

## Supplemental Material

**eTable 1:** Factors Associated with a Change in Intraventricular Haemorrhage Volume in Simple Linear Regression Models

Covariates	Univariable Analysis	
	$\beta$ (95% CI)	P-value
Age	-0.001 (-0.04 to 0.04)	0.96
Male sex	0.63 (-1.58 to 0.33)	0.20
Hispanic ethnicity	0.92 (-0.33 to 2.16)	0.15
Black race	0.51 (-1.74 to 0.73)	0.42
Hypertension	-0.93 (-1.38 to 3.25)	0.43
Hyperlipidemia	0.07 (-1.03 to 0.88)	0.88
Diabetes	0.82 (-0.19 to 1.83)	0.11
Tobacco use	-0.37 (-1.62 to 0.89)	0.57
Prior anticoagulant use	-0.23 (-2.21 to 1.76)	0.82
Prior antiplatelet use	0.64 (-0.35 to 1.63)	0.21
Glasgow Coma Scale at screening	0.20 (0.02 to 0.39)	0.03
Baseline WBC count	0.12 (0.05 to 0.19)	0.001
ICH location Deep (vs. lobar)	-0.22 (-1.18 to 0.75)	0.66
ICH volume at stability	0.02 (-0.01 to 0.04)	0.24
IVH volume at stability	-0.47 (-0.52 to -0.42)	<0.001
End-of-treatment ICH volume	0.03 (0.01 to 0.05)	0.01
EVD placement	-2.82 (-3.96 to -1.67)	<0.001
MIS+Alteplase	-1.2 (-2.16 to -0.25)	0.01
Number of doses of study agent	-0.19 (-0.48 to 0.11)	0.21
Time from ictus to first dose of study agent	0.003 (-0.04 to 0.05)	0.90
Time from ictus to end-of-treatment	-0.01 (-0.02 to 0.002)	0.08

Abbreviations: CI, Confidence interval; WBC, white blood cell; ICH, intracerebral haemorrhage; IVH, intraventricular haemorrhage; EVD, external ventricular drain

**eTable 2:** Factors Associated with a Change in Intraventricular Haemorrhage Volume using variables from eTable 1 with P<0.2 for the multivariable analysis

Model/variable	$\beta$ (95% CI)	P-value <sup>a</sup>
Unadjusted analysis		
MIS+alteplase	-1.20 (-2.16 to -0.25)	0.01
Multivariable analysis		
MIS+alteplase	-0.79 (-1.37 to -0.21)	0.008
Hispanic ethnicity	0.24 (-0.28 to 0.76)	0.36
Diabetes	0.28 (-0.28 to 0.84)	0.32
GCS at randomization	0.09 (-0.02 to 0.21)	0.12
IVH volume, stability	-0.52 (-0.60 to -0.43)	<0.001
Ictus to EOT time (hrs)	-0.005 (-0.01 to 0.003)	0.23
Baseline WBC	0.14 (0.05 to 0.24)	0.002
EVD placement	0.08 (-1.03 to 1.19)	0.89

Abbreviations: EOT, end-of-treatment; ICH, intracerebral haemorrhage; IVH, intraventricular haemorrhage; WBC, white blood cell; EVD, external ventricular drain

<sup>a</sup> p < 0.05 was considered statistically significant.

Supplemental Data Analysis:

### ***Association between MISTIE Catheter Drainage Volume and Change in IVH and ICH***

#### ***Volume***

MISTIE catheter drainage volume was reported between each dose of alteplase for 31 patients. Total median drainage volume was 138 [51-304] mL; per dose of alteplase: 21.8 [14.78, 59.5] mL. Catheter drainage volume per alteplase dose was significantly correlated with change in both IVH and ICH volume from stability to EOT. (Spearman's rho = -0.49; p=0.01 and rho = -0.44; p=0.01 respectively). This is a small subset of patients, but is hypothesis-generating for the idea that enhanced catheter drainage secondary to a presumed communication with ventricular CSF could increase hematoma volume reduction in both compartments.