1 **Table 1.** Baseline characteristics of patients who underwent targeted temperature management after cardiac

2 arrest

	Favorable neurological outcomes (n = 28)	Unfavorable neurological outcomes (n = 58)	P value	Point estimations and 95% CI for the Student's t-test
Age, mean (SD), year	57.9 (17.7)	63.1 (15.1)	0.16	-5.2 (-12.5, 2.1)
Men, n (%)	24 (86%)	48 (83%)	1.00	
First recorded cardiac rhythm, n (%)			**0.03**	
VF/pulseless VT	22 (79%)	28 (48%)		
PEA	4 (14%)	20 (35%)		
Asystole	2 (7%)	10 (17%)		
Cause of cardiac arrest, n (%)			0.61	
Cardiac	23 (81%)	42 (72%)		
Respiratory	2 (7%)	7 (12%)		
Others	3 (11%)	9 (16%)		
Motor score of Glasgow Coma Scale, n (%)			**< 0.001**	
1	14 (50%)	56 (97%)		
2	0 (0%)	0 (0%)		
3	1 (4%)	1 (2%)		
4	13 (46%)	1 (2%)		
5	0 (0%)	0 (0%)		
The time to ROSC, mean (SD), min	21 (13.8)	44 (18.4)	**< 0.001**	-22.9 (-30.1,-15.1)
ROSC > 30 min, n (%)	6 (21%)	46 (79%)	**< 0.001**	
Cardiac arrest witnessed, n (%)	21 (75%)	35 (60%)	0.18	
Bystander CPR, n (%)	23 (82%)	36 (62%)	0.06	

3 Neurological outcomes were divided according to favorable neurological outcomes (cerebral performance

4 categories 1, 2) and unfavorable neurological outcomes (cerebral performance categories 3, 4 or 5). Factors

5 related to patients with favorable neurological outcomes and those with unfavorable neurological outcomes

6 were compared by the Student's t-test for parametric variables, Mann-Whitney U-test for nonparametric

7 variables, and Chi-square test for categorical variables. All statistical tests were two-sided, and $P < 0.05$ was

8 considered statistically significant.

9 Values are presented as mean (standard deviation) or the number of patients (%).

CI denotes confidential interval; SD, standard deviation; VF, ventricular fibrillation; VT, ventricular tachycardia; PEA, pulseless electrical activity; ROSC, return of spontaneous circulation; The time to ROSC, time from recognition of cardiac arrest to return of spontaneous circulation; min, minutes; CPR, cardiopulmonary resuscitation.

Table 2. Laboratory findings at the time of initial resuscitation for patients who underwent targeted temperature management after cardiac arrest.

	Favorable neurological outcomes (n = 28)	Unfavorable neurological outcomes (n = 58)	*P* value
pH	7.15 (0.222)	6.96 (0.175)	**< 0.001**
pO_2 (mmHg)	195 (106)	132 (102)	**0.02**
pCO_2 (mmHg)	49 (24.9)	74 (28.5)	**< 0.001**
Lactate (mg/dL)	84 (46.1)	114 (39.7)	**< 0.001**
HCO_3^- (mmol/L)	15.7 (4.6)	15.9 (5.3)	1.00
BE (mmol/L)	-13 (7.14)	-17 (6.80)	**0.02**
TP (g/dL)	6.6 (0.56)	6.1 (0.66)	**0.001**
K (mEq/L)	4.3 (1.38)	5.0 (1.26)	**0.003**
Mg (mg/dL)	2.4 (0.46)	2.7 (0.83)	**0.002**
IP (mg/dL)	6.9 (2.68)	8.2 (2.53)	**0.006**
WBC (/μL)	12100 (4400)	11400 (5900)	0.20
Hb (g/dL)	13 (3.5)	13 (3.1)	0.20

Plt ($\times 10^4 / \mu$ L)	23 (6.8)	19 (8.0)	**0.02**

1 Neurological outcomes were divided according to favorable neurological outcomes (cerebral performance

2 categories 1, 2) and unfavorable neurological outcomes (cerebral performance categories 3, 4 or 5). Values

3 are presented as mean (standard deviation). Mann-Whitney U-test was used in this table.

4 pO_2, oxygen of partial pressure; pCO_2, carbon dioxide of partial pressure; HCO_3^-, bicarbonate; BE, base

5 excess; TP, total protein; K, potassium; Mg, magnesium; IP, inorganic phosphorus; WBC, white blood cells;

6 Hb, hemoglobin; Plt, platelets.

7 **Table 3.** Multiple logistic regression analysis of prognostic factors for unfavorable neurological outcomes in

8 patients who underwent targeted temperature management after cardiac arrest

		Unstandardized coefficients	Odds ratio (95% CIs)	*P* value
Prognostic factors				
	The time to ROSC >30 minutes	1.4	4.1 (1.1-14.8)	**0.03**
	Motor score of GCS = 1	1.0	2.8 (1.4-5.5)	**<0.01**
	first recorded non-shockable cardiac rhythm	0.1	1.2 (0.3-4.6)	0.84
	pH	1.6	5.2 (0.1-207.6)	0.38
	Serum magnesium (mg/dL)	-0.2	0.78 (0.3-2.3)	0.66
R^2		0.50		

9 Explanatory variables in the multiple logistic regression analysis were the time to ROSC > 30 minutes,

10 motor score of GCS = 1, first recorded non-shockable cardiac rhythm, pH, serum magnesium, and cerebral

11 performance categories. The dependent variable was unfavorable outcome. Neurological outcomes were

12 divided according to favorable neurological outcomes (cerebral performance categories 1, 2) and

13 unfavorable neurological outcomes (cerebral performance categories 3, 4 or 5).

1 ROSC denotes return of spontaneous circulation; the time to ROSC, time from recognition of cardiac arrest

2 to return of spontaneous circulation; GCS, Glasgow Coma Scale; CIs, confidence intervals; R^2, the

3 proportion of variance.