# Ninety-day Outcomes for the Trevo Pro-Retriever in Acute Ischemic Stroke Patients

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## Introduction

Timely revascularization in the setting of acute large vessel occlusion has been shown to be a major factor in good clinical outcome. The Trevo stent retrieval device (Stryker, Kalamazoo, MI) is a stent-like retriever designed to remove thrombus in patients experiencing an acute ischemic stroke. We report our experience at Capital Institute for Neurosciences on the results of the use of the Trevo Pro-Retriever in acute stroke patients.

## Methods

The Trevo system was used in 52 patients with acute ischemic stroke. Procedure success (successful revascularization rate, TICI (thrombolysis in cerebral infarction) score 2a or better) and neurological outcomes (modified Rankin Scale (mRS) at baseline and 90 days following procedure) were recorded.

## Results

Fifty two patients were treated with the Trevo Pro-Retriever. Twenty seven patients were treated within the 8 hour window (Group 1) and 25 patients were treated after 8 hours (Group 2). Successful revascularization was achieved in 93% of Group 1 and 84% of Group2.

The 90-day follow up mRS score was collected in 21 patients of Group 1 and 19 patients of Group 2. Good outcome was found in 48% of patients in Group 1 and 42% of Group2. Overall mortality was 15% in Group 1 and 24% in Group 2.

## Conclusions

Twenty five of our 52 patients exceeded the 8-hours -window. Successful revascularization rates and neurological outcomes in this population have not been reported. The Trevo Pro-Retriever has been shown to be an effective tool in treating acute ischemic stroke. Our experience elucidate this but also shed light on the potential use of this device beyond the eight-hour window, an advantage that warrants further investigation.

## Learning Objectives

1) Describe the outcome with the use of Trevo

2) Discuss recanalization rates with the use of Trevo

3) Identify a new effective tool for treatment of acute ischemic stroke

## References