Table S1. Logistic regression.

	30-day poor neurologic function	
	Odds ratio 95% confidence interval	*p*-value
H3Cit 12h	**1.6 (1.1-2.3)**	**0.029**
H3Cit 12h	1.5 (0.9-2.2)	0.064
Age	1.0 (0.9-1.1)	0.159
H3Cit 12h	1.6 (1.0-2.3)	0.028
Male Sex	1.7 (0.5-5.8)	0.423
H3Cit 12h	1.6 (1.1-2.4)	0.023
Location (home)	1.6 (0.5-5.1)	0.385
H3Cit	1.5 (1.0-2.3)	0.034
Witnessed	0.6 (0.1-3.8)	0.584
H3Cit 12h	1.6 (1.0-2.3)	0.029
Basic Life Support	0.8 (0.2-2.6)	0.678
H3Cit 12h	2.0 (1.2-3.3)	0.010
No-flow time	3.7 (1.2-12.0)	0.023
H3Cit 12h	1.4 (0.9-2.2)	0.092
Low-flow time	1.0 (0.9-1.0)	0.535
H3Cit 12h	1.4 (0.9-2.2)	0.101
Non-shockable	12.2 (1.4-107)	0.024
H3Cit 12h	1.5 (1.0-2.3)	0.043
Epinephrine	1.3 (0.9-1.7)	0.070
H3Cit 12h	1.6 (1.0-2.4)	0,035
Lactate	2.8 (0.9-7.8)	0.055
H3Cit 12h	1.5 (1.0-2.3)	0.048
D-dimer	1.9 (1.1-3.4)	0.023

Table S2. Score test for trend.

Biomarker level Quintiles	**P value**
nptrend **quin_hist_0h**, by(poor_outcome)	z = 0.18 Prob > |z| = 0.854
nptrend **quin_hist_12h**, by(poor_outcome)	z = 2.22 Prob > |z| = 0.026
nptrend **quin_cfdna_0h**, by(poor_outcome)	z = 2.77 Prob > |z| = 0.006
nptrend **quin_cfdna_12h**, by(poor_outcome)	z = 2.22 Prob > |z| = 0.026
nptrend **quin_nucleosome_0h**, by(poor_outcome)	z = 2.22 Prob > |z| = 0.027
nptrend **quin_nucleosome_12h**, by(poor_outcome)	z = 2.42 Prob > |z| = 0.016

We used a score test to assess a trend of increasing biomarker levels at specific time points for neurologic outcome. The score test is a nonparametric test for a trend across ordered groups as an extension of the Wilcoxon rank-sum test. This has been added to the manuscript. An appropriate reference has been added: Cuzick, J. 1985. A Wilcoxon-type test for trend. Statistics in Medicine 4: 87-90.

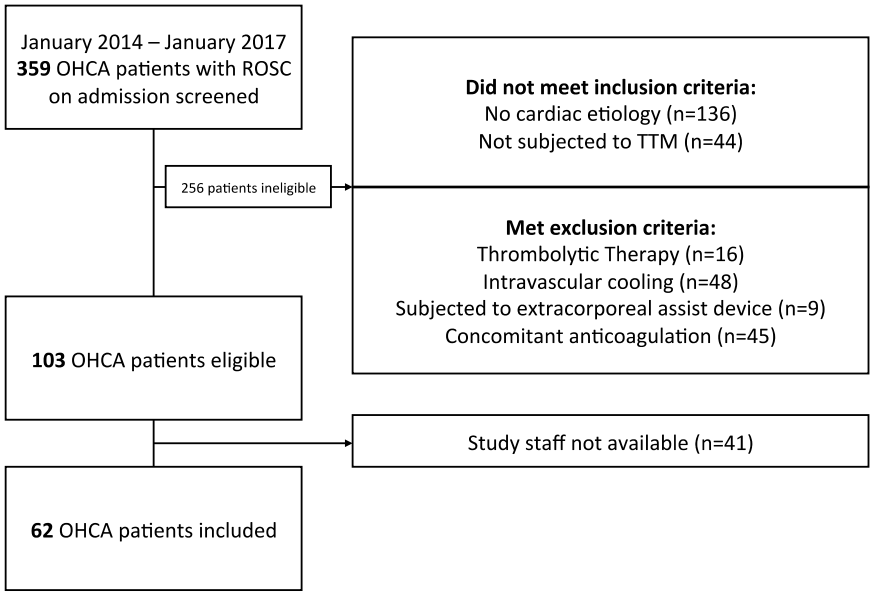

Figure S1. Study flow chart showing the selection process of study patients. Sum of n exclusions (298) exceeds the number of patients who were not eligible for study enrollment (n=256), due to fulfillment of more than one exclusion criterion. OHCA, out-of-hospital cardiac arrest; ROSC, return of spontaneous circulation; TTM, targeted temperature management.

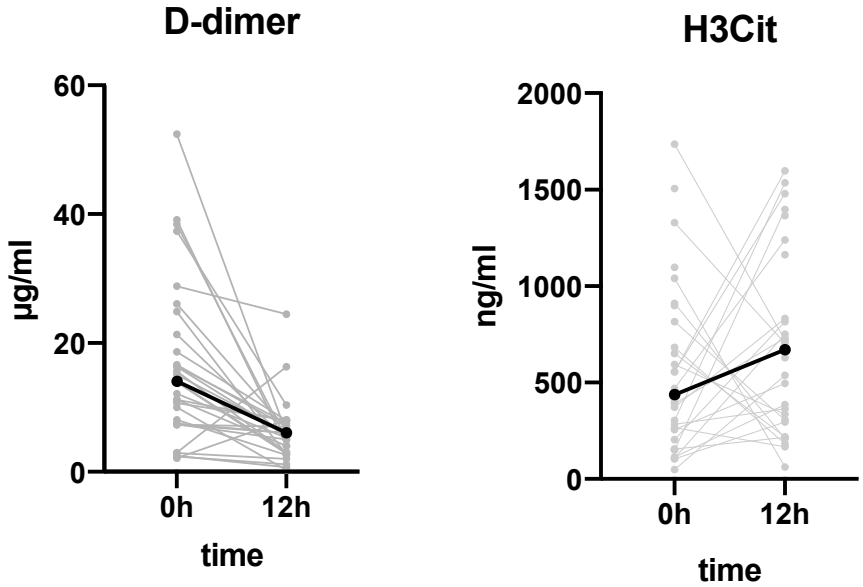

Figure S2. 0h and 12h plasma levels of D-dimer and H3Cit in patients with poor 30-day neurologic function. Similar to median cfDNA and nucleosome levels, median d-dimer levels decreased from admission to 12 hours. Grey lines indicate individual data points, black lines represent median marker levels. There was no correlation between 12h d-dimer and 12h H3Cit levels (rho=0.100, p=0.650).