

# Thrombolysis in cerebral infarction (TICI) scale

The [thrombolysis](#) in [cerebral infarction](#) (TICI) grading system was described in 2003 by Higashida et al.<sup>1)</sup> as a tool for determining the response of [thrombolytic therapy](#) for [ischemic stroke](#). In neuro-interventional radiology it is commonly used for patients post endovascular revascularization. Like most therapy response grading systems, it predicts prognosis.

## Classification

The original description<sup>2)</sup> was based on the angiographic appearances of the treated occluded vessel and the distal branches:

Grade 0: no perfusion

Grade 1: penetration with minimal perfusion

Grade 2: partial perfusion

Grade 2A: only partial filling (less than two-thirds) of the entire vascular territory is visualized

Grade 2B: complete filling of all of the expected vascular territory is visualized but the filling is slower than normal

Grade 3: complete perfusion

In 2013 Fugate et al. reported marked variability in its definitions and application<sup>3) 4)</sup>

A consensus paper from three collaborative groups published in Stroke in 2013<sup>5)</sup> recommended a modified scale, and a change of name from Thrombolysis in Cerebral Infarction to modified Treatment in Cerebral Infarction (mTICI), to better reflect the increased use of endovascular therapies.

## References

<sup>1)</sup> , <sup>2)</sup>

Higashida RT, Furlan AJ, Roberts H et-al. Trial design and reporting standards for intra-arterial cerebral thrombolysis for acute ischemic stroke. Stroke. 2003;34 (8): e109-37.

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<sup>3)</sup>

Fugate JE, Klunder AM, Kallmes DF. What is meant by "TICI"? AJNR Am J Neuroradiol. 2013;34 (9): 1792-7. doi:10.3174/ajnr.A3496

<sup>4)</sup> , <sup>5)</sup>

Zaidat OO, Yoo AJ, Khatri P et-al. Recommendations on angiographic revascularization grading standards for acute ischemic stroke: a consensus statement. Stroke. 2013;44 (9): 2650-63.

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