### Supplementary Table 1: Patient characteristics and distribution of chief complaints, ranked by prevalence – full table showing all possible chief complaints

| Chief complaint                                      | Prevalence | Age, median | Sex, male | Triage color | LoS, median | Admitted |
|------------------------------------------------------|------------|-------------|-----------|--------------|-------------|----------|
| All                                                  | 10,225     | 25,209      | 58 (37-75)| 50%          | 2.7%        | 14.4%    |
| Extremity injury                                     | 2,007 (10.9)| 1,803 (11.7)| 66 (49-81)| 45%          | 0.6%        | 58.0%    |
| Abdominal symptoms                                   | 1,878 (9.7) | 1,556 (10.0)| 48 (29-66)| 45%          | 0.7%        | 41.1%    |
| Dyspea                                               | 1,620 (8.4) | 1,150 (7.5) | 72 (93-81)| 50%          | 13.0%       | 51.8%    |
| Head- and face symptoms                              | 1,388 (7.2) | 1,102 (7.0) | 52 (38-72)| 56%          | 0.8%        | 38.5%    |
| No contact reason                                    | 1,286 (6.4) | 908 (6.1)   | 60 (38-77)| 53%          | 12.5%       | 34.2%    |
| Chest pain                                           | 1,055 (5.2) | 875 (5.7)   | 56 (40-70)| 51%          | 0.6%        | 77.5%    |
| Back- and neck pain                                  | 930 (4.6)   | 823 (5.4)   | 68 (28-64)| 46%          | 0.5%        | 42.8%    |
| Fever / infection                                    | 882 (4.4)   | 676 (4.4)   | 66 (46-77)| 51%          | 4.9%        | 33.9%    |
| Intoxication                                         | 802 (4.2)   | 560 (3.8)   | 72 (52-50)| 47%          | 3.9%        | 54.5%    |
| Extremity symptoms w/o injury                        | 597 (3.1)   | 466 (3.2)   | 60 (42-73)| 50%          | 0.5%        | 38.9%    |
| Gastrointestinal (GI) bleeding                       | 572 (3.0)   | 413 (2.8)   | 69 (51-80)| 56%          | 2.6%        | 33.2%    |
| Dizziness                                            | 519 (2.7)   | 415 (2.7)   | 70 (54-80)| 46%          | 1.0%        | 42.8%    |
| Fainting / syncope                                   | 485 (2.6)   | 424 (2.8)   | 60 (37-70)| 47%          | 0.4%        | 24.7%    |
| Altered level of consciousness (ALOC)                | 494 (2.6)   | 340 (2.2)   | 70 (51-81)| 48%          | 13.7%       | 55.9%    |
| Seizure, generalized                                 | 408 (2.4)   | 314 (2.0)   | 47 (31-60)| 64%          | 7.0%        | 54.7%    |
| Headache                                             | 456 (2.4)   | 411 (2.7)   | 47 (30-62)| 41%          | 4.1%        | 51.9%    |
| Unwell                                               | 358 (1.8)   | 271 (1.4)   | 68 (47-79)| 47%          | 0.8%        | 9.5%     |
| Focal neurological symptoms                          | 342 (1.8)   | 285 (1.9)   | 70 (48-80)| 56%          | 4.7%        | 5.7%     |
| Allergic symptoms                                    | 258 (1.3)   | 228 (1.5)   | 42 (28-57)| 42%          | 1.9%        | 62.8%    |
| Nausea, vomit and diarrhea                           | 247 (1.3)   | 184 (1.2)   | 68 (49-80)| 32%          | 2.2%        | 7.3%     |
| Nose symptoms                                         | 219 (1.2)   | 188 (1.2)   | 70 (59-80)| 61%          | 0.0%        | 74.9%    |
| Thoracic injury                                       | 225 (1.2)   | 195 (1.3)   | 51 (33-66)| 60%          | 3.6%        | 21.3%    |
| Skin- and mucosal injuries                            | 218 (1.1)   | 173 (1.1)   | 48 (33-68)| 50%          | 2.3%        | 19.3%    |
| Withdrawal symptoms                                  | 108 (0.6)   | 86 (0.5)    | 40 (60-70)| 72%          | 2.5%        | 15.2%    |
| Blood-sugar, deviations                              | 173 (0.9)   | 130 (0.8)   | 58 (37-73)| 62%          | 1.1%        | 40.8%    |
| Urinary tract symptoms                                | 168 (0.8)   | 146 (0.8)   | 73 (54-82)| 64%          | 1.2%        | 33.2%    |
| Throat irritation                                     | 166 (0.8)   | 144 (0.8)   | 46 (29-64)| 48%          | 1.0%        | 26.1%    |
| Anorectal symptoms                                    | 141 (0.7)   | 123 (0.8)   | 34 (24-64)| 68%          | 0.0%        | 6.0%     |
| Dehydrating lab values                                | 128 (0.7)   | 82 (0.5)    | 73 (62-81)| 42%          | 0.0%        | 16.8%    |
| Confusion / agitation                                 | 113 (0.6)   | 78 (0.5)    | 76 (70-86)| 50%          | 1.8%        | 56.6%    |
| Pneumonia                                            | 111 (0.6)   | 94 (0.5)    | 56 (36-77)| 44%          | 0.1%        | 14.5%    |
| Foreign body                                          | 110 (0.6)   | 81 (0.5)    | 46 (24-63)| 51%          | 0.0%        | 20.0%    |
| Psychotic symptoms                                    | 84 (0.5)    | 65 (0.4)    | 43 (21-68)| 41%          | 2.3%        | 27.5%    |
| Bleeding from upper airways                           | 78 (0.4)    | 57 (0.4)    | 52 (38-68)| 64%          | 0.0%        | 56.4%    |
| Sudden- and inhalation injury                         | 58 (0.3)    | 53 (0.3)    | 43 (28-98)| 50%          | 1.7%        | 29.3%    |
| High blood pressure                                   | 53 (0.3)    | 45 (0.3)    | 70 (57-81)| 28%          | 2.9%        | 35.8%    |
| Electricity and lighting injury                       | 51 (0.3)    | 49 (0.3)    | 23 (54-64)| 88%          | 0.0%        | 7.9%     |
| Intoxication / acute                                  | 34 (0.2)    | 28 (0.2)    | 60 (55-75)| 55%          | 2.6%        | 18.4%    |
| Eye symptoms                                          | 33 (0.2)    | 24 (0.2)    | 17 (56-74)| 60%          | 0.0%        | 8.2%     |
| Burn / irritation / scalding                          | 25 (0.1)    | 21 (0.1)    | 43 (28-68)| 56%          | 2.0%        | 12.0%    |
| Female genital symptoms                               | 21 (0.1)    | 17 (0.1)    | 46 (39-78)| 0%           | 0.0%        | 20.3%    |
| Enema                                                | 21 (0.1)    | 15 (0.1)    | 71 (62-86)| 52%          | 4.7%        | 26.6%    |
| Bite                                                  | 20 (0.1)    | 16 (0.1)    | 54 (31-71)| 55%          | 0.0%        | 25.0%    |
| Cathereter / nuns / tube symptoms                     | 20 (0.1)    | 16 (0.1)    | 45 (59-77)| 60%          | 1.0%        | 15.0%    |
| Tooth damage                                          | 16 (0.1)    | 16 (0.1)    | 34 (23-73)| 38%          | 0.0%        | 43.8%    |
| Male genital symptoms                                 | 8 (0.0)     | 7 (0.0)     | 46 (39-64)| 100%         | 0.0%        | 37.5%    |
| Ear symptoms                                          | 7 (0.0)     | 6 (0.0)     | 24 (31-51)| 63%          | 0.0%        | 42.9%    |
|                          | n (IQR) | n (IQR) | n (IQR) | 0 | 0.0 | 0.0 | 50.0 | 16.7 | 33.3 | 0.5 | 0.0 |
|--------------------------|---------|---------|---------|---|-----|-----|------|------|------|-----|-----|
| Pregnancy and maternity | 6 (0.1) | 6 (0.1) | 32 (25-34) | 0 | 0.0 | 0.0 | 50.0 | 16.7 | 33.3 | 0.5 | 0.0 |
| Service contact          | 1 (0.1) | 1 (0.1) | 43 (-)  | 0 | 0.0 | 0.0 | 100.0 | 0.0 | 2.0 | 0.0 |
| Syringe accidnt          | 1 (0.1) | 1 (0.1) | 51 (-)  | 0 | 0.0 | 0.0 | 0.0 | 100.0 | 1.2 | 0.0 |
| Cast discomfort          | 0 (-)   | 0 (0.1) | -       | - | -   | -   | -    | -    | -    | -   |

All included contacts shown. n = number; IQR = inter quartile range; LoS = length of stay.

1Index contacts, defined by a patient’s first contact during the inclusion period.
### Supplementary table 2: Crude OR for mortality analysis

| Chief complaint                        | In-hospital mortality | 30-day mortality | 1-year mortality |
|----------------------------------------|-----------------------|------------------|-----------------|
|                                        | OR (95% CI)           | OR (95% CI)      | OR (95% CI)     |
| All                                    | -                     | -                | -               |
| Altered level of conscience (ALOC)     | 4.0 (2.4-6.6)         | 3.1 (2.1-4.6)    | 3.0 (2.3-3.9)   |
| Dyspnea                                | 3.5 (2.5-4.8)         | 3.2 (2.5-4.1)    | 3.2 (2.8-3.8)   |
| Gastrointestinal (GI) bleeding         | 2.6 (1.5-4.5)         | 2.4 (1.6-3.5)    | 1.8 (1.4-2.4)   |
| Focal neurological symptoms            | 2.9 (1.6-5.5)         | 2.3 (1.4-3.7)    | 1.7 (1.2-2.4)   |
| No contact reason                      | 2.7 (1.8-3.9)         | 2.4 (1.8-3.1)    | 1.7 (1.4-2.1)   |
| Nausea, vomit and diarrhea             | 2.0 (0.8-4.9)         | 2.1 (1.3-3.9)    | 1.7 (1.1-2.6)   |
| Unwell                                 | 2.2 (1.1-4.5)         | 2.1 (1.3-3.5)    | 1.9 (1.4-2.7)   |
| Fever / infection                      | 0.6 (0.3-1.4)         | 1.1 (0.7-1.7)    | 1.0 (0.8-1.3)   |
| Dizziness                              | 1.4 (0.7-2.9)         | 1.0 (0.5-1.7)    | 1.2 (0.9-1.6)   |
| Extremity symptoms w/o injury          | 0.7 (0.3-1.8)         | 0.9 (0.5-1.6)    | 0.9 (0.7-1.3)   |
| Abdominal symptoms                     | 0.8 (0.5-1.3)         | 0.7 (0.5-1.0)    | 0.5 (0.4-0.7)   |
| Extremity injury                       | 0.4 (0.2-0.7)         | 0.7 (0.5-0.9)    | 1.0 (0.8-1.2)   |
| Skin- and mucosal symptoms             | 0.4 (0.1-2.9)         | 0.6 (0.2-1.8)    | 0.5 (0.3-1.0)   |
| Seizure, generalized                   | -                     | 0.4 (0.2-1.1)    | 0.8 (0.5-1.2)   |
| Head- and face symptoms                | 0.2 (0.1-0.6)         | 0.3 (0.2-0.6)    | 0.5 (0.4-0.6)   |
| Nose symptoms                          | 0.4 (0.1-2.7)         | 0.3 (0.1-1.4)    | 0.8 (0.4-1.3)   |
| Fainting / syncopie                    | 0.5 (0.2-1.6)         | 0.3 (0.1-0.8)    | 0.6 (0.4-0.9)   |
| Headache                               | 0.3 (0.1-1.4)         | 0.3 (0.1-0.8)    | 0.2 (0.1-0.4)   |
| Back- and neck pain                    | 0.4 (0.2-1.0)         | 0.3 (0.1-0.6)    | 0.5 (0.3-0.6)   |
| Intoxication                           | 0.1 (0.0-0.9)         | 0.2 (0.1-0.6)    | 0.3 (0.2-0.5)   |
| Thorax injury                          | 0.4 (0.1-2.6)         | 0.2 (0.0-1.2)    | 0.3 (0.1-0.7)   |
| Allergic symptoms                      | 0.3 (0.0-2.3)         | 0.1 (0.0-1.0)    | 0.1 (0.0-0.4)   |
| Chest pain                             | 0.1 (0.0-0.6)         | 0.1 (0.0-0.4)    | 0.4 (0.3-0.6)   |
| The rest                               | 0.5 (0.3-2.0)         | 0.9 (0.7-1.3)    | 0.9 (0.8-1.3)   |
### Supplementary table 3: Crude OR for 7-day and 30-day readmission

| Chief complaint                      | 7-day readmission | 30-day readmission |
|--------------------------------------|-------------------|-------------------|
|                                      | 7-day             | 30-day            |
|                                      | Crude OR          | Crude OR          |
|                                      | OR  (95% CI)      | OR  (95% CI)      |
| All                                  | -                 | -                 |
| Fever / infection                    | 1.7 (1.3-2.5)     | 2.0 (1.6-2.5)     |
| Dyspnea                              | 1.6 (1.2-2.1)     | 1.9 (1.6-2.4)     |
| Nausea, vomit and diarrhea           | 1.2 (0.6-2.4)     | 1.7 (1.1-2.8)     |
| Abdominal symptoms                   | 2.2 (1.7-2.8)     | 1.7 (1.4-2.1)     |
| Skin- and mucosal symptoms           | 2.7 (1.5-4.7)     | 1.6 (1.0-2.7)     |
| Gastrointestinal (GI) bleeding       | 1.0 (0.6-1.8)     | 1.6 (1.1-2.2)     |
| Unwell                               | 0.6 (0.2-1.4)     | 1.1 (0.7-1.8)     |
| Extremity symptoms w/o injury        | 1.2 (0.7-1.9)     | 1.0 (0.7-1.5)     |
| Altered level of conscience (ALOC)   | 0.8 (0.4-1.5)     | 1.0 (0.7-1.6)     |
| No contact reason                    | 1.2 (0.9-1.7)     | 1.0 (0.8-1.3)     |
| Nose symptoms                        | 1.2 (0.5-2.5)     | 0.9 (0.5-1.7)     |
| Chest pain                           | 0.8 (0.5-1.2)     | 0.8 (0.6-1.1)     |
| Focal neurological symptoms          | 0.8 (0.4-1.7)     | 0.8 (0.5-1.4)     |
| Headache                             | 1.0 (0.6-1.8)     | 0.7 (0.5-1.2)     |
| Extremity injury                     | 0.7 (0.5-1.6)     | 0.7 (0.5-0.8)     |
| Thorax injury                        | 0.6 (0.2-1.7)     | 0.7 (0.4-1.4)     |
| Dizziness                            | 0.7 (0.3-1.3)     | 0.6 (0.4-1.0)     |
| Intoxication                         | 0.4 (0.2-0.8)     | 0.5 (0.3-0.8)     |
| Back- and neck pain                  | 0.3 (0.1-0.6)     | 0.5 (0.3-0.7)     |
| Seizure, generalized                 | 0.4 (0.1-1.0)     | 0.4 (0.2-0.8)     |
| Fainting / syncope                   | 0.4 (0.1-0.9)     | 0.3 (0.2-0.6)     |
| Head- and face symptoms              | 0.3 (0.2-0.6)     | 0.3 (0.2-0.4)     |
| Allergic symptoms                    | 0.1 (0.0-0.9)     | 0.3 (0.1-0.7)     |
| The rest                             | 1.3 (1.0-1.7)     | 1.4 (1.2-1.7)     |
Supplementary Figure 1: DEPT is the most used triage system in Denmark and is similar to other modern triage systems e.g. ADAPT, CTAS, ATS, MTS. The triage is usually performed by a nurse; patients not acutely affected, i.e. fully awake with healthy skin color, normal respiration rate and the reason for their complaint is obviously not critical, e.g. minor injuries, are initially assigned with a blue card and not undergoing formal triage. The patients will wait to be seen by the first available physician. Patients not assigned a blue card proceed to the normal triage performed in two steps; 1) measurement of vital parameters and 2) selection of specific contact card related to their chief complaint. DEPT has 50 predefined specific contact cards e.g. dyspnea, fever. The final triage level (color) is determined by the most urgent color from the two-step evaluation. The triage colors determine how quickly the patient must be seen by a physician; red is life-threatening (immediately), orange is critical condition (15 min.), yellow is potentially unstable (1 hour), green is stable (3 hours). A patient can be given two specific contact cards at the same time if the triage nurse finds it relevant. Patients assessed by the pre-hospital service as medical emergencies or severely traumatized are received immediately by coded rapid-response teams, thus bypassing the triage.

For example: If a patient is triaged green according to the vital parameters card and triaged red according to the specific contact card, the final triage color that is registered will be red.
1. Nordberg M, Lethvall S, Castrén M. The validity of the triage system ADAPT. *Scandinavian Journal of Trauma, Resuscitation and Emergency Medicine* 2010;18(1):P36. doi: 10.1186/1757-7241-18-s1-p36

2. Lindberg SO, Lerche la Cour J, Folkestad L, et al. The use of triage in Danish emergency departments. *Dan Med Bull* 2011;58(10):A4301. [published Online First: 2011/10/07]