Administering Intravenous Alteplase  
(Tissue Plasminogen Activator [tPA])

**Step 1:** Eligibility---The eligibility criteria for patients with acute ischemic stroke within 3 hours of symptom onset include:

- An adult (≥ 18 years of age)
- Exclusion of intracranial hemorrhage by an imaging technique sensitive for the presence of hemorrhage
- Arrives at the emergency department in time to be treated within 3 hours of symptom onset

**Step 2:** Review Contraindications & Additional warnings---See IV tPA Inclusion & Exclusion Criteria Worksheet (attached)

**Step 3:** Discuss treatment options, risks and benefits of IV tPA with patient and/or family

**Step 4:** Treat Eligible Patients

- The recommended dose of IV tPA is 0.9 mg/kg (not to exceed 90 mg total dose) infused over 60 minutes with 10% of the total dose administered as an initial bolus over 1 minute
- The goal for treatment of IV tPA is to give bolus and initiate infusion to eligible patient in less than 60 minutes of patient arrival

**Patient Monitoring During and Post tPA Therapy**

- See attached information regarding close observation and frequent monitoring of patients for neurologic changes, any signs/symptoms of intracranial hemorrhage, and any signs of adverse drug reactions are important during patient recovery.
For acute ischemic stroke

Activase (alteplase) dosing and administration

**Administration of bolus**

**Step 1. Inspect solution**

After reconstitution to 1 mg/mL, inspect solution for particulate matter and discoloration prior to administration.

**Step 2. Discard excess**

To ensure proper dosing, discard excess by removing from vial any quantity of drug in excess of that specified for patient treatment. When drawing out 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.

**Step 3. Prepare bolus**

Withdraw 10% of the 0.9 mg/kg dose in one of the following ways:

- Remove from vial using a syringe and needle,
- Remove from port (second injection site) on infusion line after infusion set is primed, or
- Program infusion pump to deliver bolus at infusion initiation. Remember to prime the IV pump with the Activase solution so that the remainder of the infusion begins immediately following the bolus dose

**Step 4. Administer bolus**

Administer initial IV bolus over 1 minute.

**Administration of remainder of dose**

**Step 5. Administer remainder**

Infuse the remaining 90% of the 0.9 mg/kg dose over 60 minutes. 100-mg vials—Spike the stopper of a reconstituted vial of Activase with an infusion set, using the same puncture site created by the transfer device. To ensure delivery of the full dose, including the volume of Activase in the IV tubing, a standardized procedure should be used. There are 2 common practices for delivery:

- Spike a small bag (eg, 50 mL) of 0.9% Sodium Chloride, USP, with the end of the infusion set when the Activase vial is empty. The infusion should continue at the same rate to ensure that all the Activase remaining in the tubing is received by the patient

- Program an infusion pump to administer Activase, making sure to prime the pump tubing with the Activase solution so that the remainder of the infusion begins immediately following the bolus dose

50-mg vials—Administer using either a polyvinyl chloride bag or glass vial and infusion set.

No medication should be added to infusion solutions that contain Activase.

For specifics regarding dosing and administration, please see the Activase full Prescribing Information.

**Indication**

Activase (Alteplase) is indicated for the management of acute ischemic stroke in adults for improving neurological recovery and reducing the incidence of disability. Treatment should only be initiated within 3 hours after the onset of stroke symptoms, and after exclusion of intracranial hemorrhage by a cranial computerized tomography (CT) scan or other diagnostic imaging method sensitive for the presence of hemorrhage (see CONTRAINDICATIONS in the full prescribing information).

**Important Safety Information**

All thrombolytic agents increase the risk of bleeding, including intracranial bleeding, and should be used only in appropriate patients. Not all patients with acute ischemic stroke will be eligible for Activase therapy, including patients with evidence of recent or active bleeding; recent (within 3 months) intracranial or intraspinal surgery, serious head trauma, or previous stroke; uncontrolled high blood pressure; or impaired blood clotting.

Please see accompanying full Prescribing Information for additional Important Safety Information.

For your acute ischemic stroke patients

The first 24 hours are critical when Activase (alteplase) is administered

Close observation and frequent monitoring of patients for neurologic changes, any signs/symptoms of intracranial hemorrhage, and any signs of adverse drug reactions are important during patient recovery.

Consider using the Activase Therapy Checklist as a guide in tracking your patients’ recovery

During tPA therapy

☐ Perform neurologic assessment
  The use of a stroke rating scale, preferably the NIHSS, is recommended.
  • Repeat every 15 minutes during the 1-hour infusion to monitor for neurologic deterioration

☐ Check for major and/or minor bleeding
  All body secretions should be tested for occult blood.
  • Major bleeding: intracranial, retroperitoneal, gastrointestinal, or genitourinary hemorrhages
  • Minor bleeding: gums, venipuncture sites, hematuria, hemoptyysis, skin hematomas, or ecchymosis
  • Arterial and venous punctures should be minimized and checked frequently

☐ Monitor blood pressure every 15 minutes during the 1-hour infusion
  • Blood pressure should be monitored frequently and controlled during and after tPA administration (systolic blood pressure ≤ 185 mm Hg and diastolic blood pressure ≤ 110 mm Hg)
  • Administer antihypertensive medications to maintain blood pressure at or below these levels

☐ Discontinue infusion and obtain an emergency CT scan
  if the patient develops severe headache, acute hypertension, nausea, or vomiting; or has a worsening neurologic examination

☐ Monitor for signs of orolingual angioedema
  If angioedema is noted, promptly institute appropriate therapy (eg, antihistamines, intravenous corticosteroids, or epinephrine) and consider discontinuing tPA infusion.

Post tPA therapy

☐ Continue to monitor for neurologic deterioration
  • Every 15 minutes for the first hour after the infusion is stopped
  • Every 30 minutes for the next 6 hours
  • Hourly from the eighth postinfusion hour until 24 hours after the infusion is stopped

☐ Continue to check for major and/or minor bleeding
  • Every 15 minutes for the first hour after the infusion is stopped
  • Every 30 minutes for the next 6 hours
  • Hourly from the eighth postinfusion hour until 24 hours after the infusion is stopped

☐ Continue to monitor and control blood pressure
  • Every 15 minutes for the first hour after the infusion is stopped
  • Every 30 minutes for the next 6 hours
  • Hourly from the eighth postinfusion hour until 24 hours after the infusion is stopped

☐ Obtain a follow-up CT scan or MRI
  at 24 hours before starting anticoagulants or antiplatelet agents

☐ Continue to monitor for signs of orolingual angioedema

If any complications occur, immediately inform the attending physician or neurologist.

*Adapted from the American Heart Association/American Stroke Association (AHA/ASA).

Activase is the standard of care for treating eligible acute ischemic stroke patients within 3 hours.

Note: Each of these guidelines or policy statements represents only one possible approach to the treatment of eligible acute ischemic stroke patients. Each healthcare practitioner and institution will need to exercise professional judgment in creating or adopting treatment protocols or guidelines, as well as in the treatment of each individual patient.

tPA=tissue plasminogen activator; NIHSS=National Institutes of Health Stroke Scale; CT=computerized tomography; MRI=magnetic resonance imaging.


Please see Indication and Important Safety Information on next page.
### Indication

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### Important Safety Information

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Please see full Prescribing Information for additional Important Safety Information.
DESCRIPTION
Actives® (Alteplase) is a tissue plasminogen activator produced by recombinant DNA technology. It is a sterile, purified glycoprotein of 527 amino acids. It is synthesized using the complementary DNA (cDNA) for human tissue-type plasminogen activator obtained from a human melanoma cell line. The manufacturing process involves the secretion of the enzyme alteplase into the culture medium by an established mammalian cell line (Chinese Hamster Ovary cells) into which the cDNA for alteplase has been genetically inserted. Fibrinogen is carried out as a nutrient medium containing the antibiotic gentamicin, 100 mg/L. However, the presence of the antibiotic is not detectable in the final product. Phosphoric acid and/or sodium hydroxide may be used prior to lyophilization for pH adjustment.

ACTIVASE® (Alteplase)
20.6% for accelerated infusion of Alteplase. 21.5% for SK (IV), and 22.0% for SK (SQ). An angiographic substudy of the GUSTO trial provided data on infarct-related artery patency. Table 2 presents 90-minute, 180-minute, 24-hour, and 5–7-day patency values by TIMI flow grade for the three treatment regimens. Reocclusion rates were similar for all three treatment regimens.

Table 2
<table>
<thead>
<tr>
<th>Patency (TIMI 2 or 3)</th>
<th>Accelerated SK (IV)</th>
<th>SK (IV)</th>
<th>p-Value</th>
<th>SK (SQ)</th>
<th>p-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>90-Minute</td>
<td>n=272</td>
<td>n=261</td>
<td>0.22</td>
<td>n=260</td>
<td>0.22</td>
</tr>
<tr>
<td>81.3%</td>
<td>59.0%</td>
<td>&lt;0.001</td>
<td>75.0%</td>
<td>&lt;0.001</td>
<td></td>
</tr>
<tr>
<td>180-Minute</td>
<td>n=80</td>
<td>n=76</td>
<td>0.95</td>
<td>n=95</td>
<td>0.95</td>
</tr>
<tr>
<td>76.3%</td>
<td>72.4%</td>
<td>0.58</td>
<td>71.4%</td>
<td>0.48</td>
<td></td>
</tr>
<tr>
<td>24-Hour</td>
<td>n=72</td>
<td>n=72</td>
<td>0.24</td>
<td>n=75</td>
<td>0.24</td>
</tr>
<tr>
<td>88.9%</td>
<td>87.5%</td>
<td>0.79</td>
<td>82.1%</td>
<td>0.79</td>
<td></td>
</tr>
<tr>
<td>5–7 Day</td>
<td>n=72</td>
<td>n=77</td>
<td></td>
<td>n=75</td>
<td></td>
</tr>
<tr>
<td>83.3%</td>
<td>90.9%</td>
<td>0.47</td>
<td>78.0%</td>
<td>0.17</td>
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</tbody>
</table>

The exact relationship between coronary artery patency and clinical activity has not been established. The safety and efficacy of the accelerated infusion of Alteplase have not been evaluated using antiplatelet or antiplatelet regimens other than those used in the GUSTO trial.

3-Hour Infarction in AMI Patients
In patients studied in a controlled trial with coronary angiography at 90 and 120 minutes following infusion of Alteplase, infarct artery patency was observed in 71% and 85% of patients, respectively. In a second study, a randomized, controlled, placebo-controlled, double-blind, placebo-controlled, double-blind trial (NINDS-Part 1, n=291) evaluated neurological improvement at 24 hours after initiation of therapy in 71% of 83 patients. The exact relationship between coronary artery patency and clinical activity has not been established.

In a double-blind, randomized trial (138 patients) comparing Activase to placebo, patients infused with Activase within 4 hours of onset of symptoms experienced improved left ventricular function at 30 days, 7 days, and 1 month compared to the placebo group, when ejection fraction was measured by gated blood pool scan (53.2% vs 46.4%, p=0.018). Relative to baseline (Day 1) values, the net change in ejection fraction was +2% for the treatment group and -4% for the placebo group, respectively (p=0.001). Also documented was a reduced incidence of clinical congestive heart failure in the treated group (14%) compared to the placebo group (35%) (p<0.005).

In a second, double-blind, randomized trial (over 60 minutes) comparing Activase to placebo (DEขอบส study), patients infused within 5 hours of the onset of symptoms of acute myocardial infarction experienced improved 30-day survival compared to placebo. At 1 month, the overall mortality rates were 7.2% for the Activase-treated group and 9.8% for the placebo-treated group (p=0.001). This benefit was maintained at 6 months for Activase-treated patients (10.4%) compared to those treated with placebo (13.1%, p=0.008).

In a double-blind, randomized trial (721 patients) comparing Activase to placebo, patients infused within 5 hours of the onset of symptoms experienced improved initial ventricular function 10–22 days after treatment compared to the placebo group, when ejection fraction by scan was measured unchanged in the Activase group (78.7% vs 68.2%, p=0.001). Patients treated with Activase had a 19% reduction in infarct size, as measured by current of release of HBD (e-hydroxybutyrate dehydrogenase) activity compared to placebo-treated patients (p=0.001). Patients treated with Activase had significantly fewer episodes of cardiacogenic shock (p=0.02), ventricular fibrillation (p<0.04) and pericarditis (p=0.04) compared to patients treated with placebo. Mortality at 21 days in Activase-treated patients was 7.2% compared to patients treated with placebo (p<0.001).

In a double-blind, placebo-controlled, double-blind trial (NINDS-1-PA Stroke Trial, Part 1 and Part 2) have been conducted in patients with acute ischemic stroke.19 Both studies enrolled patients with mild neurologically deficits who were less than 6 weeks after onset and were randomized to placebo or 15% mg/kg Alteplase. The results were presented at the 2001 and 2002 annual meetings of the American Stroke Association (ASA) and published in the Neurology Journal. The results of both studies showed that Alteplase was associated with a reduction in mortality and morbidity in patients with acute ischemic stroke. The results of the NINDS-1-PA Stroke Trial, Part 1 and Part 2 were presented at the 2001 and 2002 annual meetings of the American Stroke Association (ASA) and published in the Neurology Journal. The results of both studies showed that Alteplase was associated with a reduction in mortality and morbidity in patients with acute ischemic stroke.
Acute Ischemic Stroke

Activase therapy in patients with acute ischemic stroke is contraindicated in the following situations because of an increased risk of bleeding, which could result in significant disability or death:

- Evidence of intracranial hemorrhage on pretreatment evaluation
- Suspicion of subarachnoid hemorrhage on pretreatment evaluation
- Recent (within 3 months) intracranial or infrasilvian surgery, serious head trauma, or previous stroke
- History of intracranial hemorrhage
- Uncontrolled hypertension at time of treatment (e.g., > 185 mm Hg systolic or > 110 mm Hg diastolic)
- Seizure at the onset of stroke
- Active internal bleeding
- Intracranial neoplasm, arteriovenous malformation, or aneurysm
- Known bleeding diathesis including but not limited to:
  - Current use of oral anticoagulants (e.g., warfarin sodium) or an International Normalized Ratio (INR) > 1.7 or a prothrombin time (PT) > 15 seconds
  - Administration of heparin with > 48 hours preceding the onset of stroke and have an elevated activated partial thromboplastin time (aPTT) at presentation

WARNINGS

Bleeding

The most common complication encountered during Activase therapy is bleeding. The type of bleeding associated with thrombolytic therapy can be divided into two broad categories:

- Internal bleeding, involving intracranial and retroperitoneal sites, or the gastrointestinal, genitourinary, or respiratory tracts.
- Superficial or surface bleeding, observed mainly at invaded or disturbed sites (e.g., venous cutdowns, arterial punctures, sites of recent surgical intervention).

The concomitant use of heparin-anticoagulant therapy can contribute to bleeding. Some of the hemorrhage episodes occurred 1 or more days after the effects of Activase had dissipated, but while heparin therapy was continuing.

In those given Activase therapy, bleeding from recent puncture sites may occur. Therefore, thrombolytic therapy requires careful attention to all potential bleeding sites (including catheter insertion sites, arterial and venous puncture sites, cutdown sites, and needle puncture sites).

Intramuscular injections and nonessential handling of the patient should be avoided during treatment with Activase. Venipunctures should be performed carefully and only as required.

Should an arterial puncture be necessary during an infusion of Activase, it is preferable to use an upper extremity vessel that is accessible to manual compression. Pressure should be applied for at least 30 minutes, a pressure dressing applied, and the puncture site checked frequently for evidence of bleeding.

Should serious bleeding (not controllable by local pressure) occur, the infusion of Activase and any concomitant heparin should be terminated immediately.

Each patient being considered for therapy with Activase should be carefully evaluated and anticipated benefits weighed against potential risks associated with therapy.

In the following conditions, the risks of Activase therapy for all approved indications may be increased and should be weighed against the anticipated benefits:

- Recent major surgery, e.g., coronary artery bypass graft, obstetrical delivery, organ biopsy, previous puncture of noncompressible vessels
- Cerebrovascular disease
- Recent gastrointestinal or genitourinary bleeding
- Recent trauma
- Hypertension: systolic BP > 175 mm Hg and/or diastolic BP > 110 mm Hg
- High likelihood of left heart thrombus, e.g., mitral stenosis with atrial fibrillation
- Acute pericarditis
- Subacute bacterial endocarditis
- Hemostatic defects including those secondary to severe hepatic or renal disease
- Significant hepatic dysfunction
- Pregnancy
- Diabetic hemorrhagic retinopathy, or other hemorrhagic ophthalmic conditions
- Septic thrombophlebitis or occluded AV cannula at seriously infected site
- Advanced age (e.g., over 75 years old)
- Patients currently receiving oral anticoagulants, e.g., warfarin sodium
- Any other condition in which bleeding constitutes a significant hazard or would be particularly difficult to manage because of its location

Cholesterol Embolism

Cholesterol embolism has been reported rarely in patients treated with all types of thrombolytic agents; the true incidence is unknown. This serious condition, which can be lethal, is also associated with invasive vascular procedures (e.g., cardiac catheterization, angiography, vascular surgery) and/or anticoagulant therapy. Clinical features of cholesterol embolism may include livedo reticularis, “purple toe” syndrome, acute renal failure, gangrenous digits, hypertension, pancreatitis, myocardial infarction, cerebral infarction, spinal cord infarction, renal artery occlusion, bowel infarction, and rhabdomyolysis.

Use in Acute Myocardial Infarction

In a small subgroup of AMI patients who are at low risk for death from cardiac causes (i.e., no previous myocardial infarction, Killip class I) and who have high blood pressure at the time of presentation, the risk for stroke may offset the survival benefit produced by thrombolytic therapy. 12

Arrhythmias

Coronary thrombosis may result in arrhythmias associated with reperfusion. These arrhythmias (such as sinus bradycardia, accelerated idioventricular rhythm, ventricular premature depolarizations, ventricular tachycardia) are not different from those often seen in the ordinary course of acute myocardial infarction and may be managed with standard antiarrhythmic measures. It is recommended that antiarrhythmic therapy for bradycardia and/or ventricular irritability be available when infusions of Activase are administered.

Use in Acute Ischemic Stroke

In addition to the previously listed conditions, the risks of Activase therapy to treat acute ischemic stroke may be increased in the following conditions and should be weighed against the anticipated benefits:

- Patients with severe neurological deficit (e.g., NIHSS > 22) at presentation. There is an increased risk of intracranial hemorrhage in these patients.
- Patients with major early infarct signs on a computed cranial tomography (CT) scan (e.g., substantial edema, mass effect, or midline shift).
- Patients without recent use of oral anticoagulants or heparin. Activase treatment can be initiated prior to the availability of coagulation study results. However, infusion should be discontinued if either a pretreatment International Normalized Ratio (INR) > 1.7 or a prothrombin time (PT) > 15 seconds or an elevated activated partial thromboplastin time (aPTT) is identified.

Treatment should be limited to facilities that can provide appropriate evaluation and management of ICH.

ACTIVASE® (Alteplase)

Recent intracranial or intraspinal surgery or trauma (see WARNINGS)
- Intracranial neoplasm, arteriovenous malformation, or aneurysm
- Known bleeding diathesis
- Severe uncontrolled hypertension

Favorable Outcome is defined as recovery with minimal or no disability.

Fatal outcome is from Generalized Equations with log link.

The incidences of all-cause 90-day mortality, ICH, and new ischemic stroke following Activase treatment compared to placebo are presented in Table 4 as a combined safety analysis (n=624) for Parts 1 and 2. These data indicated a significant increase in ICH following Activase treatment, particularly symptomatic ICH within 36 hours. In Activase-treated patients, there were no increases compared to placebo in the incidences of 90-day mortality or severe disability.

For the lysis of acute pulmonary emboli, defined as obstruction of blood flow to a lobe or multiple segments of the lungs.

• Activin e of pulmonary emboli, defined as obstruction of blood flow to a lobe or multiple segments of the lungs.

• For the lysis of pulmonary emboli accompanied by unstable hemodynamics, e., failure to maintain blood pressure without supportive measures.

The diagnosis should be performed by objective means, such as pulmonary angiography or noninvasive procedures such as lung scanning.
**ACTIVASE® (Alteplase)**

In acute ischemic stroke, neither the incidence of intracranial hemorrhage nor the benefits of therapy are known. Patients treated with Activase have a risk of intracranial hemorrhage of 3 hours after the onset of symptoms. Therefore, treatment of patients with acute ischemic stroke more than 3 hours after symptom onset is not recommended.

Due to the increased risk for misdiagnosis of acute ischemic stroke, special diligence is required in making this diagnosis in patients whose blood glucose values are ≤ 50 mg/dL or > 400 mg/dL. The presence of a hyperglycemic trend during the infusion regimen or with rapidly improving symptoms prior to the start of Activase administration has not been evaluated. Therefore, treatment of patients with minor neurologic deficit or with rapidly improving symptoms prior to the start of Activase administration should be considered.

**PRECAUTIONS**

**General**

Standard management of myocardial infarction or pulmonary embolism should be implemented concomitantly with Activase treatment. Noncompressible arterial puncture must be avoided and internal jugular and subclavian venous punctures should be avoided to minimize the risk for bleeding from noncompressible sites. Arterial and venous punctures should be minimized. The incidence of serious bleeding episodes, e.g., catheter insertion sites, and arterial puncture sites.

Patient with an acute ischemic stroke have a risk of hemorrhage from intracranial hemorrhage of 3 hours after the onset of symptoms. Therefore, treatment of patients with acute ischemic stroke more than 3 hours after symptom onset is not recommended.

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**Adverse Reactions**

**Allergic Reactions**

Any patient who has had a reaction to Activase or any component of Activase should not receive this product. If a reaction occurs, Activase should be stopped immediately and the patient should be evaluated for the possibility of anaphylaxis. Treatment should include the use of antihistamines and oxygen. Readministration

**Drug Interactions**

The interaction of Activase with other cardiovascular or cerebrovascular drugs has not been studied. In addition to bleeding associated with heparin and vitamin K antagonists, drugs that alter platelet function (such as acetylsalicylic acid, dipyridamole and Ticlopidine) may increase the risk of bleeding during, or after Activase therapy.

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**Blood Pressure Control**

Blood pressure should be monitored frequently and controlled during and following Activase administration in the management of acute ischemic stroke. In The NINDS t-PA Stroke Trial (Parts 1 and 2), the frequency of bleeding requiring red blood cell transfusions was 6.4% for Activase-treated patients compared to 3.8% for placebo (p<0.19, using Mantel-Haenszel Chi- squared test). Fibrin is part of the hemostatic plug formed at needle puncture sites will be lysed during Activase therapy. Therefore, Activase therapy requires careful attention to potential bleeding sites, e.g., catheter insertion sites, and arterial puncture sites.

**Allergic Reactions**

Allergic-type reactions, e.g., anaphylactoid reaction, laryngeal edema, orolingual angioedema, rash, and urticaria have been reported. A cause and effect relationship to Activase therapy has not been established. When such reactions occur, they usually respond to conventional therapy.

There have been post-marketing reports of orolingual angioedema associated with the use of Activase. Many patients, primarily acute ischemic stroke patients, were receiving concomitant angiotensin-converting enzyme inhibitors (see PRECAUTIONS: General and ADVERSE REACTIONS: Allergic Reactions).

**Use of Antithrombotics**

Aspirin and heparin have been administered concomitantly with and following infusions of Activase in the management of acute myocardial infarction or pulmonary embolism. Because Activase is an enzyme that is present in blood in pharmacologic concentrations remains active under in vitro conditions. This can lead to degradation of fibrinogen in blood samples removed for analysis. Collection of blood samples in the presence of anticoagulants (a single patient measurement) were reported in one patient, but subsequent antibody test results were negative.

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ACTIVASE® (Alteplase)

100 mg Vial

Reconstitution should be carried out using the transfer device provided, adding the contents of the accompanying 100 mL vial of Sterile Water for Injection, USP, to the contents of the 100 mg Alteplase vial. The reconstituted solution is not to be refrigerated; it should remain undisturbed for several minutes is usually sufficient to allow dissipation of any large bubbles. Please refer to the accompanying Instructions for Reconstitution and Administration.

100 mg VIALS DO NOT CONTAIN SUGAR.

100 mg VIAL RECONSTITUTION

1. Use aseptic technique throughout.
2. Remove the protective flip-caps from one vial of Activase and one vial of Sterile Water for Injection, USP (SWFI).
3. Detach the vials from their packaging and create the transfer device in the stopper of the vial of reconstituted Activase. Peel the clear plastic hanger from the vial label. Hang the Activase vial from the resulting loop.
4. The remaining vial may be diluted further immediately before administration in an equal volume of SWFI. DO NOT INVERT THE VIAL OF SWFI.
5. Holding the vial of Activase upside-down, position it so that the center of the stopper is directly over the exposed piercing pin of the transfer device.
6. Push the vial of Activase down so that the piercing pin is inserted through the center of the Activase vial stopper.
7. Invert the vial of SWFI, allowing the SWFI to flow into the Activase vial (approximately 0.5 cc of SWFI will remain in the diluent vial). Approximately 2 minutes are required for this procedure.
8. Remove the transfer device and the empty SWFI vial from the Activase vial. Safely discard both the transfer device and the empty diluent vial according to institutional procedures.
9. Do not use another infusion solution, e.g., Sterile Water for Injection, USP, or preservative-containing solutions containing Activase.

Any unused infusion solution should be discarded.

HOW SUPPLIED

Activase® (Alteplase) is supplied as a sterile, lyophilized powder in 50 mg vials containing vial and in 100 mg vials without vial. Each 50 mg Activase vial (29 mg of Activase dissolved in 50 mL Sterile water for injection, USP) NDC 59242-044-13. Each 100 mg Activase vial (58 million IU of Activase dissolved with diluent for reconstitution, 100 mL Sterile water for injection, USP), and one transfer device: NDC 59242-085-27.

Storage

By programming an infusion pump to deliver a 15 mL (1 mg/mL) bolus at the initiation of the infusion.

10. As the Activase infusion is initiated, the infusion set is primed.

11. Invert both the transfer device and the empty diluent vial according to institutional procedures.

12. The remaining vial may be diluted further immediately before administration in an equal volume of SWFI. DO NOT INVERT THE VIAL OF SWFI.

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

14. Push the vial of Activase down so that the piercing pin is inserted through the center of the Activase vial stopper.

15. The vials of SWFI that the vial of Activase is on the bottom (upright) and the vial of SWFI is upside-down, allowing the SWFI to flow into the Activase vial. Allow the entire contents of the vial of SWFI to flow into the Activase vial (approximately 0.5 cc of SWFI will remain in the diluent vial). Approximately 2 minutes are required for this procedure.

16. Remove the transfer device and the empty SWFI vial from the Activase vial. Safely discard both the transfer device and the empty diluent vial according to institutional procedures.

17. Do not use another infusion solution, e.g., Sterile Water for Injection, USP, or preservative-containing solutions containing Activase.

Any unused infusion solution should be discarded.

REFERENCES


ACTIVASE® (Alteplase)

Manufactured by

Genentech, Inc.

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