

Activase (TPA)

Indication: Thrombotic Stroke (see bottom of page for occluded catheters)
 Standard Concentration: 1 mg/ml

Dosing:

0.9 mg/kg (up to a maximum of 90mg): 10% of dose (0.09mg/kg) is to be given as a bolus over 1 minute followed by the other 90% (0.81mg/kg) over 1 hour

Dosing Chart:

Patient Weight (kg)	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120
0.09mg/kg Bolus (ml)	4.1	4.5	5.0	5.4	5.9	6.3	6.8	7.2	7.7	8.1	8.6	9	9	9	9	9
0.81mg/kg Infusion (rate)	36.5	40.5	44.6	48.6	52.7	56.7	60.8	64.8	68.9	72.9	77.0	81	81	81	81	81

Adverse effects: bleeding & arrhythmias not associated with haemodynamic compromise

Drug interactions: Aminocaproic acid, aprotinin, and tranexamic acid can antagonize the effects of TPA. Also, TPA increases the effects of anticoagulants (e.g. heparin, warfarin, aspirin, etc.)

Contraindications: Bleeding/hemorrhage, intracranial mass, increased intracranial pressure, aneurysm

Nursing considerations:

1. Continuous monitoring of HR, BP, GCS, Neuro Checks
2. Monitor Labs
3. Monitor for bleeding: urine, stool, internal, gums etc...
4. Establish onset of stroke: Signs and Symptoms less than 3 hours prior to administration and obtain CT of the head, consult neurology.

Intracatheter instillation reestablishing patency of an occluded IV catheter:

Dosing: Instill 2mg/2ml into the occluded catheter. After 30 minutes of dwell time, assess catheter function by attempting to aspirate blood. If the catheter is not functional after 30 minutes, allow the solution to remain for an additional 90 minutes (120 minutes of total dwell time) and assess catheter function by attempting to aspirate blood and catheter contents. If catheter function is not restored 2 hours after the first dose, a second dose may be instilled. In patients weighing < 30 KG, give 110% of the internal lumen volume of the catheter, not to exceed 2mg/2ml.

Nursing Considerations:

- Consider other reasons for catheter dysfunction, such as catheter malposition, mechanical failure, constriction by a suture, and lipid deposits or drug precipitates within the lumen, prior to treatment with TPA.
- Avoid vigorous suction during attempts to determine catheter occlusion to prevent damage to the vascular wall or collapse of soft-walled catheters.
- Excessive pressure should be avoided when TPA is instilled into the catheter. Such force could cause rupture of the catheter or expulsion of the clot into the circulation.