

Checklist for Prevention of Central Line Associated Blood Stream Infections

Based on 2011 CDC guideline for prevention of intravascular catheter-associated bloodstream infections:

<https://www.cdc.gov/infectioncontrol/guidelines/bsi/index.html>

Strategies to Prevent Central Line–Associated Bloodstream Infections in Acute Care Hospitals: 2014 Update

<http://www.jstor.org/stable/10.1086/676533>

For Clinicians:

Follow proper insertion practices

- Perform hand hygiene before insertion.
- Adhere to aseptic technique.
- Use maximal sterile barrier precautions (i.e., mask, cap, gown, sterile gloves, and sterile full body drape).
- Choose the best insertion site to minimize infections and noninfectious complications based on individual patient characteristics.
 - Avoid femoral site in obese adult patients.
- Prepare the insertion site with >0.5% chlorhexidine with alcohol.
- Place a sterile gauze dressing or a sterile, transparent, semipermeable dressing over the insertion site.
- For patients 18 years of age or older, use a chlorhexidine impregnated dressing with an FDA cleared label that specifies a clinical indication for reducing CLABSI for short term non-tunneled catheters unless the facility is demonstrating success at preventing CLABSI with baseline prevention practices.

Handle and maintain central lines appropriately

- Comply with hand hygiene requirements.
- Bathe ICU patients over 2 months of age with a chlorhexidine preparation on a daily basis.
- Scrub the access port or hub with friction immediately prior to each use with an appropriate antiseptic (chlorhexidine, povidone iodine, an iodophor, or 70% alcohol).
- Use only sterile devices to access catheters.
- Immediately replace dressings that are wet, soiled, or dislodged.
- Perform routine dressing changes using aseptic technique with clean or sterile gloves.
 - Change gauze dressings at least every two days or semipermeable dressings at least every seven days.
 - For patients 18 years of age or older, use a chlorhexidine impregnated dressing with an FDA cleared label that specifies a clinical indication for reducing CLABSI for short-term non-tunneled catheters unless the facility is demonstrating success at preventing CLABSI with baseline prevention practices.
- Change administration sets for continuous infusions no more frequently than every 4 days, but at least every 7 days.
 - If blood or blood products or fat emulsions are administered change tubing every 24 hours.
 - If propofol is administered, change tubing every 6-12 hours or when the vial is changed.

Promptly remove unnecessary central lines

- Perform daily audits to assess whether each central line is still needed.

For Healthcare Organizations:

- Educate healthcare personnel about indications for central lines, proper procedures for insertion and maintenance, and appropriate infection prevention measures.
- Designate personnel who demonstrate competency for the insertion and maintenance of central lines.
- Periodically assess knowledge of and adherence to guidelines for all personnel involved in the insertion and maintenance of central lines.
- Provide a checklist to clinicians to ensure adherence to aseptic insertion practices.
- Reeducate personnel at regular intervals about central line insertion, handling and maintenance, and whenever related policies, procedures, supplies, or equipment changes.
- Empower staff to stop non-emergent insertion if proper procedures are not followed.
- Ensure efficient access to supplies for central line insertion and maintenance (i.e. create a bundle with all needed supplies).
- Use hospital-specific or collaborative-based performance measures to ensure compliance with recommended practices.

Supplemental strategies for consideration:

- Antimicrobial/Antiseptic impregnated catheters
- Antiseptic impregnated caps for access ports

