



Manage Your Line



*Increase your team's competence and confidence[®]
in central line management.*



SIMSUITE[®]
MEDICAL SIMULATION CORPORATION

Central Line Management

Each year, an estimated 250,000 cases of central line-associated bloodstream infections (CLABSI) occur in hospitals in the United States. The SimSuite Central Line Management Program provides guidance on catheter insertion and management best practices to help prevent central line bloodstream infections in hospitals. The program includes a Web-based course for nurses and providers as well as a hands-on skills and simulation workshop that allows participants to practice patient care and ultrasound-guided central line insertion techniques.

Web-based Course

The Web-based Central Line Management course is designed to educate participants on the evidence-based best practices for prevention of CLABSI. The course focuses on nursing care of the central line insertion site, based on the IHI Central Line Bundle. Additional content for providers highlights best practices in ultrasound-guided central line insertion techniques. The Web-based course can be taken online, anytime, anywhere, and prepares participants for the Central Line skills and simulation workshop. *Approximate time for completion: 1 hour.*

Skills and Simulation Workshop

The Central Line Management Skills and Simulation Workshop allows participants to put the IHI Central Line Bundle guidelines into practice in a safe and risk-free environment. Simulation training includes two realistic patient care scenarios presented on a human patient simulator that highlight the management of patients with central lines and recognition of complications associated with central lines.

The skills component of the workshop includes a Central Line Insertion video tutorial, and allows participants to practice ultrasound-guided central line insertion techniques using SonoSite® ultrasound technology and an internal jugular/subclavian vein anatomical model. The skills component focuses on central line insertion techniques that may help minimize the incidence of infection. This skills practice does not provide certification to practitioners on central line insertion procedures and is not intended to replace proctored procedures. It is intended to provide an avenue for which clinicians can practice and hone their skills. *Approximate time for completion: 3 hours.*

MSC offers several options for the delivery of the Central Line Management skills and simulation workshop:

- Comprehensive training tool kit
- Train-the-Trainer events
- Full-service training events

Participants and Training Objectives

The goal of this program is to increase and reinforce the competence and confidence of all healthcare team members who administer or assist in central venous catheter insertion and those who care for patients with central venous catheters. Participants may include new and advanced ICU nurses, nurse practitioners, physician assistants, residents, and attending physicians.

After completing the program, participants should be able to:

- Identify indications and contraindications for placement of central venous catheters and peripherally inserted central lines.

- Select the five key components of the Central Line Bundle as defined by the IHI.
- Interrelate the key factors associated with the prevention of CLABSI to all areas of catheter management, including insertion, maintenance, and removal.
- Select the key procedural steps related to the insertion of central venous catheters.
- Distinguish between signs and symptoms of central line-related complications.
- Identify anatomical landmarks associated with site selection for central line placement.*
- Interrelate anatomical landmarks, location, and ultrasound-guided central line placement.*
- Differentiate between the most commonly used central line catheters.†

*Physician/provider-specific content

†Nurse-specific content

Benefits

- Documentation of staff competence and compliance
- Consistent training across all staff
- Integration into Quality Improvement Programs
- Establishment of protocols
- Program based on guidelines, tools, and research from the Centers for Disease Control (CDC) and Institute for Healthcare Improvement (IHI)
- Web-based course approved by the Association of periOperative Registered Nurses, Inc., for 1.5 contact hours. AORN is an accredited approver by the American Nurses Credentialing Center's Commission on Accreditation.

Clinical Applicability

Reducing rates of central line-associated bloodstream infections represents significant potential cost savings and improvement in patient safety for healthcare organizations.

- CLABSI is associated with an estimated attributable mortality of 12 to 25 percent, representing a marginal cost of approximately \$25,000 per episode.¹
- 48 percent of intensive care unit (ICU) patients have central venous catheters, accounting for about 15 million central-venous-catheter-days per year in ICUs.²
- Nosocomial bloodstream infections prolong hospitalization by an average of seven days.³

References:

¹www.cdc.gov/MMWR/preview/mmwrhtml/mm5440a2.htm

²www.ihl.org/NR/rdonlyres/BF4CC102-C564-4436-AC3A-0C57B1202872/0/CentralLinesHowtoGuideFINAL720.pdf

³Soufir L, et al. "Attributable Morbidity and Mortality of Catheter-Related Septicemia in Critically Ill Patients: A Matched, Risk-Adjusted, Cohort Study." *Infect Control Hospital Epidemiology*. 1999 Jun; 20 (6):396-401.

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