# Bands 2 – 4

# Aseptic Non-Touch Technique (ANTT)

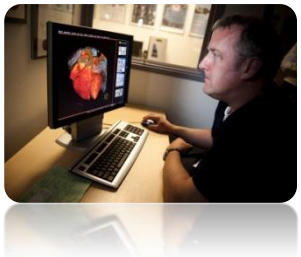
# Pre-course Workbook

Name …….

Department ……..

Course Date ……..






*Our Values*
**Service Teamwork Ambition Respect**

# Aseptic Non-touch Technique Workbook Contents

## Aims

- This work book is designed to equip you with the knowledge and skills to enable you to attain Trust Competency in Aseptic Non Touch Technique (ANTT)

## Learning made easy....

### Step 1 - Pre-Course Requirements

- Read the workbook and complete the pre-course assessment on training tracker (TT).
- When the TT assessment has been completed print off your certificate and bring to the session.
- Failure to attend with your certificate will mean that you will be unable to complete the study day and will need to re-book.

### Step 2 - Support from your Manager/Mentor

- Ensure that your manager/mentor would like you to learn and practice this/these skill(s) and that you are able to maintain your competency.
- It is hoped that during your appraisal you reflected upon your existing skills and experiences which you have acquired within your current role. You should now have support from your clinical manager which will help you progress with your future development.
- On completion of this workbook, your clinical manager is required to sign the relevant section of the competency. This demonstrates their support for your role development regarding Aseptic Non-touch Technique.
- Please ensure that you send a copy to The Academy to ensure that you are entered onto the Electronic Staff Register (ESR).

### Step 3 - Getting Help to Learn

- Identify a practice supervisor/assessor to help you achieve competency.
- You are expected to contact a suitable practice supervisor/assessor within your work area, who will be able to guide and support you as you develop your knowledge and skills.
- The person(s) you choose must themselves be a competent and active practitioner in Aseptic Non-touch Technique and be an approved supervisor within your health care organisation.

- Formal contact with this person should be negotiated, allowing you to plan your development, review your progress, discuss and resolve any area of difficulty or uncertainty.

**Step 4 - Ensuring Compliance with Local Guidelines and Professional Practice**

- Ensure you have accessed, read and understood the Trusts guidelines/policies relating to Aseptic Non-touch Technique and any national guidelines that have been adapted for your clinical area.

## Legal Aspects

- **You must be either a registered practitioner; a Band 4 Assistant Practitioner or a Healthcare Assistant who is qualified to NVQ/QCF Level 2.**

- The Health and Social Care Act (2012) requires healthcare providers to have a standardised aseptic technique in which education and audit can be demonstrated
- You must work within the Trust's 'Enhancing the Scope of Professional Practice' Policy (2012)
- Nursing and Midwifery Council (NMC) Code of Conduct must be applied
- Delegation, Accountability and Responsibility must be fully understood
- You must have a valid competency so that you are covered under the Trust's vicarious liability.
- Prior to procedure, you must check with a registered member of staff who will assess the wound.
- As a Non Registered Practitioner you are responsible for ensuring that you are competent to complete a task, and if not, you must inform the nurse and not attempt to complete the task delegated to you.
- Gain informed consent and seek assistance if patient is not able to give consent
- You must use products correctly
- You must adhere to trust policies and procedures
- You must clearly document any procedure in the nursing notes/care plans.

## Policies and Procedures applicable to ANTT

- Hand Hygiene Policy (2012)
- Standard Infection Control Precautions Policy (2011) (including disposal of waste, spillage of blood and bodily fluids, and Personal Protective Equipment)
- Safe Handling and Disposal of Sharps Policy & Guidelines (2012)
- Prevention and Management of Pressure Ulcers Policy (2012)
- Consent Policy (2012)

## Objectives

- State key aspects of relevant Policies, Procedures and Protocols in relation to Aseptic Non Touch Technique (ANTT)
- Discuss legal aspects
- State what ANTT is and why this technique is important
- Demonstrate effective hand washing
- Discuss appropriate preparation of patient and environment
- Demonstrate correct aseptic non touch technique during practical session.
- Discuss what should be reported
- To be able to perform a simple dressing
- To recognise pressure sores and act accordingly

# What is Aseptic Non Touch Technique?

Aseptic technique is the practice of carrying out a procedure in such a way that you minimize the risk of introducing contamination into a vulnerable area or contaminating an invasive device. Aseptic technique is required whenever you are carrying out a procedure that involves contact with a part of the body where introducing micro-organisms may increase the risk of infection.

Aseptic non-touch technique is the practice of avoiding contamination by not touching key elements such as the inside surface of a sterile dressing where it will be in contact with the wound. (Dougherty, L. Mallet, J. 2011{a})

ANTT provides health care workers with a logical practice framework which promotes safe and efficient aseptic technique.

# Why is ANTT important?

- ANTT is now overseen by the Association for Safe Aseptic Practice and is a procedure that is recognised internationally
- It aims to minimise this risk of causing infection during invasive clinical procedures.
- Increasing the use of Aseptic Non Touch Technique is helping to significantly reduce healthcare-associated infections (Rowley, S 2011)
- ANTT could help reduce in-patient hospital stays and any other related costs such as dressings, antibiotics and pain relief
- Promotes wound healing and could potentially reduce scarring which is very important to the patient.

# What is a Wound?

A wound can be defined as an injury to living tissue, breaking its continuity (Martin 2010). Healing can be affected by a number of factors such as patient circulation, nutrition, hydration, medication and concurrent disease process.

Wounds can be divided into six basic categories:

1. Contusion (bruise)
2. Abrasion (graze)
3. Laceration (tear)
4. Incision (cut)

5. Puncture (stab)
6. Burn.

(Dougherty, L. Mallet, J. 2011 {b})

Healing is a response to the injury that sets into motion a sequence of events. Wound healing can be defined as the physiological process by which the body replaces and restores the function of damaged tissue. (Flanagan 1997)

There are basically 4 phases to the healing process: (Dealey 2005)

1. haemostasis
2. inflammatory phase
3. proliferation or reconstructive phase
4. maturation or remodelling phase

- **Haemostasis (minutes):** Vasoconstriction occurs within a few seconds of tissue injury and damaged blood vessels constrict to stem the blood flow. Bleeding ceases when the blood vessels thrombose, usually within 5–10 minutes of injury (Hampton and Collins 2004). Clot formation and the release of various chemical substances into the wound will begin and start the healing process.

- **Inflammatory phase (1-5 days):** A matrix or latticework of cells form, on which, new skin cells and blood vessels will attach. These new blood vessels will supply the rebuilding cells with oxygen and nutrients to sustain the growth of the new cells and support the production of proteins (primarily collagen). The collagen acts as the framework upon which the new tissues build. The wound becomes red, swollen and hot. These signs are accompanied by pain and tenderness at the wound site, last for 1–3 days and can be mistaken for wound infection (Hampton 2008)

- **Proliferative phase (3-24 days):** New blood cell vessels will form. These vessels branch and join other vessels, forming loops. The fragile capillary loops are held within a framework of collagen. This complex is known as granulation tissue. At this stage, the wound will appear pink and moist with raised red bumps (Hampton and Collins 2004).

- **Remodelling phase (21 days onward):** Remodelling of the healed wound may last for more than a year. The framework (collagen) becomes more organized making the tissue stronger. Maximum strength is reached in approximately 3 months, although the scar will only achieve about 70–80% of normal skin strength (Calvin 1998). At the end of the remodelling phase, the delicate granulation

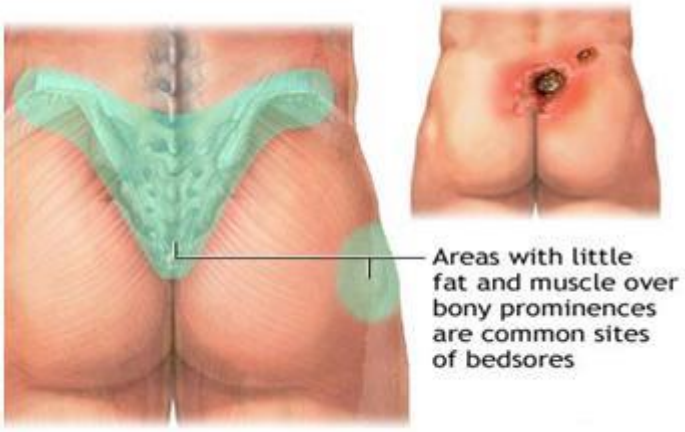
tissue of the wound will have been replaced by stronger scar tissue. Rationalisation of the blood vessels also results in thinning and fading of the scar (Dealey 2005).

For further information regarding wounds and wound healing please refer to the Royal Marsden Manual (accessible via the hospital intranet).

**What is a pressure sore?**

Pressure sores, also known as bedsores are a breakdown and ulceration of tissue due to a combination of the weight of the body on the surface of the skin and the friction of a resistant surface such as a bed.

Areas where bony prominences are less padded by muscle and fat, such as the hip bones, coccyx (tailbone) and heels of the feet, are most susceptible to pressure sores.

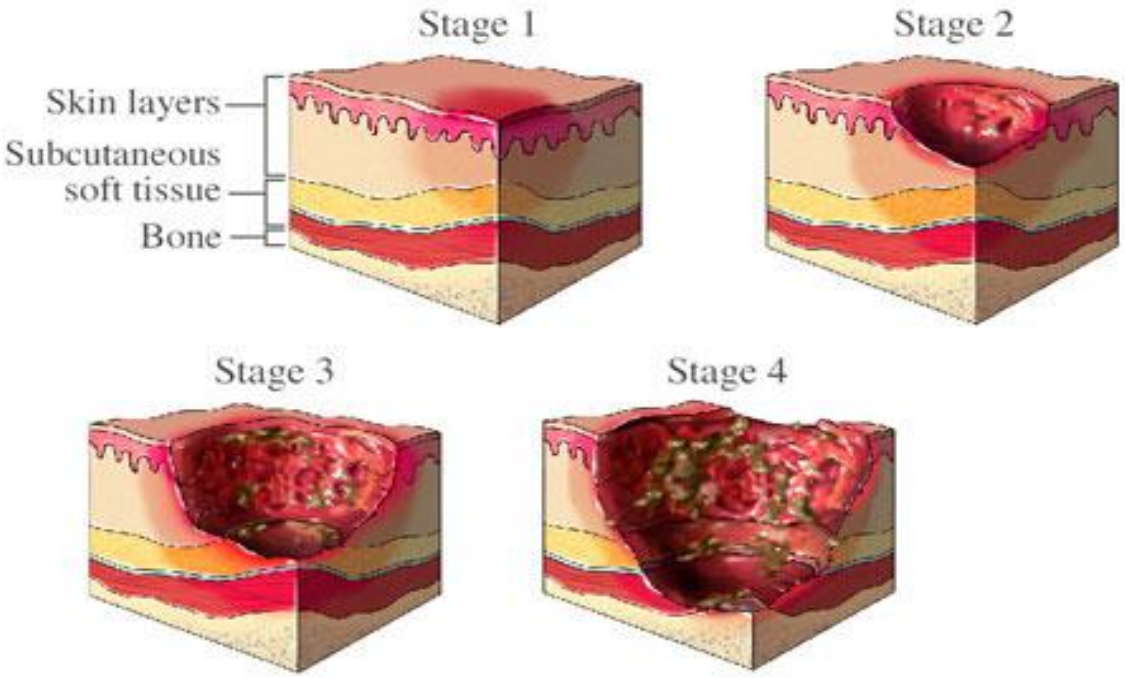



If untreated, a pressure sore can progress from a small irritated but unbroken skin patch to a potentially life-threatening wound involving extensive tissue death and infection. Treatment of the serious pressure ulcer may include debriding (excising) the dead tissue and administering systemic antibiotics.

If you are concerned about your patient's skin or need advice you should report this to the nurse looking after the patient straight away and document any care delivered in the patients nursing notes/care plans.

You can also access advice from the tissue viability nurse (Ext 4555).

# Grades of Pressure sores




# Hand Decontamination

Following the Trusts Standard infection control precautions policy; hands should be decontaminated before and after all clinical procedures and between every patient contact. Alcohol hand rub may be used to disinfect visibly clean hands. If skin is contaminated with blood or body fluids, wash off immediately with soap and water. Hands must be washed and thoroughly dried after the removal of gloves.

# Reducing the Risk of Hospital Acquired Infections

Effective hand decontamination remains the most important measure that Health Care Workers (HCWs) can undertake to reduce the risk of hospital acquired infections. The Trusts hand hygiene policy states that:

- ✓ Cuts or abrasions must be covered with waterproof dressing
- ✓ Nails should be kept short. Nail varnish, artificial nails or nail extensions must not be worn as this prevents effective hand decontamination.
- ✓ The wearing of stoned rings; wristwatches and bracelets is not permitted as they prevent effective hand decontamination and provide opportunities for bacterial colonisation
- ✓ One plain wedding band poses the highest acceptable risk and may be worn.
- ✓ Long sleeves must not be worn or be securely rolled up

## Agents Used for Hand Disinfection

- **Alcohol based hand rub** is an effective hand decontamination agent for routine hand decontamination, on hands that are not visibly dirty. Using the alcohol hand rub on hands will kill the transient organisms acquired from contact with patients.
- Alcohol hand rub is convenient for rapid bedside use and between patients and procedures.
- Alcohol products are not effective against spores so should not be used for patients with Clostridium difficile



- **Soap and water** assists in the physical removal of transient micro-organisms from the skin.
- Soap and water is recommended for visibly soiled hands
- Hands must be washed in soap and water when caring for a patient with Clostridium difficile as this is the only way to remove the spores.

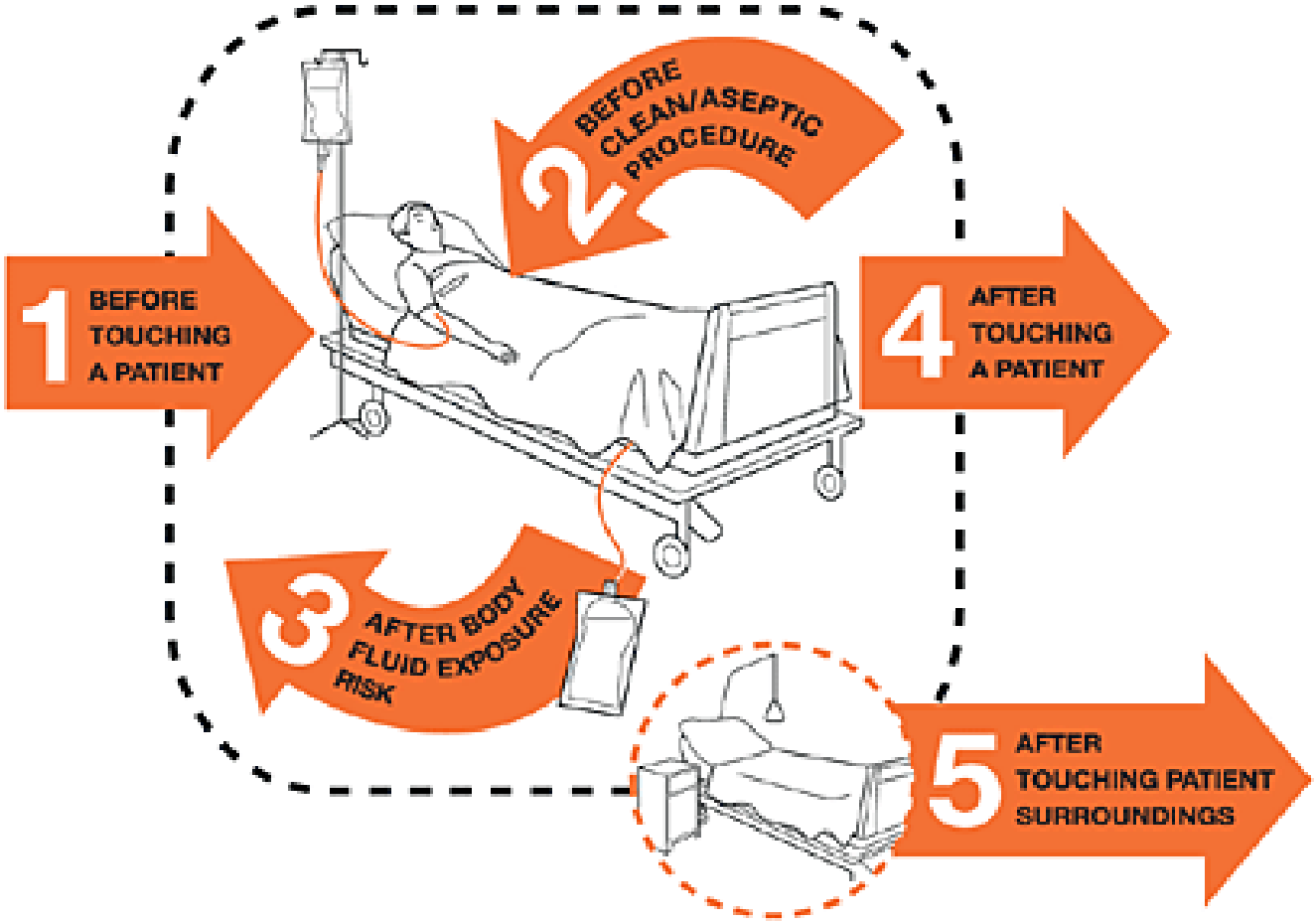
# My 5 Moments for Hand Hygiene

The World Health Organisation (2009) has produced the ‘My 5 Moments for Hand Hygiene’ approach which defines the key moments when health-care workers should perform hand hygiene.

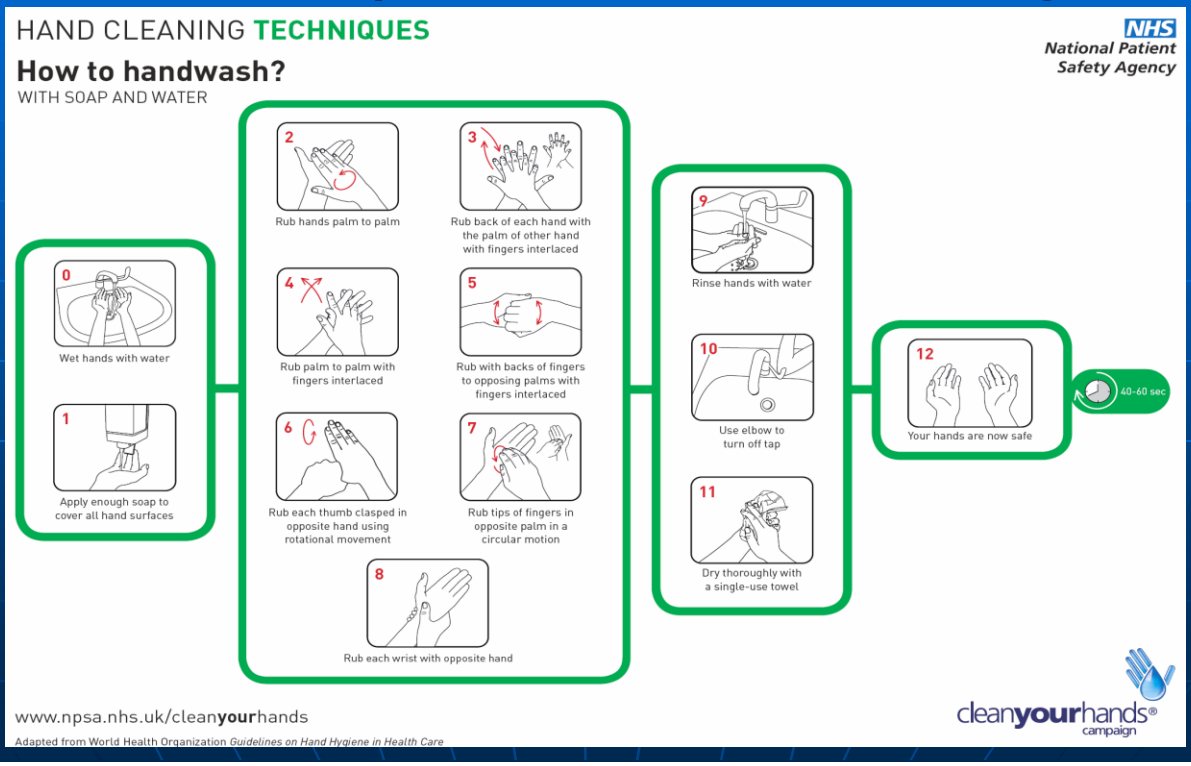
This evidence-based, field-tested, user-centred approach is designed to be easy to learn, logical and applicable in a wide range of settings.

This approach recommends health-care workers to clean their hands

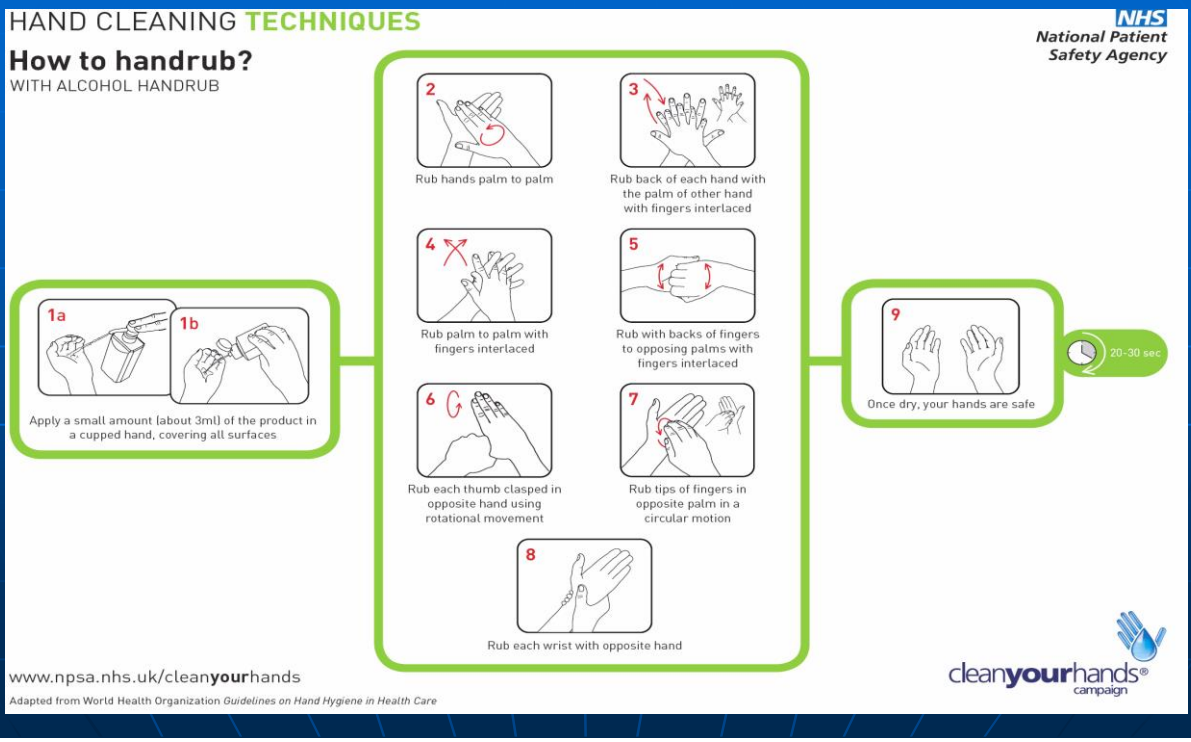
1. **Before touching a patient,**
2. **Before clean/aseptic procedures**
3. **After body fluid exposure/risk**
4. **After touching a patient**
5. **After touching patient surroundings.**



# Technique for hand washing




# Technique for applying gel



## Personal Protective Equipment (PPE)

Gloves are single use items and must be worn for all invasive procedures, for contact with sterile sites, where there is a risk of exposure to bodily fluids, secretions and when handling sharps or contaminated equipment

**Non-sterile gloves** are acceptable for removing wound dressings.

**Sterile gloves** must be worn for aseptic technique wound dressings.

**Disposable plastic aprons** must be worn as single use items when there is close contact with the patient, when clothing may become contaminated with pathogenic micro-organisms, blood or body fluids. This includes wound dressings, catheter insertion, ongoing care etc

**Specialised equipment** such as masks, visors, protective eyewear may be necessary as per risk assessment when caring for high risk patients or undertaking high risk procedures where there is a risk of splashing.

### Preparing the Patient

- Explain and discuss the procedure with the patient to gain their understanding and obtain consent.
- Offer the patient use of the toilet beforehand rather than being interrupted
- Remember to seek advice from the nurse if the patient requires pain relief before the procedure.
- Maintain dignity and only uncover what you need to.
- Expose wounds for as short a time as possible to prevent exposure to any other contaminants
- If doing more than one dressing ensure that you leave the dirtiest dressing until last.

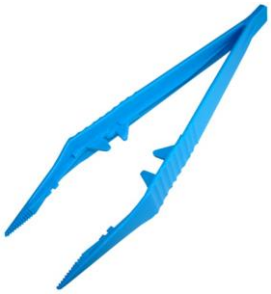
## The Dressing Trolley

- Prior to use for aseptic technique, trolleys should be wiped over with 2% chlorhexidine in 70% ethanol alcohol (Clinell™) from top to bottom.
- Trolleys used for aseptic procedures **must not** be used for any other purpose

# Gathering your Equipment

You will need:





- Sanicloths (swabs saturated with 70% clorhexidine and 70% isopropyl alcohol.
- A sterile wound dressing pack
- Sterile forceps (if required)
- Sterile scissors (if required)
- Normasol sachet for cleaning/or irrigation
- Appropriate Dressing and hypo-allergenic tape (if required)
- Alcohol hand gel (is most appropriate for hand hygiene during a procedure as long as hands are physically clean)
- Any other material as determined by the procedure being carried out

# Cleansing the Wound

The aim of wound cleaning is to help create the optimum local conditions for wound healing by removal of excess debris, exudate, foreign and necrotic material, toxic components, bacteria and any other micro-organisms.

If the wound is clean and little exudate is present, repeated cleaning is contraindicated as it may damage new tissue and decrease the temperature of the wound unnecessarily (Morison 1989).

You should consider warming the normasol before use as any drop in temperature to the wound can delay healing. It can take 3 hours or longer for the wound to return to normal temperature, during which time the cellular activity is reduced and therefore the healing process slowed (Collier 1996).

# **A.N.T.T. Procedure** (Adapted from the Royal Marsden Manual 2011)

1. Check with trained nurse prior to commencing the dressing
2. Refer to patient care plan (if one available)
3. Appropriate explanation to patient/consent
4. Ensure a comfortable patient position and ensure the patients privacy and dignity are maintained
5. Wash hands with soap and water and apply alcohol hand gel prior to procedure
6. Select appropriate trolley to be used and clean trolley correctly (from top to bottom using Clinell Universal wipes) and leave to dry
7. Collect equipment, checking that all materials are in date and where applicable, are sterile (i.e. that packaging is undamaged, intact and dry)
8. Place all the equipment required on the bottom shelf of the trolley
9. Place normasol saline into warm water (if not done so already)
10. Clean hands using soap and water or alcohol hand gel, put on an apron and take trolley to patient bedside (ensuing privacy and dignity are maintained)
11. Open the outer cover of the sterile pack and slide the dressing pack onto the top shelf of the trolley
12. Open the sterile field by using the corners of the paper only
13. Open all other equipment, tipping their contents onto the centre of the sterile field
14. Swab saline sachet along tear prior to pouring into gallipot
15. Where appropriate, loosen the old dressing
16. Clean your hands with alcohol hand gel
17. Carefully lift the yellow plastic disposable bag from the sterile field and place your hand into the bag
18. Using it as a sterile ‘glove’, arrange the contents of the dressing pack and any other items on to the sterile field
19. With your hand still enclosed within the disposable bag, remove the old dressing from the wound.
20. Invert the bag so that the dressing is contained within it and stick it to the dressing trolley (below the top shelf). This is now the disposal bag for the remainder of the procedure for any waste other than sharps.
21. Decontaminate hands with soap and water or alcohol gel
22. Put on sterile gloves correctly
23. Place sterile towel from wound care pack under wound
24. Assess if wound needs to be cleaned; soak and squeeze gauze swabs with forceps (consider gentle irrigation using syringe)
25. Clean wound using forceps and/or clean/dirty hand technique. Ensuring you use the swab only once
26. Apply dressing aseptically and ensure you date the dressing
27. Ensure the patient is comfortable
28. Clear away sterile field and dispose of used equipment into yellow bag. This then needs to be placed into an orange clinical waste bag.
29. Remove PPE and discard into clinical waste bag
30. Wash your hands using soap and water
31. Leave the area safe and restore patient environment
32. Clean dressing trolley then decontaminate hands with soap and water or alcohol gel
33. Document the procedure clearly and report any concerns to a registered member of staff

**What should you report?**

- Any signs of infection. (smell, exudate, redness, heat, pain or temperature)
- Any signs of allergy to dressings (blisters)
- Any gaping surgical wound
- Bleeding
- Whether the wound has healed, improved or deteriorated
- Date and time
- The procedure
- Sign and print name with you designation

The documentation of wounds is of utmost importantance. All wound care has to be documented in the patient's notes and photographed where possible. If in any doubt ask a trained nurse to assess the wound before you proceed with the dressing.

# ANTT-(Aseptic Non-Touch technique) guidelines for wound care

1

Clean hands using soap & water followed by alcohol gel.

2

Collect dressing trolley put on plastic apron clean trolley with Clinell Universal wipes and dry with paper towel collect required equipment for wound care

3

Whilst still in clean utility. Place equipment required – dressing pack & sterile dressings on bottom shelf of dressing trolley.

4

Clean hands using with soap & water or alcohol gel. Take trolley to patient bedside.

5

Open dressing pack on to trolley. Remove equipment from packaging using ANTT. Arrange equipment in an orderly manner on sterile field. Consider all of the dressing equipment as key-parts Keep these protected at all times

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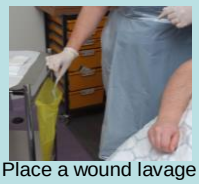

Place a wound lavage sheet beneath the wound. Put on non-sterile gloves remove old dressing discard into clinical waste bag from dressing pack

7

Remove gloves clean hands with soap & water or hand gel

8

Put on sterile gloves from the dressing pack place sterile towel from pack under wound. Cleanse appropriately. Dispose of all waste in clinical waste bag.

9

Clean the dressing trolley with Clinell Universal wipe, dry. Return dressing trolley to usual place.

10

Clean hands using soap & water.

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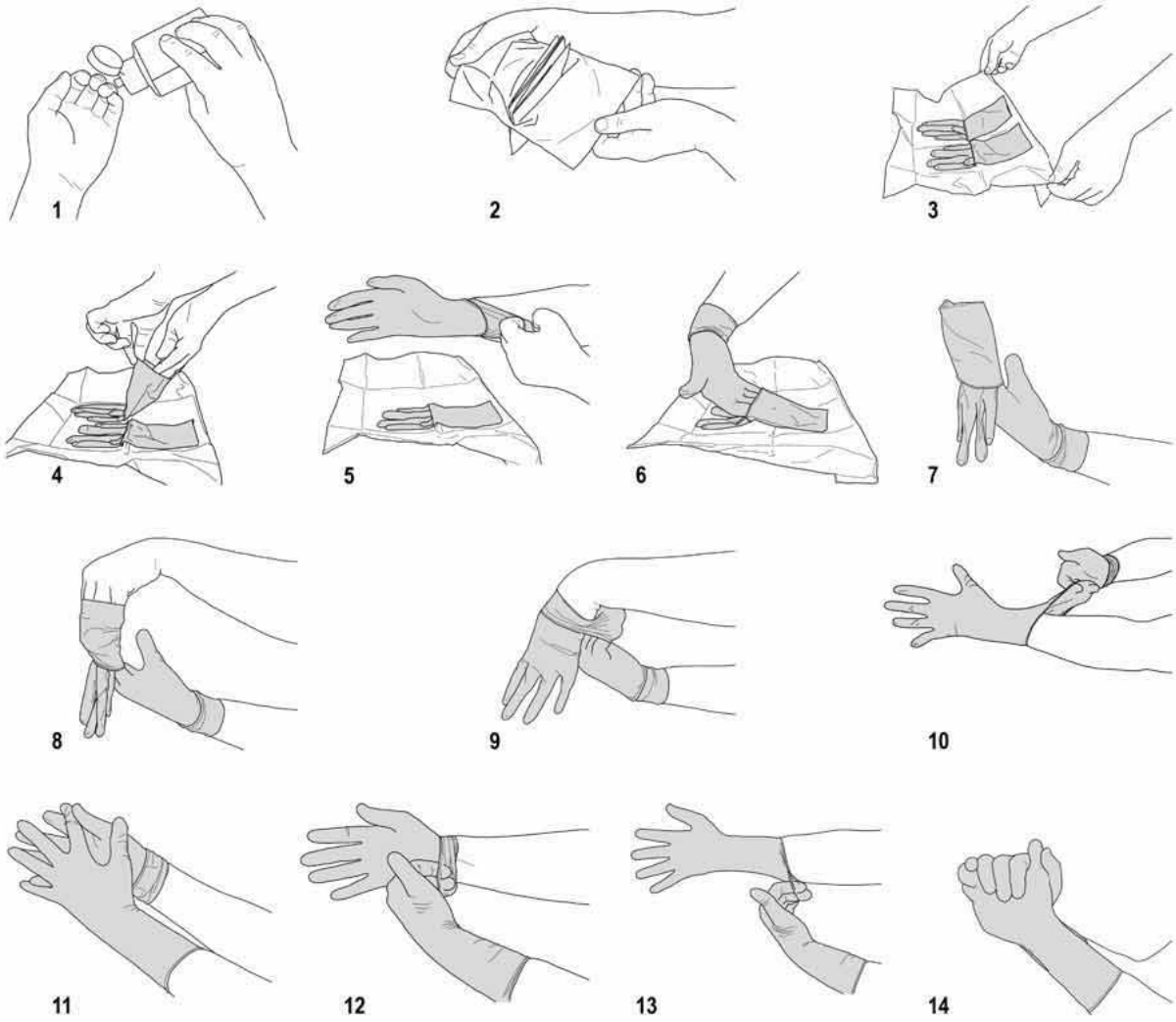
*Wound cleansing is only necessary when:* A wound initially occurs, particularly if there is soilage, slough or exudate is present Dressing materials remain on the wound or around the peri-wound area

TV Nurse Specialist & IPC Oct 2009

Attached below is the World Health Organisations recommended technique on how to apply and remove sterile gloves. This is taken from the Hand Hygiene in Healthcare Guidelines (2009).

The purpose of this technique is to ensure maximum asepsis for the patient and to protect the health-care worker from the patient's body fluid(s). To achieve this goal, the skin of the health-care worker remains exclusively in contact with the inner surface of the glove and has no contact with the outer surface. Any error in the performance of this technique leads to a lack of asepsis requiring a change of gloves.

**I. HOW TO DON STERILE GLOVES**




1. Perform hand hygiene before an "aseptic procedure" by handrubbing or hand washing.
2. Check the package for integrity. Open the first non-sterile packaging by peeling it completely off the heat seal to expose the second sterile wrapper, but without touching it.
3. Place the second sterile package on a clean, dry surface without touching the surface. Open the package and fold it towards the bottom so as to unfold the paper and keep it open.
4. Using the thumb and index finger of one hand, carefully grasp the folded cuff edge of the glove.
5. Slip the other hand into the glove in a single movement, keeping the folded cuff at the wrist level.

6-7. Pick up the second glove by sliding the fingers of the gloved hand underneath the cuff of the glove.

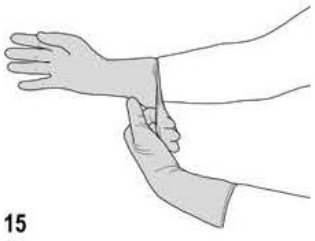
8-10. In a single movement, slip the second glove on to the ungloved hand while avoiding any contact/resting of the gloved hand on surfaces other than the glove to be donned (contact/resting constitutes a lack of asepsis and requires a change of glove).

11. If necessary, after donning both gloves, adjust the fingers and interdigital spaces until the gloves fit comfortably.

12-13. Unfold the cuff of the first gloved hand by gently slipping the fingers of the other hand inside the fold, making sure to avoid any contact with a surface other than the outer surface of the glove (lack of asepsis requiring a change of gloves).

14. The hands are gloved and must touch exclusively sterile devices or the previously-disinfected patient's body area.

## II. HOW TO REMOVE STERILE GLOVES



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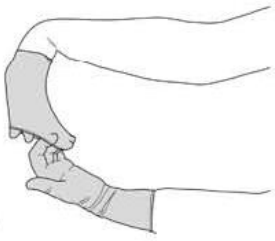

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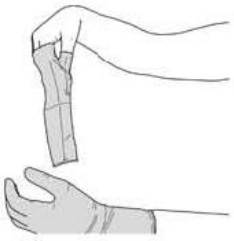

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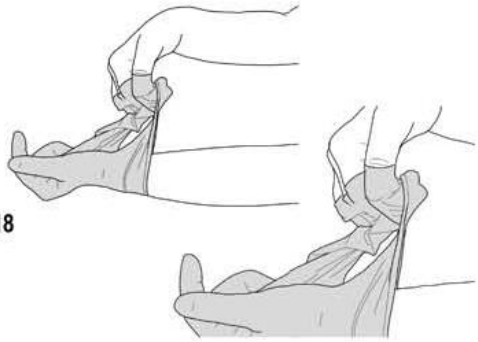

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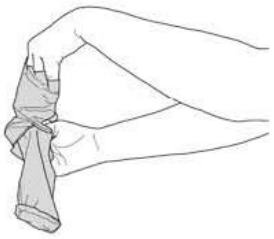

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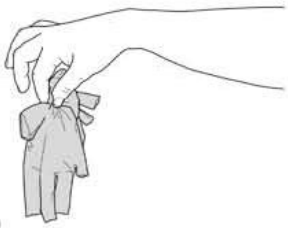

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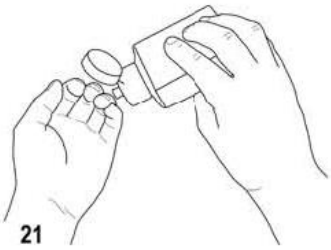

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15-17. Remove the first glove by peeling it back with the fingers of the opposite hand. Remove the glove by rolling it inside out to the second finger joints (do not remove completely).

18. Remove the other glove by turning its outer edge on the fingers of the partially ungloved hand.

19. Remove the glove by turning it inside out entirely to ensure that the skin of the health-care worker is always and exclusively in contact with the inner surface of the glove.

20. Discard gloves.

21. Perform hand hygiene after glove removal according to the recommended indication.

NB: Donning surgical sterile gloves at the time of a surgical intervention follows the same sequences except that:

- it is preceeded by a surgical hand preparation;
- donning gloves is performed after putting on the sterile surgical gown;
- the opening of the first packaging (non-sterile) is done by an assistant;
- the second packaging (sterile) is placed on a sterile surface other than that used for the intervention;
- gloves should cover the wrists of the sterile gown.

### Pathogens specific to wounds

Here are some of the most common:

### Staphylococcus Aureus

Staphylococcus aureus is a type of bacteria with nearly 30 different species. Normally, staphylococcus aureus lives upon your skin in areas that include your nose, mouth and genital region. But if the skin were to become punctured, staph bacteria could potentially enter. As result, you can develop a serious staphylococcus aureus infection such as Methicillin-resistant Staphylococcus aureus (MRSA).

### Pseudomonas

Are a free-living bacterium, commonly found in soil and water. However, it occurs regularly on the surfaces of plants and occasionally on the surfaces of animals. *Pseudomonas aeruginosa* has become increasingly recognised as an emerging opportunistic pathogen in clinical settings. This bacterium is developing antibiotic resistance.

### Streptococcus

Is a bacterium that is commonly found in the throat and on the skin. The bacteria are carried in discharges from the nose or throat of an infected person and in infected wounds or sores on the skin. The bacteria are usually spread when infected secretions come in contact with the mouth, nose, or eyes of an uninfected person. They can also enter the body through a cut or scrape.

# How to Take a Swab

A wound swab is commonly used in clinical practice to obtain samples of material from skin and mucous membranes. They are utilised to identify micro-organisms in suspected infection or as part of a screening programme (Ferguson 2005). Wound cultures may also be ordered to help the doctor discern if treatment methods are helping fight the infection, or to help the doctor administer additional treatments. There are various types of bacteria that can be responsible for the development of an infection.


- Take any swabs required the before cleaning procedure begins. This will ensure you collect the maximum number of micro-organisms.
- Explain procedure to patient and gain consent
- It may be useful to label swab container at this point
- Wash and dry hands
- Put on gloves and apron
- Position patient maintaining privacy and dignity
- Remove swab from packaging, avoid contaminating the swab
- For dry wounds, moisten swab with sterile saline or culture medium
- Wait 1 to 2 minutes before swabbing wound
- Gently, use a zigzag motion across wound, rotating swab. For very large wounds sample several small areas
- Place swab inside culture and close firmly
- Discard apron and gloves and wash hands
- Label sample carefully, give full patient details and site of wound, clinical indications for sample and include any antibiotic therapy
- Document procedure and send off swab promptly

## How to gain your trust competency

- Now you have the knowledge
- Supervised practice (does not need to be an assessor)
- You need to be assessed over at least 3 wounds (variety), with the completed checklist
- Assessor, manager and yourself to sign
- Keep a copy for yourself, give a copy to your manager and send one to the Academy.
- You will need to update your skills and competency every 2 years.

## Relevant policies

- Royal Marsden Manual of clinical nursing procedures 8th edition (2011)
- Framework for Enhancing the Scope of Professional Practice (2012)
- Standard Infection Control Precautions Policy (2011)
- Clinical Record Keeping Policy (2011)
- Mental Capacity Act (2005)
- Mental Health Act Policy and Procedures (2012)
- epic3 National Evidence-Based Guidelines (2013)

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