



CEYLON COLLEGE OF
CRITICAL CARE
SPECIALISTS

**GUIDELINES ON ICU
INFECTIONS 01**

CARE OF CENTRAL LINES

JUNE 2021 - VERSION 01



CARE OF CENTRAL LINES

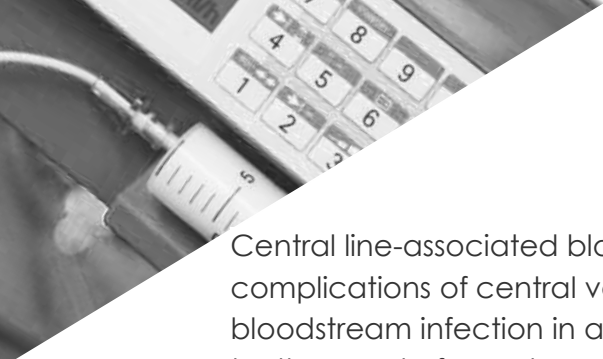
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Central line-associated bloodstream infection is one of most serious and common complications of central venous catheters. It is defined as a laboratory-confirmed bloodstream infection in a patient with a central line at the time of, or within 24-h prior to, the onset of symptoms, in cases where the cultured organism is not related to an infection from another site. However, prevention of that serious complication by adhering to central line care bundle is of utmost importance.

1. Hand hygiene before and after catheter insertions or manipulation.

- Use liquid soap
- 6 stage hand washing technique
- Dry hands with a sterile cloth

2. Site selection

- RIJ is first choice
- Avoid femoral site as much as possible

3. US guidance

- US guided vascular localization is compulsory
- Clean the probe before procedure
- Always scan & confirm the suitability of the site prior to procedure
- Improvised glove barrier with gel inside
- Sterile probe cover
- Do not apply unsterile gel on site
- Clean the probe again after the procedure

4. Skin preparation

- 1st line; 2% chlorhexidine
(2nd line; Povidone iodine)
- 30 second scrub
- (2 minutes if groin)
- 1 minute to dry

5. Full barrier precautions during insertion

- Non-sterile cap and mask
- All hair should be under cap
- Mask should cover nose & mouth tightly
- Sterile gown and gloves
- Fully cover the patient with sterile drape

6. Selection of appropriate catheter and technique

- Catheter with minimum number of lumens needed
- 16 cm catheter for RIJ and 20 cm catheter for LIJ
- Avoid subclavian route for dialysis catheter insertion when possible.
- Use Seldinger technique and make sure guidewire is removed



7. Documentation

- CVC insertion record should be filled by the operator
- Insertion date should be clearly documented
- Imaging should be ordered to confirm location and exclude complications

8. Hub care

- Clean needleless connector/hub before every access with 70% alcohol
- Perform at least 10 "scrubs" in a motion similar to juicing an orange
- changing needleless connectors
 - ✓ With tubing change
 - ✓ As needed if occluded or if visible blood or debris is seen in or on connector
 - ✓ Every 96 hrs if not being accessed
 - ✓ Prior to drawing blood cultures

9. Site care

- Line should be well secured (silk/vicryl/nylon)
- Transparent dressing should be applied
- Timing of dressing change
 - ✓ Any dressing that is damp, loose, or soiled Immediately
 - ✓ Transparent dressing Every 7 days
 - ✓ Gauze dressing Every 48 hours

10. Tubing care

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- Replace tubing used to administer propofol infusions every 6 or 12 hours, when the vial is changed
- Replace tubing used to administer blood, blood products, or fat emulsions within 24 hours
- not receiving blood, blood products or fat emulsions, replace administration sets that are continuously used, including secondary sets and add-on devices, no more frequently than at 96-hour intervals
- Dedicated line for TPN when indicated

11. Screening for infections

- Catheter tip for sampling should be sent only when indicated (routine practice is discouraged)
- Blood for cultures from central lines should always accompanied by sample from a peripheral stab
- Blood taken for cultures during the insertion of central line is considered as a peripheral sample

12. Removal of CVC

- Assess the need for the catheter each day and remove ASAP
- Remove or change the catheters inserted in wards at earliest
- Always remove central lines before sending patients to wards.