

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 Years (IQR)	Sex, male %	Triage color				LoS, median Hours	Admitted %
	Contacts n (%)	Index [†] n (%)			Red %	Orange %	Yellow %	Green %		
	<i>All</i>	19,325 (100)	15,369 (100)	58 (37-75)	50	3.7	44.4	37.3	14.6	9.2
Extremity injury	2,097 (10.9)	1,803 (11.7)	66 (44-81)	45	0.6	58.0	20.9	20.5	10.4	50.0
Abdominal symptoms	1,878 (9.7)	1536 (10.0)	48 (29-66)	45	0.7	41.1	48.1	10.1	17.9	74.0
Dyspnea	1,620 (8.4)	1,150 (7.5)	72 (59-81)	50	13.0	51.8	28.6	6.6	50.8	84.0
Head- and face symptoms	1,388 (7.2)	1,192 (7.8)	52 (28-72)	56	0.8	38.5	47.9	12.8	2.9	16.9
No contact reason	1,268 (6.6)	998 (6.5)	60 (38-77)	53	12.5	34.2	30.0	23.3	10.4	54.1
Chest pain	1,055 (5.5)	875 (5.7)	56 (43-70)	51	0.6	77.5	19.4	2.5	3.3	22.1
Back- and neck pain	930 (4.8)	833 (5.4)	44 (28-64)	46	0.5	42.9	42.5	14.1	3.5	28.8
Fever / infection	882 (4.6)	676 (4.4)	66 (46-77)	55	4.9	33.9	45.7	15.5	61.5	83.8
Intoxication	802 (4.2)	560 (3.6)	32 (22-50)	47	3.9	54.5	39.0	2.6	5.5	41.2
Extremity symptoms w/o injury	597 (3.1)	486 (3.2)	60 (42-75)	50	0.5	38.9	39.5	21.1	14.6	64.0
Gastrointestinal (GI) bleeding	572 (3.0)	433 (2.8)	69 (51-80)	56	2.6	33.2	48.8	15.4	32.4	75.7
Dizziness	519 (2.7)	415 (2.7)	70 (54-80)	46	1.0	42.8	29.1	27.1	11.4	54.1
Fainting / syncope	495 (2.6)	424 (2.8)	63 (37-76)	47	0.4	24.7	73.1	1.8	3.5	31.1
Altered level of conscience (ALOC)	494 (2.6)	340 (2.2)	70 (51-81)	48	13.7	55.9	29.5	0.9	22.8	62.2
Seizure, generalized	468 (2.4)	314 (2.0)	47 (31-60)	65	7.0	54.7	10.9	27.4	4.8	39.5
Headache	466 (2.4)	411 (2.7)	47 (30-62)	41	4.1	51.9	38.2	5.8	4.8	41.0
Unwell	358 (1.9)	271 (1.8)	68 (47-79)	47	0.8	9.5	58.1	31.6	5.7	47.8
Focal neurological symptoms	342 (1.8)	285 (1.9)	70 (48-80)	56	4.7	57.3	37.4	0.6	15.7	62.8
Allergic symptoms	258 (1.3)	228 (1.5)	42 (28-57)	42	1.9	62.8	18.2	17.1	3.6	34.9
Nausea, vomit and diarrhea	247 (1.3)	184 (1.2)	68 (49-80)	32	1.2	7.3	70.0	21.5	45.8	18.0
Nose symptoms	239 (1.2)	188 (1.2)	70 (58-80)	61	0.0	74.9	5.9	19.2	2.4	82.6
Thorax injury	225 (1.2)	196 (1.3)	51 (33-66)	60	3.6	21.3	60.9	14.2	12.2	61.2
Skin- and mucosal symptoms	218 (1.1)	173 (1.1)	48 (33-68)	50	2.3	19.3	59.2	19.2	2.4	19.1
Withdrawal symptoms	198 (1.0)	80 (0.5)	49 (40-57)	72	2.5	15.2	55.5	26.8	33.0	84.9
Blood sugar, deviations	179 (0.9)	130 (0.8)	58 (37-72)	62	1.1	40.8	45.3	12.8	17.3	64.3
Urinary tract symptoms	168 (0.9)	126 (0.8)	73 (54-82)	64	1.2	36.9	46.4	15.5	41.1	79.8
Throat symptoms	166 (0.9)	144 (0.9)	46 (25-64)	48	3.0	36.2	28.9	31.9	4.8	49.1
Anorectal symptoms	142 (0.7)	123 (0.8)	34 (26-46)	68	0.0	5.0	76.8	18.2	8.1	97.9
Deviating lab values	128 (0.7)	82 (0.5)	73 (62-82)	42	0.0	15.6	57.0	27.4	26.3	97.7
Confusion / agitation	113 (0.6)	78 (0.5)	76 (70-86)	50	1.8	56.6	38.1	3.5	42.8	81.4
Palpitations	111 (0.6)	94 (0.6)	56 (36-77)	44	8.1	40.5	18.9	32.5	3.7	44.1
Foreign body	110 (0.6)	81 (0.5)	46 (26-63)	51	0.0	30.0	30.9	39.1	3.2	42.7
Psychiatric symptoms	88 (0.5)	65 (0.4)	43 (25-69)	41	2.3	37.5	37.5	22.7	3.5	35.2
Bleeding from upper airways	78 (0.4)	57 (0.4)	52 (28-68)	64	9.0	56.4	30.8	3.8	18.9	64.1
Smoke- and inhalation injury	58 (0.3)	53 (0.3)	42 (29-49)	50	1.7	29.3	19.0	50.0	1.7	10.3
High blood pressure	53 (0.3)	45 (0.3)	70 (57-81)	38	1.9	35.8	18.9	43.4	17.6	81.1
Electricity and lightning injury	51 (0.3)	49 (0.3)	32 (24-44)	88	0.0	7.8	68.6	23.6	0.9	2.0
Icterus / ascites	38 (0.2)	29 (0.2)	69 (55-75)	55	2.6	18.4	36.9	42.1	87.6	100.0
Eye symptoms	38 (0.2)	34 (0.2)	57 (36-73)	68	0.0	84.2	7.9	7.9	3.1	34.2
Burn / corrosion / scolding	25 (0.1)	21 (0.1)	42 (26-68)	56	12.0	40.0	24.0	24.0	12.8	44.0
Female genital symptoms	21 (0.1)	17 (0.1)	46 (29-70)	0	0.0	33.3	42.9	23.8	8.7	57.1
Edema	21 (0.1)	15 (0.1)	71 (62-86)	52	4.7	28.6	23.8	42.9	40.9	90.5
Bite	20 (0.1)	20 (0.1)	54 (31-71)	55	0.0	25.0	50.0	25.0	6.0	45.0
Catheter / stoma / tube symptoms	20 (0.1)	18 (0.1)	65 (56-77)	60	5.0	15.0	45.0	35.0	8.3	50.0
Teeth damage	16 (>0.1)	16 (0.1)	34 (23-73)	38	0.0	43.8	37.5	18.7	1.6	12.5
Male genital symptoms	8 (>0.1)	7 (>0.1)	46 (39-64)	100	0.0	37.5	62.5	0.0	4.0	25.0
Ear symptoms	7 (>0.1)	6 (>0.1)	24 (21-51)	63	0.0	42.9	42.8	14.3	3.1	25.0

Pregnancy- and maternity symptoms	6 (>0.1)	6 (>0.1)	32 (25-34)	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 accident	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.

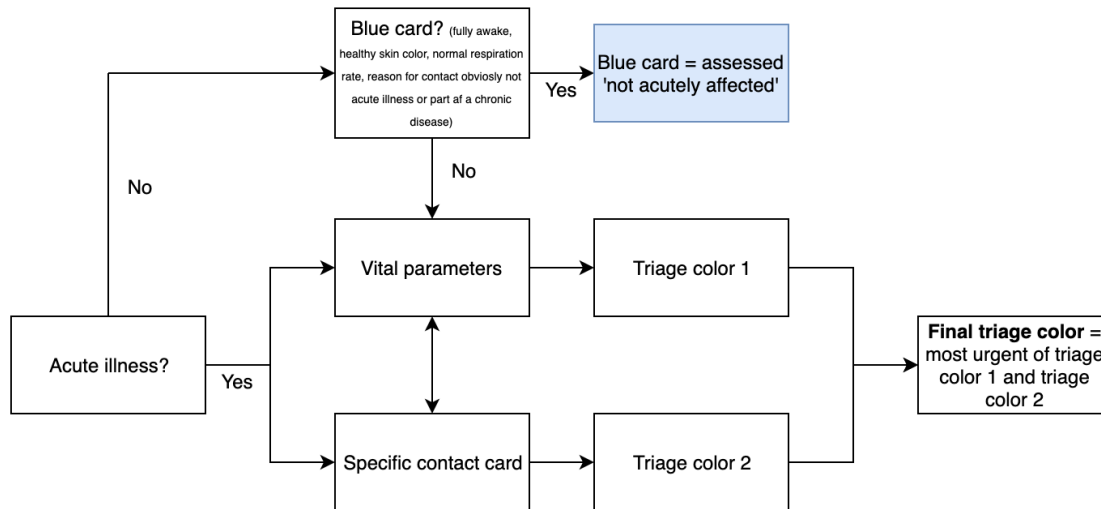
¹Index contacts, defined by a patient's first contact during the inclusion period.

Supplementary table 2: Crude OR for mortality analysis

Chief complaint	In-hospital mortality		30-day mortality		1-year mortality	
	Crude OR		Crude OR		Crude OR	
	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)
<i>All</i>	-	-	-	-	-	-
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	(1.1-3.9)	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 / syncope	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	(0.1-0.4)	0.4	(0.3-0.6)
<i>The rest</i>	0.5	(0.3-1.0)	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	
	Crude OR		Crude OR	
	OR	(95% CI)	OR	(95% CI)
<i>All</i>	-	-	-	-
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	(0.6-2.6)	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	(0.5-1.0)	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)
<i>The rest</i>	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 system e.g. ADAPT, CTAS, ATS, MTS.^{1,2} 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]