

Introduction to Aseptic Technique



What is *aseptic technique*?

- ***Aseptic*** means "without microorganisms." ***Aseptic technique*** refers to practices that help reduce the risk of postprocedure infections in clients by decreasing the likelihood that microorganisms will enter the body during clinical procedures. Some of these practices are also designed to reduce service providers' risk of exposure to potentially infectious blood and and tissue during clinical procedures.
- Aseptic techniques are those that do some or all of the following:
 - Remove or kill microorganisms from hands and objects.
 - Employ sterile instruments and other items.
 - Reduce clients' risk of exposure to microorganisms that cannot be removed.

Who is at risk?

- **Staff**
- **Patients**
- **Community**

Components of aseptic technique

- Aseptic technique refers to the practices performed immediately before and during a clinical procedure to reduce postoperative infection. These include:
 - Handwashing
 - Surgical scrub
 - Using barriers (surgical attire)
 - Patient prep (preparing a patient for clinical procedures)
 - Maintaining a sterile field
 - Using safe operative technique (making small incisions, avoiding trauma to tissue and surrounding structures, and controlling bleeding)
 - Maintaining a safer environment in the surgical/procedure area

Client prep for clinical procedures

- Most infections after surgery are caused by contamination during the procedure--**not** because clients do not keep the wound clean.
- Proper patient preparation using antiseptics is critical before a procedure. Patient prep helps keep bacteria on the client's skin from causing infections in the surgical/procedure site.

How to prep Patients

- **Skin prep for surgical/clinical procedures:** First, make sure the surgical/procedure site has been cleaned with soap and water. (This can be done by the client--either at home or at the clinic--or by clinic staff.)
- Apply antiseptic and gently scrub the skin in a circular motion--beginning in the center of the site and moving out--using sterile cotton balls, cotton wool, or gauze sponges held by a sponge forceps.

- **NOTE:** Shaving is no longer recommended because it causes small nicks and breaks in the skin where bacteria can grow and multiply. Hair around the site may be clipped short if it might interfere with the procedure. Two large studies (one with nearly 63,000 subjects) showed that clients who had not been shaved had significantly fewer postoperative infections than clients who had been shaved.

Prep for the vagina, cervix, and other mucous membranes:

- Using sterile cotton balls, cotton wool, or gauze sponges held by a sponge forceps, apply an antiseptic liberally to the vagina and cervix before instrumentation of the uterus. Alcohol and alcohol-based antiseptics should not be used on the vagina, cervix, or other mucous membranes because they easily irritate these tissues.

Before giving an injection:

- Wipe the Patient's skin at the intended injection site with an antiseptic solution to minimize the number of microorganisms and reduce the risk of infection.
 - If there is visible dirt, wash the injection site with soap and water.
 - Using a fresh swab, wipe the site with an antiseptic, wiping in a circular motion from the center outward.
 - If alcohol is used, allow the alcohol to dry in order for maximum effectiveness in reducing microorganisms.

Proper use of multi-dose vials

- Multi-dose vials of medication or other fluids can become vehicles for transmitting infections between clients. Before filling a syringe from a multi-dose vial:
 - Check the vial to be sure there are no leaks or cracks.
 - Check the solution to be sure it is not cloudy and that there is no particulate matter in the vial. (Most solutions that come in vials are clear.
 - Wipe the top of the vial with a fresh cotton swab soaked with 60-70% alcohol, and allow it to dry.

To reduce the risk of transmitting infections between Patients:

- **Always** use a new or correctly processed hypodermic needle *and* syringe every time fluid is withdrawn from a multi-dose vial. Reusing the same syringe to give injections to multiple clients--even if the needle is changed--is not a safe practice, because infections can contaminate the multi-dose vial and be transmitted from client to client.
- **Never** leave one needle inserted in the vial cap for multiple uses. This provides a direct route for microorganisms to enter the vial and contaminate the fluid between each use.

Guidelines for Aseptic Technique Wound Management

- Explain procedure to the patient
- Prepare patient comfortably for better accessibility without unnecessary exposure of the patient.
- Prepare environment.. Ensure privacy, draw curtains, close windows, switch off fans, remove flowers.
- Allow ten minutes from preparation of environment and the performance of the actual procedure.
- Go to treatment room to prepare trolley and equipment. Wash hands
- Wash trolley with soap and water. Then clean with alcohol based solution. The trolley should be washed from top down not forgetting the sides.
- No specific technique in the washing of the trolley so long as trolley is cleaned adequately.
- Place needed equipment for the procedure on the bottom shelf of the trolley. Sterile equipment used should be checked for sterility, expiry date, moisture, any

- tears in packaging Lotion containers and solution should also be checked for sterility, punctures in plastic bottles, discolouration, haziness and particulate matter when applicable.
- The basic equipment usually includes
 - Sterile dressing pack. Extra pack may be placed just in case of a mishap. Saves time and avoids leaving patient's bedside
 - Lotion for cleansing is usually normal saline. Bowl with moderately hot water to warm cleansing solution to body temperature.
 - Hypoallergenic tape Scissors
 - Appropriate hand hygiene preparation eg: Hibisol Plastic disposable apron to be worn near bedside
 - Other materials may be needed according to the individual needs of the patient
 - These may include
 - Incopad to prevent soiling patient's bedclothes
 - Specific kind of lotion / spray eg: Betadine
 - Extra swabs, dressings and bandages
 - Debriding products /equipment
 - Specific kind of dressing eg: Mepore, Opsite , Hydrocolloid dressing
 - Syringe for irrigation. Sharps box
 - Equipment for taking a wound swab
 - Suture / staple removal pack
 - Wound assessment tools / chart
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- Wash hands before leaving treatment room
 - Take trolley near bedside by pushing from front side poles Once near bedside ensure comfort of the patient.
 - Put on apron
 - Refrain from body contact with trolley
 - If one is working alone cleanse hands with hibisol and loosen patient s dressing leaving dressing in position.

- If one has an assistant this could be done by the assistant.
- Talking during the procedure should be kept to a minimum. However one should be sensible and practical.
- Again if one is working alone, one should now open the sterile pack by opening the outer cover. This is done by separating edge of paper on sterile pack and tear it, pulling away from one's body and sliding the contents on to the top shelf of the trolley. One should not touch the inside of the pack. If one has an assistant this could be done by the assistant.
- Rub hands with hibisol if one is working alone.
- Open sterile pack holding underside of corners taking note not to contaminate inside of pack.
- Taking the yellow bag and using it as a glove, the contents of the tray can be assembled on the sterile field easily. At the same time the old dressing can be then removed still using the gloved hand. Once dressing is removed the bag is inverted inside out and attached to the side of the trolley below the sterile field.
- Once Cleansing is done an appropriate dressing is applied according to individual needs of the patient.
- Dressings are applied with forceps or gloved hands.
- Once wound is covered forceps or gloves can be discarded.
- Dressing is fixed by hypoallergenic tape or there may be need for the application of a bandage or the dressing used may be self adhesive.
- Prior to leaving, sterile field is folded and equipment used should be put in disposal bag, sealed with tag provided and then disposed appropriately.
- Take trolley back to treatment.
- Dispose of equipment.
- Leave trolley clean
- Wash hands after finishing procedure