Infection Control Guidelines for Spinal procedures

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I. Introduction

Bacterial meningitis following myelogram and other spinal procedures (e.g., lumbar puncture, spinal and epidural anesthesia, intrathecal chemotherapy) has been reported \(^1\), \(^2\). Face masks are effective in limiting the dispersal of oropharyngeal droplets \(^3\) and are recommended for the placement of central venous catheters \(^4\). The Healthcare Infection Control Practices Advisory Committee (HICPAC) reviewed the evidence and concluded that there is sufficient experience to warrant the additional protection of a face mask for the individual placing a catheter or injecting material into the spinal or epidural space. The HICPAC recommended the surgical masks to be worn by spinal procedures operators to prevent infections associated with these procedures \(^5\).

Standard Precautions are intended to be applied for the care of all patients in all healthcare settings, regardless of the suspected or confirmed presence of an infectious agent. Implementation of Standard Precautions constitutes the primary strategy for the prevention of healthcare-associated transmission of infectious agents among patients and healthcare personnel.

II. Rationale

Within a healthcare setting both patients and healthcare staff are at risk of acquiring an infection.

II. Components

Spinal procedures operators are highly recommended to perform these steps

1. **Hand hygiene:**
   The operator should wash their hands and fore-arms up to the elbows immediately before donning sterile gowns and gloves using hand antisepsis.

2. **Personal protective equipment (PPE)**
   - Sterile gloves
   - Surgical mask
   - Protective gown
   - Eye protection (goggles), face shield*

3. **Skin preparations**
   The incision site is disinfected by applying an antiseptic preparation in a concentrate circle, beginning at the area of proposed incision. Several antiseptic agents can be used for skin preparation sites:
   - Chlorhexidine gluconate 4% or
   - Povidone-iodine 7.5% or
   - Alcohol solution (Ethyl alcohol or Isopropyl alcohol 70-90%).

Both chlorhexidine gluconate and iodophors have broad spectrum of antimicrobial activity. Chlorhexidine gluconate achieves greater reduction in skin micro flora than does povidone-iodine and also has greater residual activity. Further, chlorhexidine gluconate is not inactivated by blood or serum proteins. Idophors may be inactivated by blood or serum proteins but exert bacteriostatic effect as long as they are present on...
the skin. Alcohol is one of the most effective and rapid acting skin antiseptics, but it has no residual activity, easily evaporated and flammable.

4. Soiled patient-care equipment:
   Handle in a manner that prevents transfer of microorganisms to others and to the environment.

5. Environmental control:
   Routine care, cleaning, and disinfection of environmental surfaces, especially frequently touched surfaces in patient-care areas.

6. Textiles and laundry:
   Handle in a manner that prevents transfer of microorganisms to others and to the environment.

7. Needles and other sharps: Do not recap, bend, break, or hand-manipulate used needles; if recapping is required, use a one-handed scoop technique only; use safety features when available; place used sharps in puncture-resistant container.

This policy should be read in conjunction with:-

- Hand hygiene guidelines
- Safe injection guidelines
- Isolation guidelines
- Disinfection guidelines
- Laundry guidelines
- Environmental guidelines

* - During aerosol-generating procedures
  - On patients with suspected or proven infections transmitted by respiratory aerosols (e.g. H1N1, SARS), wear a fit-tested N95 or higher respirator in addition to gloves, gown, and face/eye protection.

References


