### Title: Care of an Occluded Central Venous Access Devices – Management of Thrombotic Occlusions

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<th>January 23, 2014</th>
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<td>10. Health Services (RN’s in ED/ICU/ATC)</td>
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**THIS IS A POST-ENTRY LEVEL COMPETENCY FOR REGISTERED NURSES THAT REQUIRES ASSESSMENT OF COMPETENCY PRIOR TO PERFORMING**

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*Original: January 23, 2014*
POLICY:

1. Nursing care of an occluded central venous access device (CVAD) is a Post-Entry Level Competency (PELC) for a Registered Nurse (RN) in ED/ICU/Chemo Unit which requires the RN to:
   1.1. Read this policy, complete the Nova Scotia Provincial e-learning CVAD modules assigned by Clinical Education.
   1.3. Be deemed competent in the PELC of caring for CVADs by being observed by a certified RN in the Procedure or Clinical Education. Observer to complete a specialized skills check list. See Appendix C
   1.4. Maintain a record of competence and conduct a yearly self-assessment of competency level.
   1.5 Included in performance development tool for ICU/ED/Ambulatory Treatment Clinic (ATC).
   1.6 Follow up with VON will be achieved by using the VON Communication Form see Appendix E.

DEFINITIONS:

Alteplase (rt-PA or t-PA): An enzyme (serine protease) that binds to fibrin in a thrombus and converts the entrapped plasminogen to plasmin, thereby dissolving the clot. Cathflo® is the Alteplase product used at PCHA.

Central Venous Access Devices (CVADs) include:
   ● Implanted Infusion Ports,
   ● External Tunnelled (Hickman),
   ● Peripherally Inserted (PICC)
   ● Non-tunnelled (multilumen) Central Venous Access Catheters

Dwell Time: Amount of time solution is required to 'dwell' in the lumen(s) of the CVAD (maximum dwell time for each dose of Alteplase (Cathflo®) - 2 hours).

Juicing Technique: Using a 2% Chlorhexidine Gluconate with 70% Isopropyl alcohol swab vigorously, scrub the threads and septum of a needleless connector with a twisting clockwise-counterclockwise motion several times (as if you were juicing an orange). Scrub the connector with friction for at least 15 seconds.

Patent Catheter: No resistance to flushing and unimpeded blood return on aspiration.

Pinch-off syndrome: The anatomic mechanical compression of a catheter as it passes between the clavicle and first rib. This complication results in intermittent occlusion that is temporarily relieved by specific position changes such as raising the arm or rolling the shoulder on the CVAD side. This syndrome can lead to fracture of the catheter and embolism. A line that is being pinched must be removed. A new line inserted lateral to the midclavicular line may be considered.

Partial Occlusion: Able to infuse fluid but blood return is sluggish or absent on aspiration. OPTIMAL TIME FOR INTERVENTION.

Total Occlusion: No solution can be infused and no blood can be aspirated

Turbulent Flush Technique: An intermittent push-stop-push technique in which you quickly inject a small amount of flush solution, pause, then inject again and repeat until all the flush solution has been injected.
GUIDING PRINCIPLES AND VALUES:

1. It is not uncommon for central venous access devices (CVAD) to become occluded by a fibrin sheath, thrombus, chemical/mineral precipitates or waxy lipid residue. The instillation of a drug/solution to dissolve the occlusion and salvage the catheter in many cases is preferred over catheter replacement as it reduces interruption of therapy, reduces the risk of trauma and complications for the patient associated with removing a dysfunctional line and replacing it.

2. The primary approach to managing a CVAD occlusion is through prevention. Some best practice principles to prevent an occlusion are:
   2.1. Assess for blood return at the beginning of each shift and/or just before use
   2.2. Proper care and maintenance procedures for the CVAD
   2.3. Mandatory turbulent flushing every time the line is used such as before and after blood withdrawal or administration of any medication/blood product. (Flushing is not needed during continuous use. Flushing is done during continuous use when the line is changed every 72 hrs.)
   2.4. Use a 10 cc syringe of N/S for positive pressure flushing to maintain patency. Using an infusion device only to flush a CVAD is unacceptable and contributes to the creation of an occlusion.

3. The most common reasons for occlusions are fibrin sheaths or clots. In the absence of any visual precipitate, the sudden development of an occlusion is suggestive of a fibrin deposit and should be managed as such.

4. Treat all catheter lumens with partial, withdrawal, or complete occlusions. DO NOT leave an occluded lumen untreated because another lumen is functional. Applicable to all types of CVAD’s.

PROCEDURE:

Equipment:
- 2% Chlorhexidine Gluconate with 70% Isopropyl alcohol swabs
- Needleless adaptors
- 10 mL syringe with Alteplase (Cathflo® 1mg/mL) 2mL (reconstitute according to product monograph)
- 3 x 10 mL normal saline syringes
- 1 pair non-sterile gloves
- Mask
- Label

In addition – for Total Occlusions
- Three-way stopcock
- Empty 10mL syringe

Note: Double/triple supplies when other lumen(s) are also occluded.
NOTE:

- Devices that have valves do not have clamps. Use a needless adaptor.
- The port-a-caths have clamps so therefore it will be necessary to clamp the device prior to changing the adaptor and flushing. It will be necessary to use a needleless adaptor.
- Always follow the manufacturers' instructions when using needless adaptors as different techniques are required for different adaptors.

General:

1. Do not use excessive pressure or force a flush. NEVER use a syringe smaller than 10 mL for flushing.
2. Prior to instillation of any agent, thoroughly assess the CVAD to determine the potential causes of occlusion (mechanical, chemical or thrombotic).
3. Obtain a written/verbal order prior to instilling any agent into an occluded catheter. Ensure that the order specifies:
   3.1 the concentration and volume of drug/solution to be instilled,
   Note: The standard dose of Alteplase (Cathflo®) for adults is 2 mg (2mL). For children or adults weighing less than 30 kg, a dose of 110% of internal lumen volume is recommended not to exceed 2 mg (2mL).
   3.2. Whether or not it can be repeated: if so the frequency and dosing interval,
   3.3. If more than one lumen is to be treated. (If more than one lumen is occluded, treat simultaneously.)
4. Consider the appropriate method for instilling the alteplase:
   4.1. a standard instillation method for partially occluded CVADs.
   4.2. the stopcock method for total occlusions.

Assessment:

1. Assess the problem (history, signs and symptoms). Review line and medication history.
2. Exclude external causes of catheter obstruction:
   2.1. Check entire tubing and delivery system for kinks or malfunctions. Be certain dressing is not occluding catheter. Check to see if line is clamped. For an implanted infusion port, ensure needle is in proper position.
   2.2. Check for blood return with patient sitting and leaning forward or lying on right or left side, have patient deep breathe and cough (Rationale: line may be resting against a vessel wall).
   2.3. If device is valved, wait a few seconds after pulling back on syringe to ensure valve has time to open.
   2.4. Assess for catheter migration, pinch off syndrome, neck vein distention, ear popping, back pain, burning or stingiing with infusion. If any of these symptoms are present, obtain an order for a chest x-ray confirmation of the catheter placement.

NOTE: If all attempts to troubleshoot the occlusion you can try blood return with a 5ml or 3ml syringe as these exert less pressure when drawing back on syringe; the larger 10ml syringe may cause catheter to collapse. ENSURE you change back to a 10ml syringe to flush as pushing fluid in with a smaller syringe does exert more pressure and could cause catheter to fracture.

3. Based on type of infusion and line history, determine which is more likely:
   3.1. Fibrin sheath or thrombus formation
3.2. Chemical/drug precipitation (examples of causative agents are: etoposide, phosphorous, calcium salts, TPN or phenytoin)
3.3. Build up of waxy lipid residue from recent lipid infusion.
Note: In the absence of any visual precipitate, the development of an occlusion is usually suggestive of a fibrin deposit and should be managed as such.

4. Determine occlusion by:
   4.1. Removing the needless adaptor from the catheter and gently attempting to aspirate blood from catheter with a 10 mL syringe containing 0.9% normal saline.
   4.2. If no blood return, alternate gently drawing back while infusing small amounts of saline.
   4.3. For an implanted infusion port, re-access system with another non-coring needle.

5. Once a central line is determined to be partially or totally occluded, notify the authorized prescriber.

6. Instillation of Alteplase: (Suspected Thrombus or Fibrin Sheath Formation)
   6.1. Assess for known hyper-sensitivity to Alteplase (Cathflo®) or any of its components (L-arginine, phosphoric acid and polysorbate 80). (Alteplase (Cathflo®) is contraindicated in these patients).
   6.2. Exercise caution in the following patient situations:
       6.2.1. Platelet count less than 50 x 10^9 /L. (Rationale: patients with thrombocytopenia were excluded from pivotal trials).
       6.2.2. Any underlying bleeding tendency or conditions associated with potential bleeding (Rationale: patients with known conditions associated with bleeding events were excluded from pivotal trials).
       6.2.3. Use of Alteplase (Cathflo®) in pregnant women has not been studied. It should be used ONLY if the potential benefit justifies the potential risk to the fetus. It is not known whether Alteplase (Cathflo®) is excreted in breast milk, therefore caution should be exercised in nursing women.
       6.2.4. Known or suspected catheter infections. Instillation of Alteplase (Cathflo®) in the presence of a catheter infection may release localized infection into systemic circulation causing sepsis.
       6.2.5. Active internal bleeding.
       6.2.6. Any of the following within 48 hours: coronary artery bypass surgery, obstetrical delivery, organ biopsy, or puncture of a non-compressible vessel.

Partial Occlusion
(Use for partial occlusions, i.e., when able to flush, but not able to aspirate blood from CVAD.)

Refer to Appendix A - Partial Occlusion Decision Tree

1. Obtain physician’s order for Alteplase (Cathflo®).
2. Ensure epinephrine 1:1000 s/c, diphenhydramine and hydrocortisone are available on the unit (allergic reactions are possible but rare).
3. Measure and record baseline vitals.
4. Explain procedure to patient and obtain verbal consent. Explain risks and benefits to pt.
5. Assemble equipment (double/triple supplies if other lumen(s) are also occluded).
6. Reconstitute Alteplase (Cathflo®) immediately before use.
   Note: Reconstituted solution is stable for 8 hours if stored at 2-30°C. Final concentration will be 1mg/mL.
   6.1 Inject 2.2 mL sterile water for injection into the Alteplase (Cathflo®) vial. Slight foaming is not unusual; let vial stand undisturbed to allow large bubbles to dissipate.
   6.2 Mix by gently swirling vial until contents are completely dissolved. DO NOT SHAKE.
7. Withdraw Alteplase (Cathflo®) 2mg (2 mL) from the reconstituted vial into a 10 mL syringe. Label the syringe.
8. Wash hands, mask and glove and follow aseptic technique.
9. Scrub connection site with a 2% Chlorhexidine Gluconate with 70% Isopropyl alcohol swabs using the juicing technique for at least 15 seconds. Allow to dry completely.
10. Remove needleless adaptor and attach a 10 mL normal saline syringe to catheter directly.
11. Again attempt to aspirate blood from catheter to check for patency. If blood return is spontaneous, flush line with 20 mLs normal saline using turbulent technique, and carry out procedures as required.
12. If blood return is not spontaneous, initiate standard alteplase procedure as follows:
   12.1 Flush lumen(s) by flushing with 20 mLs of normal saline (rationale: alteplase is incompatible with other drugs).
   12.2 Remove saline syringe and attach syringe containing Alteplase (Cathflo®) and slowly instill alteplase.
   12.3 Allow the Alteplase (Cathflo®) to dwell for a minimum of 30 minutes before attempting aspiration. Repeat procedure if more than one lumen is involved.
13. Label the lumen(s) that have alteplase dwelling.
   13.1 Either leave the empty Alteplase (Cathflo®) syringe attached to lumen(s) during dwell time or replace with a needleless adaptor.
14. After 30 minutes of dwell time, attempt to aspirate blood.
15. If blood return is still absent, allow alteplase to dwell an additional 30 minutes and reattempt aspiration.
   Note: One dose of Alteplase (Cathflo®) may have a maximum dwell time of 2 hours (blood return may be reassessed every 30 minutes x 4 with one instillation).
16. If able to aspirate blood:
   16.1 Withdraw 10 mL of blood/Alteplase (Cathflo®), and discard blood filled syringe
   16.2 Attach a new needleless adapter to lumen
   16.3 Gently flush with 20 mLs normal saline solution, using turbulent technique.
   16.4 Reconnect to IV tubing or lock the catheter with saline or heparin as appropriate.
17. If unable to aspirate blood after 2 hours:
   17.1 Attempt to remove the alteplase
   17.2 Flush the line with 20mL normal saline solution using turbulent technique.
   17.3 Repeat procedure if ordered (no more than two doses in a 24 hour period).
18. If the second attempt is unsuccessful, consult authorized prescriber regarding fluoroscopy and/or possible replacement of catheter.
19. Document the following In the progress notes, on the Medication Administration Record (MAR) and the Kardex:
   19.1 Date and time of procedure
   19.2 Dose of Alteplase (Cathflo®) given
   19.3 Dwell time
   19.4 Response to Alteplase (Cathflo®).
   19.5 Fill out VON documentation tool when pt. is discharged to communicate what was done with the pt. in hospital. See Appendix ?

Total Occlusions USING STOPCOCK
(Use when the CVAD cannot be instilled directly with fluid. Negative pressure is created to instill alteplase into the occluded line with the assistance of the stopcock device.)

Refer to Appendix B – Total Occlusion Decision Tree

1. Obtain physician’s order for alteplase.
2. Ensure epinephrine, diphenhydramine and hydrocortisone are available on the unit (allergic reactions are possible but rare).
3. Measure and record baseline vitals.
4. Explain procedure to patient and obtain verbal consent. Explain benefits and risk of procedure.
5. Assemble equipment (double/triple supplies if other lumen(s) are also occluded).
6. Reconstitute Alteplase (Cathflo®) immediately before use.
   Note: Reconstituted solution is stable for 8 hours if stored at 2-30°C. Final concentration will be 1mg/mL.
7. Inject 2.2 mL sterile water for injection into the Alteplase (Cathflo®) vial. Slight foaming is not unusual; let vial stand undisturbed to allow large bubbles to dissipate.
8. Mix by gently swirling vial until contents are completely dissolved. DO NOT SHAKE.
9. Withdraw Alteplase (Cathflo®) 2mg (2 mL) from the reconstituted vial into a 10 mL syringe. Label syringe.
10. Wash hands, mask and glove and follow aseptic technique.
11. Scrub connection site with a 2% Chlorhexidine Gluconate with 70% Isopropyl alcohol swab using the juicing technique for at least 15 seconds. Allow to dry completely.
12. Remove needleless adaptor and attach a 10mL normal saline syringe to connection site.
13. Reattempt to aspirate blood from catheter to check for patency. If blood return is spontaneous, flush line with 20mL normal saline using turbulent technique, and carry out procedures as required.
14. If blood return is not spontaneous, use the following stopcock method to create negative pressure and instill the alteplase.
   **Stopcock Technique**
15. Remove the normal saline syringe and attach the three-way stopcock directly to the catheter with the key pointed “off” towards the catheter.
16. Attach an empty 10mL syringe at the 6 o’clock position.
17. Attach the 10mL syringe containing 2mg (2mL) of Alteplase (Cathflo®) to the other port at the 3 o’clock position.
18. Point the turn key “off” towards the alteplase syringe to open the three-way stopcock to the empty syringe.
19. Gently aspirate the empty syringe as far as possible, thus creating a negative pressure in the lumen.

20. While maintaining the negative pressure on the syringe, point the turn key “off” towards the empty syringe to open the stopcock and allow the release of Alteplase (Cathflo®) into the catheter.
Note: As the negative pressure resolves the required amount of Alteplase (Cathflo®) necessary to reach the clot occlusion will be pulled into the central venous catheter. The entire dose of alteplase may not be drawn into the catheter.

20. Once some of the Alteplase (Cathflo®) is drawn into the catheter, point the turn key “off” towards the alteplase syringe, clamp the catheter.

21. Label the lumen(s) that have Alteplase (Cathflo®) dwelling.
   21.1 Either leave the alteplase syringe attached to lumen(s) during dwell time or replace with a needleless adaptor.

22. Repeat procedure if more than one lumen is involved.

23. Allow the Alteplase (Cathflo®) to dwell for a minimum of 30 minutes before attempting aspiration.

24. After 30 minutes of dwell time, with the turn key ‘off’ towards the alteplase syringe at the 3 o’clock position, unclamp catheter and attempt to aspirate Alteplase (Cathflo®) / blood using the empty 10mL syringe at the 6 o’clock position.

25. If blood return is unsuccessful, allow Alteplase (Cathflo®) to dwell an additional 30 minutes then reattempt aspiration.

Note: One dose of Alteplase (Cathflo®) may have a maximum dwell time of 2 hours (blood return may be assessed every 30 minutes x 4 with one instillation).

26. If blood return is successful:
   26.1 Withdraw 10 mL of blood/Alteplase (Cathflo®), and discard blood filled syringe
   26.2 Place a new needleless adaptor to lumen.
   26.3 Gently flush with 20 mLs normal saline solution, using turbulent technique.
   26.4 Reconnect to IV tubing or lock the catheter with saline or heparin as appropriate.

27. If unable to aspirate blood after 2 hours:
   27.1 Attempt to remove the Alteplase (Cathflo®).
   27.2 If possible, flush the line with 20mL normal saline solution using turbulent technique.
   27.3 Repeat procedure if ordered (no more than two doses in a 24 hour period).
29. If second attempt is unsuccessful, consult authorized prescriber regarding fluoroscopy and/or possible replacement of catheter. 
30. Document in the progress notes, on the Medication Administration Record (MAR) and in the Kardex:
   30.1 Date and time of procedure
   30.2 Dose of Alteplase (Cathflo®) given
   30.3 Dwell time
   30.4 Response to Alteplase (Cathflo®).
   30.5 Complete VON documentation Tool when pt. is discharged to communicate what was done with the pt. in hospital. See Appendix E

REFERENCES:


RELATED DOCUMENTS:

Policies:
PCHA 10-c-260 Care of Tunneled External Central Venous Catheter (Hickman)
PCHA 10-p-240 Care of Peripherally Inserted Central Catheter (PICC) Lines
PCHA 10-i-200 Implanted Infusion Port/Vascular Access Device (IVAD)
PCHA 10-e-300 Non-tunnelled Central Venous Access Catheter (multilumen)

Appendices
Appendix A: Partial Occlusion Decision Tree
Appendix B: Total Occlusion Decision Tree
Appendix C: Proficiency Skills Checklist - Instillation of Alteplase for Partial Occlusions – Standard Procedure
Appendix D: Proficiency Skills Checklist - Instillation of Alteplase for Complete Occlusions – Stopcock Procedure
Appendix E: VON Communication Tool for Central Venous Access Devices (CVAD) Function

Intravenous Drug Therapy Manual, IV monograph: Alteplase
PARTIAL OCCLUSIONS  
(Able to flush, but unable to aspirate blood return from CVAD)  
OPTIMAL TIME FOR INTERVENTION.  
Do not wait until the line is completely occluded.

Decision Tree

Flush CVAD with 10mL normal saline

Aspirate

Blood Return Successful

Yes

Reposition  
Deep breathing/cough

No Blood Return

Yes

Obtain order  
Instill alteplase  
Total 2 hour dwell time

Aspirate

No Blood Return

Yes

Repeat alteplase

Aspirate

No Blood Return

Yes

Consult physician / NP  
Consider CXR &/or fluoroscopy
Appendix B  TOTAL OCCLUSIONS (unable to flush or aspirate)

Decision Tree

Flush CVAD with 10mL normal saline

Unable to Flush

Reposition, check kinks, clamps, review line history

Unable to Flush

Aspirate

Unable to Flush & No Blood Return

- Obtain order
- Instill alteplase
- Total 2 hour dwell time
- Repeat x 1 if necessary

Aspirate

Yes

Blood Return Successful

Yes

Consult physician / NP regarding fluoroscopy and/or possible replacement of catheter.

No
APPENDIX C

Note: If your device has clamps, please be advised prior to doing any adaptor change you must clamp the device. If you are aspirating you must unclamp prior to doing so.

PROFICIENCY SKILLS CHECKLIST
Instillation of Alteplase (Cathflo®) for Partial Occlusions – Standard Procedure

<table>
<thead>
<tr>
<th>Critical Behaviours Performed</th>
<th>Yes</th>
<th>No</th>
</tr>
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<tbody>
<tr>
<td>1. Obtains order for Alteplase (Cathflo®). Check baseline vitals.</td>
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<tr>
<td>2. Explains procedure to patient / family.</td>
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<tr>
<td>3. Washes hands and assembles equipment.</td>
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<tr>
<td>4. Reconstitutes Alteplase (Cathflo®). Withdraws 2mg (2mL) of solution into a 10mL syringe.</td>
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<tr>
<td>5. Washes hands, mask and glove.</td>
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<tr>
<td>6. Scrubs connection with a 2% Chlorhexidine Gluconate with 70% Isopropyl alcohol swab for 15 seconds. Remove needless adaptor and attach 10mL normal saline syringe.</td>
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<tr>
<td>7. Attempt to flush / aspirate blood.</td>
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<tr>
<td>8. If able to flush but unable to aspirate blood, flush lumen with 20mL of normal saline.</td>
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<tr>
<td>9. Remove normal saline syringe and attaches syringe containing Alteplase (Cathflo®).</td>
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<tr>
<td>10. Slowly instill Alteplase (Cathflo®).</td>
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<tr>
<td>11. Allow Alteplase (Cathflo®) to dwell for 30 minutes. Labels the lumens that have Alteplase (Cathflo®) dwelling.</td>
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<tr>
<td>12. At 30 minutes intervals attempts to aspirate blood. If blood return is unsuccessful, allow Alteplase (Cathflo®) to dwell for a maximum dwell time of 2 hours.</td>
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<tr>
<td>13. If aspiration is successful for blood return, withdraws and discards 10mL blood / Alteplase (Cathflo®).</td>
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<tr>
<td>14. Replaces needless adaptor and flushes line with 20mL normal saline using turbulent technique.</td>
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<tr>
<td>15. Documents accordingly.</td>
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APPENDIX D

PROFICIENCY SKILLS CHECKLIST
Instillation of Alteplase for Complete Occlusions – Stopcock Procedure

Note: If your device has clamps, please be advised prior to doing any adaptor change you must clamp the device. If you are aspirating you must unclamp prior to doing so.

Name: ___________________________  Unit: _____________
Evaluator: _________________________  Date: _____________

<table>
<thead>
<tr>
<th>Critical Behaviours Performed</th>
<th>Yes</th>
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<tr>
<td>1. Obtains order for Alteplase (Cathflo®). Check baseline vitals.</td>
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<td>2. Explains procedure to patient / family.</td>
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<td>3. Washes hands and assembles equipment.</td>
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<tr>
<td>4. Reconstitutes Alteplase (Cathflo®). Withdraws 2mg (2mL) of solution into a 10mL syringe.</td>
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<td>5. Washes hands, mask and glove.</td>
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<tr>
<td>6. Scrubs connection with a2% Chlorhexidine Gluconate with70% Isopropyl alcohol swab for 15 seconds. Removes needless adaptor and attaches 10mL normal saline syringe.</td>
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<tr>
<td>7. Attempts to flush / aspirate blood. If unable to flush or aspirate blood, removes normal saline syringe. Attaches a 3-way stopcock directly to the catheter with the key pointed 'off' towards the catheter.</td>
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<tr>
<td>8. Attaches an empty 10mL syringe at the 6 o’clock position. Attaches the 10mL syringe containing 2 mL Alteplase (Cathflo®) to the 3 o’clock position.</td>
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<tr>
<td>9. Turns the key to ‘off’ position towards the Alteplase (Cathflo®) syringe. Gently aspirates the empty syringe creating negative pressure in the lumen.</td>
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<tr>
<td>10. While maintaining negative pressure on the syringe, turns the key ‘off’ towards the empty syringe opening the valve towards the Alteplase (Cathflo®) syringe allowing the release of Alteplase (Cathflo®) into the catheter.</td>
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</tr>
<tr>
<td>11. Allows Alteplase (Cathflo®) to dwell for 30 minutes. Labels lumens which have Alteplase (Cathflo®) dwelling.</td>
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<td>12. At 30 minutes intervals attempts to aspirate blood. If blood return is unsuccessful, allow Alteplase (Cathflo®) to dwell for a maximum dwell time of 2 hours.</td>
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<td>13. If aspiration is successful for blood return, withdraws and discards 10mL blood / Alteplase (Cathflo®).</td>
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<td></td>
</tr>
<tr>
<td>14. Replaces needless adaptor and flushes line with 20mL normal saline using turbulent technique.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. Documents accordingly.</td>
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</tbody>
</table>
APPENDIX E

Communication Tool for Central Venous Access Devices (CVAD) Function

All information outlined below is required to be included within the referral/request for service to process all CVAD care requests however there is no requirement to submit this form – it is a resource only

Note:
- Information not required for existing VON CVAD clients who were off service for a period of time (eg: in hospital).
- Could ask a nurse on the unit or a radiology nurse for this information

Hospital: __________________________ Client Name: __________________________

ID/HGN/CTN #: __________________________

CVAD Tip Position (tick)
☐ Unless otherwise stated, the CVAD was inserted with the tip position at the superior vena cava/right atrial junction.
Alternate position: __________________________

External Length (tick) – not applicable to ports
☐ Unless otherwise stated, the PICC/CVAD has an external length of ___cms.
Alternate length: __________________________

Flush (tick)
☐ The CVAD flushes without resistance.

Blood Withdrawal (tick)
☐ Blood withdrawal can be obtained from the CVAD without resistance

Medical orders are required for: Flushing (solution, volume, frequency) and Locking (solution, concentration, volume, frequency) with care request

Date: __________________________

Person Completing: Name (print) __________________________

Signature/Designation __________________________

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