**SUPPLEMENTAL TABLES: TABLES 3-7**

**Table 3: Results of quantile regression model for Interval 1 (Time from call accepted to wheels up time of aircraft)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Variable | 10th | 30th | Quantile  50th | 70th | 90th |
| Heart rate  >100  50-100  <50 | 0.0  Ref  -2.0 | -0.3  Ref  -1.3 | -0.3  Ref  **-2.0\*** | 0.0  Ref  -2.0 | -2.2  Ref  -4.3 |
| Respiratory rate  >30  10-30  <10 | **-3.0\***  Ref  **3.0\*** | -0.5  Ref  **1.8\*** | -0.7  Ref  **1.7\*** | -2.0  Ref  **3.0\*** | -7.8  Ref  4.8 |
| GCS  13-15  9-12  <8 | Ref  1.0  -1.0 | Ref  1.0  -0.3 | Ref  0.8  0.3 | Ref  2.0  0.0 | Ref  7.6  1.0 |
| Time of day  08:00-16:59  17:00-23:59  00:00—7:59 | Ref  **2.0\***  **2.0\*** | Ref  **0.8\***  **1.3\*** | Ref  **0.7\***  **0.7\*** | Ref  1.0  1.0 | Ref  2.2  3.3 |
| Class of Hospital  Academic center  Community >100 beds  Community <100 beds  Nursing station | 0.0  -1.0  Ref  0.0 | 0.2  **-0.8\***  Ref  **1.8\*** | **2.1\***  **-0.7\***  Ref  **3.7\*** | **4.0\***  **-2.0\***  Ref  **5.0\*** | **18.5\***  -3.0  Ref  -1.2 |
| Landing site at trauma center  At hospital, no land escort  At hospital, land escort  Local airport | Ref  -1.0  -3.0 | Ref  -0.3  **-3.5\*** | Ref  -0.3  **-3.3\*** | Ref  0.0  **-4.0\*** | Ref  0.9  -5.8 |
| Trauma center volume  Highest tertile  Middle tertile  Lowest tertile | Ref  -1.0  2.0 | Ref  0.3  **2.0\*** | Ref  0.0  **3.0\*** | Ref  1.0  **4.0\*** | Ref  0.9  5.0 |
| Level of care  Primary care  Advanced care  Critical care | Ref  -1.0  0.0 | Ref  -1.5  -2.5 | Ref  **-3.7\***  **-5.7\*** | Ref  -4.0  **-7.0\*** | Ref  **-24.1\***  **-28.2\*** |
| Type of aircraft  Rotor-wing  Fixed-wing | 1.0  Ref | **-1.5\***  Ref | **-2.3\***  Ref | **-3.0\***  Ref | **-7.2\***  Ref |

GCS = Glasgow coma scale, Ref=reference, \*p-value<0.05

**Table 4: Results of quantile regression model for Interval 2 (Time from aircraft arriving at sending facility landing site to paramedic arrival at patient bedside)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Variable | 10th | 30th | Quantile  50th | 70th | 90th |
| Heart rate  >100  50-100  <50 | 1.0  Ref  1.0 | 0.3  Ref  0.3 | 0.7  Ref  0.7 | 0.8  Ref  0.6 | 0.0  Ref  0.0 |
| Mechanically ventilated | **1.0\*** | **1.3\*** | **1.7\*** | **2.4\*** | **3.0\*** |
| Class of Hospital  Academic center  Community >100 beds  Community <100 beds  Nursing station | -1.0  **1.0\***  Ref  **-3.0\*** | **1.7\***  **1.3\***  Ref  **-8.0\*** | **5.0\***  **1.7\***  Ref  **-13.0\*** | **9.0\***  **1.6\***  Ref  -**19.3\*** | **26.0\***  0.0  Ref  **-22.0\*** |
| Landing site at sending facility  At hospital, no land escort  At hospital, land escort  Local airport | Ref  **1.0\***  **2.0\*** | Ref  **3.0\***  **4.3\*** | Ref  **2.7\***  **5.0\*** | Ref  **2.5\***  **7.3\*** | Ref  **6.0\***  **11.0\*** |
| Trauma center volume  Highest tertile  Middle tertile  Lowest tertile | Ref  0.0  0.0 | Ref  0.3  0.0 | Ref  0.3  **1.3\*** | Ref  0.3  1.1 | Ref  **3.0\***  3.0 |
| Season  Summer  Fall  Winter  Spring | 0.0  0.0  0.0  Ref | 0.0  **0.7\***  0.3  Ref | 0.3  **1.3\***  **1.7\***  Ref | -0.1  1.0  **1.1\***  Ref | 0.0  **3.0\***  1.0  Ref |
| Type of aircraft  Rotor-wing  Fixed-wing | **1.0\***  Ref | **-4.3\***  Ref | **-11.7\***  Ref | **-18.1\***  Ref | **-27.0\***  Ref |

GCS = Glasgow coma scale, Ref=reference, \*p-value<0.05

**Table 5: Results of quantile regression model for Interval 3 (In-hospital time)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Variable | 10th | 30th | Quantile  50th | 70th | 90th |
| Age  Less than 35  35-44  45-54  55-64  65-74  Greater than 7 | Ref  1.0  0.0  **2.5\***  0.5  0.5 | Ref  1.4  **2.6\***  **3.0\***  2.6  0.9 | Ref  1.4  0.7  2.0  **3.1\***  0.2 | Ref  0.4  1.5  3.3  **6.8\***  0.3 | Ref  2.0  **7.6\***  4.1  6.8  6.4 |
| Heart rate  >100  50-100  <50 | 1.0  Ref  -2.0 | 1.5  Ref  -0.7 | **3.1\***  Ref  1.2 | **2.6\***  Ref  -3.8 | **6.4\***  Ref  -9.4 |
| Oxygen saturation <90% | 1.5 | 2.1 | 1.8 | **8.6\*** | **10.2\*** |
| Mechanically ventilated | **12.5\*** | **18.1\*** | **22.9\*** | **29.5\*** | **37.1\*** |
| Mechanism of injury  Motor vehicle  Fall  Penetrating  Other † | 1.5  0.5  -1.0  Ref | **2.3\***  -1.3  -3.2  Ref | **3.3\***  -1.6  -3.9  Ref | **3.0\***  -2.4  **-6.1\***  Ref | 3.4  -4.3  **-11.5\***  Ref |
| Class of Hospital  Academic center  Community >100 beds  Community <100 beds  Nursing station | **3.5\***  0.5  Ref  2.0 | **14.1\***  0.5  Ref  **-2.3\*** | **22.2\***  0.3  Ref  -2.3 | **21.8\***  -1.0  Ref  -5.5 | **32.6\***  -1.6  Ref  **-13.5\*** |
| Landing site at sending facility  At hospital, no land escort  At hospital, land escort  Local airport | Ref  -2.0  **-4.5\*** | Ref  **-3.7\***  **-4.3\*** | Ref  -2.9  **-5.4\*** | Ref  -4.1  **-7.3\*** | Ref  -3.4  **-5.8\*** |
| Landing site at trauma center  At hospital, no land escort  At hospital, land escort  Local airport | Ref  **1.5\***  3.0 | Ref  **2.0\***  **6.7\*** | Ref  **2.2\***  **6.1\*** | Ref  **3.4\***  **9.8\*** | Ref  1.4  **16.0\*** |
| Trauma center volume  Highest tertile  Middle tertile  Lowest tertile | Ref  **2.0\***  -1.0 | Ref  1.8  0.0 | Ref  **3.9\***  -0.8 | Ref  **5.0\***  -1.4 | Ref  **5.6\***  -3.4 |
| Level of care  Primary care  Advanced care  Critical care | Ref  1.5  0.5 | Ref  6.6  4.4 | Ref  **15.8\***  **10.3\*** | Ref  **18.2\***  **11.9\*** | Ref  **22.1\***  **14.8\*** |
| Type of aircraft  Rotor-wing  Fixed-wing | **5.0\***  Ref | **2.3\***  Ref | **-5.0\***  Ref | **-16.6\***  Ref | **-25.8\***  Ref |

GCS = Glasgow coma scale, Ref=reference, \*p-value<0.05

† Includes pedestrian struck, cyclist injuries, recreational vehicle injuries, crush injuries, explosions

**Table 6: Results of quantile regression model for Interval 4 (Time from departing patient bedside to arrival back at aircraft)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Variable | 10th | 30th | Quantile  50th | 70th | 90th |
| Mechanically ventilated | **3.0\*** | **3.5\*** | **4.0\*** | **3.0\*** | **7.0\*** |
| Class of Hospital  Academic center  Community >100 beds  Community <100 beds  Nursing station | 0.5  **1.5\***  Ref  0.5 | **3.1\***  **2.3\***  Ref  **-4.0\*** | **5.1\***  **2.0\***  Ref  **-10.0** | **7.5\***  **2.0\***  Ref  **-13.0** | **11.6\***  0.0  Ref  **-16.0\*** |
| Landing site at sending facility  At hospital, no land escort  At hospital, land escort  Local airport | Ref  0.5  0.5 | Ref  0.3  **2.3\*** | Ref  1.0  **4.0\*** | Ref  1.0  **5.0\*** | Ref  **4.0\***  **7.0\*** |
| Landing site at trauma center  At hospital, no land escort  At hospital, land escort  Local airport | Ref  0.0  1.5 | Ref  0.3  **2.7\*** | Ref  **1.0\***  **4.0\*** | Ref  **1.0\***  **3.0\*** | Ref  1.0  -1.0 |
| Trauma center volume  Highest tertile  Middle tertile  Lowest tertile | Ref  -0.5  0.5 | Ref  0.8  0.3 | Ref  **1.0\***  0.0 | Ref  **2.0\***  0.0 | Ref  **4.0\***  3.0 |
| Level of care  Primary care  Advanced care  Critical care | Ref  2.0  **2.5\*** | Ref  **4.3\***  **4.5\*** | Ref  **9.0\***  **9.0\*** | Ref  **9.0\***  **9.0\*** | Ref  **10.0\***  **9.0\*** |
| Type of aircraft  Rotor-wing  Fixed-wing | **3.0\***  Ref | **-2.5\***  Ref | **-13.0\***  Ref | **-18.0\***  Ref | **-22.0\***  Ref |

GCS = Glasgow coma scale, Ref=reference, \*p-value<0.05

**Table 7: Results of quantile regression model for Interval 5 (Time from aircraft arrival at receiving center to paramedic handover to trauma team)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Variable | 10th | 30th | Quantile  50th | 70th | 90th |
| Mechanically ventilated | 1.0 | **2.0\*** | **2.3\*** | **2.0\*** | 2.3 |
| Mechanism of injury  Motor vehicle  Fall  Penetrating  Other † | -1.0  -1.0  0.0  Ref | 0.0  0.0  **-2.0\***  Ref | -0.8  0.0  **-2.5\***  Ref | -1.0  0.0  -2.0  Ref | **-3.3\***  -1.3  **-5.7\***  Ref |
| Time of day  08:00-16:59  17:00-23:59  00:00—7:59 | Ref  0.0  -1.0 | Ref  0.0  **-1.0\*** | Ref  **-1.5\***  **-2.0\*** | Ref  **-2.0\***  **-2.0\*** | Ref  **-3.7**  **-3.3\*** |
| Class of Hospital  Academic center  Community >100 beds  Community <100 beds  Nursing station | **4.3\***  0.0  Ref  **4.0\*** | **7.0\***  0.0  Ref  -1.0 | **9.9\***  0.3  Ref  -1.8 | **9.0\***  1.0  Ref  -3.0 | 5.6  **2.7\***  Ref  -1.7 |
| Landing site at trauma center  At hospital, no land escort  At hospital, land escort  Local airport | Ref  **3.0\***  **14.0\*** | Ref  **4.0\***  **20.0\*** | Ref  **4.5\***  **24.5\*** | Ref  **5.0\***  **31.0\*** | Ref  **5.3\***  **54.0\*** |
| Trauma center volume  Highest tertile  Middle tertile  Lowest tertile | Ref  0.0  0.0 | Ref  **1.0\***  **-2.0\*** | Ref  **2.5\***  0.5 | Ref  **4.0\***  0.0 | Ref  **4.7\***  0.3 |
| Level of care  Primary care  Advanced care  Critical care | Ref  **7.0\***  **8.0\*** | Ref  **18.0\***  **19.0\*** | Ref  **11.5\***  **13.0\*** | Ref  **8.0\***  **10.0\*** | Ref  4.7  6.3 |
| Type of aircraft  Rotor-wing  Fixed-wing | **-5.0\***  Ref | **-18.0\***  Ref | **-22.3\***  Ref | **-27.0\***  Ref | **-35.3**  Ref |

GCS = Glasgow coma scale, Ref=reference, \*p-value<0.05

† Includes pedestrian struck, cyclist injuries, recreational vehicle injuries, crush injuries, explosions