

Appendix 4: Characteristics of air-medical transports stratified by presence of in-transit critical events (N = 19 228)

Factor	No. of patients included in univariable analysis	Frequency of critical events during transport, %	Unadjusted OR (95% CI)	p value*
Patient				
Age (per 10-year increment)	19 228	NA	1.1 (1.0–1.1)	< 0.001
Female sex (v. Male)	18 866	5.3	1.1 (1.0–1.2)	< 0.001
Diagnostic category (reference = other medical)	3 425			
Respiratory	1 294	6.8	1.6 (1.2–2.1)	0.88
Cardiovascular	5 937	6.0	1.4 (1.2–1.7)	0.05
Neurological	2 496	4.7	1.1 (0.8–1.4)	0.22
Trauma	1 741	5.9	1.4 (1.1–1.7)	0.29
Surgical	1 806	4.6	1.1 (0.8–1.4)	0.40
Obstetric	1 302	2.5	0.6 (0.4–0.8)	0.06
Hemodynamic instability at baseline	19 228	23.2	6.5 (5.3–7.9)	< 0.001
Assisted ventilation before transport	19 228	13.8	3.7 (3.2–4.3)	< 0.001
Transport				
Duration (per 10-min increment)	15 868	NA	1.02 (1.01–1.03)	< 0.001
Time on ground with patient, min, median (IQR)	18 028	NA	1.06 (1.04–1.07)	< 0.001
Distance (per 10-km increment)	15 362	NA	0.99 (0.99–1.00)	0.15
Fixed-wing aircraft (v. helicopter)	17 819	NA	0.8 (0.7–1.0)	< 0.001
Advanced care paramedic crew (v. critical care paramedic crew)	19 228	NA	0.5 (0.5–0.6)	< 0.001
Contextual				
Type of sending facility (reference = acute care hospital)	12 549			
Non-acute care facility	2 638	3.9	0.7 (0.6–0.9)	0.40
On-scene call	2 681	6.7	1.3 (1.1–1.6)	< 0.001
Rural sending site	15 363	3.6	0.8 (0.7–0.9)	0.0035
Season (reference = winter)	4 476			
Spring	4 383	5.6	1.1 (0.9–1.3)	0.12
Summer	5 364	5.2	1.0 (0.8–1.2)	0.82
Autumn	5 101	4.6	0.9 (0.7–1.1)	0.35

Note: CI = confidence interval, IQR = interquartile range, NA = not applicable, OR = odds ratio.

*p value from Wald Chi-square test of listed parameter estimate from final multivariable model.