



NYS PARTNERSHIP FOR PATIENTS GUIDING PRINCIPLES

FOR REDUCING CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS



INNOVATE

Test innovative interventions aimed at reducing all patient harm, with a particular focus on reducing harm from central venous catheters by both reducing insertion of central lines and removing them when no longer medically necessary.

- Implement and monitor a central line insertion and maintenance bundle that includes (but is not limited to) the following elements:
 - Insertion:
 - Hand hygiene.
 - Maximum barrier precautions.
 - Skin preparation with > 0.5% chlorhexidine with alcohol.
 - Optimal site selection, avoiding femoral site where possible.
 - Maintenance:
 - Hand hygiene.
 - Dressing change.
 - Aseptic technique for accessing and changing needleless access device.
 - Ensuring access device hub is cleaned with alcohol or chlorhexidine solution prior to access; “scrub the hub” for a recommended time frame of 15 seconds.
- Standardized tubing change.
- Daily review of central line necessity.
- Create a dedicated central line insertion and maintenance team.
 - Involve the central line team in daily care rounds and empower them to advocate for removing central lines as medically appropriate.
- Implement ultrasound-guided insertion techniques as standard practice, especially for internal jugular (IJ) line placement.
- Encourage review of medical necessity, particularly at transitions of care between emergency department (ED), operating room (OR), intensive care unit (ICU), and floors.
- Consider specialized equipment to reduce risk of CLABSI (e.g., anti-biotic-impregnated caps for needleless access device, sliver-impregnated lines, etc.)
- Consider focusing on improving care in patients with peripherally inserted central catheter (PICC) lines transitioning from the acute care setting to home with home care to reduce CLABSIs and monitor care across the continuum.



ENGAGE

Target total stakeholder engagement from leadership and all clinical staff to reduce harm from indwelling central venous catheters.

- Ensure senior administrative and clinical leadership support for reducing CLABSIs.
- Create an interdisciplinary CLABSI reduction team, including nursing and physician unit or department champions.
- Engage patients and family members in protecting and maintaining the central line insertion site.
 - If the patient is going home with a central line, use the “teach back” method to ensure the patient and family understand how to access and manage the line.
- Engage all staff in CLABSI reduction efforts through a hospital-wide awareness educational campaign aimed at strict adherence to CLABSI insertion and maintenance bundles using:
 - Posters and screen savers;
 - Central venous catheter insertion tray stickers; and
 - Order sets.
- Consider engaging with home care clinicians to ensure patients leaving the acute care setting with PICC lines and going home with home care are provided with quality care across the continuum.



INTEGRATE

Build best practices for inserting and maintaining central venous catheters into the standard workflow.

- Ensure central line insertion trays are easily accessible in all clinical areas.
- Test and incorporate triggers for reviewing medical necessity of central lines aimed at early discontinuation. Review should occur at a minimum daily. Triggers could include (but are not limited to):
 - Reminders built into the EHR;
 - Daily rounding discussions and documentation;
 - Shift hand-off;
- Reminders on white boards and bedside tools; and
- Daily goals sheets.
- Involve central line team in care rounds as a standard practice and empower them to advocate for removing central lines, as medically appropriate.
- Test specialized alternative equipment to reduce CLABSI (e.g., antibiotic impregnated caps for needleless access device, sliver impregnated lines, etc.) and ensure staff feedback is incorporated into buying decisions.



HARDWARE

Standardize policies and practices to reduce harm from central venous catheters.

- Standardize the insertion tray and dressing change kit—instructions should contain key evidence-based best practices.
- Build internal, standardized systems to routinely capture and disseminate data to staff on adhering to central line insertion and maintenance bundles, utilization rates, and CLABSI rates.
 - Conduct a root cause analysis for CLABSI infections (inside and outside of the ICU setting) to identify adherence to insertion and maintenance bundles.
- Build central venous catheter insertion and maintenance bundle and protocols into the EHR, and ensure the same protocol and equipment are available throughout the hospital (i.e., same equipment and protocols in ICU, radiology, OR, medical floors, and emergency department).
- Provide regular staff education to integrate central venous catheter insertion and maintenance protocols into daily workflow.
 - Provide training and education on central line insertion and maintenance protocols and CLABSI prevention bundles at resident and physician orientation and annual review and refresher courses.
 - Embed the principle of “no lines, no infection” in all care delivery areas by ensuring that patients meet criteria for the central line and by reinforcing proper insertions and earliest removal of centrally inserted venous catheters.
 - Embed a “zero tolerance” approach to CLABSIs for all levels of staff, beginning with leadership, and engraining this way of thinking in front line staff.