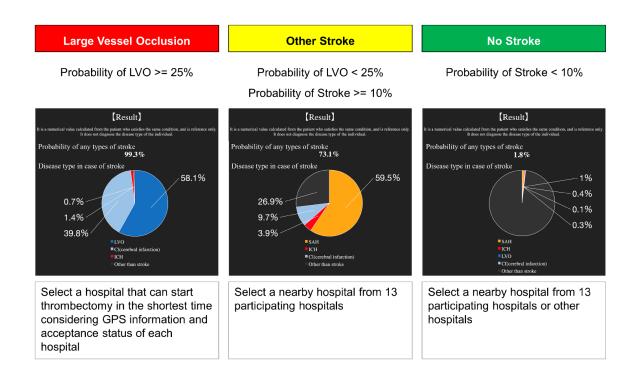
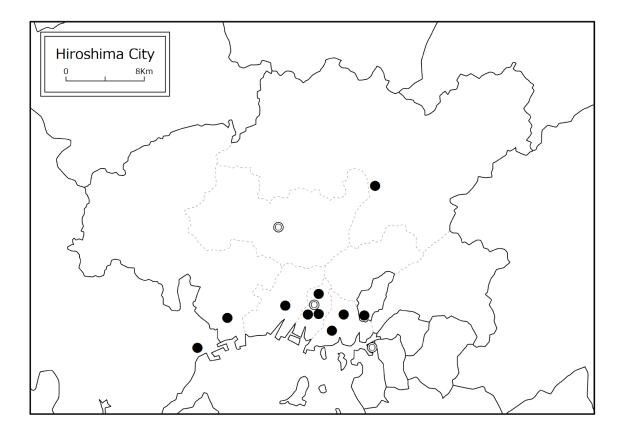
Supplemental material

Supplemental Figure 1. Triage system using the JUST score on a mobile device



JUST: Japan Urgent Stroke Triage

Supplemental Figure 2. Participating hospitals in Hiroshima City



Black dot: Thrombectomy-capable hospitals

Double circle: rt-PA only hospitals

rt-PA: recombinant tissue plasminogen activator

Supplemental Table 1. Hiroshima City Fire Department

Fire Department	Sub-division
Naka	Ote; Hakushima; Motomachi; Eba
Higashi	Hikari; Fukuda; Nukushina; Hesaka
Minami	Danbara; Suijyo; Aosaki; Higashihonura; Ujina; Ninoshima
Nishi	Miyako; Misasa; Koi; Kogo; Inokuchi
Asaminami	Sato; Kamiyasu; Gion; Numata
Asakita	Nakashima; Kabe; Shiraki; Koyo; Asa; Akiota
Aki	Kaita; Senogawa; Yano; Kumano; Saka
Saeki	Itsukaichi; Yuki; Yahata; Kairoen; Ishiuchi

Supplemental Table 2. Difference in patients who triaged and not triaged with JUST score after implementation of JUST score

	Triaged with	Not triaged with	
Total cohort (n=2406)	JUST score	JUST score	P Value
	(n=1484)	(n=922)	
Age, years, mean (SD)	72.4 (14.7)	70.0 (19.3)	0.0004
Men, n (%)	828 (55.8)	462 (50.1)	0.007
Systolic blood pressure, mmHg, mean (SD)	163.9 (33.1)	152.6 (35.0)	< 0.0001
Diastolic blood pressure, mmHg, mean (SD)	90.3 (21.7)	84.7 (21.8)	< 0.0001
Final diagnosis			
LVO, n (%)	156 (10.5)	30 (3.3)	
ICH, n (%)	305 (20.6)	100 (10.9)	
SAH, n (%)	65 (4.4)	44 (4.8)	< 0.0001
CI, n (%)	465 (31.3)	102 (11.1)	
No stroke, n (%)	493 (33.2)	646 (70.1)	
Success of the first request to hospital, n (%)	1175 (79.2)	742 (80.5)	0.44
On-scene time, min, median [IQR]	18 [14-22]	17 [13-23]	0.18
Transport time, min, median [IQR]	10 [6-16]	9 [6-14]	0.0002
	Triaged with	Not triaged with	
Patients with LVO (n=186)	JUST score	JUST score	P Value
Patients with LVO (n=186)	JUST score (n=156)	JUST score (n=30)	P Value
Age, years, mean (SD)			P Value 0.04
·	(n=156)	(n=30)	
Age, years, mean (SD)	(n=156) 79.0 (11.9)	(n=30) 83.8 (10.3)	0.04
Age, years, mean (SD) Men, n (%)	(n=156) 79.0 (11.9) 78 (50.0)	(n=30) 83.8 (10.3) 8 (26.7)	0.04 0.02
Age, years, mean (SD) Men, n (%) Systolic blood pressure, mmHg, mean (SD)	(n=156) 79.0 (11.9) 78 (50.0) 154.1 (27.5)	(n=30) 83.8 (10.3) 8 (26.7) 153.3 (29.7)	0.04 0.02 0.89
Age, years, mean (SD) Men, n (%) Systolic blood pressure, mmHg, mean (SD) Diastolic blood pressure, mmHg, mean (SD)	(n=156) 79.0 (11.9) 78 (50.0) 154.1 (27.5) 86.4 (22.1)	(n=30) 83.8 (10.3) 8 (26.7) 153.3 (29.7) 80.1 (15.5)	0.04 0.02 0.89 0.16
Age, years, mean (SD) Men, n (%) Systolic blood pressure, mmHg, mean (SD) Diastolic blood pressure, mmHg, mean (SD) mRS before onset, median [IQR]	(n=156) 79.0 (11.9) 78 (50.0) 154.1 (27.5) 86.4 (22.1) 0 [0-2]	(n=30) 83.8 (10.3) 8 (26.7) 153.3 (29.7) 80.1 (15.5) 1 [0-3]	0.04 0.02 0.89 0.16 0.57
Age, years, mean (SD) Men, n (%) Systolic blood pressure, mmHg, mean (SD) Diastolic blood pressure, mmHg, mean (SD) mRS before onset, median [IQR] NIHSS, median [IQR]	(n=156) 79.0 (11.9) 78 (50.0) 154.1 (27.5) 86.4 (22.1) 0 [0-2] 20 [14-28]	(n=30) 83.8 (10.3) 8 (26.7) 153.3 (29.7) 80.1 (15.5) 1 [0-3] 22 [15-28]	0.04 0.02 0.89 0.16 0.57 0.71
Age, years, mean (SD) Men, n (%) Systolic blood pressure, mmHg, mean (SD) Diastolic blood pressure, mmHg, mean (SD) mRS before onset, median [IQR] NIHSS, median [IQR] ASPECTS (CT or MRI), median [IQR]	(n=156) 79.0 (11.9) 78 (50.0) 154.1 (27.5) 86.4 (22.1) 0 [0-2] 20 [14-28]	(n=30) 83.8 (10.3) 8 (26.7) 153.3 (29.7) 80.1 (15.5) 1 [0-3] 22 [15-28]	0.04 0.02 0.89 0.16 0.57 0.71
Age, years, mean (SD) Men, n (%) Systolic blood pressure, mmHg, mean (SD) Diastolic blood pressure, mmHg, mean (SD) mRS before onset, median [IQR] NIHSS, median [IQR] ASPECTS (CT or MRI), median [IQR] Occlusion site	(n=156) 79.0 (11.9) 78 (50.0) 154.1 (27.5) 86.4 (22.1) 0 [0-2] 20 [14-28] 7 [5-9]	(n=30) 83.8 (10.3) 8 (26.7) 153.3 (29.7) 80.1 (15.5) 1 [0-3] 22 [15-28] 6 [3-8]	0.04 0.02 0.89 0.16 0.57 0.71 0.10
Age, years, mean (SD) Men, n (%) Systolic blood pressure, mmHg, mean (SD) Diastolic blood pressure, mmHg, mean (SD) mRS before onset, median [IQR] NIHSS, median [IQR] ASPECTS (CT or MRI), median [IQR] Occlusion site Anterior circulation, n (%) Internal carotid artery or M1 segment of the	(n=156) 79.0 (11.9) 78 (50.0) 154.1 (27.5) 86.4 (22.1) 0 [0-2] 20 [14-28] 7 [5-9]	(n=30) 83.8 (10.3) 8 (26.7) 153.3 (29.7) 80.1 (15.5) 1 [0-3] 22 [15-28] 6 [3-8] 27 (90.0)	0.04 0.02 0.89 0.16 0.57 0.71 0.10
Age, years, mean (SD) Men, n (%) Systolic blood pressure, mmHg, mean (SD) Diastolic blood pressure, mmHg, mean (SD) mRS before onset, median [IQR] NIHSS, median [IQR] ASPECTS (CT or MRI), median [IQR] Occlusion site Anterior circulation, n (%) Internal carotid artery or M1 segment of the middle cerebral artery, n (%)	(n=156) 79.0 (11.9) 78 (50.0) 154.1 (27.5) 86.4 (22.1) 0 [0-2] 20 [14-28] 7 [5-9] 147 (94.2) 113 (72.4)	(n=30) 83.8 (10.3) 8 (26.7) 153.3 (29.7) 80.1 (15.5) 1 [0-3] 22 [15-28] 6 [3-8] 27 (90.0) 17 (56.7)	0.04 0.02 0.89 0.16 0.57 0.71 0.10
Age, years, mean (SD) Men, n (%) Systolic blood pressure, mmHg, mean (SD) Diastolic blood pressure, mmHg, mean (SD) mRS before onset, median [IQR] NIHSS, median [IQR] ASPECTS (CT or MRI), median [IQR] Occlusion site Anterior circulation, n (%) Internal carotid artery or M1 segment of the middle cerebral artery, n (%) Success of the first request to hospital, n (%)	(n=156) 79.0 (11.9) 78 (50.0) 154.1 (27.5) 86.4 (22.1) 0 [0-2] 20 [14-28] 7 [5-9] 147 (94.2) 113 (72.4) 127 (81.4)	(n=30) 83.8 (10.3) 8 (26.7) 153.3 (29.7) 80.1 (15.5) 1 [0-3] 22 [15-28] 6 [3-8] 27 (90.0) 17 (56.7) 25 (83.3)	0.04 0.02 0.89 0.16 0.57 0.71 0.10 0.39 0.08

Second transfer to another hospital, n (%)	3 (1.6)	0 (0)	0.44
rt-PA, n (%)	49 (31.4)	3 (10.0)	0.02
Thrombectomy, n (%)	77 (49.4)	7 (23.3)	0.01
D2P, min, median [IQR]	72 [57-97]	95 [70-104]	0.16
P2R, min, median [IQR]	44 [30-67]	69 [12-117]	0.56
TICI 2b/3, n (%)	69/77 (89.6)	3/4 (75.0)	0.36
mRS 0-2 at 90 days, n (%)	59/153 (38.6)	4/23 (17.4)	0.048
Death up to 90 days, n (%)	22/153 (14.4)	5/23 (21.7)	0.36

JUST, Japan Urgent Stroke Triage; SD, standard deviation; IQR, interquartile range; LVO, large vessel occlusion; ICH, intracranial hemorrhage; SAH, subarachnoid hemorrhage; CI, cerebral infarction other than LVO; mRS, modified Rankin Scale; NIHSS, National Institutes of Health Stroke Scale; ASPECTS, Alberta Stroke Program Early CT Score; rt-PA, recombinant tissue plasminogen activator; D2P, door to puncture time; P2R, puncture to reperfusion time; TICI, thrombolysis in cerebral infarction; CT, computed tomography; MRI, magnetic resonance imaging