



CERENOVUS

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## Achieving first pass effect in mechanical thrombectomy demonstrates **improved patient outcomes and cost-savings** for treating acute ischemic stroke



Patients who achieve FPE have better patient outcomes which reduces healthcare spending significantly.<sup>1</sup>

The *Health Economic Impact of First Pass Success among Patients with Acute Ischemic Stroke Treated with Mechanical Thrombectomy (MT) – A United States and European Perspective* published in JNIS, report based on a post-hoc analysis of data from ARISE II is the **first analysis to highlight the economic impact of improved clinical outcomes provided by first pass recanalization** in stroke management.

First Pass Effect (FPE) restoring complete or near complete reperfusion (modified Thrombolysis in Cerebral Infarction) in a single pass, is an independent predictor of good functional outcome.<sup>1</sup>

The **greatest benefits to patients** are observed when **MT achieves substantial and excellent reperfusion from the first pass**, avoiding the risk of endothelial vessel injury and irritation, increased rate of complication and prolonged procedure time.

Using a revascularization device that is designed to **maximize the first pass** provides clinicians with the greatest opportunity to achieve complete or near complete recanalization with a single thrombectomy pass.

Analysis from the **ARISE II** study showed that:



EMBOTRAP® II  
Revascularization Device  
accounted for  
**9 in 10**  
successful reperfusion.<sup>2</sup>

**51.5%**  
of patients treated  
with the EMBOTRAP® II  
Revascularization Device  
achieved  
substantial flow  
restoration after  
one pass.<sup>2</sup>



Stroke is a  
leading cause of  
mortality and  
disability globally.<sup>7</sup>



It is estimated that of the 13.7 million people<sup>3</sup> globally who will have a stroke, 85% are acute ischemic.<sup>4</sup>



Patients who achieve FPE have a **reduced length of stay in hospital** (6.1 days vs 9.5 days compared to patients who do not achieve FPE).<sup>1</sup>

Ultimately achieving FPE creates a per-person acute costs saving of **€1,560–€4,542 (European country dependent) and \$6,575 in the US**. Additional cost savings, up to one year following the acute care phase, range from **€701—€2,131 in Europe to \$4,116 in the US**.<sup>1\*</sup>

Per patient annual cost savings (up to one year after stroke) in Euro and US Dollar equivalent<sup>1\*</sup>

France	€2,131 / \$2,503
Italy	€701 / \$823
Sweden	€1,314 (SEK 13,333) / \$1,522
UK	£2,132 / \$2,783
US	\$4,116 / \$4,116

Utilizing **EMBOTRAP®** with MT

**reduces acute healthcare spending within the first year**

when complete or near complete is achieved at first pass.<sup>1</sup>

\*based on exchange rates for 03, August 2020 16:00 UTC were used. The exchange rates were as follows: 1.00 EUR: 1.17 USD, 1.00 SEK: 0.11 USD and 1.00 GBP: 1.31 USD. Abbreviations: FPE = first pass effect; GBP = Great British Pound; mRS = modified Rankin Scale; UK = United Kingdom; USD = United States Dollar; UTC = Coordinated Universal Time

#### References

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