Supplementary Material

Table 1. The definition of process measures

	Definition*
Acute phage process measures	
rt-PA	intravenous tissue-type plasminogen activator (tPA) in patients who arrive within 2 hours after symptom onset and treated within 3 hours.
Early antithrombotics	Antithrombotic treatment within 2 days after admission, including antiplatelet or anticoagulant medications.
DVT prophylaxis	Patients who cannot walk received DVT prophylaxis within 2 days after admission, including pneumatic compression, heparin sodium, warfarin sodium or new oral anticoagulants.
Dysphagia screening	Dysphagia screening before oral intake
Process measures at discharge	
Antithrombotic medication	Antithrombotic medication prescribed at discharge.
Antihypertensive medication for hypertension	Antihypertensive medication prescribed at discharge for patients with hypertension.
Hypoglycemic medication for diabetes	Hypoglycemic medication prescribed at discharge for patients with diabetes.
Anticoagulation for AF	Anticoagulation medication prescribed at discharge for patients with atrial fibrillation.
Lowering LDL-C medication	Statin prescribed at discharge if LDL-C $\geq$100 mg/dL or patient treated with lipid-lowering agent prior to admission, or LDL-C not documented.
Smoking cessation	Smoking cessation intervention before discharge for current smokers.
Stroke education	Stroke education provided to patient and/or caregiver, including all five components: modifiable risk factors, stroke warning sign and symptoms, how to activate emergency medical services, need for follow-up and medications prescribed.

rt-PA indicates recombinant tissue plasminogen activator; AF, atrial fibrillation; LDL-C, low-density lipoprotein cholesterol.

*Performance and quality measures are applied only to eligible patients in the absence of documented contraindications or any other rationale as to why therapy was not provided.

Table 2. Baseline characteristics between included and excluded patients

Characteristic	Included （n=17550）	Excluded (n=2054)	P
Patient characteristics			
Male	11163 (63.6%)	1274 (62.0%)	0.1591
Age	65(57-74)	65(57-75)	0.1122
Health insurance			
URBMI	8959 (51.0%)	1062 (51.7%)	0.4888
NRCMS	6932 (39.5%)	815 (39.7%)	
Commercial insurance	60 (0.3%)	9 (0.4%)	
Self-payment	1599 (9.1%)	168 (8.2%)	
Education			
Elementary or below	7934 (45.2%)	948 (46.2%)	0.3827
Middle school	4109 (23.4%)	453 (22.1%)	
High School or above	5507 (31.4%)	653 (31.8%)	
Previous or current smoking	7818 (44.5%)	854 (41.6%)	0.0104
Drinking	5277 (30.1%)	582 (28.3%)	0.1044
Medical history			
Hypertension	11386 (64.9%)	1311 (63.8%)	0.3455
Diabetes	3630 (20.7%)	430 (20.9%)	0.7905
Hyperlipidemia	2128 (12.1%)	242 (11.8%)	0.6514
Atrial fibrillation	1185 (6.8%)	197 (9.6%)	<0.0001
Stroke or TIA	5918 (33.7%)	722 (35.2%)	0.1951
Medication history			
Antiplatelet	3444 (19.6%)	425 (20.7%)	0.2501
Anticoagulation	178 (1.0%)	30 (1.5%)	0.0618
Antihypertension	7868 (44.8%)	907 (44.2%)	0.5610
Lipid-lowering medicine	1207 (6.9%)	144 (7.0%)	0.8216
Antidiabetics	2782 (15.9%)	333 (16.2%)	0.6725
NIHSS at admission	4(2-7)	4(1-8)	0.6146
Days of hospitalization	13(9-16)	13(9-15)	0.3805

URBMI, urban resident basic medical insurance; NRCMS, new rural cooperative medical scheme.

Table 3. The association between hospital volume and performance measures from unadjusted models.

Performance measures	Q1 VS Q4		Q2 VS Q4		Q3 VS Q4	
	Unadjusted OR (95% CI)	P	Unadjusted OR (95% CI)	P	Unadjusted OR (95% CI)	P
rt-PA	0.64 (0.31, 1.34)	0.2386	0.72 (0.35, 1.49)	0.3811	0.62 (0.28, 1.37)	0.2389
Early antithrombotic	0.86 (0.39, 1.90)	0.7114	1.10 (0.49, 2.47)	0.8241	1.02 (0.44, 2.36)	0.9626
Dysphagia screening	0.78 (0.38, 1.60)	0.5015	2.03 (0.93, 4.42)	0.0754	1.08 (0.53, 2.18)	0.8327
DVT prophylaxis	1.31 (0.76, 2.28)	0.3329	1.37 (0.80, 2.36)	0.2501	2.22 (1.26, 3.91)	0.0059
Antithrombotic medication	1.43 (0.93, 2.20)	0.1077	1.74 (1.09, 2.76)	0.0196	1.40 (0.71, 2.75)	0.3307
Lowering LDL-C medication	1.12 (0.76, 1.66)	0.5726	1.35 (0.94, 1.94)	0.101	1.60 (1.10, 2.33)	0.0134
Antihypertensive medication for hypertension	0.91 (0.66, 1.25)	0.5588	0.84 (0.62, 1.14)	0.2679	1.08 (0.79, 1.49)	0.6339
Hypoglycemic medication for diabetes	0.98 (0.67, 1.45)	0.931	1.00 (0.68, 1.46)	0.9978	1.06 (0.72, 1.58)	0.757
Anticoagulation for AF	0.58 (0.34, 1.01)	0.0528	0.77 (0.48, 1.24)	0.2842	1.24 (0.73, 2.09)	0.4229
Smoking cessation	0.72 (0.44, 1.18)	0.1959	0.83 (0.50, 1.37)	0.4646	0.81 (0.43, 1.53)	0.5187
Defect-free measure of care	0.88 (0.62, 1.25)	0.4634	1.13 (0.82, 1.56)	0.4496	1.15 (0.81, 1.62)	0.4347

rt-PA indicates recombinant tissue plasminogen activator; DVT, deep vein thrombosis; AF, atrial fibrillation; LDL-C, low-density lipoprotein cholesterol.