

### Alteplase Infusion - STEMI Guidelines: Buretrol Method

**ALTEPLASE (tPA)**

- Dosage is determined by weight (see Table A for dosing table with volumes and rates)
- Maximum dose 100 mg.      **Patient Weight \_\_\_\_\_kg**      Actual  Estimated

**Preparation:**

Final concentration = Alteplase 1 mg/mL

Using diluent provided, reconstitute alteplase 100 mg according to manufacturer instructions.

 Swirl vial gently to dissolve the powder – DO NOT SHAKE.

Set up IV line for alteplase with 250 mL Normal Saline and empty buretrol (do not flush line with Normal Saline).

Determine alteplase dosing using Table A.

Attach tubing to Alteplase bottle and prime tubing being very careful not to waste medication in process.

**Please note: This protocol is a 3 step process: BOLUS dose, FIRST infusion dose and SECOND infusion dose**

<b>BOLUS Dose:</b>	Alteplase: 15 mg/15 mL direct IV push bolus over 2 min by Registered Nurse
<b>FIRST Infusion Dose:</b>	Alteplase 0.75 mg/kg FIRST infusion _____mg (Max dose is 50 mg)
<b>SECOND Infusion Dose:</b>	Alteplase 0.5 mg/kg SECOND infusion _____mg (Max dose 35 mg)

**ADMINISTRATION:**
**Bolus dose :** Withdraw **15 mg/15 mL** from reconstituted alteplase vial and administer direct IV push over 2 min

RN Initials \_\_\_\_\_ / \_\_\_\_\_

**Infusion doses:**

 Withdraw **total of both FIRST infusion dose and SECOND infusion dose** (Column C) from alteplase vial and add to empty buretrol. Prime buretrol with alteplase solution being very careful not to waste medication in process.

**First infusion dose \_\_\_\_\_mg over 30 min    RN Initials\_\_\_\_\_ / \_\_\_\_\_**

 Program infusion pump. For SMART infusion pump, use 'basic infusion' (alteplase – non stroke **should not** be used).

Set rate at \_\_\_\_\_mL/hr (amount of FIRST infusion dose over 30 min)

Set VTBI volume of FIRST infusion dose over 30 min

Once first infusion dose complete, administer second infusion dose (do not flush between doses).

**Second infusion dose \_\_\_\_\_ mg over 60 min    RN Initials \_\_\_\_\_ / \_\_\_\_\_**

Set rate at \_\_\_\_\_ mL/hr (amount of SECOND infusion dose over 60 min)

 Set the second infusion dose VTBI as the **amount left in the buretrol** (to avoid air in the line).

**Flush:** Pump will alarm when the SECOND dose VTBI has been infused. Add 30 mL Normal Saline to buretrol to flush line. (**Note: Do not change the rate – the remainder of the alteplase in the line must be infused**)

**INDEPENDENT DOUBLE CHECK TO BE PERFORMED WHEN CALCULATING DOSES, MIXING DRUG & PROGRAMMING PUMP**

<b>Table A. Alteplase (Activase®) 1 mg/mL STEMI Dosage and Electronic Infusion Device Settings</b>						
<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>
<b>Patient Weight (kg)</b>	<b>Bolus (mL)</b>	<b>Infusion Container Volume (mL)</b>	<b>Infusion Series</b> Administered as: 1. 30 minute infusion (0.75 mg/kg) then 2. 60 minute infusion (0.5 mg/kg)	<b>Infusion Rate Setting (mL/hr)</b>	<b>Volume to be infused (mL)</b>	<b>Total Dose = bolus + infusion (mL)</b>
41-42	15	52	1 <sup>st</sup> Infusion: 31 mg (31 mL) IV over 30 min	62	31	67
			2 <sup>nd</sup> Infusion: 21 mg (21 mL) IV over 60 min	21	21	
43-44	15	54	1 <sup>st</sup> infusion: 32 mg (32 mL) IV over 30 min	64	32	69
			2 <sup>nd</sup> Infusion: 22 mg (22 mL) IV over 60 min	22	22	
45-47	15	57	1 <sup>st</sup> infusion: 34 mg (34 mL) IV over 30 min	68	34	72
			2 <sup>nd</sup> Infusion: 23 mg (23 mL) IV over 60 min	23	23	
48-49	15	60	1 <sup>st</sup> infusion: 36 mg (36 mL) IV over 30 min	72	36	75
			2 <sup>nd</sup> infusion: 24 mg (24 mL) IV over 60 min	24	24	
50-51	15	63	1 <sup>st</sup> infusion: 38 mg (38 mL) IV over 30 min	76	38	78
			2 <sup>nd</sup> infusion: 25 mg (25 mL) IV over 60 min	25	25	
52-54	15	65	1 <sup>st</sup> infusion: 39 mg (39 mL) IV over 30 min	78	39	80
			2 <sup>nd</sup> infusion: 26 mg (26 mL) IV over 60 min	26	26	
55-56	15	68	1 <sup>st</sup> infusion: 41 mg (41 mL) IV over 30 min	82	41	83
			2 <sup>nd</sup> infusion: 27 mg (27 mL) IV over 60 min	27	27	
57-58	15	71	1 <sup>st</sup> infusion: 43 mg (43 mL) IV over 30 min	86	43	86
			2 <sup>nd</sup> infusion: 28 mg (28 mL) IV over 60 min	28	28	
59-60	15	73	1 <sup>st</sup> infusion: 44 mg (44 mL) IV over 30 min	88	44	88
			2 <sup>nd</sup> infusion: 29 mg (29 mL) IV over 60 min	29	29	
61-63	15	76	1 <sup>st</sup> infusion: 46 mg (46 mL) IV over 30 min	92	46	91
			2 <sup>nd</sup> infusion: 30 mg (30 mL) IV over 60 min	30	30	
64-65	15	80	1 <sup>st</sup> infusion: 48 mg (48 mL) IV over 30 min	96	48	95
			2 <sup>nd</sup> infusion: 32 mg (32 mL) IV over 60 min	32	32	
66-67	15	83	1 <sup>st</sup> infusion: 50 mg (50 mL) IV over 30 min	100	50	98
			2 <sup>nd</sup> infusion: 33 mg (33 mL) IV over 60 min	33	33	
>67	15	85	1 <sup>st</sup> infusion: 50 mg (50 mL) IV over 30 min	100	50	100
			2 <sup>nd</sup> infusion: 35 mg (35 mL) IV over 60 min	35	35	

The information contained in this document, and as amended from time to time, was created expressly for use by Alberta Health Services and persons acting on behalf of the Alberta Health Services for guiding actions and decisions taken on behalf of Alberta Health Services. Any adoption/use/modification of this document is done so at the risk of the adopting organization. Alberta Health Services accepts no responsibility for any modification and/or redistribution and is not liable in any way for any actions taken by individuals based on the information herein, or for any inaccuracies, errors, or omissions in the information in this document.