

ONLINE SUPPLEMENTAL

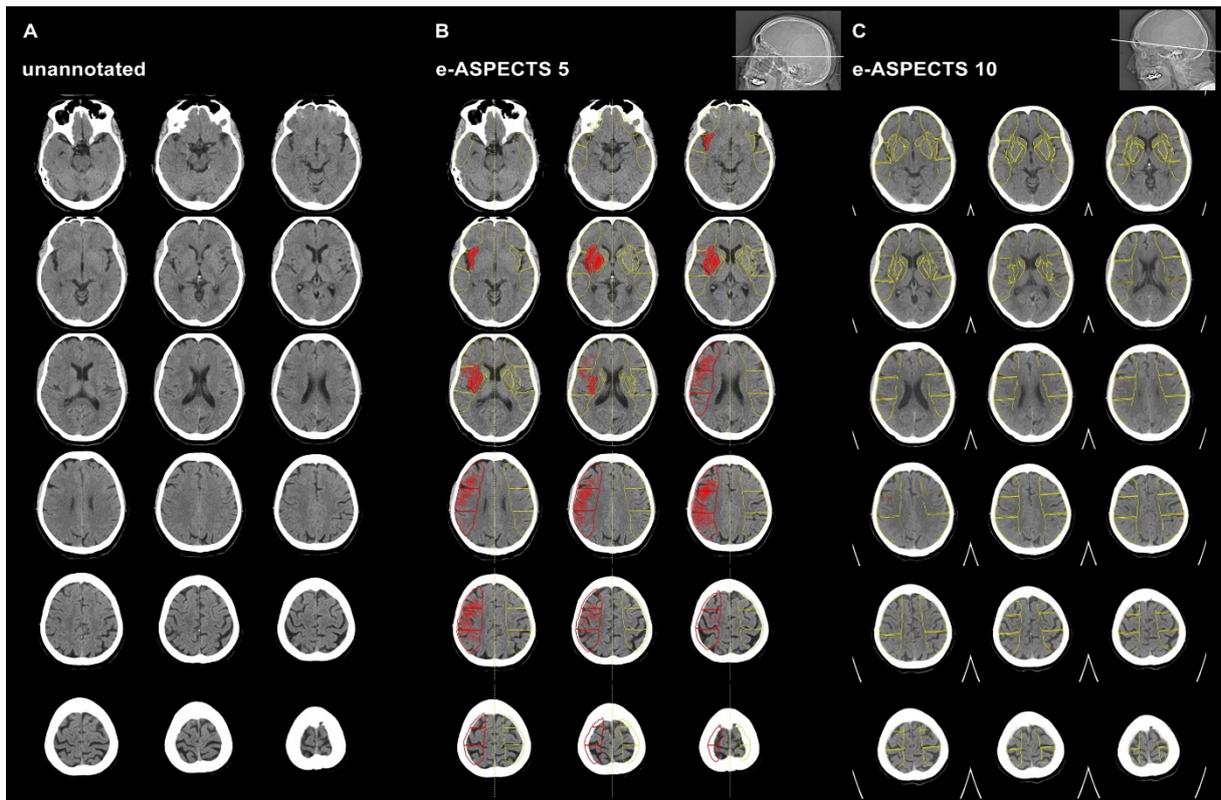
for manuscript entitled

Electronic Alberta Stroke Program Early CT score change and functional outcome in a drip-and-ship stroke service

Supplemental results (Sensitivity Analysis):

Sensitivity Analysis was restricted to N=85 patients without formal increase in e-ASPECTS.

During patient transfer, e-ASPECTS declined by a median of 1 point (0–3), resulting in a median e-ASPECTS at the CSC of 8 (IQR 5–9) compared to 9 (IQR 8–10) at the referring hospital. Outcome of patients with decline in e-ASPECTS during transport tended to be worse than in those without decline (median mRS 5 (IQR 3–6) vs. median mRS 4 (IQR 3–5); $p=0.059$). Functional outcome at 3-months was associated with a decrease in e-ASPECTS during transport ($p=0.301$, 95% CI 0.111–0.472, $p=0.005$). A difference in e-ASPECTS also correlated with the acute ischemia volume change ($p=0.734$, 95% CI 0.586–0.837, $p<0.001$). Transfer time was not correlated with image-to-image time and e-ASPECTS at the CSC ($p=0.011$, 95% CI -0.208–0.237, $p=0.920$) or any difference in the e-ASPECTS between the images taken at the different service levels ($p=0.151$, 95% CI -0.053–0.350, $p=0.166$).



Supplemental Figure I: Exemplary NCCT scans of a patient with “virtual” improvement in e-ASPECTS during transport. (A, B), referring hospital, (C) comprehensive stroke center. (A) unannotated scans, suggesting early infarct signs across the right hemisphere. (B) Detected e-ASPECTS regions are highlighted in red. For visualization, window level is set to 40 HU, and window-width to 80 HU. (C) No abnormal regions are detected at the comprehensive stroke center. Review of the case found that the head of the patient was tilt during scanning in the referring hospital.

Supplemental Table 1: Patients characteristics according thrombectomy status

	EVT (n=60)	No EVT (n=42)	p-Value
Age	77 (67–83)	76 (69–81)	0.844
Women	32 (53.3)	19 (45.2)	0.423
Comorbidities			
Arterial hypertension	39 (65)	30 (71.4)	0.497
Diabetes Mellitus	15 (25)	15 (35.7)	0.245
Hyperlipidemia	15 (25)	9 (21.4)	0.677
Atrial Fibrillation	30 (50)	20 (47.6)	0.814
mRS, prestroke	1 (0–2)	2 (1–2)	0.076
mRS, at 3 months [§]	4 (3–5)	5 (4–5)	0.033
Onset to 1st scan*	92 (68–163)	97 (75–179)	0.591
IMG-to-IMG time, minutes	154 (112–222)	137 (119–204)	0.596
e-ASPECTS at RH	9 (8–10)	9 (6–10)	0.095
e-ASPECTS at CSC	8 (7–9)	7 (4–9)	0.121
e-ASPECTS decline	34 (57)	20 (48)	0.423
Collateral status at RH	2 (2–3)	3 (2–3)	0.321
Collateral status at CSC	2 (2–3)	2 (2–3)	0.659
Acute ischemia volume at RH, ml	23 (10–42)	43 (20–70)	0.013
Acute ischemia volume at CSC, ml	34 (14–58)	50 (30–108)	0.012
Data are median (IQR) or n (%). [§] mRS at 3months, last observation mRS carried fwd. * Reference to known stroke onset or last-seen-well in case of unknown exact onset. Abbreviations: EVT, endovascular therapy; mRS, modified Rankin Scale Score; IMG-to-IMG time, time between computer tomography at the referring hospital and first image at the comprehensive stroke center; e-ASPECTS, electronically calculated Alberta Stroke Program Early CT score; RH, referring hospital; CSC, comprehensive stroke center			