

## Supplemental material Table1 . Water Swallow Tests Procedure

### 【Procedure】

The patient is asked to sit in the bed, and is handed a paper cup containing 30 mL of water at normal temperature. The patient is then asked to “Please drink this water as you usually do.” Time to empty a cup is measured, drinking profile and episodes are monitored and assessed.

	Drinking Profile
Level I	The patient can drink all the water in 1 gulp without choking.
Level II	The patient can drink all the water in 2 or more gulps without choking.
Level III	The patient can drink all the water in 1 gulp, but with some choking.
Level IV	The patient can drink all the water in 2 or more gulps, but with some choking.
Level V	The patient often chokes and has difficulty drinking all the water.

### 【Drinking episodes】

Sipping, holding water in the mouth while drinking, water coming out of the mouth, a tendency to try to force himself/herself to continue drinking despite choking, drinking water in a cautious manner, etc.

### 【Diagnosis】

Normal: Completed Profile Level I within 5sec

Suspected: Completed Profile Level I in more than 5sec, or Profile Level II Abnormal : Any cases of Profiles Level III through Level V

## Supplemental material Table2.

### Baseline Characteristics of Patients with Acute Ischemic Stroke Who had WST and V-VST

	WST n=230				V-VST n=230			P <sup>§</sup>
	Negative n=164	Positive n=60	Unclear n=6	P	Safety and efficacy n=180	Impaired function* n=50	P	
Age ,years old, Mean+SD	61.90±13.35	65.83±11.90	70.00±16.65	0.038	61.97±13.20	67.34±12.33	0.011	0.626
Gender ,males ,%	116(70.73)	42(70.0)	3(50.0)	0.553	129(71.67)	32(64.0)	0.295	0.637
Onset to admission ,days, Mean+SD	3.34±3.20	2.87±3.09	2.67±2.16	0.229	3.38±3.01	2.52±2.38	0.041	0.526
Length of stay(LOS), days, Mean+SD	8.63±3.57	12.40±9.24	20.80±12.40	<0.001	8.72±3.53	14.32±10.86	0.001	0.549
Length of stay in the ICU, days	0.64±1.41	2.23±4.06	3.00±3.46	0.030	0.77±2.00	2.36±3.69	<0.001	0.929
NIHSS	3.65±3.25	8.90±5.96	12.83±5.04	<0.001	3.99±3.65	9.82±6.06	<0.001	0.618
<b>Baseline Characteristics</b>								
Systolic blood pressure(SBP), mmHg, Median+Interquatile )	151(130-169)	151(136-165)	153(124-170)	0.769	150(130-168)	154(138-165)	0.744	0.836
Diastolic blood press(DBP), mmhg, Median+Interquatile	82(74-92)	83(75-96)	85(76-98)	0.692	83(74-92)	82(74-92)	0.618	0.795
<b>Stroke Aetiology (TOAST):</b>				0.001			<0.001	0.913
Large Artery (n, %)	81 (49.40)	29(48.33)	4(66.67)		90(50.0)	24(48.0)		
Cardioembolic (n, %)	7 (4.27)	13(21.67)	2(33.34)		9(5.0)	13(26.0)		
Small vessel occlusion (n, %)	44 (26.83)	9(15.0)	/		47(26.11)	6(12.0)		
Underterminated or Other etiology (n, %)	32 (19.51)	9(15.0)	/		34(18.89)	7(14.0)		
<b>Risk factors</b>								
Atrial fibrillation(AF) (n, %)	4(2.44)	10(16.67)	2(33.34)	<0.001	6(3.33)	7(14.0)	0.004	0.955
Diabetes Mellitus (n, %)	46(28.05)	21(35.0)	2(33.34)	0.594	50(27.78)	19(38.0)	0.163	0.727
Hypertension (n, %)	119(72.56)	7(11.67)	4(66.67)	0.768	131(72.78)	38(76.0)	0.648	0.976
Smoking (n, %)	87(53.05)	27(45.0)	3(50.0)	0.565	97(53.89)	24(48.0)	0.646	0.785

**TOAST:** Trial of Org 10 172 in acute stroke treatment

\* Impaired function in VVST stands for that patients have functional impaired in safety or/and efficacy or patients failed to cooperate the test.

§ The difference between the patients failed water test and the patients failed Volume-Viscosity Test