

Title: INSERTION OF CENTRAL LINE/ARTERIAL CATHETERS

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Interdisciplinary Review: Clinical Coordination Committee

POLICY: These barrier precautions are required for all central venous/pulmonary artery catheter placements and during central line changes over guidewires.

PURPOSE: To reduce the patient's risk of acquiring an intravascular, catheter-related infection.

1. DEFINITION:

Central line catheter per definition in CDC NHSN Patient Safety Manual

http://www.cdc.gov/nhsn/pdfs/pscmanual/4psc_clabscurrent.pdf

An intravascular catheter that terminates at or close to the heart or in one of the great vessels which is used for infusion, withdrawal of blood, or hemodynamic monitoring. The following are considered great vessels in the NHSN system:

- Pulmonary artery
- Superior vena cava
- Inferior vena cava
- Brachiocephalic veins
- Internal jugular veins
- Subclavian veins
- External iliac veins
- Common femoral veins

The lines can be tunneled or non-tunneled and examples include:

- Pulmonary artery catheters
- Peripherally inserted central venous catheters (PICC)
- Hemodialysis catheters
- Central venous catheter
- Port a Cath

2. Maximal sterile barrier precautions include **all of the following:**

- sterile gown and gloves, mask, and cap on the inserter
- head to toe sterile drape for establishment of sterile field on the patient

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3. Hand hygiene immediately prior to line placement may be accomplished by handwashing with antibacterial soap and water or through use of a waterless alcohol hand sanitizer.
4. Use appropriate skin antiseptic (2% chlorhexidine gluconate / 70% isopropyl alcohol) for catheter insertion and dressing changes. Follow product application and drying instructions. An iodophor (Betadine) or 70% alcohol can be used if there is patient sensitivity to chlorhexidine.
5. It is recommended that the provider consider use of the subclavian site (rather than the jugular or femoral site) in adult patients to minimize infection risk for non-tunneled central venous catheter; however, other patient considerations may determine the site selection. There will be occasions when the physician determines that the risks and benefits of using the subclavian vein outweigh the benefits, and a different vessel is selected.
6. Do not routinely replace central venous catheters, PICCs, hemodialysis catheters, or pulmonary artery catheters to prevent catheter-related infections.
7. Perform and document daily review of line necessity and promptly remove the catheter when no longer needed.
8. When adherence to aseptic technique cannot be ensured (i.e., when catheters are inserted during a medical emergency), replace all catheters as soon as possible and after no longer than 48 hours.
9. Do not routinely culture catheter tips. The current recommendation for assessment of a line infection is to obtain a peripheral blood specimen and a blood specimen drawn from the central line and send both for culture. (ASM Manual of Clinical Microbiology, 8th Edition, 2003).

REFERENCES:

Strategies to Prevent Central Line-Associated Bloodstream Infections in Acute Care Hospitals, *Infect Control Hosp Epidemiol* 2008; 29:S22-S30, 2008.

Centers for Disease Control and Prevention. Guidelines for the Prevention of Intravascular Catheter-Related Infections. *MMWR* 2002;51(No. RR-10):1-32.

Institute for Healthcare Innovation: Implement the IHI Central Line Bundle 2011
<http://www.ihc.org/knowledge/Pages/Changes/ImplementtheCentralLineBundle.aspx>

CDC NHSN Patient Safety Module http://www.cdc.gov/nhsn/pdfs/pscmanual/4psc_clabscurrent.pdf 2013