

State of Kuwait
Ministry of Health
Infection Control Directorate

Infection Control Guidelines for Spinal procedures

Updated - 2014

Infection Control Guidelines for **Spinal procedures**

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 droplets³ and are recommended for the placement of central venous catheters⁴. 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 procedures⁵.

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

Authors of the British Royal College of Anaesthetists 3rd National Audit Project provided some guidance for the use of chlorhexidine for spinal procedures

Clinicians must take care to prevent chlorhexidine (CHG) from reaching the CSF

- Keep CHG away from other drugs and equipment being used
- Allow solution to dry prior to beginning procedure
- Avoid using solutions > 0.5% chlorhexidine

NB: The use of a concentration of CHG >0.5% cannot be supported; this concentration is evidently effective, but a greater one might increase the risk of neurotoxicity from inadvertent contamination, and should be avoided.

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

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3- Philips BJ, Fergusson S, Armstrong P, Anderson FM, Wildsmith JA. Surgical face masks are effective in reducing bacterial contamination caused by dispersal from the upper airway. Br J Anaesth 1992;69(4):407

4. CDC. Guidelines for the Prevention of Intravascular Catheter-Related Infections. MMWR 2002;51(RR10)(10):1-26.

5- Siegel J, Rhinehart E, Jackson M, Chiarello L, and the Healthcare Infection Control Practices Advisory Committee. 2007 guideline for isolation precautions: preventing transmission of infectious agents in healthcare settings. Available at http://www.cdc.gov/ncidod/dhqp/gl_isolation.html. Accessed January 22, 2010.

6-Siegel JD, Rhinehart E, Jackson M, Chiarello L, and the Healthcare Infection Control Practices Advisory Committee, Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings, 2007.

7- M. Scott, J. Stones and N. Payne. Antiseptic solutions for central neuraxial blockade: which concentration of chlorhexidine in alcohol should we use? British Journal of Anaesthesia 103 (3): 456–62 (2009)