Appendix 1

Time depended Tmax thresholds using GE CTP 4D

The Tmax thresholds for defining core and penumbra were initially derived on the Prove-IT data[6] and externally validated on the HERMES data.[8] Specifically, GE computed tomographic perfusion (CTP) 4D Tmax (GE Healthcare, Waukesha, WI, USA) >10 was used to define the penumbra. Optimal Tmax thresholds for defining core are dependent on stroke onset-to-computed tomography (CT) time and CT-to-reperfusion time, which are reproduced in the Table 1.

Criteria for the judgment on CCC, ICC, and DSC values

Both concordance correlation coefficient (CCC; –1 to 1) and interclass correlation coefficient (ICC; –1 to 1) measure the strength and direction of a linear relationship between two variables. Basically, CCC and ICC are close to

- **0.** No linear relationship
- **0.30.** A weak positive linear relationship
- **0.50.** A moderate positive relationship
- **0.70.** A strong positive linear relationship
- **Exactly +1.** A perfect positive linear relationship

Dice similarity coefficient (DSC; 0 to 1) measures the spatial overlap of two regions. DSC is close to,
- **0.** No overlap
- **0.30.** A weak overlap
- **0.50.** A moderate overlap
- **0.70.** A strong overlap
- **Exactly +1.** A perfect overlap

Supplementary Table 1. Optimal Tmax thresholds for infarction when reperfused <90, 90 to 180 minutes, and not reperfused

Onset to CTP time (min)	CTP to reprefusion time (min)	Tmax (sec)
<180	<90	15.8
	90–180	12.0
	Non-reperfuser	10.1
>180	<90	13.8
	90–180	11.8
	Non-reperfuser	10.0

CTP, computed tomographic perfusion.