sites by hands, surfaces or equipment
- **Technique:** refers to identifying the risk of contamination and choosing the right field and technique



Key Parts

Key Parts are the most critical parts of the procedural equipment, that if contaminated are likely to cause infection.

Examples:



Key Sites

Key Sites are medical device access sites or open wounds.

Examples:



Aseptic Field

An Aseptic Field is a controlled workspace used to promote asepsis during a clinical procedure.

There are three types of Aseptic Fields:

- General Aseptic Field
- Critical Aseptic Field
- Micro Critical Aseptic Field

General Aseptic Field

A work space that *promotes* asepsis and is utilised when key parts and/or key sites can be easily protected.

Example



Critical Aseptic Field

A work space that is managed as a key part.

- Utilised when key parts/sites are large or numerous.
- Utilised when key parts/sites can't be easily protected by covers or caps or can't be handled with a non-touch technique



Critical Micro Aseptic Field

A technique that ensures the asepsis of key parts by utilising caps, sheaths and packaging

- Utilised at all times when using a General Aseptic Field
- Utilised where possible when using a Critical Aseptic Field



Sterile Technique

A technique that aims to achieve total absence of microorganisms

- A Sterile Technique is only ever achieved in an operating suite or using a laminar air flow cabinet



Standard Aseptic Technique

A technique that utilises a General Aseptic Field, Critical Micro Aseptic Fields, hand hygiene, non-touch technique and non-sterile gloves to achieve a safe level of asepsis for:

- Technically simple and short procedures
- Procedures that involve few key parts or key site



In what procedures would you need to use a standard technique?



Surgical Aseptic Technique

A technique that utilises a Critical Aseptic Field which is treated like a key part and also uses:

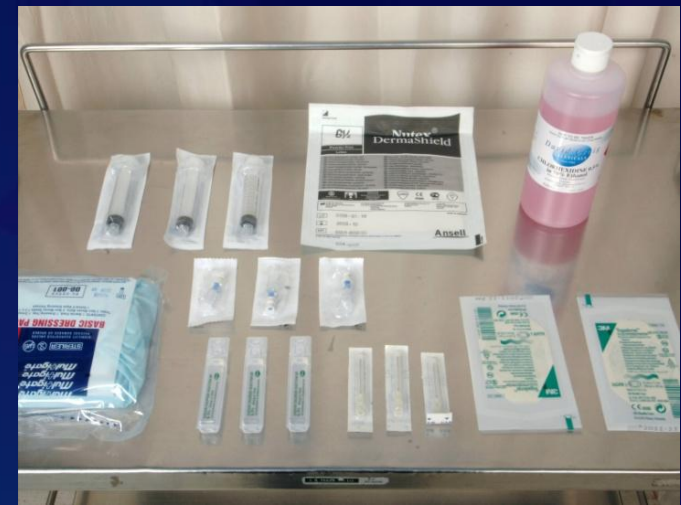
- Full barrier precautions such as sterile gloves, sterile gowns, cap, mask
- Critical Micro Aseptic Fields
- Hand hygiene
- Non-touch technique where practical to do so

It achieves a safe level of asepsis for procedures that are:

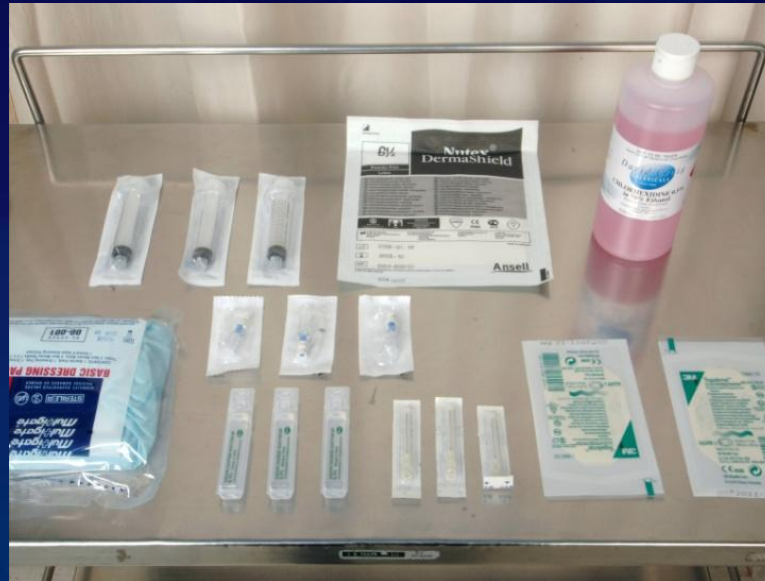
- Technically complex procedures
- Extended periods of time
- Large, open or multiple key sites

Example:

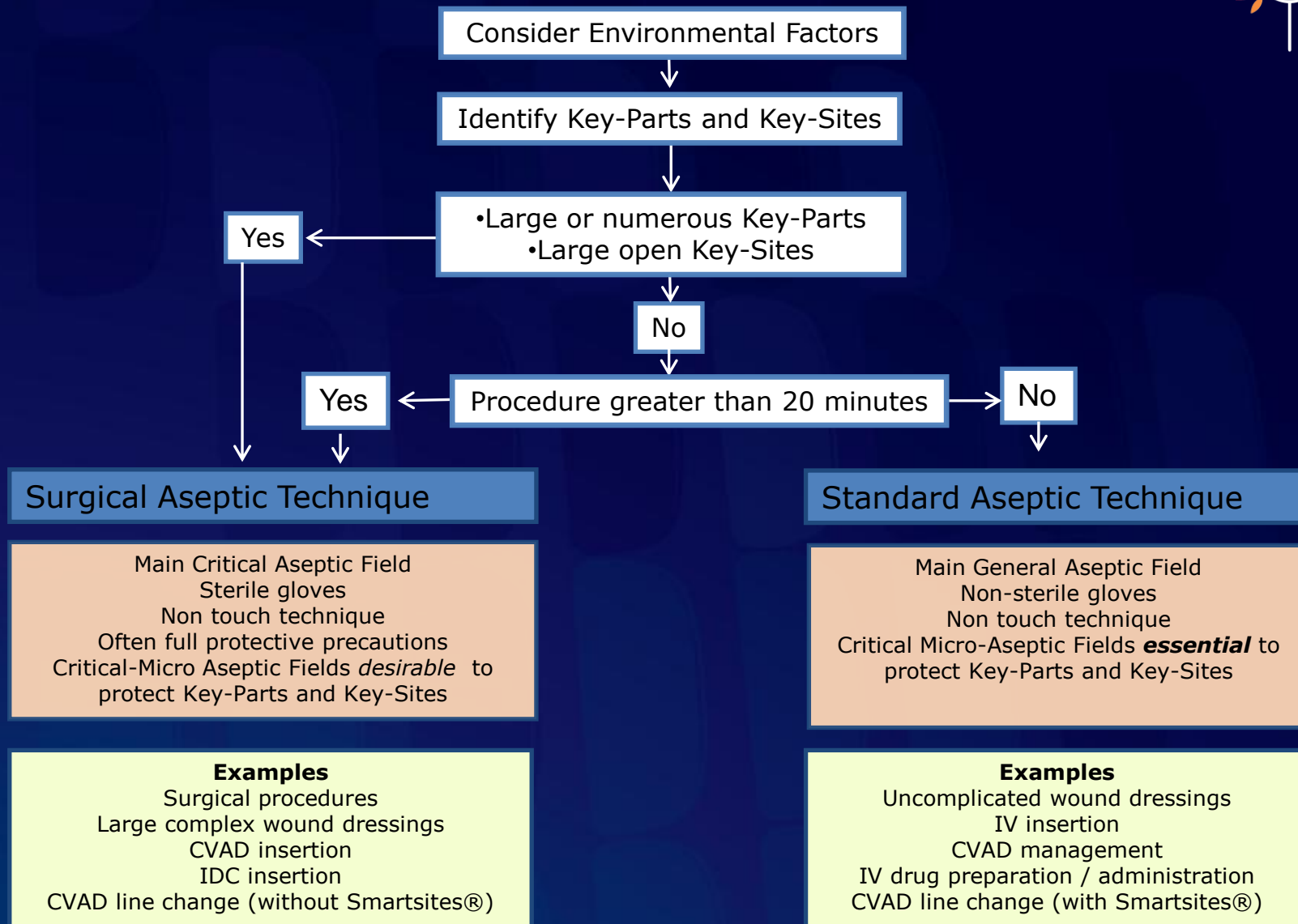
PICC insertion



In what procedures would you need to use a surgical aseptic technique?



Pre-procedure Guide



Hand hygiene

Hand hygiene

Choosing the Right Technique

It is essential to choose the right technique and field to prevent pathogenic microorganisms from being introduced to susceptible sites by hands, surfaces and/or equipment.

To help you choose correctly based on your skill level and the procedural requirements, a risk assessment can be undertaken by applying a few key considerations.



Key Considerations

HAND HYGIENE:

What measures do I need to take to ensure I have performed adequate hand hygiene?



GLOVES:

Can this procedure be performed without touching key parts or key sites directly?



Key Considerations

ASEPTIC FIELD:

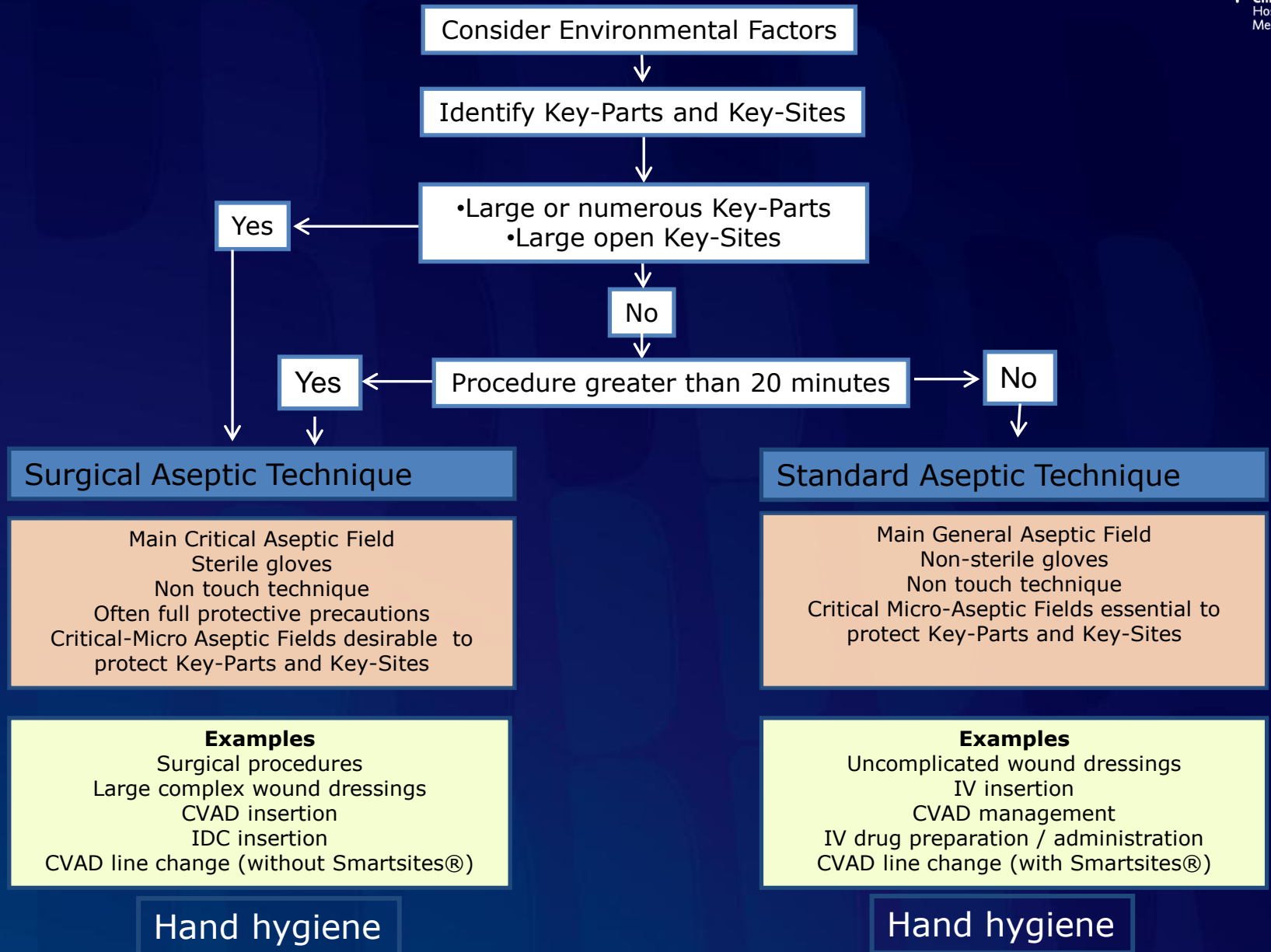
Is it a technically difficult procedure?
Are there multiple key parts/sites?

ASEPTIC TECHNIQUE:

Can I ensure that aseptic key parts
only come into contact with other
aseptic key parts or key sites?



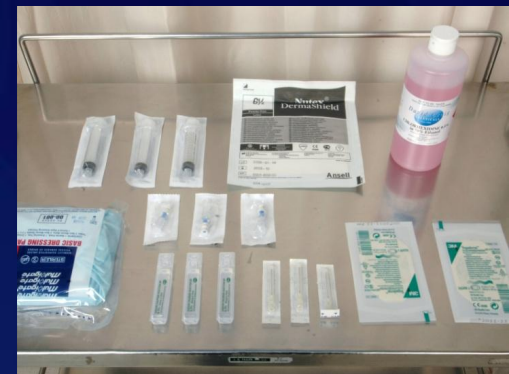
Key Consideration Guide



Conclusion

- Standardisation of Aseptic Technique will assist in reducing HAIs and improve patient outcomes
- The terminology used clarifies, standardises and simplifies practice
- Ensure your clinical practice is reflective of the new Aseptic Technique Procedure. See link below

[Policies and Procedures : Aseptic Technique](#)



References & Resources

- NHMRC (2010). *Australian guidelines for the prevention and control of infection in healthcare*. Sections B1.7 B5.4. www.nhmrc.gov.au/node/30290/
- RCH Aseptic Technique Procedure http://ww2.rch.org.au/policy_rch/cat.cfm
- *Aseptic technique staff workbook - v1.1 (Jan2013)* South Australia Infection Control Service <http://www.health.sa.gov.au/infectioncontrol/>
- Tasmanian Infection Prevention & Control Unit http://www.dhhs.tas.gov.au/_data/assets/pdf_file/0016/86110/ANTT_FINAL_ColourPrint_Jan2012.pdf
- The Association for Safe Aseptic Practice. Aseptic Non Touch Technique [Internet]. 2012. http://www.antt.org.uk/ANTT_Site/Home.html

Quiz

1. Name a common procedure in our area requiring Standard Aseptic Technique?

Quiz

2. Name a common procedure in our area requiring Surgical Aseptic Technique?

Quiz

3. Which technique utilises General Aseptic Field, Critical Micro Aseptic Fields, hand hygiene, non-touch technique and non-sterile gloves to achieve a safe level of asepsis?

Quiz

4. What changes if any might need to be made to current practice in our area?