



Mercy Health- St. Vincent Medical Center's Comprehensive Stroke Center provides the highest level of care to critically ill stroke patients. Over the last two years, over 1,300 stroke patients from Northwestern Ohio and Southeastern Michigan have entrusted their care to us.

Acute Stroke Therapies

- Acute treatments for ischemic strokes (stroke caused by a blood clot) may include an IV medication called (Tenecteplase or TNK). This medication is a “clot buster” also known as a thrombolytic and may dissolve the clot that is causing the stroke. There are many factors that determine whether a patient can receive this medication or not.
- A procedure called **Mechanical Endovascular Reperfusion** or MER may also be used with or without the IV clot busting medication to remove the clot.
- During the MER procedure, a specially trained endovascular neurologist removes the clot in the brain using specialized catheters.
- Bleeding in the brain is a potential complication of both the clot busting medication and the MER.
- The bleeding rate following administration of the IV clot buster based on research from the National Institute of Neurological Disorders and Stroke (NINDS) trial is less than 6.4%*.
- The complication rate for MER procedure based on research from the DEFUSE 3 clinical trial is 7%.
- During calendar years 2023 and 2024, the complication rates at Mercy Health- St. Vincent were:
 - IV Tenecteplase or TNK: 1.7%
 - Mechanical Endovascular Reperfusion or MER: 4.3%

*The National Institute of Neurological Disorders and Stroke rt-PA Stroke Study Group. *N Engl J Med* 1995; 333:1581-1588 **VOL. 333 NO. 24**

Mechanical Endovascular Reperfusion (MER) Outcomes

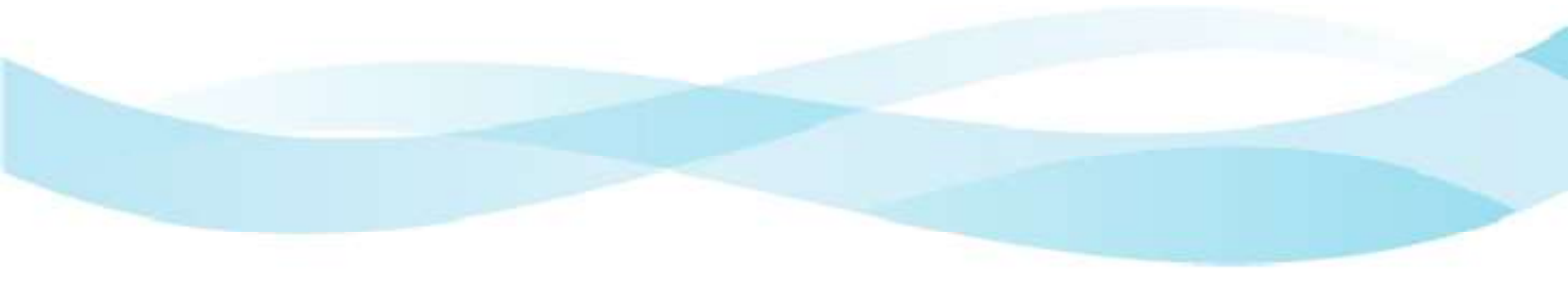
- After the Mechanical Endovascular Reperfusion (MER) procedure to remove the clot in the brain, the amount of blood flow that is restored to the brain is graded using the **Thrombolysis in Cerebral Infarction** or TICI score.
- A TICI score of 2b to 3 is considered a good outcome.
- Clinical trials report that 76% of patients undergoing a MER procedure achieve a score of TICI 2b to 3.
- During calendar years 2023 and 2024, Mercy Health- St. Vincent achieved TICI 2b to 3 on 98% of the MER procedures performed.

Thrombectomy for Stroke at 6 to 16 Hours with Selection by Perfusion Imaging: Gregory W. Albers, M.D, et al DIFUSE 3 investigators [February 22, 2018](#) N Engl J Med 2018; 378:708-718 DOI: 10.1056/NEJMoa1713973

Neuro Interventional Radiology: Diagnostic Cerebral Angiograms

- A Diagnostic Cerebral Angiograms is performed to evaluate the blood vessels in the brain using contrast (dye) and x-ray.
- Mercy Health- St. Vincent Endovascular Neurologists perform over 200 diagnostic cerebral angiograms per year.
- The expected complication rate with this procedure is less than 1%.
- During calendar years 2023 and 2024, the complication rates at Mercy Health- St. Vincent were: 0.9%.

Carotid artery procedures

- Vascular surgeons perform procedures to improve blood flow through the carotid arteries.
 - An open surgery to remove plaque from the artery is called a carotid endarterectomy (CEA).
 - Blood flow can also be improved by placing a small tube called a stent into the carotid artery using specialized catheters (CAS).
 - Both vascular surgeons and endovascular surgeons perform these procedures.
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- For patients who have stroke symptoms prior to the CEA or CAS procedure, the expected complication rate of stroke or death in 30 days is less than 6%.
- For patients who are not symptomatic, the 30-day complication rate is less than 3%.
- During calendar years 2023 and 2024, 284 patients had a CEA or CAS procedures at Mercy Health- St Vincent Medical Center with a complication rate of 2% for symptomatic patients and a 1% for those patients who did not have symptoms.

