

Alteplase Infusion - STEMI Guidelines: Medication Excess Discarded Post-Infusion (Remainder in Bottle)

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.

Determine alteplase dosing using Table A.

Withdraw 15 mg (15/mL) for direct IV bolus administration. Label and set medication aside.

Administer this bolus immediately prior to first infusion.

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

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

ADMINISTRATION:
Bolus dose :

Administer bolus of **15 mg (15 mL) by direct IV push over 2 mins**

RN Initials _____ / _____

Infusion doses:

First infusion dose _____mg over 30 min RN Initials _____ / _____

Program infusion pump by setting rate at _____mL/hr (amount of FIRST infusion dose over 30 min)

Set VTBI volume of FIRST infusion dose over 30 min

Second infusion dose _____mg over 60 min RN Initials _____ / _____

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

Note: For second infusion, **the VTBI** will be set according to Table A (this is to account for the amount of medication in tubing). When VTBI is complete, remove bottle and replace with Normal saline (50 mL) bag and continue infusing **at same rate** until all medication has cleared the line.

Do not change the rate – the remainder of the alteplase in the line must be infused.

(Note: tubing volumes may vary by 1 or 2 mLs according to tubing used, however 17 mL has been chosen for consistency).

For patients less than 67kg, there will be medication remaining in the bottle which should not be infused.

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

Table A. Alteplase (Activase®) 1 mg/mL STEMI Dosage and Electronic Infusion Device Settings						
A	B	C	D	E	F	G
Patient Weight (kg)	Bolus (mL)	Infusion Series Administered as: 1. 30 minute infusion (0.75 mg/kg) then 2. 60 minute infusion (0.5 mg/kg)	Infusion Rate Setting (mL/hr)	Volume to be infused VTBI (mL)	Total Dose = Bolus + infusion (mL)	Amount left in bottle (mL)
41-42	15	1 st infusion: 31 mg (31 mL) IV over 30 min	62	31	67	33
		2 nd Infusion: 21 mg (21 mL) IV over 60 min Part A: Change rate and VTBI and continue infusion; When VTBI complete, remove bottle and replace with NS 50 mL bag. Go to Part B.	21	4		
		Part B: NS 50 mL bag	21	17		
43-44	15	1 st infusion: 32 mg (32 mL) IV over 30 min	64	32	69	31
		2 nd Infusion: 22 mg (22 mL) IV over 60 min Part A: Change rate and VTBI and continue infusion; When VTBI complete, remove bottle and replace with NS 50 mL bag. Go to Part B.	22	5		
		Part B: NS 50 mL bag	22	17		
45-47	15	1 st infusion: 34 mg (34 mL) IV over 30 min	68	34	72	28
		2 nd Infusion: 23 mg (23 mL) IV over 60 min Part A: Change rate and VTBI and continue infusion; When VTBI complete, remove bottle and replace with NS 50 mL bag. Go to Part B.	23	6		
		Part B: NS 50 mL bag	23	17		
48-49	15	1 st infusion: 36 mg (36 mL) IV over 30 min	72	36	75	26
		2 nd infusion: 24 mg (24 mL) IV over 60 min Part A: Change rate and VTBI and continue infusion; When VTBI complete, remove bottle and replace with NS 50 mL bag. Go to Part B.	24	7		
		Part B: NS 50 mL bag	24	17		
50-51	15	1 st infusion: 38 mg (38 mL) IV over 30 min	76	38	78	22
		2 nd infusion: 25 mg (25 mL) IV over 60 min Part A: Change rate and VTBI and continue infusion; When VTBI complete, remove bottle and replace with NS 50 mL bag. Go to Part B.	25	8		
		Part B: NS 50 mL bag	25	17		
52-54	15	1 st infusion: 39 mg (39 mL) IV over 30 min	78	39	80	20
		2 nd infusion: 26 mg (26 mL) IV over 60 min Part A: Change rate and VTBI and continue infusion; When VTBI complete, remove bottle and replace with NS 50 mL bag. Go to Part B.	26	9		
		Part B: NS 50 mL bag	26	17		

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55-56	15	1 st infusion: 41 mg (41 mL) IV over 30 min	82	41	83	17
		2 nd infusion: 27 mg (27 mL) IV over 60 min Part A: Change rate and VTBI and continue infusion; When VTBI complete, remove bottle and replace with NS 50 mL bag. Go to Part B.	27	10		
		Part B: NS 50 mL bag	27	17		
57-58	15	1 st infusion: 43 mg (43 mL) IV over 30 min	86	43	86	14
		2 nd infusion: 28 mg (28 mL) IV over 60 min Part A: Change rate and VTBI and continue infusion; When VTBI complete, remove bottle and replace with NS 50 mL bag. Go to Part B.	28	11		
		Part B: NS 50 mL bag	28	17		
59-60	15	1 st infusion: 44 mg (44 mL) IV over 30 min	88	44	88	12
		2 nd infusion: 29 mg (29 mL) IV over 60 min Part A: Change rate and VTBI and continue infusion; When VTBI complete, remove bottle and replace with NS 50 mL bag. Go to Part B.	29	12		
		Part B: NS 50 mL bag	29	17		
61-63	15	1 st infusion: 46 mg (46 mL) IV over 30 min	92	46	91	9
		2 nd infusion: 30 mg (30 mL) IV over 60 min Part A: Change rate and VTBI and continue infusion; When VTBI complete, remove bottle and replace with NS 50 mL bag. Go to Part B.	30	13		
		Part B: NS 50 mL bag	30	17		

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64-65	15	1 st infusion: 48 mg (48 mL) IV over 30 min	96	48	95	5
		2 nd infusion: 32 mg (32 mL) IV over 60 min Part A: Change rate and VTBI and continue infusion; When VTBI complete, remove bottle and replace with NS 50 mL bag. Go to Part B.	32	15		
		Part B: NS 50 mL bag	32	17		
66-67	15	1 st infusion: 50 mg (50 mL) IV over 30 min	100	50	98	2
		2 nd infusion: 33 mg (33 mL) IV over 60 min Part A: Change rate and VTBI and continue infusion; When VTBI complete, remove bottle and replace with NS 50 mL bag. Go to Part B.	33	16		
		Part B: NS 50 mL bag	33	17		
>67	15	1 st infusion: 50 mg (50 mL) IV over 30 min	100	50	100	0
		2 nd infusion: 35 mg (35 mL) IV over 60 min Part A: Change rate and VTBI and continue infusion; When VTBI complete, remove bottle and replace with NS 50 mL bag. Go to Part B.	35	18		
		Part B: NS 50 mL bag	35	17		

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