REGIONAL ADULT PARENTERAL DRUG MONOGRAPH

GENERIC NAME

alteplase

(Acute Stroke)

HIGH ALERT DOUBLE CHECK

Effective Date: June 20 2018

Revised Date: June 2024

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Thrombolytic Agent	**Rt-PA, tPA, Activase**	1 of 2

ADMINISTRATION POLICY:

Restricted to Bethesda Regional Health Centre, Boundary Trails Health Centre, and Portage District General Hospital

IV Bolus: May be administered by a nurse at Manitoba designated stroke centres

IV Intermittent: May be administered by a nurse at Manitoba designated stroke centres

IM/Subcut: *Not recommended*

RECONSTITUTION/DILUTION/ADMINISTRATION:

Available as: 50 mg vial with 50 mL sterile water
100 mg vial with 100 mL sterile water & transfer device

Reconstitution:

Medication	Diluent	Diluent volume	Final concentration	Final volume
IV: 50 mg	Sterile water for injection	50 mL	1 mg/mL	50 mL
IV: 100 mg^	Sterile water for injection	100 mL	1 mg/mL	100 mL

Let vial stand undisturbed to allow large bubbles to dissipate. Mix by gently swirling until completely dissolved. **Do not shake.**

^ use provided transfer device for reconstitution

1. Using aseptic technique throughout, remove the protective flip caps from 100 mg vial of alteplase and 100 mL vial of sterile water for injection
2. Peel paper label off the package of transfer device
3. Remove protective cap from one end of transfer device. Keeping vial of sterile water for injection upright, insert piercing pin of the transfer device vertically in to the center of the stopper of the vial of sterile water for injection.
4. Keeping vial for sterile water for injection upright, Remove protective cap from the other end of the transfer device.
5. Holding vial of alteplase upside down, position vial so the center of the stopper is directly over the exposed piercing pin of the transfer device.
6. Push the vial of alteplase down so the piercing pin is inserted through the center of the alteplase stopper.
7. Invert the two vials so the alteplase vial is upright and on the bottom, with the sterile water for injection upside down and on the top. Allow the entire contents of the sterile water for injection vial to flow down through the transfer device. This takes approximately 2 minutes.
8. Remove the transfer device with attached sterile water for injection vial from the alteplase vial. Safely discard the transfer device and empty sterile water for injection vial.
9. Swirl alteplase vial gently to dissolve powder. Do not shake.

IV Bolus: Administer undiluted, 10% of total dose over 1 minute as a direct load through the port closest to the patient

IV Intermittent: Administer remaining 90% of dose over 60 minutes immediately after the alteplase load (bolus). Flush set with normal saline after infusion is completed.

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IV Infusion: Pump Library (Use vented administration set**):**

Drug Library	**Dose Rate**	**Short Name**	**Care Unit**
Yes	mg/h	alteplas;	Critical Care
Drug	**Diluent**	**Final Volume (VTBI)**	**Final Concentration**
Variable	Variable	Variable	1 mg/mL
Clinical Advisory: High Alert			
Soft Low Dose Limit: 32 mg	Soft High Dose Limit: 81 mg		

DOSAGE:

Total Dose: 0.9 mg/kg IV

IV Bolus: 10% of Total Dose (0.09 mg/kg, maximum 9 mg)
IV Intermittent: 90% of Total Dose (0.81 mg/kg, maximum 81 mg)

Maximum total dose: 90 mg

STABILITY/COMPATIBILITY:

Stability of reconstituted vial: 8 hours at room temperature

Compatibility: Compatible with Normal Saline. Do not mix with other drugs.

PRECAUTIONS, POTENTIAL ADVERSE REACTIONS:

- **Hematology**: Internal bleeding (GI, GU, neurological, retroperitoneal, and respiratory tract)
- **Hypersensitivity**: Anaphylactoid reaction (flushing, hypotension); urticaria, laryngeal edema, skin rash

Other: Increasing headache, decreased level of consciousness, sudden spike in BP, nausea, vomiting, hypotension, fever (not clear if related to alteplase administration).

ADDITIONAL NOTES AND NURSING CONSIDERATIONS:

REQUIRED MONITORING

- Continuous cardiac monitoring and oxygen saturation during infusion and for 24 hours post infusion
- Blood pressure, respiratory rate, signs of bleeding and neuro check every 15 minutes during infusion,
  - Then every 30 minutes x 2
  - Then every hour x 4
  - Then every 2 hours for 18 hours
- Do not administer anticoagulants or antiplatelet medications immediately before and for 24 hours following alteplase infusion. Contact pharmacy for medication clarification if required.
- Avoid unnecessary venous or arterial punctures, IM injections and non-compressible IV access sites.

ELDER ALERT: The elderly may be at higher risk of major bleeding.