Supplementary Appendix

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**eFigure 1**. Location and distribution of injuries in British Columbia. Yellow dots indicate the location of injury. Darker shades of blue indicate regions of lower socioeconomic status.

A close up of a map

Description automatically generated

**eFigure 2**. Effect of transportation time to a neurosurgical centre on in-hospital mortality, by subgroup, for each one-hour increase in transportation time\*.

![Chart

Description automatically generated]()

\*AIS = abbreviated injury scale. Patients with an AIS head score of 6 were not included in this analysis as there were too few individuals for subgroup analysis of this category of patients (N=8).

**eFigure 3**. Stacked cumulative incidence functions of outcomes, stratified by transportation time to a neurosurgical centre in <1 hour and ≥1 hour.

A close up of a map

Description automatically generated

**eTable 1**. Effect of transportation time within one hour and within two hours on in-hospital mortality in 2,860 critically ill patients with severe traumatic brain injury

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Variable** | **Transportation within 1 hour** | | **Transportation within 2 hours** | |
| **Odds ratio\*** | **95% confidence interval** | **Odds ratio†** | **95% confidence interval** |
| Model #1 | 0.92 | 0.72 – 1.17 | 0.96 | 0.67 – 1.37 |
| Model #2 | 0.91 | 0.71 – 1.16 | 0.97 | 0.68 – 1.38 |

\*Odds ratio of transportation within 1 hour compared to ≥1 hour (reference group)

†Odds ratio of transportation within 2 hours compared to ≥2 hours (reference group)

Model #1: Adjusting for age, sex, direct transportation to neurosurgical centre, revised trauma score at the scene, injury severity scale score, year of injury, VANDIX, location of injury (urban vs. rural)

Model #2: Additional adjustment for type of injury (blunt vs. penetrating), and concomitant severe chest/abdominal trauma with abbreviated injury score ≥ 4

**eTable 2.** Effect of transportation time on discharge disposition in 2,860 critically ill patients with severe traumatic brain injury

|  |  |  |
| --- | --- | --- |
| **Discharge location** | **Relative risk ratio of outcome\*** | **95% confidence interval** |
| *Transportation time within 1 hour*† | | |
| Died / palliative | Reference group | Reference group |
| Acute care transfer / Rehabilitation facility / Nursing care facility | 1.05 | 0.82 – 1.36 |
| Home / Home with supports / left against medical advice | 1.09 | 0.80 – 1.49 |
| *Transportation time within 2 hours*‡ | | |
| Died / palliative | Reference group | Reference group |
| Acute care transfer / Rehabilitation facility / Nursing care facility | 1.04 | 0.71 – 1.51 |
| Home / Home with supports / left against medical advice | 0.91 | 0.58 – 1.42 |

†Comparing transportation in <1 hour compared to ≥1 hour (reference group)

‡Comparing transportation in <2 hours compared to ≥2 hours (reference group)

\*Model #1: Adjusting for age, sex, direct transportation to neurosurgical center, revised trauma score at the scene, injury severity scale score, year of injury, VANDIX, location of injury (urban vs. rural)