

Ischemic Stroke TPA dosing & preparation

tPA (Alteplase) Reconstitution Review

Kit Contents

- Sterile Water for Injection (SWFI), tPA – 100 mg Vial (powder), Transfer Device



Step 1: (Please use “TPA STROKE” meditech order set – this will print a label for the infusion and bolus)

- Remove the protective cap from the top of the Activase vial and the vial of SWFI. Swab the top of each vial with an alcohol wipe to reduce the risk of contamination. Remove the transfer device from its wrapper and remove the protective cap from one end. Insert the piercing pin vertically into the center of the stopper of the vial of SWFI, keeping the vial upright



* The transfer device should be punctured in the middle of the large circle access site so subsequent needle withdrawals can utilize the peripheral area of the port without loss of drug. See image above.

Step 2:

- Holding the vial of Activase upside down, position it so that the center of the stopper is directly over the exposed pin of the transfer device.



Step 3:

- Invert the 2 vials, so that the vial of Activase is on the bottom, right side up, and the vial of SWFI is on top. Allow the entire contents of the vial of SWFI to flow down through the transfer device into the vial containing Activase - requires approximately 2 minutes. About half a milliliter of Sterile Water may remain in the upper vial.



Step 4:

- Remove the transfer device and the empty SWFI vial from the Activase vial. Mix the solution with a gentle swirl. **DO NOT SHAKE**. Slight foaming of the solution is normal. Let the solution stand undisturbed for several minutes to allow any large bubbles to dissipate. Visually inspect the Activase solution for particulate matter and discoloration before administration. After reconstitution, the tPA concentration is 1 mg/mL.



Step 5:

- See **Ischemic Stroke** dosing information below.
- **Remove excess TPA** that is not needed and discard the excess. When drawing off excess solution, be sure to **insert the needle into the peripheral area of the vial top**, away from the puncture site caused by the transfer device.
- Withdraw 10% of the 0.9-mg/kg dose from the vial (see chart below) using a syringe and needle – TPA bolus. Administer initial IV bolus over 1 minute. Infuse the remaining 90% of 0.9-mg/kg dose over 60 minutes. The reconstituted vial of tPA can be spiked with an infusion set using the same puncture created by the transfer device.



**TPA DOSING CHART FOR ACUTE ISCHEMIC STROKE [USING 100 MG TPA / 100ML]
= 1 MG PER 1 ML**

| WEIGHT IN LBS | WEIGHT IN KG | DOSE TO REMOVE FROM VIAL & DISCARD [1 MG = 1 ML] | BOLUS DOSE [1 MG = 1 ML] | INFUSION DOSE IN ML / HR TO RUN OVER 1 HR] | | WEIGHT IN LBS | WEIGHT IN KG | DOSE TO REMOVE FROM VIAL & DISCARD [1 MG = 1 ML] | BOLUS DOSE [1 MG = 1 ML] | INFUSION DOSE IN ML / HR TO RUN OVER 1 HR] |
|------------------|-----------------|---|-----------------------------|--|--|------------------|-----------------|---|-----------------------------|--|
| 90 | 40.9 | 63 | 3.7 | 33 | | 156 | 70.9 | 36 | 6.4 | 57 |
| 92 | 41.8 | 62 | 3.8 | 34 | | 158 | 71.8 | 35 | 6.5 | 58 |
| 94 | 42.7 | 61 | 3.8 | 35 | | 160 | 72.7 | 35 | 6.5 | 59 |
| 96 | 43.6 | 61 | 3.9 | 35 | | 162 | 73.6 | 34 | 6.6 | 60 |
| 98 | 44.6 | 60 | 4 | 36 | | 164 | 74.6 | 33 | 6.7 | 60 |
| 100 | 45.5 | 59 | 4.1 | 37 | | 166 | 75.5 | 32 | 6.8 | 61 |
| 102 | 46.4 | 58 | 4.2 | 38 | | 168 | 76.4 | 31 | 6.9 | 62 |
| 104 | 47.3 | 57 | 4.3 | 38 | | 170 | 77.3 | 30 | 7 | 63 |
| 106 | 48.2 | 56 | 4.4 | 39 | | 172 | 78.2 | 30 | 7 | 63 |
| 108 | 49.1 | 56 | 4.4 | 40 | | 174 | 79.1 | 29 | 7.1 | 64 |
| 110 | 50 | 55 | 4.5 | 41 | | 176 | 80 | 28 | 7.2 | 65 |
| 112 | 50.9 | 54 | 4.6 | 41 | | 178 | 80.9 | 27 | 7.3 | 66 |
| 114 | 51.8 | 53 | 4.7 | 42 | | 180 | 81.8 | 26 | 7.4 | 66 |
| 116 | 52.7 | 53 | 4.7 | 43 | | 182 | 82.7 | 26 | 7.4 | 67 |
| 118 | 53.6 | 52 | 4.8 | 43 | | 184 | 83.6 | 25 | 7.5 | 68 |
| 120 | 54.6 | 51 | 4.9 | 44 | | 186 | 84.6 | 24 | 7.6 | 69 |
| 122 | 55.5 | 50 | 5 | 45 | | 188 | 85.5 | 23 | 7.7 | 69 |
| 124 | 56.4 | 49 | 5.1 | 46 | | 190 | 86.4 | 22 | 7.8 | 70 |
| 126 | 57.3 | 48 | 5.2 | 46 | | 192 | 87.3 | 21 | 7.9 | 71 |
| 128 | 58.2 | 48 | 5.2 | 47 | | 194 | 88.2 | 21 | 7.9 | 72 |
| 130 | 59.1 | 47 | 5.3 | 48 | | 196 | 89.1 | 20 | 8 | 72 |
| 132 | 60 | 46 | 5.4 | 49 | | 198 | 90 | 19 | 8.1 | 73 |
| 134 | 60.9 | 45 | 5.5 | 49 | | 200 | 90.9 | 18 | 8.2 | 74 |
| 136 | 61.8 | 44 | 5.6 | 50 | | 202 | 91.8 | 17 | 8.3 | 74 |
| 138 | 62.7 | 44 | 5.6 | 51 | | 204 | 92.7 | 17 | 8.3 | 75 |
| 140 | 63.6 | 43 | 5.7 | 52 | | 206 | 93.6 | 16 | 8.4 | 76 |
| 142 | 64.6 | 42 | 5.8 | 52 | | 208 | 94.6 | 15 | 8.5 | 77 |
| 144 | 65.5 | 41 | 5.9 | 53 | | 210 | 95.5 | 14 | 8.6 | 77 |
| 146 | 66.4 | 40 | 6 | 54 | | 212 | 96.4 | 13 | 8.7 | 78 |
| 148 | 67.3 | 39 | 6.1 | 55 | | 214 | 97.3 | 12 | 8.8 | 79 |
| 150 | 68.2 | 39 | 6.1 | 55 | | 216 | 98.2 | 11 | 8.8 | 80 |
| 152 | 69.1 | 38 | 6.2 | 56 | | 218 | 99.1 | 11 | 8.9 | 80 |
| 154 | 70 | 37 | 6.3 | 57 | | 220 OR > | 100 OR > | 10 | 9 | 81 |