

Appendix A: Association between 53 Adverse Events and those without Adverse Events for Patient and Index ED Visit Characteristics

| | | Not an Adverse Event N=13,442 | Adverse Event N=53 | TOTAL N=13,495 | P- VALUE |
|---------------------------------------|---------------------|--|-----------------------------------|---------------------------|---------------------|
| Patient Characteristics | | | | | |
| Age (Median (IQR)) | | 47 (31-65) | 54 (34-73) | 47 (31-65) | 0.05 |
| Sex | Female | 7,099 (52.8%) | 25 (47.2%) | 7,124 (52.8%) | 0.41 |
| Inpatient /ED Visit last 6 mos | | 5,217 (38.8%) | 29 (54.7%) | 5,246 (38.9%) | 0.02* |
| Previous inpatient last 6 mos | Mean ± SD | 0.2 ± 0.6 | 0.4 ± 0.7 | 0.2 ± 0.6 | 0.01* |
| | 0 | 11,800 (87.8%) | 38 (71.7%) | 11,838 (87.7%) | <.001* |
| | 1 | 1,155 (8.6%) | 10 (18.9%) | 1,165 (8.6%) | |
| | 2 | 320 (2.4%) | 5 (9.4%) | 325 (2.4%) | |
| Previous ED Visit last 6 mos | Mean ± SD | 0.9 ± 2.3 | 1.9 ± 4.7 | 0.9 ± 2.3 | 0.002* |
| | 0 | 8,523 (63.4%) | 29 (54.7%) | 8,552 (63.4%) | 0.23 |
| | 1 | 2,500 (18.6%) | 11 (20.8%) | 2,511 (18.6%) | |
| | 2 | 1,040 (7.7%) | 6 (11.3%) | 1,046 (7.8%) | |
| CTAS** | 1-3 | 10,729 (79.8%) | 45 (84.9%) | 10,774 (79.8%) | 0.22 |
| | 4-5 | 2,713 (20.2%) | 8 (15.1%) | 2,721 (20.3%) | |
| Index ED Visit Characteristics | | | | | |
| Campus | Civic Campus | 6,778 (50.4%) | 26 (49.1%) | 6,804 (50.4%) | 0.84 |
| | General Campus | 6,664 (49.6%) | 27 (50.9%) | 6,691 (49.6%) | |
| Arrive by Ambulance | | 3,474 (25.8%) | 15 (28.3%) | 3,489 (25.9%) | 0.68 |
| Any Radiology during ED visit† | | 5,826 (43.3%) | 34 (64.2%) | 5,860 (43.4%) | 0.002* |
| Abdomen or Pelvis Imaging | | 1,339 (10.0%) | 10 (18.9%) | 1,349 (10.0%) | 0.03* |
| CT Abdomen & Pelvis | | 669 (5.0%) | 1 (1.9%) | 670 (5.0%) | 0.30 |
| CT Chest | | 231 (1.7%) | 1 (1.9%) | 232 (1.7%) | 0.93 |
| CT Head | | 1,160 (8.6%) | 7 (13.2%) | 1,167 (8.6%) | 0.24 |
| Ultrasound Abdomen | | 374 (2.8%) | 5 (9.4%) | 379 (2.8%) | 0.003* |
| Ultrasound Pelvis | | 104 (0.8%) | 1 (1.9%) | 105 (0.8%) | 0.36 |
| X-ray Abdomen | | 479 (3.6%) | 4 (7.5%) | 483 (3.6%) | 0.12 |
| X-ray Chest | | 2,765 (20.6%) | 15 (28.3%) | 2,780 (20.6%) | 0.17 |
| X-ray Musculoskeletal | | 1,838 (13.7%) | 7 (13.2%) | 1,845 (13.7%) | 0.92 |
| Consult requested | | 3,744 (27.9%) | 15 (28.3%) | 3,759 (27.9%) | 0.94 |
| ED Disposition Home/Residence | | 10,569 (78.6%) | 47 (88.7%) | 10,616 (78.7%) | 0.08 |
| Arrival | Day (0800-1559) | 6,461 (48.1%) | 35 (66.0%) | 6,496 (48.1%) | 0.01* |
| Time of day | Evening (1600-2359) | 5,026 (37.4%) | 16 (30.2%) | 5,042 (37.4%) | |
| | Night (0000-0759) | 1,955 (14.5%) | 2 (3.8%) | 1,957 (14.5%) | |

*Statistically significant

**CTAS: Canadian Triage and Acuity Scale

† Radiology includes: chest x-ray, abdominal x-ray, x-rays of extremities, CT head, CT chest, CT abdomen & pelvis, Ultrasound abdomen & pelvis

Appendix B: Association between 53 Adverse Events and those without Adverse Events who Returned to the ED, Patient and Index ED Visit Characteristics

| | | Not an Adverse Event N=870 | Adverse Event N=53 | TOTAL N=923 | P- VALUE |
|--|------------------------|---|-----------------------------------|------------------------|---------------------|
| Patient Characteristics | | | | | |
| Age at arrival | Median (IQR) | 48 (32-67) | 54 (34-73) | 49 (32-67) | 0.08 |
| Female | | 431 (49.5%) | 25 (47.2%) | 456 (49.4%) | 0.74 |
| Inpatient /ED Visit last 6 mos | | 511 (58.7%) | 29 (54.7%) | 540 (58.5%) | 0.56 |
| Previous inpatient last 6 mos | Mean ± SD | 0.32 ± 0.77 | 0.38 ± 0.66 | 0.32 ± 0.77 | 0.59 |
| | 0 | 698 (80.2%) | 38 (71.7%) | 736 (79.7%) | 0.12 |
| | 1 | 107 (12.3%) | 10 (18.9%) | 117 (12.7%) | |
| | 2 | 41 (4.7%) | 5 (9.4%) | 46 (5.0%) | |
| Previous ED Visit last 6 mos | Mean ± SD | 2.69 ± 4.98 | 1.94 ± 4.69 | 2.65 ± 4.97 | 0.29 |
| | 0 | 376 (43.2%) | 29 (54.7%) | 405 (43.9%) | 0.43 |
| | 1 | 153 (17.6%) | 11 (20.8%) | 164 (17.8%) | |
| | 2 | 103 (11.8%) | 6 (11.3%) | 109 (11.8%) | |
| CTAS | 1-3 | 735 (84.5%) | 45 (84.9%) | 780 (84.5%) | 0.44 |
| | 4-5 | 135 (15.5%) | 8 (15.1%) | 143 (15.5%) | |
| Index ED Visit Characteristics | | | | | |
| Campus | Civic Campus | 435 (50.0%) | 26 (49.1%) | 461 (49.9%) | 0.89 |
| | General Campus | 435 (50.0%) | 27 (50.9%) | 462 (50.1%) | |
| Arrive by Ambulance | | 272 (31.3%) | 15 (28.3%) | 287 (31.1%) | 0.65 |
| Any Radiology during ED visit | | 326 (37.5%) | 34 (64.2%) | 360 (39.0%) | <.001* |
| Abdomen or Pelvis Imaging | | 91 (10.5%) | 10 (18.9%) | 101 (10.9%) | 0.06 |
| CT Abdomen & Pelvis | | 38 (4.4%) | 1 (1.9%) | 39 (4.2%) | 0.38 |
| CT Chest | | 15 (1.7%) | 1 (1.9%) | 16 (1.7%) | 0.93 |
| CT Head | | 78 (9.0%) | 7 (13.2%) | 85 (9.2%) | 0.30 |
| Ultrasound Abdomen | | 23 (2.6%) | 5 (9.4%) | 28 (3.0%) | 0.005* |
| Ultrasound Pelvis | | 8 (0.9%) | 1 (1.9%) | 9 (1.0%) | 0.49 |
| X-ray Abdomen | | 34 (3.9%) | 4 (7.5%) | 38 (4.1%) | 0.20 |
| X-ray Chest | | 146 (16.8%) | 15 (28.3%) | 161 (17.4%) | 0.03 |
| X-ray Musculoskeletal | | 82 (9.4%) | 7 (13.2%) | 89 (9.6%) | 0.37 |
| Consult requested | | 232 (26.7%) | 15 (28.3%) | 247 (26.8%) | 0.79 |
| Arrival Time of day | Day (0800 to 1559) | 365 (42.0%) | 35 (66.0%) | 400 (43.3%) | 0.001* |
| | Evening (1600 to 2359) | 348 (40.0%) | 16 (30.2%) | 364 (39.4%) | |
| | Night (0000 to 0759) | 157 (18.0%) | 2 (3.8%) | 159 (17.2%) | |
| Index ED visit not admitted, return within 72h, admitted at return | | 111 (12.8%) | 15 (28.3%) | 126 (13.7%) | 0.001 |

*Statistically significant