

**LAC+USC MEDICAL CENTER
DEPARTMENT OF INFECTION PREVENTION AND CONTROL
POLICIES AND PROCEDURES**

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Policy No.
IPC-12

Subject:
Central Line Associated Bloodstream Infection (CLABSI) Prevention

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Departments Consulted:

Critical Care
Nursing Services
DHS CLABSI Core Team

Reviewed & Approved By:

Paul Holtom MD, Hospital Epidemiologist
Noah Wald-Dickler MD, Associate Hospital Epidemiologist
Chair and Vice-Chair, Infection Control Committee

Approved By:

Brad Spellberg, MD
Chief Medical Officer

PURPOSE

To assist LAC+USC Medical Center healthcare workers in implementing evidence-based strategies to minimize the risk of central line associated blood stream infections (CLABSI) and associated deaths in hospital inpatient settings.

POLICY

CMS and State Law mandate, and LAC+USC Medical Center has adopted, implementation of an organized process to reduce CLABSI by following evidence-based best practices known as the “Institute for Healthcare Improvement (IHI) Central Line Bundle”. This policy outlines those practices.

PROCESS

Implement the Central Line Bundle for all patients undergoing a procedure for central line insertion and maintenance. The Central Line Associated Blood Stream Infection IHI Bundle is a group of evidence-based interventions for patients with indwelling central venous catheters that, when implemented together, result in better outcomes than when implemented individually. The *Preparation Checklist for Central Line Insertion Practices* is available on central line carts to guide clinicians on key components of the Central Line Bundle.

The key components of the Central Line Bundle include:

Hand Hygiene

The most important and effective way to prevent the spread of infection is through hand hygiene. Perform hand hygiene prior to catheter insertion or manipulation. Follow hospital hand hygiene policy guidelines as outlined in the Hand Hygiene Policy.

Aseptic Technique

Maintain aseptic technique during insertion or replacement of intravascular catheters. The use of aseptic technique includes the use of maximal barrier precautions (cap, mask, sterile gown, sterile gloves and a full sterile drape) during insertion of Central Venous Catheter (CVC), and Peripherally Inserted Central Catheter (PICC).

Skin Antisepsis Prior to Insertion

Chemical skin antisepsis is important to reduce the microbial count on skin to prevent endogenous sources of skin and line contamination. The skin preparation agent must be completely dry at the time of first puncture. Chlorhexadine is currently used as the skin antisepsis agent for adult patients while betadine is used in neonatal ICU patients or as indicated in an area’s Unit Standards.

Optimal Catheter Site Selection

Select the catheter, insertion technique, and insertion site with the lowest risk for complications for the anticipated type and duration of IV therapy. Whenever possible, the femoral vein site should be avoided for central venous access in adult patients.

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	Executive Director's Initials:	

Daily Review and Documentation of Central Line Necessity

Medical record documentation of indication for all central lines is required with prompt removal of unnecessary lines at earliest feasible time.

Catheter Management Strategies

- Use sterile gauze or sterile, transparent, semipermeable dressings to cover catheter insertion sites. Refer to Nursing Central Venous Catheter (CVC) Protocol.
- Cap port sites using approved antiseptic-impregnated port protectors when not in use
- Replace catheter site dressings when damp, loosened or soiled as per CVC Protocol.
- Have all necessary supplies at the bedside during central line insertion and maintenance
- Provide training and education to ensure compliance with CLABSI prevention procedures

SURVEILLANCE METHODOLOGY

Data for CLABSI rates and incidence, including corresponding denominator data, are collected by the Department of Infection Prevention & Control (IPC) using prospective surveillance of all patients who have central lines. Infection Preventionists actively monitor CLABSI's and other hospital-acquired infections during patients' hospitalization and after discharge by screening a variety of data sources including microbiology reports, line and catheter count reports, and clinical documentation in the electronic medical record. Each confirmed CLABSI case is reviewed with the Unit Director and Patient Safety Officer.

REPORTING

All identified CLABSI cases are reported to the state via the US Centers for Disease Control's (CDC) National Healthcare Safety Network (NHSN). NHSN is a voluntary, secure, internet-based surveillance system integrating patient and healthcare personnel safety surveillance systems managed by the CDC's Division of Healthcare Quality Promotion (DHQP).

As with other hospital-acquired infections, CLABSI's are identified and reported using the definitions provided by NHSN.

All identified CLABSI cases are also compiled and reported on a monthly basis to the Infection Control Committee, an organized committee of the Attending Staff Association. Trends, including any unit-based patterns, are analyzed and targeted for specific intervention.

REFERENCES

1. CA Senate Bill 739, State Legislation Infection Prevention and Reporting
2. The Joint Commission Standard, NPSG.07.05.01
3. Association for Professionals in Infection Control and Epidemiology (APIC) Guide to the Elimination of Catheter-Related Blood Stream Infections
4. Centers for Disease Control and Prevention / NHSN Guideline
5. DHS CLABSI CORE Team
6. SHEA/IDSA/APIC Strategies to prevent CLABSIs in acute-care hospitals: 2022 Update. *Infection Control and Hospital Epidemiology*(2022) 1-17.