
Anesthesiology

Ref:(a) Hospital Epidemiology & Infection Control, Prevention and Control of Infection in the Practice Of Anesthesia, C. Glen Mayhall, 1996.

Purpose.

All members of the Anesthesiology Department shall be familiar with and comply with Infection Control practices during operations. This section will define the Infection Control Procedures to be employed by all members.

Infection Control Practices.

- Staff
 - Hands will be washed before and after contact with patients or specimens or before performing any invasive procedure.
 - Personnel will follow “Universal/Standard Precautions” to prevent and minimize exposure to blood and body fluids.
 - Personnel will wear standard operating room attire, which shall consist of a clean scrub suit, disposable surgical mask and cap or hood.
 - A surgical mask that fully covers the mouth and nose will be worn when entering the operating room (if sterile instruments are exposed or an operation is about to begin or is underway).
 - Masks will be changed between cases.
 - Wear a cap or hood to fully cover hair on the head and face when entering the operating room suite.
 - Change scrub suits when visibly soiled, contaminated and/or penetrated by blood or other potentially infectious materials.
 - Wear shoe covers when gross contamination is anticipated.

Employee Health.

Individuals exhibiting signs and symptoms of an infection must report immediately to their supervisor. The supervisor will refer them to Occupational Health for evaluation and work duty status. Personnel with cutaneous lesions or open skin areas should be evaluated by Occupational Health to determine appropriate action. Unprotected lesions may be a risk to the healthcare worker and the patient.

In the event of inadvertent exposure to patients with a communicable disease or an occupational injury (i.e., needlestick or sharps), the employee will report this immediately to their supervisor. They will be referred to Occupational Health for evaluation and follow-up.

Specific Practice Guidelines.

Preparation and administration of intravenous medication:

- Use single use vials/ampules whenever possible.
- Single use vials/ampules without preservatives must be opened at the time of use, and discarded immediately after use. Swab rubber septum or neck with alcohol. Use sterile needles and syringes. Use for one patient only.
- Do not give medications from a syringe to more than one patient. Discard medication drawn into a syringe within 24 hours.

- Use fluids, containers, infusion sets, disposable pressure transducers, and any other item that contacts the vascular system or other sterile body fluids for a single patient only.
- Stopcocks, injection ports, and other portals of access to sterile fluids will be maintained with sterile technique. Keep free of blood and cover with a sterile cap or syringe when not in use. Clean injection ports with appropriate disinfectant before entry.
- Syringes are single patient use items. Do not give medications from a syringe to more than one patient. Consider the syringe contaminated after entry into the intravascular line. Discard medication drawn into a syringe within 24 hours.
- Use aseptic technique when withdrawing medication from multi-dose vials. Cleanse rubber stopper. Use sterile needles and syringe each time vial is entered. Discard multi-dose vials if contaminated or if contamination is suspected or when manufacturers stated expiration date is reached.
- Discard multi-dose containers, non-injectable drugs, ointments, and sprays if contaminated or if contamination is suspected.
- Use strict aseptic technique and follow Infection Control recommendations for the insertion and care of intravascular devices and peripheral arterial catheters found in Chapter 2 of the Infection Control Manual.

Central venous pressure and pulmonary artery catheters are inserted utilizing strict aseptic technique.

Epidural catheters and other indwelling catheters are inserted and cared for by the Pain Management Service. Due to the unique risks these catheters incur, additional precautions will be taken:

- Permanent epidural placement must be treated like a surgical procedure. This procedure will be performed in surgery/Pain Clinic procedure suite.
- Epidural catheters placed for use longer than 48 hours, also, demand special precautions. Handwashing, surgical prep, drape, mask, and gloves will be the standard. Generally, these will, also, be tunneled subcutaneously in the hope of decreasing the incidence of infection.
- The epidural catheter will be removed immediately:
 - When a question of infection exists at the insertion site.
 - For a sustained temperature rise (greater than 8 hours) of 101° F.
 - If a catheter disconnect occurs.
- The epidural insertion site will be inspected daily for signs of infection. The results of this inspection will be noted in the progress notes.
- A bacteriostatic filter will be used with all epidural catheters.
- The narcotic infusion will be changed every 24 hours.

Intubation.

- Endotracheal intubation shall be carried out with sterile endotracheal tubes. Laryngoscopes employed shall be thoroughly cleaned with a detergent and will receive high-level disinfection which is accomplished by soaking in Cidex solution for at least 20-30 minutes and thoroughly rinsing with sterile water. Cuffs shall be inflated to the point of sealing only, excess volume resulting from diffusion of anesthetic gases into the cuff shall be evaluated frequently during long procedures and excess volume shall be removed.
- Tracheal suctioning shall be carried out with sterile catheters and sterile gloves, disposable sets are provided for this purpose. Catheters shall be used only once and discarded.

Tracheostomy.

- Suctioning of tracheostomy tubes shall be done employing sterile technique, with gloves and sterile catheters used once and discarded.
- Disposable, sterile tracheostomy tubes shall be used for original insertion and replacement, employing sterile technique with gloves in each case.

Introduction of Regional Anesthetics.

- Sterile technique, including appropriate skin preparation, sterile gloves, masks, caps, and drapes, shall be employed for all regional anesthetic techniques.
- Spinal and epidural anesthetics will be administered only with sterile disposable sets provided for the purpose. It is essential that expiration dates of sets and sterility indicators be checked before use. Single dose ampules or vials of local anesthetics shall be used exclusively for epidural anesthetics.
- No touch techniques shall be employed during preparation of drugs and insertion of needles for spinal and epidural anesthesia.
- Disposable syringes, needles and sterile extension sets shall be used for plexus blocks. Single dose ampules or vials of local anesthetics shall be used.

Anesthesia Care for Patients.

- Since medical history and examination cannot reliably identify all patients infected with HIV and other blood borne pathogens, “Universal/Standard Precautions” will be used consistently on all patients, regardless of their diagnosis. Follow recommended precautions and the Bloodborne Pathogen Exposure Control Plan, NAVMEDCENPTSVAINST 6260.5.
- An anesthesia cart with a selection of anticipated supplies will be placed in the operating room.
- Disposable supplies will be utilized as much as possible.
- Barrier precautions will be followed. Personal Protective Equipment (i.e., gloves, face shield, masks, goggles, and gown) will be worn by all personnel at risk to come in contact with blood or body fluids.
- Needles, syringes, and other sharp instruments must be handled with extraordinary caution. All needles, syringes, and drug vials will be discarded at the end of the case.
- All non-disposable critical items require sterilization which involves steam, ethylene oxide or alkalized glutaraldehyde (Cidex). Sterilization will be done in accordance with guidelines found in the Infection Control Manual. Items sterilized using Cidex will soak for at least 10 hours. Steam, ETO, and Sterrad sterilization will be done by MOR.

Cleaning and Servicing Equipment.

The widest possible use of disposable equipment is encouraged to assure sterility of items used in patient care; use of disposable epidural and spinal sets, syringes, needles, tracheostomy tubes, oxygen, and suction equipment is now standard procedure. Use of disposable anesthesia masks, circuit bags, and endotracheal tubes is directed for all patients with known or suspected pulmonary infections.

Non-disposable Equipment.

- Anesthesia machines and carts will be cleaned thoroughly with a hospital disinfectant daily and when visibly contaminated. Blood and secretions will be removed immediately with 1:10 bleach solution or EPA approved hospital disinfectant to prevent bacterial growth. Machines

and carts shall be cleaned inside and out at least weekly, first with detergent, followed by germicide. Soda lime canisters used on infective patients which have not been protected by disposable circuits and bacterial filters will be emptied and wrapped for gas autoclaving by MOR, along with attendant rubber goods. Gas autoclaved equipment shall be aerated for the length of time prescribed by manufacturers of the equipment.

- Non-disposable airway gear. Oral airways, nasal airways, laryngoscopes, and other non-disposable items will be exposed to high-level disinfection between use. All items will be thoroughly washed in detergent and rinsed. Items will then be soaked in Cidex solution for at least 20-30 minutes and thoroughly rinsed with sterile water.
- Exception. Any item named in this section known to be exposed to a pulmonary pathogen will be gas autoclaved; any item marked by the manufacturer not suitable for gas autoclaving will be destroyed.
- Silicone rubber items. Silicone rubber endotracheal, LMA's, and tracheostomy tubes certified steam autoclavable by the manufacturer will be cleaned and steam autoclaved after each use.
- Other items. Stethoscopes and blood pressure cuffs will be wiped with appropriate disinfectant daily. Blood and secretions will be removed immediately. Contaminated items will be steam or gas autoclaved as appropriate.
- Needles/Syringes/Sharps. Containers for disposal of sharps, needles, and syringes will be provided for each operating room, the staging area, recovery room, and block areas. Needles and syringes shall be discarded intact, without recapping the needle, to decrease the chance of an accidental needlestick.
- Disposable equipment contaminated with blood and body fluids. Blood and body fluids of all patients must be considered potentially infectious. All disposable equipment which has come in contact with blood or body fluids (endotracheal tubes, epidural catheters, intravenous catheters, disposable drapes) will be discarded in appropriate containers and disposed of in accordance with hospital policy.

Isolation.

Patients with known or suspected infections will be identified and isolated in accordance with the hospital Infection Control Manual.