



REGIONAL PEDIATRIC PARENTERAL DRUG MONOGRAPH

GENERIC NAME

alteplase

<p>Effective Date: Sept10-2014</p> <p>Revised Date:</p>	<p>CLASSIFICATION</p> <p>Thrombolytic agent</p>	<p>OTHER NAMES</p> <p>Cathflo</p>	<p>PAGE</p> <p>1 of 2</p>
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ADMINISTRATION POLICY:

Restricted to nurses trained in alteplase administration specific to venous catheter occlusions

RECONSTITUTION/DILUTION/ADMINISTRATION:

Available as: 2 mg vial REFRIGERATE

Reconstitution: 2 mg vial reconstitute with 2.2 mL sterile water for injection (without bacteriostat). Swirl to dissolve. DO NOT SHAKE.

Final concentration: 1mg/mL

Intracatheter: instill into catheter or CVAD over 30 to 60 seconds according to procedure in ADDITIONAL NOTES. May dilute with normal saline to final volume equal to 1.5 times internal lumen volume. Do not dilute below MINIMUM CONCENTRATION.

DOSAGE:

Intracatheter: use a volume of alteplase solution equal to 1.5 times internal volume of the catheter. May repeat treatment ONCE if first attempt not successful.

Maximum dose: 2 mg

Maximum concentration : 1 mg/mL

MINIMUM concentration: 0.2 mg/mL in normal saline

STABILITY/COMPATIBILITY:

Stability of final admixture: 8 hours at room temperature

Compatibility: Compatible with D5W, normal saline



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PRECAUTIONS, POTENTIAL ADVERSE REACTIONS:

- Hypersensitivity: anaphylactoid reaction (flushing, hypotension); urticaria, laryngeal edema, skin rash
- Hemat: bleeding (minor) at catheter site
- Other: nausea, vomiting, hypotension, fever (uncertain if related to alteplase administration)

CAUTION

- active internal bleeding (i.e. intracranial bleeding), recent major surgery, recent trauma, severe uncontrolled hypertension
- patients with hemostatic defects
- suspected or confirmed infection in the catheter – successful thrombolysis may release organisms into systemic circulation

CONTRAINDICATIONS

- known hypersensitivity to recombinant alteplase or any component of the formulation

ADDITIONAL NOTES AND NURSING CONSIDERATIONS:

- other causes of catheter dysfunction should be considered, especially if alteplase is not effective (i.e. catheter malposition, mechanical failure, constriction caused by suture, and lipid deposits or drug precipitates)

PROCEDURE FOR REMOVING A VENOUS or ARTERIAL CATHETER OCCLUSION

1. Determine lumen volume of catheter
2. Use sterile technique for the procedure
3. Remove the dressing from the catheter and insure that there is no kink in the line
4. Prepare the alteplase solution, including any further dilution with normal saline
5. Instill the required volume of alteplase into the line under pressure (1.5 x internal lumen volume)
6. Allow the alteplase solution to dwell in the line for 2 to 4 hours (NOTE: some references cite a dwell time of 30 minutes, but effectiveness is much lower)
7. Aspirate the catheter to remove the infused volume of alteplase and the clot. Continue until there is free blood flow. **DO NOT FLUSH.** (Aspirate may be sent for blood culture as ordered by physician)
8. If catheter aspirated successfully: flush the catheter with 2 to 5 mL of normal saline (not dextrose). Resume IV infusion or lock lumen with heparin or saline, as appropriate
9. If catheter is still blocked: repeat steps 4 to 7 once
10. If catheter is still blocked, try streptokinase. If still blocked – remove catheter.