

Supplementary Table 1. Performance of logistic regression and deep learning methods depending on input features in the training set

Performance in training set* (n=127)	AQ score	Spontaneous speech	Comprehension	Repetition	Naming
Logistic regression with LASSO					
Clinical feature only (6 features)	0.74	0.70	0.72	0.71	0.74
Imaging feature only (178 features)	0.79	0.82	0.75	0.79	0.76
Clinical+imaging features	0.84	0.75	0.82	0.84	0.80
Deep feed forward network					
Clinical+imaging features	0.86	0.88	0.84	0.88	0.85

AQ, aphasia quotient; LASSO, least absolute shrinkage and selection operator.

*Performance was calculated using the correlation coefficients between the actual and predicted Korean version of the Western Aphasia Battery (K-WAB) scores.

Supplementary Table 2. Performance of logistic regression and deep learning methods depending on the input features in the test set

49 Performance in test set* (n=49)	AQ score	Spontaneous speech	Comprehension	Repetition	Naming
Logistic regression with LASSO					
Clinical feature only (6 features)	0.70	0.61	0.70	0.62	0.66
Imaging feature only (178 features)	0.54	0.64	0.54	0.53	0.50
Clinical+imaging features	0.63	0.67	0.65	0.59	0.59
Deep feed forward network					
Clinical+imaging features	0.72	0.75	0.71	0.65	0.71

AQ, aphasia quotient; LASSO, least absolute shrinkage and selection operator.

*Performance was calculated in the correlation coefficients between actual and predicted Korean version of the Western Aphasia Battery (K-WAB) scores.

Supplementary Table 3. Contingency table between the true and model-predicted scores in patients who underwent acute intervention

	True score				Total
	Very severe	Severe	Moderate	Mild	
Model-predicted score					
Very severe	11	4	1	1	17
Severe	1	1	3	0	5
Moderate	0	0	2	2	4
Mild	0	2	1	7	10
Total	12	7	7	10	36
Accuracy	11/12 (92)	1/7 (14)	2/7 (29)	7/10 (70)	21/36 (58)

Values are presented as number (%). Cohen's weighted kappa, $\kappa=0.60$ (95% confidence interval, 0.41 to 0.78; $P<0.001$).