

Central Line Associated Blood Stream Infection (CLABSI) Prevention Strategies

Component of SAFE HAI 2.0 Roadmap

Note: some recommendations may not apply to well healed tunneled and implanted devices

CORE Prevention Strategies = Strategies that should always be in place.

ENHANCED Prevention Strategies = Strategies to be considered in addition to core strategies when:

- a) There is evidence that the core strategies are being implemented and adhered to consistently.
- b) There is evidence that CLABSI rates are not decreasing.

| Gap Analysis Questions | Yes | No | If answered question "No" – identify the Specific Action plan(s) including persons responsible and timeline to complete. |
|---|--------------------------|--------------------------|--|
| Patient education | | | |
| The facility has a process in place to: | | | |
| 1a) Educate the patient/family about their central line, such as what a catheter-associated bloodstream infection is, what the health care personnel (HCP) and prescribers are doing to prevent an infection, and what the patient can do to help prevent an infection. | <input type="checkbox"/> | <input type="checkbox"/> | |
| 1b) Encourage patients to report any new changes or discomfort in their catheter site. | <input type="checkbox"/> | <input type="checkbox"/> | |
| 1c) If the patient is to be discharged with a central line in place, the patient has been educated on how to care for the catheter and symptoms of infection, using teach back method to ensure patient's understanding. | <input type="checkbox"/> | <input type="checkbox"/> | |
| Insertion | | | |
| The facilities core prevention strategies for central line insertion practices include: | | | |
| 2a) Hospital policy includes standardized indications for central line placement. | <input type="checkbox"/> | <input type="checkbox"/> | |
| 2b) Hospital policy requires the use of an insertion checklist and a two person insertion where one person is designated as the observer. | <input type="checkbox"/> | <input type="checkbox"/> | |
| 2c) Use ultrasound guidance to place central lines when possible, using sterile sleeve over ultrasound. | <input type="checkbox"/> | <input type="checkbox"/> | |
| 2d) Optimal catheter site selection, with avoidance of the femoral vein when possible, for central venous access in adult patients is reviewed prior to insertion. | <input type="checkbox"/> | <input type="checkbox"/> | |
| 2e) The avoidance of the subclavian site in hemodialysis patients and patients with advanced kidney disease, to prevent subclavian vein stenosis. | <input type="checkbox"/> | <input type="checkbox"/> | |
| 2f) Consider the use of a fistula or graft in patients with chronic renal failure instead of a CVC for permanent access for dialysis. | <input type="checkbox"/> | <input type="checkbox"/> | |
| 2g) Use of a CVC with the minimum number of ports of lumens to manage the patient | <input type="checkbox"/> | <input type="checkbox"/> | |
| 2h) Hand hygiene using an antimicrobial soap or alcohol based hand sanitizer. | <input type="checkbox"/> | <input type="checkbox"/> | |
| 2i) Use of maximal staff barrier precautions by all staff directly involved including the use of sterile gloves, sterile gown, cap, mask and large sterile drape. | <input type="checkbox"/> | <input type="checkbox"/> | |
| 2k) Use of a chlorhexidine (CHG) and isopropyl alcohol skin antiseptic (IPA). If there is a contradiction due to age or allergy use tincture of iodine, an iodophor or 70% alcohol. | <input type="checkbox"/> | <input type="checkbox"/> | |
| 2l) Apply antiseptic solution with scrub time, motion, and drying time according to manufacturers recommendations. | <input type="checkbox"/> | <input type="checkbox"/> | |
| 2l) Ensure that catheter is secured. | <input type="checkbox"/> | <input type="checkbox"/> | |
| 2m) Use sterile gauze, or sterile transparent, semi-permeable dressing to cover the catheter site. | <input type="checkbox"/> | <input type="checkbox"/> | |
| 2n) When catheters are inserted during a medical emergency in which adherence to aseptic technique cannot be ensured, replace the catheter within 48 hours when possible. | <input type="checkbox"/> | <input type="checkbox"/> | |

| Gap Analysis Questions | Yes | No | If answered question “No” – identify the Specific Action plan(s) including persons responsible and timeline to complete. |
|---|--|--|--|
| <p>The facilities enhanced prevention strategies for central line insertion practices include:</p> <p>2o) Use of chlorhexidine/silver sulfadiazine or minocycline/rifampin-impregnated CVC in patients whose catheter is expected to remain in place >5 days if, after successful implementation of a comprehensive strategy to reduce rates of CLABSI, the CLABSI rate is not decreasing.</p> <p>2p) Use prophylactic antimicrobial lock solution in patients with long term catheters who have a history of multiple CRBSI despite optimal maximal adherence to aseptic technique.</p> <p>2q) Use a CHG-impregnated sponge dressing for temporary, short term catheters in patients older than 2 months of age.</p> | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | |

Access/maintenance

| | | | |
|---|--|--|--|
| <p>Central line care and maintenance practices include:</p> <p>3a) Use of sterile gauze, or sterile transparent, semi-permeable dressing to cover the catheter site.</p> <p>3b) At least daily review of site for signs and symptoms of infection.</p> <p>3c) Standardized dressing change policies according to an accepted nursing skills procedure manual.</p> <p>3d) Define dressing change frequency</p> <ul style="list-style-type: none"> • Transparent dressing change every 7 days, gauze dressing change every 48 hours. • If possible, change central line when 2 or more unintended dressing disruptions occur. <p>3e) Replacement of the dressing if it becomes damp, loosened, or visibly soiled.</p> <p>3f) Expectations that the catheter or catheter site is not submerged in water (showering should be permitted if precautions can be taken to reduce the likelihood of introducing organisms).</p> <p>3g) Standardized access policies (e.g., scrub the hub for at least 10 seconds, alcohol impregnated caps, etc.</p> <p>3h) Replace administration sets that are continuously used, including secondary sets and add-on devices, at least every 7 days but no more frequently than every 4 days.</p> <p>3i) For patients receiving blood, blood products, fat emulsions, replace tubing used to administer blood, blood products, or continuous infusions of propofol or Ativan, consult with pharmacy or bloodbank for guidance on administration set change frequency.</p> <p>3j) For intermittent infusions, change administration sets q24h.</p> <p>3k) Daily CHG neck to toe bathing, avoiding mucous membranes.</p> <p>3l) Critical central line information is shared upon transfer to another unit or care setting, including:</p> <ul style="list-style-type: none"> • date of insertion • location of catheter • type of central venous catheter (temporary non-tunneled, tunneled, dialysis) • whether inserted under sterile conditions • dressing change due date • copy of placement confirmation x-ray if available <p>3m) X-ray confirmation of site termination for patients admitted with a non-tunneled, temporary central line.</p> <p>The facility has a process for:</p> <p>3n) Daily review of line necessity.</p> <p>3o) Prompt removal of unnecessary catheters.</p> <p>3p) Standardized central line removal protocol according to an accepted nursing skills procedure manual.</p> | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | |
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| Specific Action(s) | Gap Analysis Questions | Yes | No | If answered question "No" – identify the Specific Action plan(s) including persons responsible and timeline to complete. |
|---|--|--|--|--|
| Documentation | | | | |
| | Required documentation in the medical record includes: 4a) Indications for central line insertion 4b) Type of catheter and tip location 4c) Date and time of insertion/removal 4d) Daily review of continued need for central line use 4e) Ongoing central line maintenance, including site inspection for signs of infection and dressing changes. 4f) Daily CHG bathing 4g) Date of last dressing change and/or next dressing change due 4h) Patient and family education provided 4i) Names of all staff providing catheter care | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | |
| Performance improvement monitoring | | | | |
| | Performance improvement monitoring includes: 6a) Observation monitoring of every central line insertion using an insertion checklist. 6b) Development of insertion and maintenance process measures. 6c) Communicate progress on outcome and process measures to staff and providers regularly. | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | |
| Staff education | | | | |
| | 6a) The facility has a process to ensure that the individual(s) inserting central venous catheters are qualified and trained in central line insertion. 6b) Education for staff caring for patients with central lines is provided at orientation which includes, at a minimum: <ul style="list-style-type: none"> • Appropriate adherence to aseptic technique • Daily review and Identification for removal of catheters that are no longer needed • Adherence to hand hygiene • Proper maintenance of catheters • Proper removal of catheter • Teamwork/communication tools 6c) Staff caring for patients with central lines receive annual education 6d) Consider the use of ongoing central line insertion competency assessments | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | |

