INFECTION PREVENTION AND CONTROL POLICY AND PROCEDURES
Sussex Partnership NHS Foundation Trust (The Trust)

IPC 2

ASEPTIC TECHNIQUE AND CARE OF INVASIVE DEVICES

INTRODUCTION

The following section provides guidance for the most commonly performed nursing procedures and clinical practices in relation to the control of infection. The following advice reflects current expert opinion and guidance incorporating relevant research and best practice recommendations.

Expert advice should always be sought should staff require it. Further guidance can be obtained from the following specialists:

- Nutritional Support Team/Dietician
- Tissue Viability/Wound Management Nurse Specialist
- Continence Advisor

PRINCIPLES OF ASEPSIS

Asepsis means "without micro-organisms"

An aseptic technique is a method used to prevent contamination of wounds and other susceptible sites by potentially pathogenic organisms. This can be achieved by ensuring that clinical staff understand the principles, follow the recommended practices and that only sterile equipment is used during invasive procedures. See table on the Principles of Asepsis in Appendix 1.

WHEN TO USE AN ASEPTIC/NON-TOUCH TECHNIQUE

An aseptic technique should be used during any invasive procedure which breaches the body's natural defences e.g. skin, mucous membranes, or when handling equipment which will enter a normally sterile area. The principles of asepsis should be applied to:

- Most but not all wound dressings.
- Insertion and manipulation of invasive devices, e.g. urinary catheters, intravenous devices, PEG tubes etc.

CHRONIC WOUND MANAGEMENT

Comprehensive advice on the management of wounds should be sought from specialist tissue viability nurses as this is a complex and constantly evolving practice. This section refers to those aspects of chronic wound care that may contribute to infection / cross-infection.

A chronic wound is defined as a wound that does not heal within an expected time frame i.e. six weeks despite optimal correction of any underlying pathological processes interfering with the body's normal process of wound healing. The majority of chronic wounds are:

- Venous ulcers
- Pressure ulcers
- Diabetic ulcers

Other types of chronic wounds include arterial leg ulcers and wounds from fungating carcinoma. Acute wounds may also become chronic.

In chronic wounds there is a clear increase in colonisation, bacterial burden and infection caused by micro-organisms, including MRSA. Chronic wounds colonised with MRSA are at increased risk of both wound infection and systemic infection (especially blood stream infections) particularly if another acute illness occurs requiring hospitalisation. Service users with MRSA-colonised wounds present an increased cross-infection risk to others and the environment.

Early referral of service users with chronic wounds to specialist health professionals e.g. tissue viability teams and, in the case of diabetic foot ulcers, urgent referral to a multidisciplinary foot care team, is indicated to promote healing and reduce the risk of infection.

PREVENTING CONTAMINATION AND CROSS INFECTION

Wound care should only be carried out by those who are deemed competent to do so and have received training in the principles of asepsis and appropriate wound management.
The principles of asepsis should be applied to all wounds irrespective of causation or type e.g. surgical wound, trauma wound, chronic wound etc.
Personal protective equipment – disposable apron and gloves – must be worn and changed between each service user.

Wounds must be assessed as per local guidance at every dressing change. The wound must be dressed creating an optimum wound healing environment according to the local wound management formulary

Dressing type and frequency of change, wound assessment and next wound review date must be routinely documented

There must be clear communication – between team members and with other health or social care providers – of those service users known to be infected or colonised

with pathogenic micro-organisms including MRSA. This is a requirement of the Code of Practice 2015.

INFLAMMATION AND INFECTION (or bacterial burden)

All chronic wounds are known to harbour a variety of bacteria to some degree and this can range from contamination through colonization to infection. When a wound becomes infected it will display the characteristic signs of heat, redness, swelling, pain, heavy exudate and malodour. The service user may also develop generalized pyrexia. However, immunosuppressed service users, diabetic service users or those on systemic steroid therapy may not present with the classic signs of infection. Instead they may experience delayed healing, breakdown of the wound, presence of friable granulation tissue that bleeds easily, formation of an epithelial tissue bridge over the wound, increased production of exudate and malodour and increased pain. Careful wound assessment is essential to identify potential sites for infection, however routine swabbing is not considered beneficial. Methods available for the management of wound infection or to decrease the bacterial burden in the wound include debridement, antimicrobial dressings e.g. those containing iodine or silver, topical negative pressure therapy and honey.

If absolutely necessary, antibiotic therapy may be prescribed. Appropriate antibiotic treatment of the infection should be determined, where possible from a positive wound swab which provides sensitivity information.

WOUND SWABS

Routine wound swabs are not recommended unless there are clinical signs of infection or when non-healing persists. Many chronic wounds will be colonised with a variety of bacteria, the presence of which may not be clinically significant. Swabs, if indicated, should be taken following the removal of dressing residues and slough if present. Swab by moving across the wound surface in a zig-zag motion and material from both the wound bed and wound margin should be collected.

MANAGEMENT OF INTRAVASCULAR ACCESS DEVICES

INTROUDCTION

This section has been written with reference to the evidence base for practice in:

- epic 3: *National Evidence–Based Guidelines for Preventing Healthcare-Associated Infections for NHS Hospitals in England* (2014)

- National Institute for Health and Clinical Excellence (NICE) *Clinical Guidelines 139 Healthcare-associated Infections: Prevention and Control in Primary and Community Care (2012).*

Intravascular access devices (IVAD) used in the management of service users includes peripheral, central and arterial catheters and all can pose a risk of direct microbial entry to the bloodstream, causing infection. IVADs can become contaminated at the insertion site by skin micro-organisms that can gain access to

the bloodstream by migrating down the body of the device or by other micro-organisms via the cannula hub or injection port.

EDUCATION

Healthcare workers caring for a service user with an IVAD should be trained, and assessed as competent in using and consistently adhering to evidence-based guidelines. It is recommended that competency is re-assessed regularly at defined intervals. This assessment should be documented.

Prior to discharge service users and their carers should also be educated about managing their device to prevent infection. They should also have access to follow-up training and support as necessary.

CARE OF INTRAVENOUS CATHETER SITE

Adherence to best practice during care of the intravascular catheter and the insertion site will minimise the risk of infection. This includes skin decontamination and care of catheter hubs and ports.

Epic 3 guidelines for catheter and catheter site care

IVAD14	Decontaminate the skin at the insertion site with a single-use application of 2% chlorhexidine gluconate in 70% isopropyl alcohol (or povidone iodine in alcohol for patients with sensitivity to chlorhexidine) and allow the site to dry prior to the insertion of a central venous access device.
IVAD15	Decontaminate the skin at the insertion site with a single-use application of 2% chlorhexidine gluconate in 70% isopropyl alcohol (or povidone iodine in alcohol for patients with sensitivity to chlorhexidine) and allow the site to dry before inserting a peripheral vascular access device. **New recommendation**
IVAD16	Do not apply antimicrobial ointment routinely to the catheter placement site prior to insertion to prevent catheter-related bloodstream infection.
IVAD17	Use a sterile, transparent, semipermeable polyurethane dressing to cover the intravascular insertion site.
IVAD18	Transparent, semi-permeable polyurethane dressings should be changed every 7 days, or sooner, if they are no longer intact or if moisture collects under the dressing.
IVAD19	Use a sterile gauze dressing if a patient has profuse perspiration or if the insertion site is bleeding or leaking, and change when inspection of the insertion site is necessary or when the dressing becomes damp, loosened or soiled. Replace with a transparent semi-permeable dressing as soon as possible.
IVAD20	Consider the use of a chlorhexidine impregnated sponge dressing in adult patients with a central venous catheter as a strategy to reduce catheter related bloodstream infection. **New recommendation**

IVAD21	Consider the use of daily cleansing with chlorhexidine in adult patients with a central venous catheter as a strategy to reduce catheter-related bloodstream infection. **New recommendation**
IVAD22	Dressings used on tunnelled or implanted catheter insertion sites should be replaced every 7 days until the insertion site has healed unless there is an indication to change them sooner. A dressing may no longer be required once the insertion site has healed.
VAD23	Use a single-use application of 2% chlorhexidine gluconate in 70% isopropyl alcohol (or povidone iodine in alcohol for patients with sensitivity to chlorhexidine) to clean the central catheter insertion site during dressing changes, and allow to air dry.
IVAD24	Use a single-use application of 2% chlorhexidine gluconate in 70% isopropyl alcohol (or povidone iodine in alcohol for patients with sensitivity to chlorhexidine) to clean the peripheral venous catheter insertion site during dressing changes, and allow to air dry. **New recommendation**
IVAD25	Do not apply antimicrobial ointment to catheter insertion sites as part of routine catheter site care.
Reference: Loveday HP, Wilson JA, Pratt RJ et al. (2014) epic3: National Evidence Based Guidelines for Preventing Healthcare- Associated Infections in NHS Hospitals in England	

REPLACEMENT OF CANNULAE / ADMINISTRATION SETS

To minimise complications and risk of infection, catheter replacement should be considered only when clinically indicated.

Epic 3 guidelines for catheter replacement

IVAD26	Do not routinely replace central venous access devices to prevent catheter-related infection
IVAD27	Do not use guidewire-assisted catheter exchange for patients with catheter related bloodstream infection.

IVAD28	Peripheral vascular catheter insertion sites should be inspected at a minimum during each shift, and a Visual Infusion Phlebitis score should be recorded. The catheter should be removed when complications occur or as soon as it is no longer required. **New recommendation**
IVAD29	Peripheral vascular catheters should be re-sited when clinically indicated and not routinely, unless device specific recommendations from the manufacturer indicate otherwise. **New recommendation**
IVAD37	Administration sets in continuous use do not need to be replaced more frequently than every 96 h, unless device-specific recommendations from the manufacturer indicate otherwise, or they become disconnected or the intravascular access device is replaced.
IVAD38	Administration sets for blood and blood components should be changed when the transfusion episode is complete or every 12 h (whichever is sooner).
IVAD39	Administration sets used for lipid containing parenteral nutrition should be changed every 24 h.
Reference: Loveday HP, Wilson JA, Pratt RJ et al. (2014) epic3: National Evidence Based Guidelines for Preventing Healthcare- Associated Infections in NHS Hospitals in England	

GENERAL PRINCIPLES FOR MANAGING VASCULAR DEVICES

Contamination of the catheter hub can occur when it is accessed so hubs and sampling ports should be decontaminated prior to access.

Epic 3 guidelines - General principles for intravenous catheter management

IVAD30	A single-use application of 2% chlorhexidine gluconate in 70% isopropyl alcohol (or povidone iodine in alcohol for patients with sensitivity to chlorhexidine) should be used to decontaminate the access port or catheter hub. The hub should be cleaned for a minimum of 15 sec and allowed to dry before accessing the system.
IVAD31	Antimicrobial lock solutions should not be used routinely to prevent catheter related bloodstream infections.
IVAD32	Do not routinely administer intranasal or systemic antimicrobials before insertion or during the use of an intravascular device to prevent catheter colonisation or bloodstream infection.
IVAD33	Do not use systemic anticoagulants routinely to prevent catheter-related

	bloodstream infection.
IVAD34	Use sterile normal saline for injection to flush and lock catheter lumens that are accessed frequently .
IVAD35	The introduction of new intravascular devices or components should be monitored for an increase in the occurrence of device-associated infection. If an increase in infection rates is suspected, this should be reported to the Medicines and Healthcare Products Regulatory Agency in the UK.
IVAD36	When safer sharps devices are used, healthcare workers should ensure that all components of the system are compatible and secured to minimise leaks and breaks in the system.
Reference: Loveday HP, Wilson JA, Pratt RJ et al. (2014) epic3: National Evidence Based Guidelines for Preventing Healthcare- Associated Infections in NHS Hospitals in England	

AUDIT

Regular audit of the management of intravenous devices should be undertaken. Feedback should be given to staff on the results of such audits.

Epic 3 guidelines – Interventions to reduce catheter related infections

IVAD40	Use quality improvement interventions to support the appropriate use and management of intravascular access devices (central and peripheral venous catheters) and ensure their timely removal. These may include: • protocols for device insertion and maintenance; • reminders to review the continuing use or prompt the removal of intravascular devices; • audit and feedback of compliance with practice guidelines; and • continuing professional education. **New recommendation**
Reference: Loveday HP, Wilson JA, Pratt RJ et al. (2014) epic3: National Evidence Based Guidelines for Preventing Healthcare- Associated Infections in NHS Hospitals in England	

MANAGEMENT OF RESPIRATORY EQUIPMENT

INTRODUCTION

Respiratory equipment such as nebulisers and humidifiers may act as potential sources of infection. Bacteria may colonise respiratory equipment and deliver contaminated air directly into the lungs leading to respiratory tract infection or may be transmitted to other service users on the hands of staff. It is essential that all respiratory equipment is appropriately managed and decontaminated in order to prevent this.

This section does not give guidance on the management of invasive ventilation or tracheostomy tube management. If invasive ventilation / tracheostomy care is undertaken there should be local policies on this which should include the prevention of ventilator associated infections. Guidance should be sought from the local respiratory specialist team.

For further information on respiratory equipment refer to Section – Single Use / Single Patient Use Devices

NEBULISERS

The majority of nebuliser systems are used to deliver drugs, which open up the lungs and improve breathing. The type of nebuliser and / or drug used depends on the service user's needs; the choice should be based on the medication to be administered and the ease of use by staff and/or service users.

Nebuliser mask and tubing may be single use or single patient use. Manufacturer's instructions must be followed.

HUMIDIFIERS

Humidifiers saturate inspired air with water, in order to prevent drying of the airways during oxygen therapy. Either heated or unheated humidifiers can achieve this.

RISK FACTORS FOR THE CONTAMINATION OF RESPIRATORY EQUIPMENT

- Fluid residues left in the nebuliser after use can provide an ideal medium for the multiplication of bacteria
- Shared use of equipment between service users can lead to cross-infection
- Non-sterile fluids cannot be guaranteed to be free of contamination from harmful micro-organisms
- Condensation accumulating in the tubing may become colonised with harmful bacteria

MINIMISING THE RISK OF INFECTION

- Staff must wash their hands before and after handling respiratory-therapy equipment. Gloves should also be worn if contamination with respiratory secretions is anticipated.
- Only sterile single-dose fluids / medications are recommended for nebuliser therapy. If vials of multi-dose medication are used, handle, dispense and store according to the manufacturer's recommendations
- Only sterile water should be used to fill humidifiers. They should be emptied daily, washed, dried and re-filled.
- Nebulisers must be washed in warm water and dried thoroughly after each treatment. They should be stored covered after cleaning.
- Nebulisers should be routinely changed as per manufacturer's instructions.

- Humidifier tubing should be changed regularly in accordance with manufacturer's recommendations.

MANAGEMENT OF ENTERAL FEEDING - ESTABLISHED PERCUTANEOUS ENDOSCOPIC GASTROSTOMY (PEG)

INTRODUCTION

This section has been written taking account of the evidence base for practice contained in:

- National Institute for Health and Clinical Excellence (NICE) *Clinical Guidelines 139 Healthcare-associated Infections: Prevention and Control in Primary and Community Care (2012).*

Enteral tube feeding is an accepted method for the provision of nutrition in individuals who are not able to take any foods orally or whose daily oral intake is not sufficient to meet their nutritional requirements.

The majority of individuals receiving an enteral feed have the product administered directly into their stomach via a gastrostomy or percutaneous endoscopic gastrostomy (PEG) tube or via a naso-gastric tube. Enteral feeding is the preferred and most physiologically normal method of artificial feeding, however, there ae risks associated with bacterial contamination of the feed and the possible risks of infection around the PEG site.

Contamination of feeds is a key concern in long term enteral tube feeding, it has been found that more than 30% of feeds in hospital and home are contaminated with a variety of micro-organisms, largely due to their preparation or administration and this has been linked to serious clinical infection. The elderly are particularly vulnerable to the effects of food poisoning. Therefore, it is essential to have robust policies and procedures in place which meet current food regulations to minimise the risk of food poisoning.

All staff who handle enteral feeding systems should be trained in feed delivery and management of the administration system. Service users and carers should also be given appropriate enteral feeding training as appropriate. Any training should be documented.

2012 NICE guidance: Education of patients, their carers and healthcare workers

Educate patients and carers about and train them in the techniques of hand decontamination, enteral feeding and the management of the administration system before being discharged from hospital.
Healthcare workers should be trained in enteral feeding and management of the administration system.
Ensure that follow-up training and ongoing support of patients and carers are available for the duration of home enteral tube feeding.
Reference: National Institute for Health and Care Excellence (NICE) (2012) Clinical Guidelines 139 Healthcare-associated Infections: Prevention and Control in Primary and Community Care

SOURCES OF CONTAMINATION OF ENTERAL FEEDING SYSTEMS

Infection such as Salmonellosis has been associated with enteral feeding but of greater concern is the incidence of pneumonia and bacteraemia associated with enteral feeding. Expert guidance reinforces the need for rigorous infection control procedures in the handling and delivery of enteral tube feeds.

There are a number of possible sources of contamination in an enteral feeding system. These can be summarised as:

Problem	Possible Source
Touch contamination of equipment	Lack of, or poor hand hygiene, poor non-touch technique and excessive manipulation of system
Inappropriate storage of feed	Stored in a contaminated area; failure to refrigerate where appropriate; opened feeds kept for too long
Poorly designed equipment	Multiple / exposed parts prone to touch contamination during assembly / use
Misuse of equipment	Prolonged use or re-use of administration sets and syringes
Contaminated additive	Medications or flush solutions
Site problems	Colonisation or infection of the PEG site
Cross-infection	Failure to adequately decontaminate equipment (e.g. pumps) between service users; lack of hand decontamination
Contaminated feed	During reconstitution, decanting, handling, manufacture, transportation or storage

SELECTION OF EQUIPMENT / SYSTEMS TO REDUCE HAZARDS

When selecting an enteral feeding system, it is important that the possible risks of introducing bacterial contamination are considered. The following issues should be considered when selecting equipment:

- The feed container should have a lid that can be removed without hands touching the neck of the container to which the set will be attached
- A system that requires a minimum number of connections is recommended; 3 way taps should be avoided
- Feeds which come in collapsible bags and, therefore, are non-air dependent are preferable as they reduce the risk of airborne contamination
- Pre-filled containers with larger volumes, e.g. 1000ml or 1500ml, reduce the number of container changes and therefore reduce the risk of handling-associated contamination

- Enteral feeding pumps with flush panels are easier to wipe clean than pumps with lots of grooves and knobs

FEED PREPARATION

Always decontaminate hands thoroughly either with soap and warm running water or the application of alcohol hand rub before commencing preparation of feed.

When decanting, reconstituting or diluting feeds a clean, dry working area should be prepared and equipment dedicated for enteral feed use only should be used. Feeds to be attached to feed equipment should be taken to the patient using either a clean trolley or tray. Items should NOT be placed on beds or other surfaces which are not capable of being cleaned with detergent prior to use.

Raw foods such as meat, fish, eggs and vegetables should never be handled in close proximity to enteral feeding solutions or equipment. Pets should not be allowed near the feeding solutions or feeding equipment.

Bottle openers should be decontaminated prior to use (e.g. in a dishwasher). If scissors are required, they should be sterile prior to first use. Bottle openers and scissors used for opening sterile feeds should be dedicated for use with enteral feeding products only. They should be decontaminated after use, in a dishwasher or by washing with hot water and detergent, rinsed, dried and stored covered.

Feeds should be mixed using cooled *freshly boiled* water or freshly opened sterile water and a no-touch technique with minimal handling of all component parts. Water should NOT be stored but should be discarded after each use.

ASSEMBLY OF FEEDS

There are three methods of assembling an enteral feed system:

- Ready-to-use sterile feeds
- Decanting sterile feeds
- Special or Modified feeds

Each requires a slightly different set of handling procedures and hanging times:

READY-TO-USE STERILE FEEDS

Prior to use, store feeds in a clean, dry environment according to the manufacturers' instructions. The temperature in the storage area should not drop below 5^{o}C or rise above 25^{o}C.

Prior to use, check the feed expiry date and for any sign of damage to the container. Never use feeds that have expired or are in damaged containers.

Do not add any water, medication or other substances directly to the feed unless prescribed for this purpose.

Sterile feeds that have been opened, but not immediately connected to a sterile giving set can be carefully resealed and stored on the top shelf in the body of a refrigerator labelled with service user's name, date and time of opening. The feed must be stored at between 2°C and 5°C and only for up to 24 hours (the fridge

temperature should be checked regularly with a fridge thermometer). Once a sterile feed has been opened it must be used within 24 hours or discarded.

To prevent contamination, feeds should not be stored near or below products such as raw or thawing meat or fish.

DECANTING STERILE FEEDS

Follow the above guidelines on ready-to-use sterile feeds AND consider the following additional points.

Sterile feeds should **only** be decanted when:

- the feed cannot be directly attached to a giving set, e.g. when using ring-pull cans or when there is no suitable ready-to use preparation in the size/volume required, e.g. for overnight feeding
- it is necessary to make additions to a sterile feed (see special or modified feeds)
- the feed is going to be given as a bolus via a syringe. (Feeds given as a bolus should be administered at room temperature. Therefore, if feed has been stored in the fridge it should be brought to room temperature by removing from fridge thirty minutes prior to administration. Keep the feed in its resealed container until it is poured into the syringe.)

The following should be considered if decanting sterile feeds:

- Sterile feeds should be decanted into a sterile container.
- Sterile feeds that have been decanted into a sterile container can hang for a **maximum** of twenty-four hours before being discarded
- If decanting, decant the full volume required for the twenty-four hours. Do not top up the reservoir
- Decanting should be undertaken in a clean environment e.g. kitchen.
- When decanting feeds, use a non-touch technique. This means avoiding touching (with hands, objects or surfaces) any openings or connecting parts of the feed container or reservoir container.

The design of some feed containers causes the feed to come into contact with the outside of the container when it is being decanted, i.e. a ring-pull can. For this reason, wipe the outside of the feed container with a wipe impregnated with 70% isopropyl alcohol. Allow the alcohol time to dry before decanting.

2012 NICE guidance: Preparation and storage of feeds

Wherever possible use pre-packaged, ready-to-use feeds in preference to feeds requiring decanting, reconstitution or dilution.
Ensure that the system selected requires minimal handling to assemble, and is compatible with the patient's enteral feeding tube.
Effective hand decontamination must be carried out before starting feed preparation.
When decanting, reconstituting or diluting feeds, prepare a clean working area and

use equipment dedicated for enteral feed use only.
Mix feeds using cooled boiled water or freshly opened sterile water and a no-touch technique.
Store feeds according to the manufacturer's instructions and, where applicable, food hygiene legislation.
Where ready-to-use feeds are not available, feeds may be prepared in advance, stored in a refrigerator, and used within 24 hours.
Reference: National Institute for Health and Care Excellence (NICE) (2012) Clinical Guidelines 139 Healthcare-associated Infections: Prevention and Control in Primary and Community Care

ADMINISTRATION OF FEEDS

Use minimal handling and an aseptic technique to connect the administration system to the enteral feeding tube.

The hanging time for feed must not be exceeded:

- Modified or mixed feeds decanted into a sterile reservoir – hang for four hours
- Sterile, ready-to-use feeds, if not decanted - hang for four hours
- Sterile feeds decanted into a sterile reservoir – hang for twenty-four hours

Single use equipment such as administration sets must not be re-used.

2012 NICE guidance: Administration of feeds

Use minimal handling and an aseptic technique to connect the administration system to the enteral feeding tube.
Ready-to-use feeds may be given for a whole administration session, up to a maximum of 24 hours. Administer reconstituted feeds over a maximum 4-hour period.
Administration sets and feed containers are for single use and must be discarded after each feeding session.
Reference: National Institute for Health and Care Excellence (NICE) (2012) Clinical Guidelines 139 Healthcare-associated Infections: Prevention and Control in Primary and Community Care

EQUIPMENT CARE

Re-usable medical equipment e.g. pumps and stands must be cleaned and serviced according to the manufacturer’s instructions. Such equipment should be cleaned daily using hot water and detergent as part of routine equipment cleaning schedules. Enteral feed solutions can be difficult to remove from equipment if left to dry so any spillage must be cleaned promptly.

Equipment requiring servicing or repair should be cleaned, decontaminated and have the necessary documentation accompanying it. See policy for Decontamination of Medical Equipment.

PERSONAL PROTECTIVE EQUIPMENT

To reduce the risk of infection a new set of disposable non-sterile gloves, and apron should be used each time the enteral feeding system is handled. Hand decontamination should be undertaken before and after use of personal protective equipment (PPE).

CARE OF INSERTION SITE AND ENTERAL FEEDING TUBE

The stoma site should be inspected and washed daily with water and dried thoroughly. Dressings are not necessary once the stoma has healed (following its placement) which is usually after ten – twelve days. The tube should be rotated 360° regularly to avoid infections related to “buried bumper syndrome”.

To prevent blockage, the enteral feeding tube should be flushed with freshly drawn tap water before and after feeding or administering medications if the service user is immune-competent. For immune-suppressed individuals the flushing water should be either cooled *freshly* boiled water or sterile water from a *freshly* opened container. Do NOT store any water between uses even in the ‘fridge.

2012 NICE guidance: Care of insertion site and enteral feeding tube

Wash the stoma daily with water and dry thoroughly
To prevent blockages, flush the enteral feeding tube before and after feeding or administering medications using single-use syringes or single-patient-use (reusable) syringes according to the manufacturer's instructions. Use: • freshly drawn tap water for patients who are not immunosuppressed • either cooled freshly boiled water or sterile water from a freshly opened container for patients who are immunosuppressed. (**new 2012)**
Reference: National Institute for Health and Care Excellence (NICE) (2012) Clinical Guidelines 139 Healthcare-associated Infections: Prevention and Control in Primary and Community Care

If to be used more than once, single patient use syringes should be cleaned after use with warm water and detergent after removing plunger. Then rinse thoroughly in clean, running water; shake to remove excess and dry as much as possible and stored in a covered container until next use. To aid drying inside syringe barrel leave plunger out until just before next use.

APPENDIX 1

THE PRINCIPLES OF ASEPSIS

Action	Rationale
Hand Hygiene	Hand decontamination is the single most important procedure for preventing cross infection. Transient bacteria can be almost completely removed by effective hand hygiene practices. In addition, resident bacteria, which can cause infections following highly invasive procedures, can be reduced by the use of an antiseptic solution (e.g. 4% Chlorhexidine (Hibiscrub) or application of an alcohol hand rub following a social hand-wash with soap and water. Hands should always be decontaminated before and after contact with susceptible sites. Hand Hygiene may be required several times during a procedure.
Gloves	Single use gloves should be worn for contact with mucous membrane, invasive procedures, contact with sterile sites and non-intact skin and contact with blood or body fluids. The choice of sterile or non-sterile gloves should be based on risk assessment. Sterile gloves should be worn for the insertion of invasive devices and minor surgical procedures. Clean, non-sterile gloves are acceptable for on-going device-related care if the operator can guarantee that the key parts will not be touched. Gloves should be put on immediately before an episode of care and removed and hands decontaminated as soon as care is completed. Gloves should be changed between different care activities for the same patient.
Protective clothing	Single use plastic aprons should be worn when there is a risk of staff clothing becoming contaminated with micro-organisms, blood and or body fluids. Full fluid repellent gowns should be worn if extensive splashing of blood/body fluids onto skin or clothing is likely. Face and eye protection are required if there is an anticipation of splashes of either blood or body fluids into face or eyes.
Action	**Rationale**
Non-touch technique	The susceptible site or surfaces of invasive devices should not come into contact with any item that is not sterile.

Equipment	All instruments, fluids and materials that come into contact with a wound, surgical site or during the insertion/manipulation of an invasive device, must be sterile to reduce the risk of contamination. This includes not only products used during the procedure but any final dressing (s). The sterility of the device/fluids/materials must be protected from contamination.
Dressing trolley or Procedure Tray	The stainless steel dressing trolley or procedure tray, dedicated for purpose, should be thoroughly cleaned with detergent and water or detergent wipes at start of day and whenever contaminated during the day. For other times it can be cleaned with 70% alcohol wipes between uses. To aid cleaning ensure all sticky tape residues are removed from the trolley or procedure tray.