VUMC Recommendations for Insertion and Management of Central Venous Access Devices (CVADs)

CVAD Insertion		Insertion Site Care	CVAD Access	CVAD Discontinuation
Preparation	**Procedure**			
Educate Patient/Family about CLABSI prevention and obtain informed consent.	Prep site with chlorhexidine (CHG); allow to dry before procedure starts. Place sterile full body drape over patient.	Assess insertion site and catheter each shift.	Minimize CVAD access; bundle the collection of multiple lab tests to a single CVAD access when possible.	Remove CVAD when no longer medically necessary and when an alternative IV access (e.g. peripheral IV) can serve the patient's needs.
Obtain all supplies before beginning insertion procedure.	After insertion, a transparent CHG-impregnated dressing is placed, maintaining sterility of the insertion site.	Report abnormal findings to physician or designee.	Perform hand hygiene before accessing CVAD.	Daily evaluation by primary care team re: CVAD necessity.
Perform hand hygiene before procedure.	Confirm CVAD placement before use. X-ray is preferred except in emergent situation or intraoperatively, where it may be deferred. If deferred, confirm placement via US, fluoroscopy, waveform analysis, or blood gas analysis.	Daily evaluation by primary care team re: CVAD necessity.	Scrub to disinfect access port with an alcohol or CHG prep pad using a twisting motion 5 times around the threads and scrubbing 5 times across the septum. Allow to dry before accessing.	Guidewire exchange of CVAD follows same procedures as CVAD insertion.
Perform time-out.		Change dressings at regular intervals (Q7d for transparent, q48hrs if gauze).		Trained staff discontinue CVADs.
Proceduralist(s) wears cap, mask, sterile gloves, sterile gown. Those not directly in contact with the sterile field wear cap and mask.	When adherence to aseptic technique cannot be ensured (i.e., when catheters are inserted during a medical emergency), replace all catheters as soon as possible and after no longer than 48 hours. Lines placed at outside facilities are considered for replacement.	Change dressing if damp, soiled or non-occlusive.	Only draw blood cultures from CVAD with physician order for collection from CVAD. Cultures may be obtained from newly placed devices before drape is removed.	Routine CVAD replacement is not recommended for prevention of CLABSI.
Nursing personnel is present before and during the procedure to facilitate timeout, assist with preparation, and monitor compliance with sterile technique.		Perform dressing changes as a sterile procedure.	Collect blood cultures from CVAD only to determine if CVAD is source of bacteremia.	Avoid guidewire exchange to replace CVADs in patients suspected of having catheter-related infection.
Site selection is based on patient needs and condition. Femoral placement in adults is avoided.	After 3 attempts at placement or before changing sites, a second proceduralist is consulted.		Change soiled, leaking, potentially contaminated hub caps.	
Ultrasound is used for guidance prior to or during IJ placement, and may be used to evaluate other vessels prior to line placement.	Tunneled or implanted devices are inserted in designated procedural areas in compliance with standards applicable to those areas.		Change tubing, needleless devices, and fluid as specified by policy (CL 30-07.01).	

Monitor compliance with elements of insertion, care, access, and discontinuation.
Any member of the team is obligated to identify and ensure correction of any deviation or potential deviation from these standards.

CLABSI = Central line-associated bloodstream infection; CVAD = central venous catheter (includes temporary central lines, PICCs, tunneled catheters, etc)