



WoundsAustralia

Application
of aseptic
technique in
wound dressing
procedure

*A consensus
document*

Second edition

Copyright © Wounds Australia, 2017

Application of aseptic technique in wound dressing procedure:
A consensus document.

ISBN 978-0-6480097-5-7

Previous ISBN 978-0-6480097-3-3

Published by Cambridge Media on behalf of Wounds Australia



Wounds Australia contact details:
PO Box 7182 Watson ACT 2602
1800 870 855
admin@woundsaustralia.com.au
www.woundsaustralia.com.au

First edition published 2017

Second edition published 2018

All rights reserved

Suggested citation

Wounds Australia. Application of aseptic technique in wound dressing procedure:
A consensus document.
Cambridge Media: Osborne Park, WA; 2018

Disclaimer

This document was developed by Wounds Australia. It presents minimum standards for a wound dressing procedure in the inpatient, clinic, outpatient, general practice, residential aged care and home care environments within the Australian health care context. In preparing the document Wounds Australia sourced relevant documents and regulatory guidelines and is based on information available at the date of compilation. The recommendations in this document are a general guide to appropriate clinical practice, to be implemented by qualified health care professionals subject to their clinical judgment of each individual case and in consideration of the patient's personal preferences, organisational policy and procedures and available resources. The guide should be implemented in a culturally aware and respectful manner in accordance with the principles of protection, participation and partnership.

Printed copies of Application of aseptic technique in wound dressing procedure:
A consensus document. can be ordered from Wounds Australia.

Application of aseptic technique in wound dressing procedure: *A consensus document.*

Contents

Introduction	2
Scope of this document	2
ANTT explained	3
Risk assessments and practice of ANTT	3
Infection prevention strategies	4
Recommendations for the application of aseptic technique in wound dressing procedure	4
1 Cleaning considerations required when performing a wound dressing procedure	5
2 Wound cleansing considerations	7
3 Environmental considerations required when performing a wound dressing procedure	10
4 Storage considerations required when performing a wound dressing procedure	12
5 Considerations required prior to using open-but-unused wound dressing products	14
6 Patient considerations in determining appropriateness to use open-but-unused wound dressings	16
7 Managing open-but-unused wound dressings aseptically	17
References	20
Contributors	21
Glossary of Terms	22

Introduction

This document has been developed by Wounds Australia to support healthcare professionals (HCPs) in the application of aseptic technique in wound dressing procedure. It is based on the *Australian Guidelines for the Prevention and Control of Infection in Healthcare* and Standard 3 'Preventing and Controlling Healthcare Associated Infections' within the *National Safety and Quality Health Service Standards*^{1,2}.

The use of aseptic technique minimises the introduction to a wound of pathogenic organisms that might lead to infection. Further, the adoption of Aseptic Non-Touch Technique (ANTT®) as a framework for aseptic practice in the United Kingdom and internationally has helped to improve standardisation of practice and supported reduced rates of healthcare-associated infection^{3,4,5}.

The ANTT Clinical Practice Framework, originated by Rowley in 2001⁶, is a contemporary aseptic technique founded on core infection control principles and involves some changes to practice and new terminology. It is intended for all invasive procedures, including dressing application and change⁴. The type of ANTT is selected according to the technical complexity of maintaining asepsis during any given procedure. For the purposes of clarity, and reflecting its widespread adoption, this publication uses the ANTT Clinical Practice Framework to articulate matters of aseptic technique.

Of particular note, 'sterile technique' and 'clean technique' are not supported in the ANTT Clinical Practice Framework, and aseptic procedures are described and performed according to the principles and process of Standard-ANTT or Surgical-ANTT.⁴

A glossary has been included at the end of the document. The information provided in the statements and dot points is not repeated in the accompanying tables for the various site settings.

Scope of this document

This consensus document has been developed to assist clinicians in a range of settings in the application of aseptic technique when performing a wound dressing procedure. It can be used by clinicians and service providers to guide wound dressing practice, policy and procedure.

The core components of infection prevention—which include hand hygiene, glove use, aseptic fields, non-touch technique, environmental controls and sequencing—are already well described in the *Australian Guidelines for the Prevention and Control of Infection in Healthcare*.¹ It is expected that all clinicians will have prior understanding of the core components of infection prevention and the application of both Standard-ANTT and Surgical-ANTT in wound dressing procedures. **This consensus document outlines key considerations for cleaning and environmental aspects, wound cleansing, storage of wound products, and the use and management of open-but-unused dressing products.**

The recommendations in this document have been developed as consensus statements by a diverse group of healthcare professionals from across Australia who represent the hospital and community sectors, general practice, residential care, rural and remote regions, and infection prevention and control. A narrative review was undertaken of contemporary evidence⁷ and supporting evidence is outlined where applicable. Where there was a lack of evidence to support a recommendation, expert consensus has been used.

The recommendations provided here are a general guide to appropriate clinical practice, to be implemented by qualified healthcare professionals, subject to their clinical judgment of each individual case, and in consideration of the patient's personal preferences, organisational policies and procedures, and available resources. This document informs, but does not replace, local organisational policy and procedure.

ANTT explained

To ensure practice is both safe and efficient there are different types of ANTT:

- Surgical-ANTT[®] is selected for lengthy, technically complex wound care procedures (involving large open Key-Sites or large or numerous Key-Parts), requiring sterile gloves, sterile equipment and a Critical Aseptic Field^{1,4}.
- Standard-ANTT[®] is selected for short, technically simple wound care procedures (involving few and small Key-Sites and Key-Parts), performed using non-sterile gloves, General Aseptic Field and a non-touch technique^{1,4}.

A detailed account of ANTT practice can be found in Rowley (2010)⁴.

Risk assessments and practice of ANTT

The following actions are required for safe ANTT:

- Assess the risk: select Standard-ANTT or Surgical-ANTT according to the technical difficulty of achieving asepsis. Consider procedure, wound, patient and environmental characteristics,
- Manage the environment: avoid or remove actual or potential contamination risks,
- Decontaminate and protect: perform hand hygiene, wear Personal Protective Equipment (PPE), clean and disinfect,
- Depending on the type of ANTT selected, use General, Critical and Micro Critical Aseptic Fields to protect Key-Parts and Key-Sites,
- Perform the procedure in a logical sequence that promotes asepsis,
- Use non-touch technique: only Key-Parts come into contact with other Key-Parts or Key-Sites,
- Prevent cross infection: use standard precautions including hand hygiene, store or dispose of equipment appropriately, use single-use items when necessary and practice safe waste disposal.

Infection prevention strategies

The ANTT-Approach is a simple way of summarising the most important components of ANTT applicable to any type of wound dressing procedure:

- identify and protect Key-Parts and Key-Sites
- hand hygiene
- glove use and other PPE
- aseptic field use and non-touch technique
- environmental controls
- logical sequencing of the procedure.

Recommendations for the application of aseptic technique in wound dressing procedure

The application of any of the following recommendations is based on the outcome of a risk assessment for each patient that considers the actions for safe ANTT and the:

- patient's health-related risk factors ^{4, 8, 9}
- wound characteristics ^{4, 8-10}
- availability of products and facilities for wound dressing equipment storage ¹⁰
- complexity of procedure ^{10, 11}
- environmental factors, including the care setting in which the procedure is performed
- service provider policies and procedures.

Recommendations are outlined in the following sections.

1. **Cleaning considerations required when performing a wound dressing procedure**
2. **Wound cleansing considerations**
3. **Environmental considerations required when performing a wound dressing procedure**
4. **Storage considerations required when performing a wound dressing procedure**
5. **Considerations required prior to using open-but-unused wound dressing products**
6. **Patient considerations in determining appropriateness to use open-but-unused wound dressings**
7. **Managing open-but-unused wound dressings aseptically.**

1. Cleaning considerations required when performing a wound dressing procedure

1.1 Cleaning the work area

Clean the surface/s to be used for the dressing equipment before and after the procedure.

1.2 Managing equipment for the wound dressing procedure

1.2.1 General equipment

When equipment has come into contact with the wound, tissue, blood or bodily fluids, take the following action:

- single-use equipment - discard after use
- multiple-use equipment - as per the NHMRC Guidelines (2010); *“any instrument or piece of equipment that is to be reused must be registered and used for its intended purpose, and cleaning, disinfection and/or sterilisation must be performed as per the manufacturer's instructions. The minimum level of reprocessing required for reusable instruments and equipment depends on the individual situation i.e. the body site and the nature by which the instrument will be used”* (2010:78). If appropriate reprocessing cannot be achieved or the equipment is not registered for reprocessing/reuse, (i.e. is for single use) it must be discarded at completion of the procedure.

1.2.2 Stainless steel scissors

When using stainless steel scissors that have **not** come into contact with the wound, tissue, blood or bodily fluids to cut open-but-unused dressing products:

- ensure the scissors are used for the sole purpose of cutting open-but-unused dressings
- conduct a risk assessment of the patient, the wound, the environment and the procedural complexity when considering whether to reuse the scissors to cut more open-but-unused dressing products ¹⁰
- manage the scissors to promote asepsis by storing and labelling them appropriately and ensuring they are patient-specific.

Prior to using the patient-specific dressing scissors:

- inspect the scissors for cleanliness and integrity
- wipe the scissors with an alcohol or detergent wipe from the back (blunt) edge of the blades towards the sharp edge to avoid injury to the HCP and wipe both sides of the blade¹²

After using the patient-specific dressing scissors:

- wash the scissors in warm, soapy, potable tap water or cleanse them with an alcohol or detergent wipe ¹²
- store the scissors in the original packaging within a clean, resealable plastic bag labelled with the patient's name, identification number and date the scissors were first used¹³.

1.3 Care delivery setting considerations

Hospital inpatient (semi-controlled environment)	Outpatient departments, clinics, general practices (semi-controlled environment)	Residential facilities (semi-controlled environment)	Home (uncontrolled environment)
Equipment is single-use only or reprocessed according to the manufacturer's recommendations.	Use sterile (single-use) equipment in circumstances where equipment cannot be managed as per the recommendations outlined in 1.2.	Use sterile (single-use) equipment in circumstances where equipment cannot be managed as per the recommendations outlined in 1.2.	Use sterile (single-use) equipment in circumstances where equipment cannot be managed as per recommendations outlined in 1.2.

2. Wound cleansing considerations

2.1 The use of potable (drinkable tap) water

2.1.1 Surgical-ANTT

The use of potable tap water is not acceptable when Surgical-ANTT is required. Use sterilised solution.

2.1.2 Standard-ANTT

Use a sterilised solution where possible.

When the use of a sterilised solution is not possible or practical, potable tap water can be used as a wound cleansing solution when a risk assessment of the patient, the wound and the environment consider the risk to be low. Asepsis remains the aim when potable tap water is used for wound cleansing. Avoid use if there is any concern that the procedure will not meet this standard.

Tap water declared not potable (unsuitable for drinking) is not to be used for wound cleansing or cleansing of scissors¹⁴⁻¹⁸.

If potable tap water is not available, use only sterilised solutions.

When using potable tap water;

- ensure the cloths/linen used for washing the wound are clean or disposable and used only on the wound
- wherever possible, keep the action of cleansing the wound separate from the action of washing the intact peri-wound and surrounding skin
- run the potable water tap for 30 seconds prior to using the potable water for wound cleansing (water boiled for three minutes and left to cool can also be considered)¹⁹⁻²¹
- avoid immersion or soaking of wounds in water.

The use of potable tap water for wound cleansing can include washing the exposed wound under the shower ^{16, 22-24} or using a container as described in 2.2 and 2.3²⁴.

2.2 Using a container (i.e. bowl or bucket) for wound cleansing

When using a container for wound cleansing ensure it is:

- clean, in good condition and kept for this purpose only
- lined with plastic (e.g. a clean unused plastic bag) prior to use and disposed of after each use. A new plastic lining is required if washing different body parts (e.g. two limbs)
- cleaned before and after use
- stored in a dry, covered area.

Avoid immersing or soaking the wound/s in water.

2.3 Showering for wound cleansing

Using a shower to cleanse a wound involves increased risks that must be considered and managed, e.g.

- water running over other body areas prior to reaching the wound and/or faecal or urinary incontinence increases the risk of contamination
- reduced cognitive function might impair the patient's ability to follow instructions
- showers are potential sources of pathogenic microorganisms²⁵.

Wherever possible, washing the wound in the shower must be separated from washing the rest of the body.

It is not acceptable to cleanse;

- wounds in a shared shower space (e.g. a multi-patient use shower in a residential facility or hospital)^{16, 24}
- foot wounds in a shower or bath¹⁶.

2.4 Care of the peri-wound and surrounding skin

Cleansing the peri-wound and intact skin surrounding the wound is encouraged using:

- potable tap water, a soap free pH appropriate cleanser and disposable or clean cloths/linen²⁶, or
- non-alcohol based skin cleansing wipes.

2.4.1 Lower limb wound considerations

It is recommended when rinsing a lower limb that the foot be placed in an empty container and a separate receptacle is used to pour water over the lower limb (using a container as described in 2.2). Avoid reuse of the collected water over the leg.

2.5 Care delivery setting considerations

Hospital inpatient (semi-controlled environment)	Outpatient departments, clinics, general practices (semi-controlled environment)	Residential facilities (semi-controlled environment)	Home (uncontrolled environment)
<p>If it is appropriate to cleanse the wound/s in the shower:</p> <ul style="list-style-type: none"> keep the wound/s covered during general hygiene after general hygiene care, remove the dressings +/- bandages and cleanse the wound and peri-wound separately in the shower using a soap-free pH appropriate cleanser use clean or disposable cloths to cleanse and dry the wound. <p>If a container is used for wound cleansing:</p> <ul style="list-style-type: none"> dispose of used water in a sluice in a separate dirty utility area. <p>For inpatient specialist burn units follow local protocols.</p>	<p>If it is appropriate for a patient to remove their bandages/dressings at home and cleanse their wound/s in the shower prior to their clinic appointment:</p> <ul style="list-style-type: none"> ensure the patient is able to follow instructions and can physically manage the procedure assess equipment cleanliness as this is a potential source of contamination (i.e. shower cubicles, linen). Avoid tap water for wound cleansing if there is any doubt regarding equipment cleanliness. <p>Instruct the patient to:</p> <ul style="list-style-type: none"> keep the wound/s covered during general hygiene after general hygiene care, remove the dressings +/- bandages and peri-wound separately in the shower using a soap-free pH appropriate cleanser use clean or disposable cloths to cleanse and dry the wound. apply an appropriate temporary dressing over the wound for protection until the clinic appointment. <p>If a container is used for wound cleansing in outpatient departments, clinics and general practices:</p> <ul style="list-style-type: none"> dispose of used water in a sluice in a separate dirty utility area. 	<p>If it is appropriate to cleanse the wound/s in the shower:</p> <p>Assist the patient to:</p> <ul style="list-style-type: none"> keep the wound/s covered during general hygiene after general hygiene care, remove the dressings +/- bandages and cleanse the wound and peri-wound separately in the shower using a soap-free pH appropriate cleanser use clean or disposable cloths to cleanse and dry the wound. <p>If a container is used for wound cleansing</p> <ul style="list-style-type: none"> dispose of used water in a sluice in a separate dirty utility area or down the toilet. 	<p>If it is appropriate for the patient to cleanse the wound/s in the shower at home:</p> <ul style="list-style-type: none"> ensure the patient is able to follow instructions and can physically manage the procedure assess equipment cleanliness as this is a potential source of contamination (i.e. shower cubicles, linen). Avoid tap water for wound cleansing if there is any doubt regarding equipment cleanliness. <p>Instruct the patient to:</p> <ul style="list-style-type: none"> keep the wound/s covered during general hygiene after general hygiene care, remove the dressings +/- bandages and cleanse the wound and peri-wound separately in the shower using a soap-free pH appropriate cleanser use clean or disposable cloths to cleanse and dry the wound. <p>If a container is used for wound cleansing, instruct the patient to:</p> <ul style="list-style-type: none"> store it in a dry area, away from potential contaminants such as dirt and pets dispose of used water down the toilet.

3. Environmental considerations required when performing a wound dressing procedure

3.1 Environmental considerations

When performing a wound dressing procedure:

- avoid proximity to potential contaminants, including, but not limited to, commodes, toilets and rubbish bins ^{4, 12, 27}
- ensure the environment is clean and dust-free ²⁷
- avoid activities such as housekeeping and reduce the risk of infection from airborne sources by closing windows, turning off fans and restricting foot traffic in the treatment area ^{11, 27}
- avoid carpeted rooms as they are harder and more costly to clean and are more likely to act as a reservoir for infectious agents. (Floor coverings have not been related to healthcare associated infection, however, some studies have identified carpeting as susceptible to contamination by fungi and bacteria) ²⁸
- position the patient with the wound area/limb on a wipeable surface (as a wipeable surface can be cleaned). Cover fabric surfaces with a protective layer such as a clean towel or waterproof underpad that can be washed or discarded afterwards. Fabric surfaces have been shown to be a source of vancomycin-resistant *Enterococcus* (VRE) infections in hospitals ²⁹
- establish a clear, clean, hard surface to place the wound dressing equipment on and clean the surface³⁰. If a clean, hard surface is not available, use a plastic apron or underpad. In the home the underside of the lid from the plastic wound storage container can be used as the hard surface ^{4, 31, 32}
- place the dressing equipment at a height which prevents contamination from skin scales, fibres and other potential contaminants while performing the procedure³¹.

3.2 Care delivery setting considerations

Hospital inpatient (semi-controlled environment)	Outpatient departments, clinics, general practices (semi-controlled environment)	Residential facilities (semi-controlled environment)	Home (uncontrolled environment)
<p>A cleaned, stainless steel trolley is the preferred surface for wound dressing equipment and setting up an aseptic field.¹¹</p> <p>Trolleys without drawers are preferred.</p> <p>The dressing trolley should contain only consumables/equipment required for the wound dressing procedure and should not be used as a storage area.</p> <p>A cleaned over-bed table can be used if a trolley is unavailable.</p>	<p>A cleaned, stainless steel trolley is the preferred equipment and setting up an aseptic field.¹¹</p> <p>Trolleys without drawers are preferred.</p> <p>The dressing trolley should only contain consumables/equipment required for the wound dressing procedure and should not be used as a storage area.</p> <p>The examination chair/bench is cleaned following each patient's care.</p>	<p>A cleaned, stainless steel trolley is the preferred surface for wound dressing equipment and setting up an aseptic field.¹¹</p> <p>Wound dressing product supplies are kept at the allocated bulk storage area of the facility as per recommendation 4.2.</p> <p>Avoid using any open shelf of a dressing trolley as a general storage area. An open lower shelf can be used to transport the specific products required for the residents wound dressings in that wing of the facility for that shift.</p> <p>For large residential facilities, or to enable storage of wound dressing supplies on the dressing trolley, a multi drawer trolley is recommended. When using a multi-drawer dressing trolley:</p> <ul style="list-style-type: none"> • keep the top surface of the trolley clear for setting up an aseptic field • store wound dressing supplies in a separate drawer below the top shelf • keep the volume of wound dressing supplies to a minimum • if storing and transporting open-but-unused dressing products for individual residents in a multi-drawer trolley they must be managed as per recommendations 5.1, 5.2, 5.3, 6.1, 6.2, 6.3, 7.1, 7.2, 7.3 and 7.4, and a separate drawer must be allocated strictly for this purpose. Unopened supplies are not to be stored in the same drawer as open-but-unused wound dressing products • observe infection prevention and control measures when accessing the drawers. <p>A cleaned over-bed table can be used if a trolley is unavailable.</p>	<p>Use a hard, clean surface for setting up an aseptic field (e.g. table, non-fabric chair or seat). Avoid the floor or bed.</p>
<p>It is recommended that animals be removed from the area where a wound dressing procedure is being performed. Where an animal cannot be removed then provisions may be negotiated that meets the requirements of the HCP and the patient. Animals can be both a source and a mode of transmission of infection.</p>			
<p>The Disability Discrimination Act 1992 (Dh) recognises guide, hearing and assistance dogs cannot be prevented from entering public places. However, the Australian College for Infection Prevention and Control states that full access to certain areas may be restricted.^{35,39} Animal, consumer and HCP hygiene must be adhered to.</p>			

4. Storage considerations required when performing a wound dressing procedure

4.1 Storage considerations for wound dressings and equipment used during a wound dressing procedure

The scope of this document is restricted to the storage of wound dressing equipment for individual use on a specific patient. It includes storage of unopened, and open-but-unused equipment. These recommendations do **not** pertain to bulk storage of unopened dressing equipment in facilities, warehouses, distribution centres and stock rooms.

4.1.1 Storage areas for wound dressing equipment must be kept:

- clean and free from dust, insects and vermin¹⁵
- out of direct sunlight
- off the floor
- away from heat sources such as window sills or fire places/ heaters and maintained at a stable temperature as per the manufacturer's recommendations.

4.1.2 Containers used for storage of wound dressing equipment should be:

- plastic with a sealable lid
- large enough to accommodate all wound dressing equipment
- in good condition (clean, dry and not damaged)
- kept clean and dry, and cleaned regularly
- not made of cardboard as it is porous, cannot be cleaned and might harbour microorganisms, insects or rodents
- protective against moisture
- only used for storage of products or equipment related to the wound dressing procedure.

4.1.3 Provide patients and carers with education and explanation regarding 4.1.1 and 4.1.2.

4.2 Care delivery setting considerations

Hospital inpatient (semi-controlled environment)	Outpatient departments, clinics, general practices (semi-controlled environment)	Residential facilities (semi-controlled environment)	Home (uncontrolled environment)
<p>Avoid storage of wound dressing equipment in patient rooms. Collect wound dressing equipment immediately prior to the procedure from the bulk storage area.</p> <p>In rooms where patients need transmission-based precautions and require wound dressings, take minimal wound dressing equipment into the patient's room. Store any unused items according to the above recommendations.</p> <p>A new, sterile dressing is opened for every wound dressing procedure and any remaining dressing is discarded.</p>	<p>If it is appropriate to use and store open-but-unused wound dressing products these are stored and managed in accordance with section 5.2.3.</p> <p>As it is not practicable to have a separate plastic storage container for storage of plastic bags containing open-but-unused wound dressings for each patient, the following options are recommended:</p> <ul style="list-style-type: none"> the patient takes their sealed plastic bag containing the open-but-unused wound dressings home with them and stores it in accordance with the above recommendations. The patient brings their sealed plastic bag containing the open-but-unused wound dressings with them to their next appointment, or where this is not possible, clearly labelled, individual, sealed plastic bags for multiple patients are kept in a clean, sealed plastic container in the department/clinic/treatment room. The plastic container must be stored in a separate area or cupboard to the area where unopened and sterile wound dressing equipment is kept. <p>Unopened wound dressing equipment is not stored in the same container as open-but-unused wound dressings. If there is unopened wound dressing equipment that has been obtained for a specific patient, this is stored in a labelled, separate bag or container away from where open-but-unused wound dressings are kept.</p>	<p>Collect wound dressing equipment immediately prior to the procedure from the bulk storage area.</p> <p>In rooms where patients need transmission-based precautions and require wound dressings, take minimal wound dressing equipment into the patient's room. Store any unused items according to the above recommendations.</p> <p>If it is appropriate to store open-but-unused wound dressing products, these are managed in accordance with section 5.2.3 then stored according to sections 4.1.1, and 4.1.2.</p>	<p>Avoid storage of large amounts of wound dressing equipment in a patient's home.</p> <p>Unopened wound dressing equipment can only be removed from a patient's home and used for another patient if the initial patient did not need transmission-based precautions and the packaging remains sealed and intact and can be cleaned (i.e. plastic packaging).</p> <p>If it is appropriate to store open-but-unused wound dressing products, these are managed in accordance with section 5.2.3 then stored according to sections 4.1.1, and 4.1.2.</p> <p>If the above recommendations are followed, unopened wound dressing equipment can be stored in the same container as open-but-unused wound dressings.</p>

5. Considerations required prior to using open-but-unused wound dressing products

5.1 Guidelines

It is recommended that service providers have clear, written and approved guidelines/policies/procedures for managing dressing products, including open-but-unused products if applicable, that provide:

- guidance for the HCP, e.g. medicolegal considerations
- protection for the patient and the HCP, e.g. medicolegal considerations.

5.2 Product considerations in using open-but-unused wound dressings

5.2.1 Product suitability

- The dressing cannot be managed as open-but-unused if cutting it will alter its performance or structural integrity.
- Any opened wound dressing product remaining at the end of the procedure is discarded. Refer to the manufacturer's recommendations for guidance.
- Collect all equipment and supplies prior to commencing the wound dressing procedure.
- Wherever possible select the most appropriate dressing size to match the wound size to avoid using open-but-unused dressings.
- If larger dressing sizes only are available, and is otherwise a suitable product, consider the use of an open-but-unused dressing.

5.2.2 Product management

- Cutting and handling procedures for open-but-unused dressing portions must be managed aseptically to minimise the risk of contamination.
- An open-but-unused wound dressing can be used only for the same patient.

5.2.3 Storage

- An open-but-unused portion of dressing must be contained in its **original** packaging.
- Discard any remaining dressing if the original packaging is damaged, torn, or cannot be adequately secured.
- Decanting of dressings into **alternative** containers or non-original packaging **is not an acceptable practice**.

- Packets containing open-but-unused dressings have the opened end turned over twice and sealed with a tape that can be easily removed without damaging the packaging (e.g. paper tape).
- The secured, original packaging containing the open-but-unused portion of dressing is stored in a clean, resealable plastic bag containing only that open-but-unused dressing.
- Any open-but-unused dressing and the resealable plastic bag is kept **no longer than four weeks** unless the manufacturer states that the shelf life is longer or less once opened. Every time an open-but-unused dressing product is accessed and handled there is an increased risk of contamination. 35
- The patient's name, date of birth, identification number and date of first use is recorded on:
 - o the original packaging of the open-but-unused dressing, or
 - o the resealable plastic bag. If there are resealable plastic bags for multiple patients stored in the same area, the patient's name, date of birth and identification number is clearly identifiable on the outside of the plastic bag to avoid opening the bag except during a wound dressing procedure.
- The patient is provided with information regarding the use and storage of open-but-unused dressings.
- If there are multiple resealable plastic bags containing open-but-unused dressings for different patients, keep them in a separate area, away from other unopened wound dressing products and equipment.

If any of the above recommendations are unable to be met, the HCP cannot manage the dressing as open-but-unused.

5.3 Care delivery setting considerations

Hospital inpatient (semi-controlled environment)	Outpatient departments, clinics, general practices (semi-controlled environment)	Residential facilities (semi-controlled environment)	Home (uncontrolled environment)
A new, sterile dressing is opened for every wound dressing procedure and any remaining dressing is discarded.	As per 5.1 and 5.2. In areas where the patient is having wound dressings performed in their home in between clinic visits, any remaining portion of newly opened dressing can be sent home with the patient if the above recommendations are met.	As per 5.1 and 5.2.	As per 5.1 and 5.2.

6. Patient considerations in determining appropriateness to use open-but-unused wound dressings

6.1 When an open-but-unused dressing should be used with caution

6.1.1 The patient is significantly immunocompromised by disease, medicines, treatment or nutritional deficits

This might include, but is not limited to, the following;

- repeated wound infections
- treatment with immunosuppressive medication or cytotoxic compounds
- current radiation or chemotherapy treatment
- poorly controlled diabetes
- known leukopenia
- an underlying immunosuppressive auto-immune condition, e.g. systemic lupus erythematosus (SLE) or acquired immune deficiency syndrome (AIDS).

6.1.2 The wound is compromised

For example:

- bone, tendon, muscle, ligament or joint is visible or palpable in the wound
- the wound is a cavity with significant depth and/or sinus, tunnelling or undermining
- a split skin graft was applied less than two weeks prior.

6.2 When an open-but-unused dressing is not to be used;

In certain events or therapeutic interventions, only newly opened sterile dressings should be used and any remaining dressing discarded at the end of the procedure, e.g;

- dressing vascular access device sites ^{8, 10, 11, 36}
- Negative Pressure Wound Therapy (NPWT)/ Topical Negative Pressure Therapy (TNPT) dressing.

6.3 Care delivery setting considerations

Hospital inpatient (semi-controlled environment)	Outpatient departments, clinics, general practices (semi-controlled environment)	Residential facilities (semi-controlled environment)	Home (uncontrolled environment)
A new, sterile dressing is opened for every wound dressing procedure and any remaining product is discarded.	As per sections 6.1 and 6.2.	As per sections 6.1 and 6.2.	As per sections 6.1 and 6.2.

7. Managing open-but-unused wound dressings aseptically

7.1 Packaging

Open the wound dressing package to allow sufficient access to the dressing while avoiding contamination of the dressing.

7.1.1 Option 1: The dressing is cut on the aseptic field

- Use forceps to remove the dressing from the packaging without touching the external surfaces of the packaging, and to place the dressing on the aseptic field.
- Use scissors* to cut the required portion from the dressing.
- Avoid contact between the scissor handles and the dressing or the inside surfaces of the packaging.
- Use forceps to replace any open-but-unused dressing portion into the original packaging immediately without touching the external surfaces of the packaging.

**Scissor requirements are determined based on risk assessment prior to commencing the wound dressing procedure as per 1.2.*

7.1.2 Option 2: The dressing is cut from within the original packaging

- The dressing packaging is opened sufficiently to allow the insertion of scissors into the packaging to cut the required portion.
- The packaging is held above the aseptic field while cutting, allowing the cut dressing portion to fall onto the aseptic field. The packaging must not come into contact with the aseptic field and the cut portion of dressing must not come into contact with any areas of equipment that have been handled (e.g. forceps handles).
- Avoid contact between the scissor handles and the dressing or the internal surfaces of the packaging.
- The original dressing packaging is not cut when performing this procedure, only the dressing itself.

7.2 Tubes and bottles

7.2.1 Option 1: Using the aseptic field

- Open the tube/bottle and squeeze or pour the required amount onto the aseptic field (a section of the plastic dressing tray is an option).
- At no time must any part of the tube/bottle contact the aseptic field or any equipment on it.
- Using a sterile spatula/tongue depressor, forceps or other sterilised implement, scoop the required amount and apply this to the wound or directly onto a dressing.

7.2.2 Option 2: Using a sterile implement

- Open the tube/bottle and squeeze or pour the required amount directly onto a sterile implement, e.g. spatula, tongue depressor, forceps and apply this to the wound.
- At no time must any part of the tube/bottle contact the implement.

7.2.3 Option 3: Using the dressing

- Open the tube/bottle and squeeze or pour the required amount directly onto the dressing and apply this to the wound.
- At no time must any part of the tube/bottle contact the dressing.

7.3 Practice points

- Only tubes or bottles with a resealable cap can be managed as open-but-unused.
- Label the tube or bottle with the patient's name, identification number and date of opening.
- Smaller tubes and bottles are stored in a clean, resealable plastic bag (refer to 5.2.3).
- Discard any remaining product after four weeks or as indicated by the manufacturer.
- To assist the application of gels and ointments onto wet wound surfaces spread gel or ointment directly onto the secondary dressing.

7.4 Care delivery setting considerations

Hospital inpatient (semi-controlled environment)	Outpatient departments, clinics, general practices (semi-controlled environment)	Residential facilities (semi-controlled environment)	Home (uncontrolled environment)
<p>A new, sterile dressing is opened for every wound dressing procedure and any remaining dressing is discarded.</p> <p>Only products (such as pharmaceutical solutions) licensed by the manufacturers for multiple dispensing can be used in this manner.</p>	<p>Patients can store the open-but-unused portion of the dressing in their home environment and bring it back for the next dressing change if the:</p> <ul style="list-style-type: none"> open-but-unused wound dressings are stored and managed as per sections 5.2.2 and 5.2.3 equipment is managed as per 1.2.1 and 1.2.2 wound dressings are transported and placed in a storage container in the home as per 4.1 as soon as possible. <p>Patients can attend to their own wound dressings between clinic appointments using the open-but-unused wound dressing portions if:</p> <ul style="list-style-type: none"> a risk assessment of the patient has been completed to ensure shared care is appropriate the patient has been provided with information and been assessed attending to their own wound dressing the patient has been provided with information regarding the use and storage of open-but-unused products. 	<p>As per sections 7.1, 7.2 and 7.3, and 1.2.1 and 1.2.2 (managing equipment).</p>	<p>As per 7.1, 7.2 and 7.3, and 1.2.1 and 1.2.2 (managing equipment).</p>

References

1. National Health and Medical Research Council (NHMRC). *Australian Guidelines for the Prevention and Control of Infection in Healthcare*. Commonwealth of Australia; 2010.
2. Australian Commission on Safety and Quality in Healthcare. *National Safety and Quality Health Service Standards (September 2012)*. Sydney: ACSQHC; 2012.
3. Rowley S, Clare S. Improving standards of aseptic practice through an ANTT trust-wide implementation process: a matter of prioritisation and care. *J Infect Prev*. 2009;10(1 supp):S18-23.
4. Rowley S, Clare S, Macqueen S, Molyneux R. ANTT v2: an updated practice framework for aseptic technique. *Br J Nurs*. 2010;19(Supp 1):S5-11.
5. Clare S, Rowley S. 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. *J Infect Prev*. 2018;19(1):6-15.
6. Rowley S. Theory to practice. Aseptic non-touch technique. *Nurs Times*. 2001;97(7):VI-VIII.
7. Haesler E, Thomas L, Morey P, Barker J. A systematic review of the literature addressing aepsis in wound management. *Wound Pract & Res*. 2016;24(4):208-46.
8. Flores A. Sterile versus non-sterile glove use and aseptic technique. *Nurs Stand*. 2008;23(6):35-39.
9. Gillespie BM, Fenwick C. Comparison of the two leading approaches to attending wound care dressings. *Wound Pract & Res*. 2009;17(2):84.
10. WOCN Wound Committee. Clean vs. sterile dressing techniques for management of chronic wounds: a fact sheet. *J Wound Ostomy Continence Nurs*. 2012;39(2S):S30-S34.
11. Pegram A, Bloomfield J. Wound care: principles of aseptic technique. *Mental Health Pract*. 2010;14(2):14-18.
12. Swanson J, Jeanes A. Infection control in the community: a pragmatic approach. *Br J Comm Nurs*. 2011;16(6):282-88.
13. Zwanziger PJ, Roper S. Bacterial counts and types found on wound care supplies used in the home setting. *J Wound Ostomy Continence Nurs*. 2002;29(2):83-87.
14. Fernandez R, Griffiths R. Water for wound cleansing. *Cochrane Database System Rev*. 2012(2):CD003861.
15. Parker L. Applying the principles of infection control to wound care. *Br J Nurs*. 2000;9(7):394-404.
16. Watret L, McClean A. Cleansing diabetic foot wounds: tap water or saline? *Diabetic Foot J*. 2009;12(3):134-38.
17. Whaley S. Tap water or normal saline for cleansing traumatic wounds? *Br J Community Nurs*. 2004;9(11):471-76.
18. O'Neill D. Can tap water be used to irrigate wounds in A&E? *Nurs Times*. 2002;98(14):56.
19. Bee TS, Maniya S, Fang ZR, et al. Wound bed preparation - cleansing techniques and solutions: a systematic review. *Singapore Nurs J*. 2009;36(1):16.
20. Schremmer RD. New concepts in wound management. *Clin Pediatr Emerg Med*. 2004;5(4):239-45.
21. Cunliffe PJ, Fawcett TN. Wound cleansing: the evidence for the techniques and solutions used. *Prof Nurse*. 2002;18(2):95-99.
22. Blunt J. Wound cleansing: ritualistic or research-based practice? *Nurs Standard*. 2001;16(1):33-36.
23. Fernandez R, Griffiths R, Ussia C. Effectiveness of solutions, techniques and pressure in wound cleansing. *JBI Reports*. 2004;2(7):231-70.
24. Platt C. Wound cleansing: is tap water best? *Primary Health Care*. 2005;15(5):27-30.
25. Clark AP, John LD. Legal and ethical. Nosocomial infections and bath water: any cause for concern? *Clin Nurse Spec*. 2006;20(3):119-23.
26. Selim P. Will water do? Cleansing of leg ulcers in the community. *ACCNS J Comm Nurses*. 2000;5(3):11-13.

27. Hart S. Using an aseptic technique to reduce the risk of infection. *Nurs Standard*. 2007;21(47):43–48.
28. Salonen H, Morawska L. Physical characteristics of the indoor environment that affect health and wellbeing in healthcare facilities: a review. *Intelligent Buildings International*. 2013;5(1):3–25.
29. Noskin GA, Bednarz P, Suriano T, et al. Persistent contamination of fabric-covered furniture by vancomycin-resistant enterococci: implications for upholstery selection in hospitals. *Am J Infect Control*. 2009;28(4):311–13.
30. Grossman S, Mager D.D. Managing the threat of methicillin-resistant *Staphylococcus aureus* in home care. *Home Healthcare Nurse*. 2008;26(6):356–66.
31. Unsworth J. District nurses' and aseptic technique: where did it all go wrong? *Br J Community Nurs*. 2011;16(1):29–34.
32. Unsworth J, Collins J. Performing an aseptic technique in a community setting: fact or fiction? *Prim Health Care Res Dev*. 2011;12(1):42–51.
33. Disability Discrimination Act. Commonwealth of Australia (1992).
34. Australian College for Infection Prevention and Control. *Position Statement: Pet therapy in health care facilities V1.1*. Brisbane, Australia: ACIPC; 2012.
35. Aras PS, Sussman G. The clinical contamination of amorphous hydrogels. *Primary Int*. 2000;8(4):137–40.
36. Moscati RM, Mayrose J, Reardon RF, Janicke DM, Jehle DV. A multicentre comparison of tap water versus sterile saline for wound irrigation. *Acad Emerg Med*. 2007;14(5):404–49.

Contributors

Consensus document developers

Lyn Thomas RN, NP, MN(NP) (Chair 2014–2017)
 Terry Swanson RN, NP, MHSc, FAWMA, FACNP (Chair 2012–2014)
 Pam Morey RN, BN, NP, STN, MN(NP), MACNP, MACN, FAWMA
 Sue Templeton RN, NP, BN, MNSc(NP)
 Clarissa Young RN, NP, BN, MCN, MNSc(NP)
 Kylie Elder RN, BN, PGDipAdvNsg, PGDipNsgEd, MN
 Judith Barker RN, NP, STN, BHSc(Nsg), MN(NP), FAWMA
 Liz Howse RN, NP, STN, BSN, MN(NP), MPhil(Nsg)
 Sue Atkins RN, BN, NZICP, CICP-E
 Gillian Butcher BAppSc(Pod)
 Tabatha Rando RN, NP, STN, CertIVWAT, DipFLM, PGCertWM, PGDipCHN, MNP
 Stephen Yelland MBBS

Narrative literature review

Emily Haesler, PhD, BN, PGradDipAdvNsg

Consensus document reviewer group

Donna Nair RN, BN
 Wendy White MWoundCare, RN, BEd, PlastCert. MACN, FAWMA
 Judy Spain RN, RM, MACN, MAPNA
 Juliet Scott RN, MN(NP), BAppSc(Primary Health), PGDipDomNsg, DipDerm Level 1 Lymphedema
 Gail King RN, BN, MACN
 Sharyn McDavitt RN
 Sue Atkins RN, BN, NZICP, CICP-E

Consumer review group

Health Care Consumers' Association ACT INC
 100 Maitland Street, HACKETT ACT 2602

Glossary of Terms

Asepsis: Freedom from infection or from infectious material in sufficient quantity to cause infection.

Aseptic fields: Aseptic fields provide a controlled aseptic working space to help promote or ensure asepsis during the wound dressing procedure. There are two main types of aseptic field (General Aseptic Field and Critical Aseptic Field) that require different management depending on whether the purpose is to ensure or promote asepsis.

Aseptic Non -Touch Technique (ANTT®): A specific framework for aseptic technique and a registered trademark.

Aseptic technique: A generic term for practice that aims to prevent pathogenic organisms, in sufficient quantity to cause infection, from being introduced to susceptible sites by hands, surfaces and equipment.

Clean: Visibly free from dirt, marks or stains.

Critical Aseptic Field: Typically a sterile drape. This type of field ensures asepsis and is used for Surgical-ANTT for complex invasive clinical procedures. It requires the use of sterile gloves, and often, full barrier precautions.

Disinfection: The process of cleaning, usually with a chemical agent, to destroy bacteria (e.g. a neutral detergent wipe).

Dressing: A product manufactured for application to a wound and can include primary and secondary dressings. By definition, it is also a medical device.

Environmental controls: Taking action/s to minimise environmental risk factors prior to performing a wound dressing procedure. This includes, but is not limited to: removing pets, closing doors or windows, turning off fans with direct flow, and using a room or location away from toilet facilities.

General Aseptic Field: Typically, a plastic, metal or disposable treatment tray. Promotes asepsis and is used for Standard-ANTT for simple wound dressing procedures. Utilises non-sterile gloves, therefore Key-Parts and Key-Sites are protected by non-touch technique and the use of Micro Critical Aseptic Fields.

Healthcare professional (HCP): Qualified individuals who provide health care.

Home environment: Is the place at which the patient resides, e.g. own home, rental property, boarding house. Note: for the purpose of this document it does not include the home environment relating to Residential Facilities.

Immunocompromised: The patient's immune response has been diminished by administration of immunosuppressive drugs, by irradiation, by malnutrition, or by underlying disease (e.g. cancer).

Key-Parts: Equipment used during the wound dressing procedure that comes into contact with the wound (Key-Site), tissue or wound fluid. It is considered contaminated and is treated as a potential source of infection. In the context of wound dressing procedure, this includes (but is not limited to) equipment that has direct contact with the wound, e.g. gauze, forceps, curette and wound dressing products.

Key-Sites: Any portal of entry into the patient. Includes open wounds and medical device access sites.

Micro Critical Aseptic Field: A small Critical Aseptic Field such as sterile caps and covers and the inside of equipment packaging. Used predominantly in Standard-ANTT when using a General Aseptic Field.

Open-but-unused: A single-use device, the packaging of which has been opened but the device, or a portion thereof, was not used and did not come into contact with the wound, blood, tissue or body fluids. In the context of wound dressing procedure this might include (but is not limited to) the remaining unused wound dressing, from which a portion has been cut and used on a wound.

Patient: A recipient of health care. The term is synonymous with care recipient, client, consumer, individual and resident, regardless of setting.

Peri-wound skin: The skin found within 4cms of the wound edge as well as any skin under the dressing.

Personal Protective Equipment (PPE): PPE encompasses gloves, gowns, masks, eyewear or face shield. The type and use of PPE is determined by the potential risk of splash or contact with infectious agents, blood or body fluids.

Potable water: Water that is suitable to drink.

Reprocessing: A validated process used to render a medical device previously used or contaminated fit for subsequent use.

Residential Facilities: A special-purpose facility that provides cohabitation accommodation and other types of support, including assistance with day-to-day living, intensive forms of care, and assistance towards independent living, to residents. This can include, but is not limited to, Residential Aged Care Facilities and group houses.

Reuse of single-use devices: The Therapeutic Goods Administration (TGA) does not regulate the practice of patients who clean and reuse, e.g. single-use enteral feeding tubes and urinary catheters, as long as it is for their own use. This **does not include** wound dressing products. Available at www.tga.gov.au

Semi-controlled environment: A care environment usually within an institutional, clinic or cohabitation setting. The setting is generally run and managed by healthcare professionals.

Sequencing: Performing a wound dressing procedure in an order that is safe, efficient and logical to promote or ensure asepsis.

Single-patient use: Devices that can be used multiple times on one patient. Some single patient use devices can be reprocessed and reused on the same patient in accordance with the manufacturer's instructions.

Single-use device: A medical device that is labelled by the original manufacturer as 'single use' and is only intended to be used once. This is usually represented by the symbol (ⓧ). Any single use device that has come into contact with a wound, tissue, blood or body fluids must be disposed of. A single use device cannot be cleaned or reprocessed to be used again. In the context of wound dressing procedure, a single use device might include (but is not limited to): a dressing tray, gauze, dressing product/s applied to a wound, and equipment (e.g. forceps, debridement scissors, and curette).

Standard-ANTT (simple procedure): A procedural method for performing aseptic technique to promote asepsis. Required for technically simple procedures (involves relatively few and small Key-Sites and Key-Parts) which are short in duration (less than 20 minutes of wound exposure). Performed using non-sterile gloves, using a General Aseptic Field and non-touch technique. Most standard wound dressing procedures will be suitable for this technique.

Sterile: Equipment and dressings that have been processed and packaged to render them free from microorganisms.

Sterilisation: Physical or chemical procedure to destroy all microorganisms. Sterilisation can be achieved with one or more of the following: heat, chemicals, irradiations, high pressure and filtration.

Surgical-ANTT (complex procedure): A procedural method for performing aseptic technique to ensure asepsis. Required for technically complex procedures (involving large open Key-Sites or large or numerous Key-Parts) and longer procedures. Sterile gloves and sterile equipment are required and a Critical Aseptic Field is used. Non-touch technique is used wherever possible. In the context of wound dressing procedure this might include direct contact with the wound, exposure of the wound for over 20 minutes, and packing of wound surfaces that cannot be visualised.

Transmission-based precautions (formerly additional precautions): Extra work practices in situations where standard precautions alone may be insufficient to prevent infection (e.g. for patients known or suspected to be infected or colonised with infectious agents that may not be contained with standard precautions alone).

Uncontrolled environment: A care environment usually within a home setting. The setting is generally not run or managed by healthcare professionals. This can include, but might not be limited to, a house, apartment or boarding house.

Wound: A breakdown in the protective function of the skin or the loss of continuity of epithelium, with or without involvement of underlying connective tissue (i.e. muscle, bone, nerves, tendon). Includes both acute and chronic wounds which might have occurred due to trauma (e.g. pressure injury, burns), surgery or an underlying disease process (e.g. peripheral arterial disease, chronic venous insufficiency, or neoplasia).

Wound cleansing: The removal of excess exudate, surface contaminants, loose debris, loose non-viable tissue and/or remnants of previous dressings from the wound surface and the wound edge.

Wound dressing procedure: The procedure performed by a healthcare professional to apply treatments directly to a wound. It involves cleansing, plus or minus debridement of the wound, and can involve the application of dressing products, solutions, pharmaceuticals, devices and therapies to the wound.

Wound management: The overall approach taken to treat a patient with a wound. It involves assessment, diagnosis, a comprehensive management plan with consideration of all factors, contributing to, and affecting the wound and the patient, evaluation and documentation. It can involve an inter-professional team to meet all the needs of the patient with a wound. This term is synonymous with the term 'wound care'.

