

## **Treatment of Ischemic Stroke with Tissue Plasminogen Activator (tPA)**

### **What is a stroke?**

A stroke is a sudden loss of blood flow to the brain. In an ischemic stroke, blood flow to a part of the brain is stopped by a blockage, usually a blood clot. When oxygen rich blood cannot reach the brain tissue, it begins to die.

### **What is tissue plasminogen activator or tPA?**

tPA is a medicine that can break up or dissolve blood clots.

### **How can tPA help someone with an ischemic stroke?**

tPA can sometimes dissolve the blood clot in the brain. If the blood vessel reopens soon enough, some or all of the brain tissue may be saved. This may decrease the damage from the stroke.

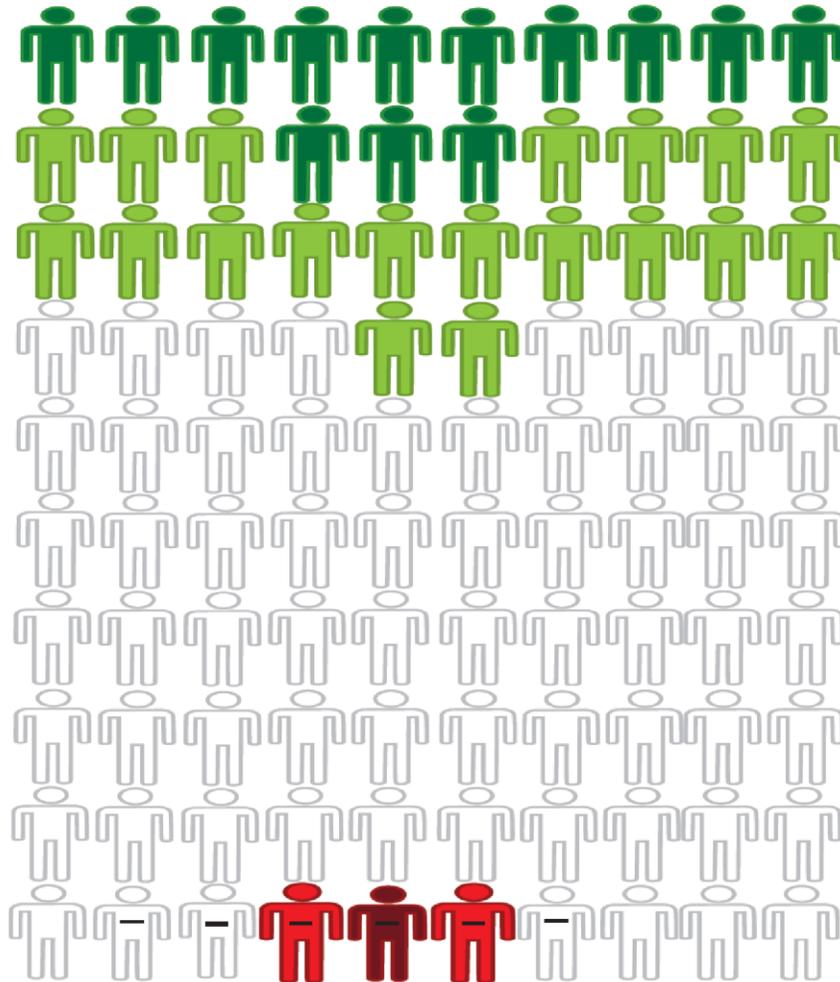
### **What is the possible benefit of tPA?**

The possible benefit of tPA is a higher chance of having a good outcome. A good outcome is little or no disability from the stroke. In the study done that led to the approval of tPA, the odds of being normal or nearly normal increased when getting tPA. Another way to show the benefit of tPA is the picture on page 2. It shows a potential group of 100 people. In this picture 32 people benefit from tPA, and three are harmed. Even though the chances of a good outcome are higher with tPA, over half of the people who are given tPA will still have some disability from the stroke.

### **What are the potential risks?**

- There is a higher risk of bleeding in the brain. This may need surgery.
- Your stroke symptoms could get worse. This may need medicine or surgery.
- You may have a higher risk of disability. You may need rehab in the hospital, at a rehab facility, or at home.
- You may have bleeding in the intestines, kidneys and other organs. You may need medicine or surgery for this.

# TPA for Cerebral Ischemia within 3 Hours of Onset-Changes in Outcome Due to Treatment



Changes in final outcome as a result of treatment:

- Normal or nearly normal      13 patients for every 100 patients treated
- Better      32 patients for every 100 patients treated
- No major change
- Worse      3 patients for every 100 patients treated
- Severely disabled or dead      1 patient for every 100 patients treated

Early course:

- No early worsening with brain bleeding
- Early worsening with brain bleeding

UCLA Stroke Center (Saver et al *Stroke* 2009;40:2433-7)

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