Table S1 Components of the clinical scores used to predict SAP after ICH

Items	ICH-APS-A	ICH-APS-B	ISAN	ACDD4	PASS
Age	✓	✓	✓	✓	✓
Gender			✓		✓
COPD	✓	✓			✓
Diabetes mellitus					
Current smoker	✓	✓			
Excessive alcohol consumption	✓	✓			
Prestroke mRS	✓	✓	✓		✓
Dysphagia	✓	✓		✓	✓
Dysarthria				✓	
Congestive heart failure				✓	
NIHSS	✓	✓	✓		✓
GCS	✓				
Hematoma location	✓	✓			
Ventricular extension	✓				
Hematoma volume		✓			

COPD, chronic obstructive pulmonary disease; mRS, modified Rankin Scale; NIHSS, National Institutes of Health Stroke Scale score; GCS, Glasgow Coma Scale. SAP, stroke-associated pneumonia; ICH, intracerebral hemorrhage; PASS, Preventive Antibiotics in Stroke Study; ISAN, integer-based pneumonia risk score; ACDD4, an 8-point pneumonia prediction scale (age ≥75 years =1; congestive heart failure =1; dysarthria =1; dysphagia =4). ICH-APS, intracerebral hemorrhage–associated pneumonia score.

Table S2 Performance of the clinical scores used to predict SAP in the derivation and internal validation cohorts

Model	Stroke subtype	Study design	Sample size of derivation cohort	AUROC	Validation
ICH-APS-B	Spontaneous ICH	Registry	2998	Overall cohort: 0.74 (0.71–0.76); patients with LOS >48 h: 0.77 (0.73–0.81)	Internal
ICH-APS-A	Spontaneous ICH	Registry	2998	Overall cohort: 0.75 (0.72–0.77); patients with LOS >48 h: 0.78 (0.75–0.81)	Internal
ISAN	AIS and ICH	Registry	AIS: 10,635; ICH: 916	Overall cohort: 0.79 (0.77–0.81); patients with ICH: 0.71 (0.66–0.77); patients with LOS >72 h: 0.75 (0.69–0.80)	External
ACDD[4]	AIS and ICH	Retrospective cohort	AIS: 965; ICH: 690	Overall cohort: 0.82 (not reported)	Internal
PASS	AIS and ICH	RCT	AIS: 2,125; ICH: 269	Overall cohort: 0.84 (0.81–0.87)	Internal

AIS, acute ischemic stroke; ICH, intracerebral hemorrhage; AUROC, area under the receiver operating characteristic curve; SAP, stroke-associated pneumonia RCT, randomized controlled trial; LOS, length of stay; PASS, Preventive Antibiotics in Stroke Study; ISAN, integer-based pneumonia risk score; ACDD4, an 8-point pneumonia prediction scale (age ≥75 years =1; congestive heart failure =1; dysarthria =1; dysphagia =4).
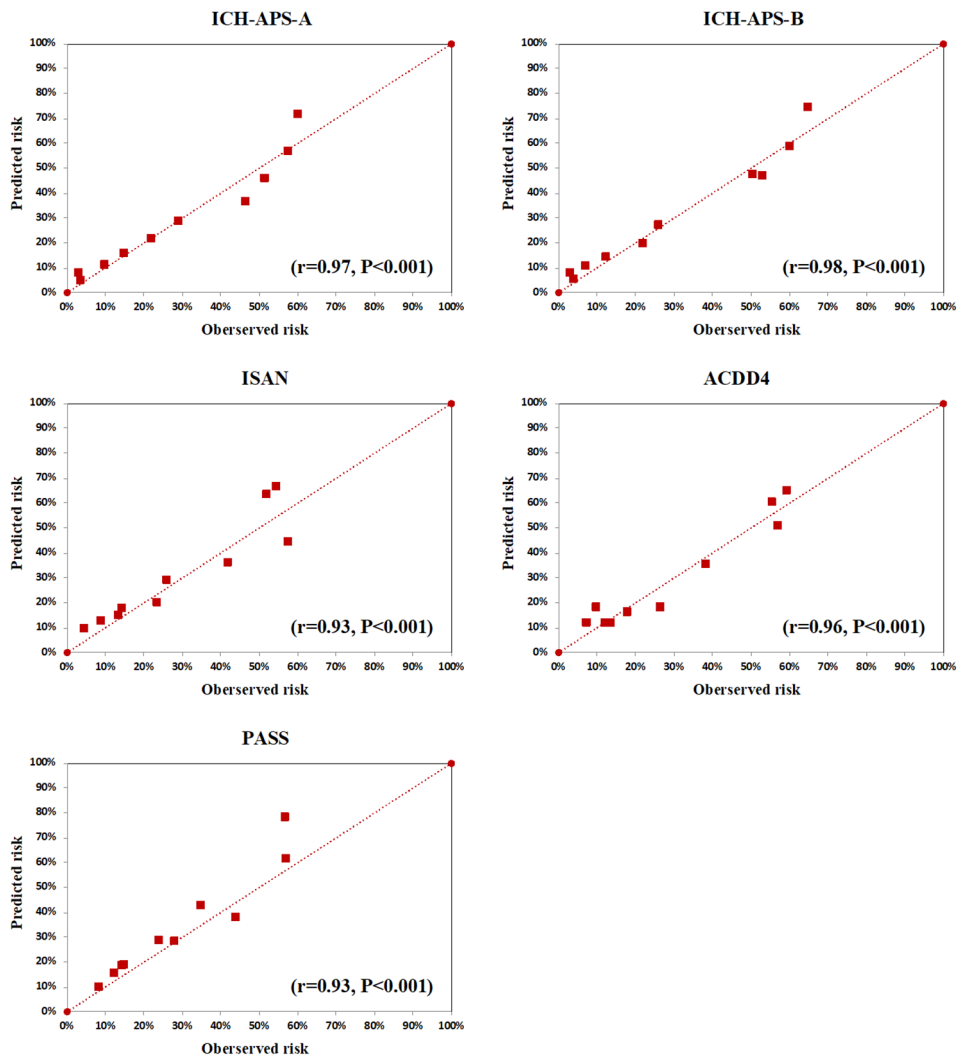
Figure S1 Plot of observed versus predicted risk of in-hospital SAP after ICH in the derivation and validation cohorts (n=1,964). Plot of observed versus predicted risk of in-hospital SAP after ICH for the overall cohorts (according to 10 deciles of predicted risk). All correlation coefficients of the 5 models were greater than 0.90 (all P<0.001), which indicated excellent calibration. The ICH-SAP-B had the largest Pearson correlation coefficient (n=1,964; r=0.98, P<0.001). SAP, stroke-associated pneumonia; ICH, intracerebral hemorrhage.