Central Line Associated Blood Stream Infection (CLABSI) Prevention Strategies

A gap analysis is a tool used to assess the difference between actual practice and expected performance. It is useful to compare best practice guidelines against your currently accepted practices. It is important to assess practice through observation and audit rather than relying on if a policy is in place, as practice can vary from policy.

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 CLARSI rates are not decreasing.

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 and Family Education							
The facility has a process in place to: 1a) Educate the patient/family about their central line, including risks of the device such as 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. If Patient and Family Advisory Committee available, consider having them review educational materials prior to publication 1b) Encourage patients to report any new changes or discomfort in their catheter site. 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. 							
Insertion							
The facilities core prevention strategies for central line insertion practices include: 2a) Hospital policy includes standardized indications for central line placement. 2b) Hospital policy requires the use of an insertion checklist and a two person insertion where one person is designated as the observer. [2, 3] 2c) Use ultrasound guidance to place central lines when possible, using sterile sleeve over ultrasound. [2, 3] 2d) Optimal catheter site selection, with avoidance of the femoral vein, for central venous access in adult patients is reviewed prior to insertion. 2e) The avoidance of the subclavian site in hemodialysis patients and patients with advanced kidney disease, to prevent subclavian vein stenosis. 2f) Consider the use of a fistula or graft in patients with chronic renal failure instead of a CVC for permanent access for dialysis. [4] 2g) Use of a CVC with the minimum number of ports of lumens to manage the patient 2h) Hand hygiene using soap or alcohol based hand sanitizer. 2i) Use of maximal barrier precautions by all staff directly involved including the use of sterile gloves, long sleeve sterile gown, cap, mask and large sterile drape. 2k) Use of a 0.5% 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. 2l) Apply antiseptic solution with scrub time, motion, and drying time according to manufacturers recommendations. 2l) Ensure that catheter is secured. 2m) Use sterile gauze, or sterile transparent, semi-permeable dressing to cover the catheter site. 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.							

Gap Analysis Questions	Y	/es	No	If answered question "No" – identify the Specific Action plan(s) including persons responsible and timeline to complete.		
The facilities enhanced prevention strategies for central line insertion practices inc 20) 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	ıl					
 is not decreasing. 2p) Use prophylactic antimicrobial lock solution in patients with long term catheters who have a history of multiple CRBSI despite optimal maximal adherence to asepti technique. [4] 						
2q) Use a CHG-impregnated dressing with FDA-cleared label that specifies a clinical indication for reducing vascular access device associated bloodstream infection for temporary, short term catheters in patients older than 2 months of age.						
Access/Maintenance						
Central line care and maintenance practices include:						
3a) Use of sterile gauze, or sterile transparent, semi-permeable dressing to cover the catheter site.						
3b) At least daily review of site for signs and symptoms of infection.3c) Standardized dressing change policies according to an accepted nursing skills procedure manual.						
3d) Define dressing change frequency						
 Transparent dressing change every 7 days, gauze dressing change every 48 hour If possible, change central line when 2 or more unintended dressing disruptions occur. 						
 3e) Replacement of the dressing if it becomes damp, loosened, or visibly soiled. 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 introdu organisms).	ucing					
3g) Standardized evidence-based policies (e.g., scrub the hub for at least 10 seconds, alimpregnated caps, etc.						
3h) Replace administration sets that are continuously used, including secondary sets a add-on devices, at least every 7 days but no more frequently than every 4 days.	and					
3i) For patients receiving blood, blood products, fat emulsions, replace tubing used to						
administer blood, blood products, or continuous infusions of propofol or Ativan, cor with pharmacy or bloodbank for guidance on administration set change frequency						
3j) For intermittent infusions, change administration sets q24h.3k) Daily CHG neck to toe bathing, avoiding mucous membranes. [4]						
3l) Critical central line information is shared upon transfer to another unit or care setti including:						
· 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 3m) X-ray confirmation of site termination for patients admitted with a non-tunneled, 						
temporary central line.						
The facility has a process for: 3n) Daily review of line necessity.						
3o) Prompt removal of unnecessary catheters.						
3p) Standardized central line removal protocol according to an accepted nursing skills procedure manual.						

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 • Remove when mechanical complications cannot be resolved, infusion therapy has been discontinued, or when no longer necessary for the plan of care. [2] 4e) Ongoing central line maintenance, including site inspection for signs of infection and dressing changes.				
4f) Daily CHG bathing4g) Date of last dressing change4h) Patient and family education4i) Names of all staff providing of				
	Monitoring and Evaluation			
 6b) Development of insertion an 6c) Communicate progress on o regularly. 6d) Conduct audits of indication 6e) Conduct CLABSI surveillance Healthcare Safety Network (I 	nitoring includes: very central line insertion using an insertion checklist. d maintenance process measures. utcome and process measures to staff and providers selected with available clinical information using standardized methodology such as National			
6g) Process measures, evaluated central line insertion practice central line utilization by uni	feedback to patient care staff including: on a regular basis (e.g., line indications, compliance with es, compliance with central line maintenance practices, ts/areas [such as the emergency department]. ed on a regular basis (e.g., CLABSI rates, days since last in rates) [1,4].			
	Staff Education			
7a) The facility has a process to e	ensure that the individual(s) inserting central venous			
catheters are qualified and t 7b) Education for staff caring for includes, at a minimum: · Appropriate adherence to · Daily review and Identifica · Adherence to hand hygier · Proper maintenance of ca · Proper removal of cathete · Teamwork/communicatio 7c) Staff caring for patients with	rained in central line insertion. patients with central lines is provided at orientation which asseptic technique ation for removal of catheters that are no longer needed ne theters r			
	Infrastructure			
and guide CLABSI prevention e 8a) Identifying a CLABSI champi	on that reports to an interdisciplinary performance ported by leadership, physicians and nursing			

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