Alteplase (Cathflo®) Instillation for Complete or Partially Occluded Central Venous Access Devices for Patients of the Durham Regional Cancer Center Ambulatory Program – Medical Directive

☐ Harmonized

Medical Advisory Committee Approved: 08NOV2019

Authorizing Prescriber(s)

All oncologists (Medical Oncologists, Hematologists, and Radiation oncologists) practicing in the R.S. McLaughlin Durham Regional Cancer Centre oncology program.

Authorized to Whom

Registered Nurses and Registered Practical Nurses in the R.S. McLaughlin Durham Regional Cancer Centre ambulatory program who have completed education in Central Venous Access Device (CVAD) (assessment, care, maintenance) and Alteplase (Cathflo®) instillation.

Patient Description/Population

Current adult hematology/oncology patients of the R. S. McLaughlin Durham Region Cancer Centre who require restoration of patency to their CVAD including peripherally inserted central venous catheters (PICC), tunneled catheters (Hickman), and implanted ports.

Order and/or Procedure

1. Instill a single Alteplase (Cathflo®) 2 mg (2 mg/mL) dose into occluded lumen(s) of CVAD as *per Lakeridge Health (LH) Central Venous Access Devices (CVAD) – Insertion, Removal, Occlusions, Blood Specimen, Implanted Port for Adults – Patient Care Standard*. If first dose unsuccessful, contact most responsible practitioner.

2. Follow the *LH Alteplase (for Catheter Occlusion) IV Monograph* for the preparation of alteplase

Indications to the Implementation of the Directive

Stable, non-emergent patient with an occluded CVAD

The Registered Nurses and Registered Practical Nurses must assess and troubleshoot the CVAD to determine if Alteplase (Cathflo®) instillation is the appropriate intervention

Contraindications to the Implementation of the Directive

1. Evidence of venous thrombosis; warmth, edema, dilated vessels, erythema, pain.

2. Patient does not consent
3. Allergy to Alteplase or to any component of its formulation (e.g. L-arginine, phosphoric acid, polysorbate-80).
4. Patients who have any active bleeding or who have had any of the following within 48 hours: coronary artery bypass graft surgery, obstetrical delivery, organ biopsy, or puncture of non-compressible vessels.
5. Patients who have:
   a. Known or suspected infection of the CVAD;
   b. Thrombocytopenia and/or hemostatic defects (including those secondary to severe hepatic or renal disease: Bilirubin, AST, ALT, and creatinine greater than 4 times the normal value) or any condition in which bleeding constitutes a significant hazard or would be particularly difficult to manage because of its location, or who are at high risk for embolic complications (e.g., recent pulmonary embolism, deep vein thrombosis, endarterectomy). (Product Monograph, Sept, 2003).
6. Where mechanical cause or catheter dysfunction is suspected (i.e. catheter kink or twist)
7. Catheter occlusion is due to suspected catheter migration
8. Confirmed occlusion (verified by radiological exam to be not appropriate for use)

A patient with any of the above contraindications requires an assessment by a physician prior to administration of Alteplase (Cathflo®).

Consent

The nurse implementing this directive must obtain consent from the patient receiving the treatment.

Documentation Requirements

The Registered Nurse and/or Registered Practical Nurses will enter the electronic order for Alteplase (Cathflo®) 2 mL (2mg/2mL) administered as per medical directive into the electronic MAR (eMAR) and document the administration of Alteplase with another Registered Nurse or Registered Practical Nurses as a co-signer.

Consistent with the documentation standards of the College of Nurses Ontario, the Registered Nurse and/or Registered Practical Nurse will document the assessment that led to the implementation of the Medical Directive, procedure implemented, outcomes, evaluation and any follow up in the electronic health record.

Review/Evaluation Process

Every 2 years by the Durham Regional Cancer Centre

References

Cummings-Winfield, C. & Mushani-Kanji, T. (2008). Restoring Patency to Central Venous Access Devices. *Clinical Journal of Oncology Nursing*, 12, 6, 925-934.

Cathflo® product monograph. Roche. (2003).

Central venous catheters, care and maintenance of peripherally inserted central catheters (Groshong®). (2009). British Colombia Cancer Agency.

Care and Maintenance to Reduce Vascular Access Complications. (2008). Registered Nurses Association Best Practice Guideline.

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Central Venous Access Devices (CVAD) – Insertion, Removal, Occlusions, Blood Specimen, Implanted Port for Adults – Patient Care Standard. (2015). Lakeridge Health Corporation.

Central Venous Access Devices (CVAD)-Ports, Occlusions, Insertion/Removal and Blood Collection Self-Directed Learning Reference Module. (2016). Lakeridge Health Corporation