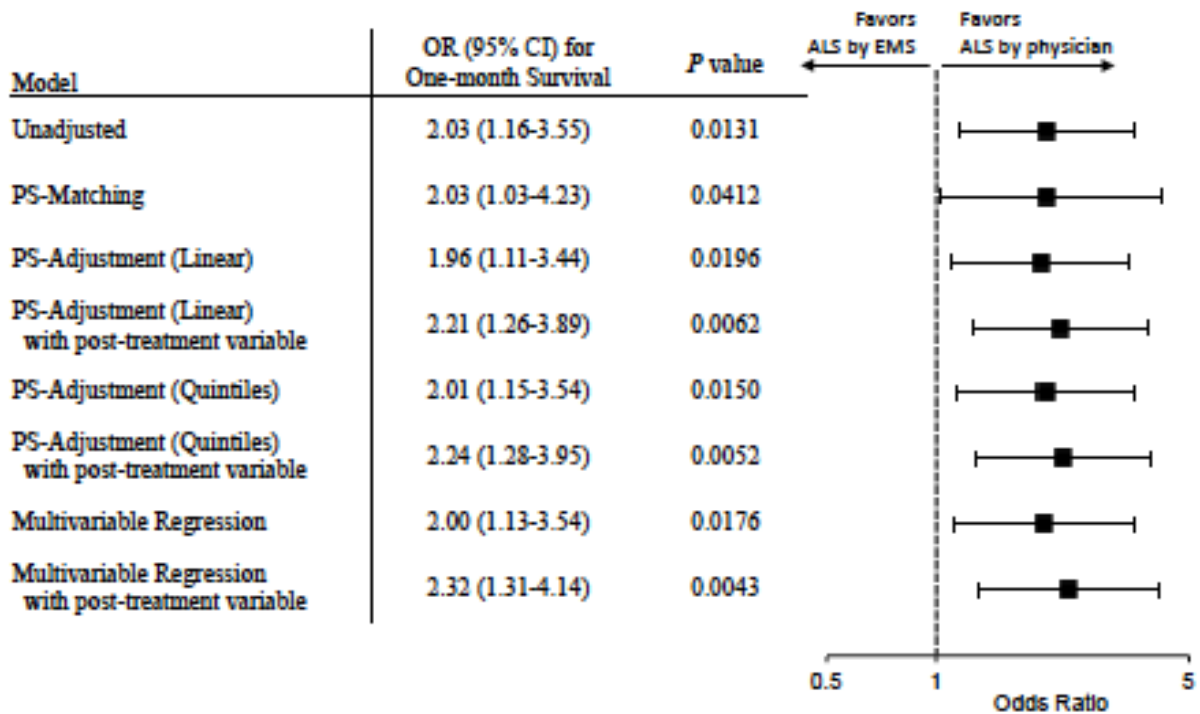# Supplementary Online Content

Fukuda T, Ohashi-Fukuda N, Kondo Y, Hayashida K, Kukita I. Association of prehospital advanced life support by physician with survival after out-of-hospital cardiac arrest with blunt trauma following traffic collisions: a Japanese registry-based study. *JAMA Surg.* Published online April 25, 2018. doi:10.1001/jamasurg.2018.0674

eFigure. Sensitivity Analyses for One-month Survival in the Prehospital ALS Cohort

eTable. Outcomes of Traumatic OHCA Patients in ALS by Physician vs ALS by EMS Personnel

This supplementary material has been provided by the authors to give readers additional information about their work.

eFigure. Sensitivity analyses for one-month survival in the prehospital ALS cohort

Model	OR (95% CI) for One-month Survival	P value	
Unadjusted	2.03 (1.16-3.55)	0.0131	
PS-Matching	2.03 (1.03-4.23)	0.0412	
PS-Adjustment (Linear)	1.96 (1.11-3.44)	0.0196	
PS-Adjustment (Linear) with post-treatment variable	2.21 (1.26-3.89)	0.0062	
PS-Adjustment (Quintiles)	2.01 (1.15-3.54)	0.0150	
PS-Adjustment (Quintiles) with post-treatment variable	2.24 (1.28-3.95)	0.0052	
Multivariable Regression	2.00 (1.13-3.54)	0.0176	
Multivariable Regression with post-treatment variable	2.32 (1.31-4.14)	0.0043	

Favors ALS by EMS ← | → Favors ALS by physician

Odds Ratio: 0.5 — 1 — 5

The associations between physician involvement in prehospital ALS and one-month survival were reported as adjusted ORs with 95% CIs using a variety of covariate adjustment techniques in addition to PS-matching model. Alternative covariate adjustment was performed using three approaches both with and without post-treatment variable (i.e., transport time) included.

PS-adjustment (linear) model was adjusted for a treatment variable (ALS by physician or EMS personnel) and the propensity score as a continuous variable.

PS-adjustment (quintiles) model was adjusted for the treatment variable and quintiles of propensity score.

Multivariable regression model was adjusted for the treatment variable and pre-treatment variables (i.e., the same variables used for the estimation of the propensity score).

Abbreviations: ALS, Advanced life support; EMS, Emergency medical service; OR, Odds ratio; CI, Confidence interval; PS, Propensity score

eTable. Outcomes of traumatic OHCA patients in ALS by physician vs ALS by EMS personnel

Group	Prehospital ROSC		One-month survival		Neurologic outcome (CPC 1 or 2)	
	No. (%) of Events	Adjusted OR (95%CI)	No. (%) of Events	Adjusted OR (95%CI)	No. (%) of Events	Adjusted OR (95%CI)
ALS n = 2419	204 (8.4)		51 (2.1)		12 (0.5)	
by EMS personnel n = 1591	110 (6.9)	Reference	25 (1.6)	Reference	4 (0.3)	Reference
by physician n = 828	94 (11.4)	1.51 (1.11-2.06)	26 (3.1)	2.13 (1.20-3.78)	8 (1.0)	3.76 (1.14-14.51)

The data are expressed as the number (%), unless otherwise indicated.

The variables that could influence outcomes after OHCA were included in the models

Adjusted ORs with 95%CIs were reported with the ALS by EMS personnel group as the reference in the table.

Abbreviations: OHCA, Out-of-hospital cardiac arrest; ROSC, Return of spontaneous circulation; CPC, Glasgow-Pittsburgh cerebral performance category; OR, Odds ratio; CI, Confidence interval; ALS, Advanced life support; EMS, Emergency medical service