

Appendix 3. Multivariable analysis for the effects of prehospital advanced airway management and regional EMS systems on outcomes

	Total	Outcomes	Unadjusted		Adjusted		
			OR	95% CI	OR	95% CI	
Neurological recovery							
Prehospital advanced airway management ^{a)}							
No	7,990	392 (4.9)	1.00		1.00		
Yes	8,520	168 (2.0)	0.39	0.33–0.47	0.30	0.24–0.38	
Regional EMS system ^{b)}							
Singapore	2,046	32 (1.6)	1.00		1.00		
Taipei	2,132	64 (3.0)	1.95	1.27–2.99	1.96	1.21–3.18	
Osaka	8,055	301 (3.7)	2.44	1.69–3.53	3.95	2.64–5.90	
Seoul	4,277	163 (3.8)	2.49	1.70–3.66	1.00	0.64–1.56	
Survival to discharge							
Prehospital advanced airway management ^{a)}							
No	7,990	698 (8.7)	1.00		1.00		
Yes	8,520	432 (5.1)	0.56	0.49–0.63	0.58	0.50–0.68	
Regional EMS system ^{b)}							
Singapore	2,046	60 (2.9)	1.00		1.00		
Taipei	2,132	139 (6.5)	2.31	1.69–3.14	3.42	2.42–4.84	
Osaka	8,055	545 (6.8)	2.40	1.83–3.15	4.51	3.36–6.05	
Seoul	4,277	386 (9.0)	3.28	2.49–4.33	2.24	1.63–3.09	

Values are presented as number or number (%).

EMS, emergency medical services; OR, odd ratio; CI, confidence interval.

^{a)}Adjusted to city, sex, age, witness arrest, bystander cardiopulmonary resuscitation, initial electrocardiogram, response time interval, and scene time interval. ^{b)}Adjusted to EMS advanced airway management, sex, age, witness arrest, bystander cardiopulmonary resuscitation, initial electrocardiogram, response time interval, and scene time interval.

Appendix 4. Effects of prehospital advanced airway management on outcomes in interaction model with regional emergency medical service systems

Outcomes		Adjusted OR	95% CI
Neurological recovery			
Interaction	AAM(-)	1	
Singapore	AAM(+)	0.12	0.06–0.26
Taipei	AAM(+)	0.58	0.31–1.10
Osaka	AAM(+)	0.21	0.16–0.28
Seoul	AAM(+)	0.79	0.52–1.20
Survival to discharge			
Interaction	AAM(-)	1	
Singapore	AAM(+)	0.31	0.17–0.58
Taipei	AAM(+)	1.04	0.69–1.55
Osaka	AAM(+)	0.43	0.35–0.52
Seoul	AAM(+)	0.99	0.75–1.30

AAM, advanced airway management; OR, odd ratio; CI, confidence interval.