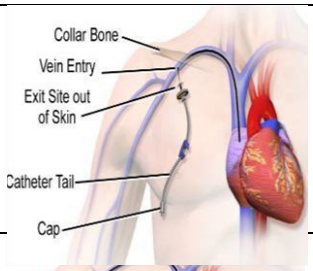
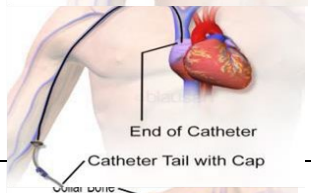
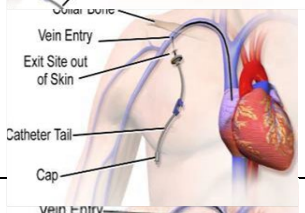
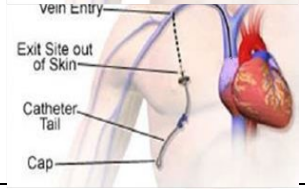
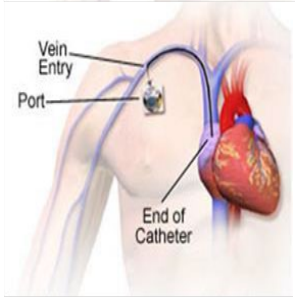
CENTRAL VENOUS CATHETER ACCESS DEVICE (CVAD) MANAGEMENT

This LOP is developed to guide clinical practice at the Royal Hospital for Women. Individual patient circumstances may mean that practice diverges from this LOP.

Introduction

DEFINITIONS OF TYPES & SITES

CVAD may also be called a Central Venous Line or Central Venous Catheter (CVC) and may be single, double, triple or quadruple lumen catheters which are tunnelled or non- tunnelled and intended for short term (PICC, Jugular/Femoral CVC) or Long term (Tunnelled Catheters and Implanted Venous Ports) use.

Centrally inserted Central Venous Access Device (CICVAD) which have a skin entry point in the neck or trunk. (Vascath, Hickman, Jugular CVC)	
Peripherally inserted central catheters (PICC) which have a skin entry point on a limb	
Non-Tunnelled CVAD - the catheter insertion and exit points are the same.(Jugular/Femoral CVC, Non-Tunnelled Vascath, PICC)	
Tunnelled CVAD - the catheter is inserted through one point and then "tunnelled" under the skin to a remote exit point. These catheters are for long term use (Hickman, Tunnelled Vascath and Apheresis Catheter).	
Implanted Venous Port is a device which is placed under the skin. The port body is a hollow housing of plastic, stainless steel or titanium containing a septum usually produced from self-sealing silicone, connected to a catheter. The catheter is positioned in the central circulation and tunneled to the port body, which is positioned in a subcutaneous pocket. The port septum can be accessed percutaneously using a non-coring needle (also called Port or Port-a-cath).	

CENTRAL VENOUS CATHETER ACCESS DEVICE (CVAD) MANAGEMENT cont'd

OBTAINING COMPETENCE

In order for staff to care for Central Venous Access Devices they must complete the following steps.

- **Central Venous Access Devices: the fundamentals *(92708229)***

Welcome to the eLearning module Central Venous Access Devices: the fundamentals. This module is designed for clinical, nursing and midwifery staff in general clinical areas who are inexperienced in the care and management of CVADs.

- **Central Venous Access Devices or CVADs Workshop (CSK1350)**

2hr workshop offers comprehensive information for clinical staff involved in the management of CVADs. Topics covered include maintenance, complications, reasons for insertion, techniques for removal and policy review.

This program consists of sequenced stages incorporating theory, clinical teaching, supervised clinical practice and assessment of understanding

Clinical education and practice demonstrations are provided by Clinical Nurse Educators or Clinical Nurse Consultants who are content experts in CVAD management

On successful completion of these assessment tools, you will be deemed competent to perform, unsupervised, the procedure in your clinical practice.

- **CVAD Dressing and Swabable Cap less Valve (SCV) Change Assessment Tool (92381360)**

This assessment tool is designed to be used by a site approved Assessor to assess the clinical competency of nursing and midwifery staff in the performance of the procedure 'CVAD dressing and Swabable Cap less Valve (SCV) change.

- **CVAD Intravenous (IV) Administration Set Change Assessment Tool (92382298)**

This assessment tool is designed to be used by a site approved Assessor to assess the clinical competency of nursing and midwifery staff in the performance of the procedure 'CVAD Intravenous (IV) Administration Set change

- **CVAD Removal of Non-Tunneled Assessment Tool (92382007)**

This assessment tool is designed to be used by a site approved Assessor to assess the clinical competency of nursing and midwifery staff in the performance of the procedure 'CVAD - removal of non-tunneled.

CENTRAL VENOUS CATHETER ACCESS DEVICE (CVAD) MANAGEMENT cont'd

INSERTION

See NSW Health PD2019_040 Intravascular access devices (IVAD) – Infection Prevention and Control. https://www1.health.nsw.gov.au/pds/ActivePDSDocuments/PD2019_040.pdf

Accessing an implanted venous port (port-a-cath)

The decision to access or de-access the port is the responsibility of the Registered Nurse or Medical officer in consultation with the treating medical team.

IMMEDIATE POST INSERTION CARE

Immediate observations post insertion include monitoring the CVAD site for leakage, haematoma or haemorrhage and observing the patient for signs of discomfort or alterations in sensation from baseline (prior to procedure) e.g. pt. complains of pain or increased HR. If abnormalities are noted contact MO or activate Clinical Emergency Response call if criteria are met.

If **complications** were experienced during procedure e.g. reduced level of consciousness (LOC), change in blood pressure (BP), pulse oximetry (SpO2) or Heart rate (HR) or if CVAD was **inserted under sedation** the patients vital signs (HR, BP, RR, temp and SpO2) should be monitored every 15 minutes for 1 hour post insertion or as per operation / procedure report and if abnormalities are noted contact MO or activate CERS call if criteria are met.

The line must not be used until the correct anatomical tip position is documented on the CVAD Insertion Record SMR090.200 by the inserter or a MO. A chest x-ray (CXR) is required to confirm the tip is in the correct position.

Where possible the Patient with a CVAD insitu should be given the appropriate CVAD patient information sheet.

ROUTINE REVIEW

Hand hygiene must be performed consistent with current policy prior to and after any manipulation of the CVAD or IV administration sets. This includes but is not limited to:

- Assessment of the line
- Safety checks
- Accessing any lumens or bungs i.e. for administration of drugs or blood sampling

Principles of asepsis must be adhered to whenever the CVAD is accessed. An ANTT must be used. Refer to SESLHDPD271 *Aseptic Technique*

- Complete **Central Venous Access Device (CVAD) Observation Chart** (SEI110.130) each shift
- Daily review should include measurement of external length of catheter to be compared to the initial value documented on the CVAD insertion record. This measurement is from hub to skin entry.

CENTRAL VENOUS CATHETER ACCESS DEVICE (CVAD) MANAGEMENT cont'd

In the event that abnormalities are noted (e.g. erythema, discharge, swelling, migration of length >2cm) initiate immediate review by a Medical Officer (MO) and document in the clinical notes or eMR, see Appendix B troubleshooting

In the event of suspected catheter tip migration greater than 2 cm, a chest x-ray (CXR) is required to confirm the tip is in the correct position never re-advance a migrated CVAD into the vein, stabilise at the current location and escalate to resource personnel for appropriate intervention

Ensure that any interventions for the procedure attended are documented clearly in the clinical notes or eMR

ACCESSING CVAD LUMENS

It is recommended that only syringes with a capacity of ≥ 10mL be used to access a CVAD.

Determine any allergies including drugs, skin cleaning solutions and dressing types.

> If a *Chlorhexidine allergy is identified bungs can be decontaminated with 70% alcohol swabs*

Principles of ANTT must be maintained during any manipulation of the CVAD lumens or bungs. Perform a "hub scrub" using an alcoholic Chlorhexidine wipe and friction in a twisting motion on the hub as if you were juicing a fruit." Recommended time is 20 seconds

If the CVAD is being accessed more than twice a day (other than to flush CVAD), a continuous infusion must be commenced. CVAD continuous infusions should be maintained as closed systems.

After "hub scrub" an additional dry time is required to ensure the CVAD is safe to use, recommended time is minimum 30 seconds to dry or until all solution has evaporated.

All procedures should be coordinated to minimise the number of manipulations to reduce introduction of organisms and catheter related sepsis.

Unused CVAD lumens or lumens that are disconnected from the IV line must be clamped and positive pressure locked at all times to prevent air emboli and back flow of blood.

CENTRAL VENOUS CATHETER ACCESS DEVICE (CVAD) MANAGEMENT cont'd

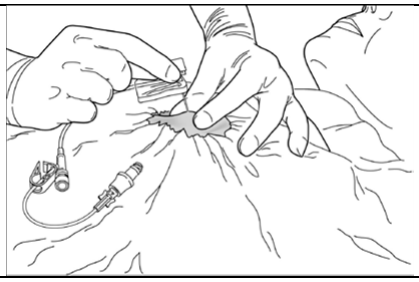
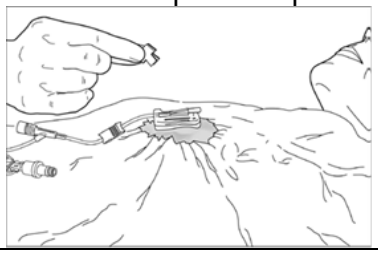
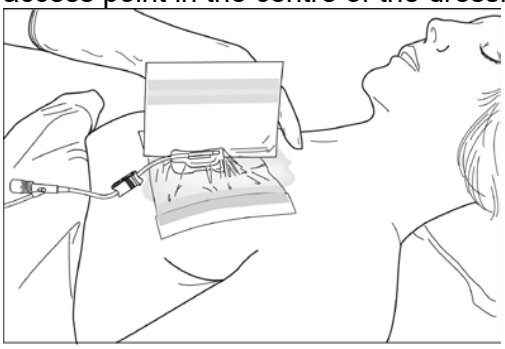
Accessing CVAD Lumen	
Equipment	**Procedure**
Cleaned Trolley	Explain the intended procedure to the patient and obtain verbal consent
Basic dressing pack	Position patient in a comfortable position
Waste bag	Perform hand hygiene put on non-sterile gloves
Personal Protective Equipment (PPE)	Set up equipment as per ANTT principles
Sterile gloves (preferred) / Non-sterile gloves	Prime the new intravenous (IV) administration line(s) (if required)
2% Chlorhexidine Gluconate and 70% v/v Isopropyl Alcohol swabs for decontaminating bungs	Place plastic backed absorbent sheet underneath catheter
Intravenous administration line and Intravenous solution (as charted)	Ensure catheter clamps are locked (where present e.g.: valved catheters do not have clamps insitu)
10mL luer lock syringes (x2 per lumen)	Remove non-sterile gloves perform hand hygiene and put on sterile gloves*
10mL 0.9% sodium chloride ampoules (x2 per lumen)	Maintain ANTT at all times throughout procedure
	Decontaminate the bung with a 2% Chlorhexidine / 70% Alcohol swab using "hub scrub" technique **before use** to remove any particulate matter
	Allow to dry until completely evaporated
	Access line with the syringe using the needle free system
	Unclamp line and aspirate until blood return observed confirming patency
	Flush the lumen with 10 to 20 mL of 0.9% sodium chloride using a pulsatile action
	Connect primed IV line to the bung and commence infusion **or** administer medication as required, flush and positive pressure lock the CVAD
	Discard waste as per NSW Health PD2017_026 *Clinical and Related Waste Management for Health Services*
	Perform hand hygiene
	Label and date intravenous (IV) administration set(s)
	Document

CENTRAL VENOUS CATHETER ACCESS DEVICE (CVAD) MANAGEMENT cont'd

PORT-A-CATH

Access an implanted venous port	
Equipment	**Procedure**
Cleaned trolley	Explain the intended procedure to the patient and obtain verbal consent, gather equipment and position patient to allow access to port without risk of contamination.
Sterile dressing pack	Observe the insertion site for any visible abnormalities such as erythema, warmth, swelling, tenderness and discharge. Attend a swab if any exudate present for MC&S and refer to medical officer for review. Assess the size of non-coring needle required.
Waste bag	Perform hand hygiene,
Plastic backed absorbent sheet	Set up equipment as per ANTT principles, ensure to check injectable solutions with an RN or MO.
Sterile gloves	Perform hand hygiene and don sterile gloves.
2% Chlorhexidine and 70% Alcohol cleaning solution (Chlora-prep)	Draw up injectable solutions in 2 x 10mL syringes
Transparent semi-permeable polyurethane dressing (e.g. OpSite IV 3000® or Tegaderm®)	Clean the area with 2% chlorhexidine and 70% alcohol cleaning solution or (Chlora prep) and allow to dry. Cover an area larger than the approximate size of the dressing to be used. ***NOTE:*** *Receptacles containing skin preparation solution should be removed from the sterile setup following application of the solution to the skin to avoid solutions being administered by the wrong route.*
Right angled non-coring needle (e.g. Huber needle)	**Prepare and prime needle and tubing.** **Note: HUBER NEEDLE –** Attach needless injection ports to both entry ports of the gripper needle extension tubing, prime and clamp.
Tape	Fold the sterile drape in quarters and tear a hole in the centre to create a fenestrated drape. Place the sterile towel over the port with the port visible through the hole
1 x 5mL heparinised saline (50Units/5mL)	Stabilise port with your index finger and thumb.
PPE	Insert needle at a 90° angle to the skin and push until the needle touches the base. **Caution: Do not push too firmly into the base as this will damage the needle causing it to bend'**

CENTRAL VENOUS CATHETER ACCESS DEVICE (CVAD) MANAGEMENT cont'd

Normal Saline (to clean line if blood exudate present)	
Bung (s) for each lumen (Needless injectable ports)	Connect an empty 10mL syringe and aspirate withdrawing 3-5mLs of blood Disconnect the syringe with blood and discard
10mL leur lock syringes (x2 per lumen)	Connect the 10mL syringe with saline and flush and lock the port using a pulsatile motion
1 x 18g needle	Remove the plastic clip for holding 
2 x 10mL 0.9% sodium chloride ampoules or sterile pre-filled 0.9% sodium chloride syringes per lumen	Fold the fenestrated towel downward to expose the area around the port
Discard waste as per institutional policy	Place the dressing over the port, keeping the access point in the centre of the dressing 
	Mould the dressing around the port and onto the skin, to remove as much air pocket as possible
	Remove plastic tabs and place around non-reinforced edges of the dressing to create a window frame.
	If the port is to be used immediately connect a new IV-administration line and fluids.

CENTRAL VENOUS CATHETER ACCESS DEVICE (CVAD) MANAGEMENT cont'd

MAINTENANCE OF ADMINISTRATION SETS.

Administration Set Use	Frequency of Change
Continuous use (NOT containing lipids, blood or blood products)	Do not need to be replaced more frequently than every 96 hours unless device-specific recommendations from the manufacturer indicate otherwise (51). Change intermittent infusion sets without a primary infusion every 24 hours or whenever their sterility is in question (59).
Blood and blood products	Must be changed when the transfusion is complete, or every 12 hours if the transfusion is not complete (60). The maximum number of blood products as per the manufacturer's recommendations has been reached. Any number of red cell units may be transfused during a 12-hour period, provided the flow rate remains adequate (60). Platelets must be transfused via a new blood administration set. Note: Manufacturer's recommendations defining the maximum number of units per blood administration set must not be exceeded.
Lipid containing solutions and parenteral nutrition	Changed every 24 hours or as recommended by the manufacturer.
Lipid containing medications (e.g. Propofol, Clevidipine)	Changed at minimum every 12 hours or as per the manufacturers' instruction (61).
Chemotherapeutic agents	Remove immediately after use. On completion of infusion including the line flush. The chemotherapy infusion episode may include more than one agent, it is common practice to utilise the same administration set, with line flush in between in order to ensure the full dose has been administered.

FLUSHING

Do not use excessive force when flushing. If resistance is noted **stop** until any potential problem can be identified and corrected. If you encounter resistance notify the CNE, CNC or Anaesthetic registrar.

If the CVAD is heparin locked, the heparin lock must be **aspirated** where possible from the line and discarded prior to flushing refer to appendix A Solutions for positive pressure flush/lock

CVAD must be flushed with minimum 10 mL 0.9% sodium chloride before and after administration of medications (unless incompatible).

CENTRAL VENOUS CATHETER ACCESS DEVICE (CVAD) MANAGEMENT cont'd

HEPARIN LOCK

Heparin locking solution must be prescribed on the patients medication chart.

If the CVAD is heparin locked, the heparin lock must be **aspirated** where possible from the line and discarded prior to flushing.

Unused lumens should be **routinely flushed and locked with positive pressure** when changing the bung (every 96 hours).

DRESSINGS

A sterile, transparent semi-permeable dressing should be used to protect the site from contamination whilst allowing for continuous observation. Dressings and adhesive securement devices are **changed every 7 days or sooner** if the integrity of the dressing is compromised.

If there are **contraindications to the use of transparent semi-permeable dressing** (skin reaction or allergy) then a sterile gauze and tape or mepilex dressing which is **changed daily** may be utilised.

If a Chlorhexidine allergy is identified skin preparation can be undertaken with povidone iodine

Dressings for centrally inserted central venous access devices should be attended when patient is supine (unless contraindicated) in order to allow access to site and to prevent complications in the event of accidental dislodgement/migration of device.

 NOTE: Chlorhexidine dressings may be used. If these are insitu, follow the application and removal recommendations from the manufacturer.

Dressing Procedure	
Equipment	**Procedure**
Cleaned trolley	Explain the intended procedure to the patient and obtain verbal consent
Sterile dressing pack	Observe the insertion site for any visible abnormalities such as erythema, warmth, swelling, tenderness and discharge. Attend a swab if any exudate present for MC&S and refer to medical officer for review
Waste bag	Assess line for catheter length and **evidence of migration**
Plastic backed absorbent sheet	Perform hand hygiene
Non-sterile gloves	Set up equipment as per ANTT principles
Sterile gloves	Put on PPE as per institutional policy

CENTRAL VENOUS CATHETER ACCESS DEVICE (CVAD) MANAGEMENT cont'd

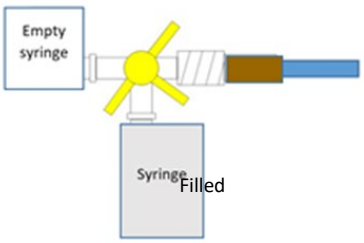
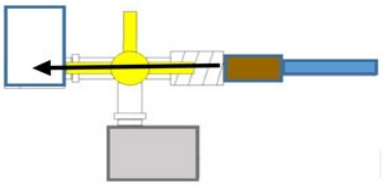
2% Chlorhexidine and 70% Alcohol cleaning solution (Chlora-prep)	Place plastic backed absorbent sheet under catheter
Air tight dressing	Perform hand hygiene Put on non-sterile gloves
Tape	Gently remove the old dressing and adhesive securement device, being careful to pull towards the insertion site (to prevent migration) Avoid touching the insertion site with non-sterile gloves
Sterile transparent semipermeable dressing and statlock (securement device).	Clean the insertion site with 2% Chlorhexidine Gluconate and 70% v/v Isopropyl Alcohol utilising Chlora-prep, using gentle friction in a back and forth motion
PPE	Clean the external length of the catheter with 1 – 2 x 2% Chlorhexidine Gluconate and 70% v/v Isopropyl Alcohol swabs
Normal Saline (to clean line if blood exudate present)	Allow the area to dry naturally until completely evaporated
Bung (s) for each lumen	Place new securement device if required.
10mL leur lock syringes (x2 per lumen)	Remove non-sterile gloves perform hand hygiene put on sterile gloves
2 x 10mL 0.9% sodium chloride ampoules or pre-filled 0.9% sodium chloride syringes per lumen	Place sterile towel under the catheter
Discard waste as per institutional policy	Apply dressing – ensure entry site is in the centre of the dressing window to allow for easy observation
Remove gloves perform hand hygiene	
Document Date and time on the dressing	

Change of Bungs
Verify catheter clamp/s closed
Prime bungs with 0.9% Sodium chloride
Using ANTT; change bung(s)
Flush with 0.9% Sodium Chloride using a pulsatile flushing action and positive pressure lock
Discard waste as per institutional policy
Remove gloves perform hand hygiene
Document Date and time on the dressing
Document in the patients clinical record

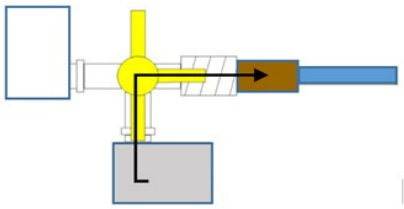
CENTRAL VENOUS CATHETER ACCESS DEVICE (CVAD) MANAGEMENT cont'd

TROUBLESHOOTING

Troubleshooting a blocked CVAD by the use of the negative pressure technique is the domain of an experienced registered nurse or medical officer who has undergone the extended training.

Troubleshooting a blocked CVAD Lumen using negative pressure technique	
Equipment	**Procedure**
Dressing trolley	Explain the intended procedure to the patient and obtain verbal consent, gather equipment and position patient to allow access to CVAD without risk of contamination.
Sharps container	Gather equipment and perform hand hygiene
Waste bag	Don sterile gloves
Dressing pack	Draw up injectable solution into one syringe
Sterile gloves	Connect and prime three way tap
Non-sterile gloves	Attach second empty syringe
Plastic backed absorbent sheet	Decontaminate the bung with a 2% Chlorhexidine / 70% Alcohol swab using "hub scrub" technique before use to remove any particulate matter
Chlorhexidine and Alcohol swab	Attach the three way tap with syringes to the bung of the lumen the tap off to all lumens 
2 x 10mL leur lock syringes	Create partial vacuum by turning tap off to the filled syringe. 

CENTRAL VENOUS CATHETER ACCESS DEVICE (CVAD) MANAGEMENT cont'd

1 x 18g needle	Turn the tap off to the empty syringe, making note of how much of the declogging solution is drawn into the lumen. NOTE: this occurs by negative pressure. 
Three way tap	If blood is aspirated then discard blood, pulsatile flush with 10mL 0.9% Sodium Chloride and lock the lumen.
IV labels	If blood cannot be aspirated, repeat the last three steps and leave some solution in the lumen, turn 3-way tap off to all points and label lumen. Leave for up to two hours to allow the solution to work.
De-clogging agent (e.g. 0.9% sodium chloride, heparinised sodium chloride 10 units per mL)	After time has passed, recheck by using the negative pressure technique. If blood can be aspirated then pulsatile flush with 10mL 0.9% Sodium Chloride and lock lumen. If unable to aspirate blood, refer to treating team for further considerations.

REMOVAL

Competency & accreditation process available via HETI on line see Central Venous Access Devices: The fundamentals - course no. 92708229.

Clinical staff unfamiliar with the removal process and/or performing the removal procedure for the first time should only attempt removal under supervision and guidance of senior staff experienced and confident in performing the intended procedure.

A CVAD is only removed on the order of a senior MO as documented in the clinical notes or electronic medical record.

If necessary coagulation studies should be attended and reviewed by MO prior to removal (i.e. patients with suspected low platelets or clotting issues).

Patients with the following are high risk of air embolism and need medical officer review prior to removal of CVAD.

- Respiratory distress/compromise
- Low body mass index
- Low intravascular volume

CENTRAL VENOUS CATHETER ACCESS DEVICE (CVAD) MANAGEMENT cont'd

Different types of CVADs require different removal techniques to reduce the risk of air embolus

 For Centrally inserted central venous access device (jugular and subclavian) removal, lie patient supine with head slightly down (if tolerated) and removal should be timed to occur at end inspiration or whilst performing the **Valsalva manoeuvre** or during expiration. The patient must remain in this position for 30-60 minutes post removal. The patient must not be transferred during this time. Vital signs must be attended prior to transfer after CVAD removal, once stable the patient is safe to transfer.

 For PICC patient can lie or sit for removal procedure providing arm is able to be abducted below the level of the heart. Patient may breathe normally during the removal procedure

 for tunnelled CVAD or implanted Port - Surgically or radiologically removed

The risk of an air embolism is increased during CVAD insertion, removal and post removal. If the patient displays signs of deterioration (E.g. chest pain, alterations to heart rate, respiration rate, blood pressure or Oxygen Saturation, Dyspnoea or altered mental state or decreased level of consciousness) post CVAD removal activate a CERS call. Clinical review or rapid response to be determined based on patients condition. **Administer 100% oxygen and if possible place the patient on their left side and in the Trendelenburg position.**

Never use force when removing CVADs. If resistance is felt STOP procedure, apply occlusive dressing and escalate to MO.

Monitor vital signs immediately post removal. At least one set of observations should be done during the supine period, as well as immediately prior to retrieving the patient to the upright position or as indicated by observation/procedure report. Observe for signs of respiratory distress, or deterioration.

Document removal, integrity of tip and insertion site in the patient's notes.

Ensure Length of line removed corresponds with the recorded length of line on insertion record. Where possible enter removal details into the removal section of the original Central Venous Line Insertion Record (SMR090.200) used for that catheter's insertion.

All old insertion sites should continue to be monitored at least daily whilst inpatient until healed post CVAD removal, observe for signs of bleeding, haematoma and infection. If discharge occurs post removal ensure discharge advice regarding monitoring is given.

Sterile, occlusive dressings to site should continue until the insertion site has healed.

CENTRAL VENOUS CATHETER ACCESS DEVICE (CVAD) MANAGEMENT cont'd

Removal of Central Venous Access Device	
Equipment	**Procedure**
Cleaned trolley	Explain procedure to the patient
Sterile dressing pack	Practice Valsalva manoeuvre or holding breath technique (where applicable)
Waste bag	Assess patient for independent risk factors which may increase the possibility of air embolus (e.g. respiratory distress, low BMI, signs of hypovolemia).If risk factors are identified, suspend procedure and notify MO to review
Plastic backed absorbent sheet	Perform Clinical Procedure Safety Checklist Level 2
Non-sterile gloves	Perform hand hygiene
Sterile gloves	Set up equipment as per ANTT principles
2% Chlorhexidine and 70% Alcohol cleaning solution (Chlora-prep)	Position patient, Trendelenburg or supine position. Place plastic backed absorbent sheet under catheter
Air tight dressing	Put on non-sterile gloves
Tape	Gently remove the old dressing and fixing device being careful to pull towards the insertion site (to prevent migration) and avoid touching the insertion site
Stitch cutter	Observe the insertion site for any visible abnormalities such as erythema, warmth, swelling, tenderness and discharge - attend a swab if any exudate present for MC&S and refer to medical officer for review
PPE	Clean the insertion site and external length of the catheter with 2% Chlorhexidine Gluconate and 70% v/v Isopropyl Alcohol Chlora-prep or solution, using gentle friction in a back and forth motion

CENTRAL VENOUS CATHETER ACCESS DEVICE (CVAD) MANAGEMENT cont'd

	Allow the area to dry naturally until completely evaporated
	Remove non-sterile gloves Perform hand hygiene Put on sterile gloves
	Place sterile towel under the catheter
	If CVAD secured with stich insitu - remove stitches
	Provide special breathing instructions.
	Pull out catheter gently – do not use force
	Apply pressure to exit site with sterile gauze until haemostasis is achieved
	Seal the site immediately with an airtight dressing which remains insitu for at **least 24 - 48 hours** to reduce the risk of late air embolism
	Confirm that the length of the removed CVAD matches the length recorded on the CVAD insertion record and that catheter tip is intact
	Remove gloves Discard waste as per institutional policy Perform hand hygiene
	Document

De-accessing the implantable venous port	
Equipment	**Procedure**
Cleaned trolley	Explain procedure to the patient
Sterile dressing pack	Perform hand hygiene
Waste bag	Set up equipment as per ANTT
Plastic backed absorbent sheet	Position patient
Non-sterile gloves	Place plastic backed absorbent sheet
2% Chlorhexidine and 70% Alcohol cleaning solution (Chlora-prep)	Don non-sterile gloves
Band aid	Flush and heparin lock device
Tape	Gently remove the old dressing
Sharps bin	Stabilise port reservoir between thumb and forefinger
2 x 10mL syringe	Pull lever to remove needle out vertically away from the skin until it clicks into place
10mL 0.9% sodium chloride or pre-filled 0.9% sodium chloride syringe	Retract the needle hub away from the skin and place directly in sharps bin
5mL heparinised saline (50 units/5mL)	Cover site with band aid and instruct the patient this can be removed after 2 hours.

CENTRAL VENOUS CATHETER ACCESS DEVICE (CVAD) MANAGEMENT cont'd

RISK RATING
HIGH

NATIONAL STANDARD
3 – Preventing and Controlling Infections
4 – Medication Safety
5 – Comprehensive Care Standard
8 – Recognising and Responding to Acute Deterioration

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REVISION & APPROVAL HISTORY
Reviewed and endorsed Therapeutic & Drug Utilisation Committee 27/5/21
Approved Quality & Patient Safety Committee 16/7/15
Additions to Method & Educational notes April 2016
Reviewed and endorsed Gynaecology Services Division Management Committee 30/4/15
Approved Quality & Patient Safety Committee 15/10/09
Endorsed by Director of Anaesthetics August 2009
Replaced Central Venous Cather Management – Adult
Approved Quality Council 16/10/06
Reviewed October 2006
Approved Quality Council 17/5/04

FOR REVIEW : JUNE 2023