

## APPENDIX

## Sensitivity analyses

Scenario 1: All alcohol unknown cases classified as A+

Table IV. Demographics of the study population.

Variable	A+ group* (n = 225,778)	A– group* (n = 101,662)	p-value	Variable	A+ group* (n = 225,778)	A– group* (n = 101,662)	p-value
<b>Age group (yr)</b>			< 0.001	<b>Mechanism of injury</b>			< 0.001
16–24	23.0	24.2		Bites/sting	0.8	0.6	
25–44	39.7	38.4		Fall from height	2.0	3.5	
45–64	23.4	21.6		Fall at same level	34.9	36.6	
> 64	13.9	15.9		Foreign body	5.1	2.8	
<b>Gender</b>			< 0.001	Interpersonal violence	6.0	4.2	
Male	65.2	66.4		Machinery	2.4	3.1	
<b>Ethnicity</b>			< 0.001	Motor vehicle crash	12.1	16.6	
Chinese	54.9	56.6		Sports	6.4	6.4	
Indian	14.2	14.8		Tools/objects	14.0	16.8	
Malay	15.0	14.0		Others/unknown	16.4	9.2	
Others	15.9	14.6		<b>Place of injury</b>			< 0.001
<b>Resident status</b>			< 0.001	Home	15.6	23.5	
Singaporean	75.9	75.4		Public area	18.1	14.5	
Permanent resident	1.4	2.2		Recreation	5.2	8.2	
Others	22.7	22.5		Road	11.2	20.4	
<b>Intention of injury</b>			< 0.001	Workplace	15.2	22.3	
Assault	4.1	4.4		Others/unknown	34.6	11.1	
Self-harm	0.3	0.5		<b>ISS</b>			< 0.001
Unintentional	60.8	90.8		< 16	99.7	97.1	
Unknown	34.7	4.3		<b>Total GCS</b>			< 0.001
<b>Type of injury</b>			< 0.001	< 9	1.2	2.8	
Blunt	75.1	81.5		<b>Disposition</b>			< 0.001
Penetrating	6.5	7.8		Admitted	10.2	21.2	
Chemical	0.2	0.3		Discharged	88.4	77.6	
Drowning	0.0	0.0		AOR	1.3	1.1	
Environmental	0.8	0.3		Dead	0.1	0.1	
Burn	1.2	1.0		<b>Repeat visit within 72 hr</b>			0.001
Suffocation	0.0	0.0		Yes	0.1	0.3	
Others	16.1	9.0					

\*Data presented as percentages. A+: alcohol consumption; A–: no alcohol consumption; AOR: self-discharge at own risk; GCS: Glasgow Coma Scale; ISS: Injury Severity Score

Table V. Comparison of age and admission characteristics of the study population.

Variable (mean)	A+ group	A– group	p-value
Age (yr)	41.64	42.07	0.742
ISS	0.15	1.41	< 0.001
Total GCS	14.77	14.55	< 0.001
ICU LOS (day)	5.11	6.09	0.008
HDU LOS (day)	3.39	3.27	0.160
Hospital LOS (day)	12.64	11.67	0.481

A+: alcohol consumption; A–: no alcohol consumption; GCS: Glasgow Coma Scale; HDU: high dependency unit; ICU: intensive care unit; ISS: Injury Severity Score; LOS: length of stay

**Table VI. Logistic regression model for the outcome of mortality.**

Variable	Odds ratio	95% CI	p-value
<b>Age group (yr)</b>			< 0.001
16–24	1 (reference)		
25–44	5.065	2.756–9.308	< 0.001
45–64	10.330	5.650–18.884	< 0.001
> 64	12.980	6.973–24.160	< 0.001
<b>Gender</b>			
Female	1 (reference)		
Male	2.385	1.745–3.259	< 0.001
<b>Alcohol use</b>			
No	1 (reference)		
Yes	0.494	0.380–0.642	< 0.001
<b>Type of injury</b>			< 0.001
Blunt	1 (reference)		
Penetrating	0.184	0.059–0.575	0.004
Chemical	0.0	0.0	0.992
Drowning	184.235	93.877–361.562	< 0.001
Environmental	0.0	0.0	0.987
Burn	0.888	0.20–3.582	0.868
Suffocation	185.551	97.548–352.944	< 0.001
Others	0.948	0.632–1.422	0.798

CI: confidence interval

Scenario 2: All alcohol unknown cases classified as A–

**Table VII. Demographics of the study population.**

Variable	A+ group* (n = 4,148)	A– group* (n = 323,292)	p-value	Variable	A+ group* (n = 4,148)	A– group* (n = 323,292)	p-value
<b>Age group (yr)</b>			< 0.001	<b>Mechanism of injury</b>			< 0.001
16–24	19.4	23.4		Bites/sting	0.1	0.7	
25–44	44.6	39.2		Fall from height	3.3	2.6	
45–64	28.2	22.8		Fall at same level	47.2	35.4	
> 64	7.9	14.6		Foreign body	0.6	4.3	
<b>Gender</b>			< 0.001	Interpersonal violence	25.0	5.0	
Male	86.9	65.3		Machinery	0.1	2.7	
<b>Ethnicity</b>			< 0.001	Motor vehicle crash	9.0	13.9	
Chinese	50.7	55.5		Sports	0.3	6.5	
Indian	30.0	14.2		Tools/objects	6.6	15.2	
Malay	5.8	14.8		Others/unknown	7.6	13.8	
Others	13.5	15.5		<b>Place of injury</b>			< 0.001
<b>Resident status</b>			< 0.001	Home	15.0	18.1	
Singaporean	64.5	75.9		Public area	55.2	16.5	
Permanent resident	5.1	1.5		Recreation	3.7	6.2	
Others	30.4	22.6		Road	15.5	14.0	
<b>Intention of injury</b>			< 0.001	Workplace	1.7	17.6	
Assault	26.0	3.9		Others/unknown	8.9	27.6	
Self-harm	2.7	0.3		<b>ISS</b>			< 0.001
Unintentional	63.3	70.2		< 16	94.0	99.1	
Unknown	7.9	25.5		<b>Total GCS</b>			< 0.001
<b>Type of injury</b>			< 0.001	< 9	5.7	1.6	
Blunt	84.9	77.4		<b>Disposition</b>			< 0.001
Penetrating	8.4	7.0		Admitted	36.1	13.3	

(Contd...)

Table VII. (Contd...)

Variable	A+ group* (n = 4,148)	A- group* (n = 323,292)	p-value	Variable	A+ group* (n = 4,148)	A- group* (n = 323,292)	p-value
Chemical	0.1	0.3		Discharged	58.4	85.4	
Drowning	0.2	0.0		AOR	5.2	1.2	
Environmental	0.0	0.6		Dead	0.3	0.1	
Burn	0.3	1.1		<b>Repeat visit within 72 hr</b>			0.001
Suffocation	0.0	0.0		Yes	0.9	0.2	
Others	6.1	13.5					

\*Data presented as percentages. A+: alcohol consumption; A-: no alcohol consumption; AOR: self-discharge at own risk; GCS: Glasgow Coma Scale; ISS: Injury Severity Score

Table VIII. Comparison of age and admission characteristics of study population.

Variable (mean)	A+ group	A- group	p-value
Age (yr)	40.20	41.79	0.570
ISS	2.52	0.45	< 0.001
Total GCS	13.96	14.72	< 0.001
ICU LOS (day)	4.77	5.91	0.133
HDU LOS (day)	2.35	3.38	0.006
Hospital LOS (day)	10.80	11.91	< 0.001

A+: alcohol consumption; A-: no alcohol consumption; GCS: Glasgow Coma Scale; HDU: high dependency unit; ICU: intensive care unit; ISS: Injury Severity Score; LOS: length of stay

Table IX. Logistic regression model for the outcome of mortality.

Variable	Odds ratio	95% CI	p-value
<b>Age group (yr)</b>			< 0.001
16-24	1 (reference)		
25-44	1.272	0.838-1.930	0.259
45-64	2.546	1.679-3.859	< 0.001
> 64	3.374	2.163-5.263	< 0.001
<b>Gender</b>			
Female	1 (reference)		
Male	2.251	1.637-3.095	< 0.001
<b>Alcohol use</b>			
No	1 (reference)		
Yes	2.332	1.253-4.339	0.008
<b>Type of injury</b>			< 0.001
Blunt	1 (reference)		
Penetrating	0.193	0.062-0.605	0.005
Chemical	0.0	0.0	0.992
Drowning	228.934	113.112-463.350	< 0.001
Environmental	0.0	0.0	0.988
Burn	0.917	0.227-3.699	0.903
Suffocation	145.784	71.093-298.945	< 0.001
Others	0.860	0.570-1.298	0.472

CI: confidence interval