ID:

Prehospital triage ▢🟥 ▢🟧 ▢🟨 ▢🟩 ▢🟦   **Trauma** ☐ Yes ☐ No

1. Discriminator list

No match: 🟩

RED PRIORITY -EMERGENCY-	ORANGE PRIORITY -VERY URGENT-	YELLOW PRIORITY -URGENT-
	Allergic reaction, acute	Baby < 2 month
	Battery swallowed	
Unconscious patient	Consciousness, reduced/lethargic	
Haemorrhage, major		
Burn, face/inhalation/circumferential , > 9% or high voltage		Burn: minor
Fracture with suspected vascular injury	Fracture, compound or displaced, or dislocated joint	Fractur, closed or ankle fracture < 8 h. since trauma
Cyanosis, central (SpO2 < 90 %)	Chest pain, current	
Downing	Dehydration, no urine past 12 h.	Dehydration, little urine last 24 h.
Fever and neutropenic, immunodeficient or baby < 3 month	Intoxication or poisoning	
Cardiac arrest/CPR	Headache, acute and intense	
Head injury, severe GCS under 9	Head injury, moderate GCS 9-13	Head injury, minor GCS 14-15
Hypoglycemia, blood glucose < 3 mmol/L	Hyperglycaemia, blood glucose > 11 mmol/L and shortness of breath	
Convulsions, current	Neurological deficits, acute	Convulsions, now alert
Airway, airway at risk, intubated or foreign body	Vomiting, fresh blood or bile-coloured	Vomiting or diarrhoea, persistent
Scrotum, acute and severe pain	Pain, acute severe or inconsolable crying	Pain, moderate
Trauma, seriously injured patient		
Shortness of breath, very laboured, obstructive or apnoea	Shortness of breath, moderate laboured/obstructive	Shortness of breath, somewhat laboured or obstructive
	Eye injury, caustic or penetrating	

2. TEWS - Triage early warning score

Time		Height		Weight		Head circum.		BP		GCS		Glucose	

Tp		RR		SpO₂		Pulse		Cap.re		AVPU		TEWS	

Optionally upgrade by clinical judgement: 🟥 ≥ 7   🟧 5-6   🟨 3-4   🟩 0-2

3. TRIAGE PRIORITY LEVEL

🟥 🟧 🟨 🟩 🟦

Nurse sign.   _____   Time _____

Physician sign.   _____ Time _____

TEWS Newborn < 1 month	3	2	1	0	1	2	3
Respiratory rate	< 25		25 - 39	40 - 55	56 - 64	65 - 79	≥ 80
SpO$_2$	< 90 % with O$_2$	> 90 % with O$_2$	90 - 95 % without O$_2$	> 95 %			
Heart rate	< 85		85 - 99	100 - 160	161 - 169	170 - 189	≥ 190
Capillary refill time				1 - 2 sec	3 sec.		≥ 4 sec.
AVPU				A: Awake and alert	V: Reacts to voice	P: Reacts to pain	U: Unresponsive
Temperature		Feels cold or < 36°		36°- 38°		≥ 38.1°	
Mobility				Normal for age		Unable to move as normal	

TEWS Child 1-12 month	3	2	1	0	1	2	3
Respiratory rate	< 20		20 - 34	35 - 45	46 - 54	55 - 69	≥ 70
SpO$_2$	< 90 % with O$_2$	> 90 % with O$_2$	90 - 95 % without O$_2$	> 95 %			
Heart rate	< 80		80 - 99	100 - 160	161 - 169	170 - 189	≥ 190
Capillary refill time				1 - 2 sec	3 sec.		≥ 4 sec.
AVPU				A: Awake and alert	V: Reacts to voice	P: Reacts to pain	U: Unresponsive
Temperature		Feels cold or < 36°		36°- 38°	38.1°- 39°	≥ 39.1°	
Mobility				Normal for age		Unable to move as normal	

TEWS Child 1-3 years	3	2	1	0	1	2	3
Respiratory rate	< 20		20 - 24	25 - 35	36 - 44	45 - 59	≥ 60
SpO$_2$	< 90 % with O$_2$	> 90 % with O$_2$	90 - 95 % without O$_2$	> 95 %			
Heart rate	< 70		70 - 89	90 - 130	131 - 139	140 - 159	≥ 160
Capillary refill time				1 - 2 sec	3 sec.		≥ 4 sec.
AVPU		Acute confusion		A: Awake and alert	V: Reacts to voice	P: Reacts to pain	U: Unresponsive
Temperature		Feels cold or < 36°		36°- 38°	38.1° - 39°	≥ 39.1°	
Mobility				Normal for age		Unable to move as normal	

TEWS Child 4-6 years	3	2	1	0	1	2	3
Respiratory rate	< 15		15 - 19	20 - 24	25 - 29	30 - 44	≥ 45
SpO$_2$	< 90 % with O$_2$	> 90 % with O$_2$	90 - 95 % without O$_2$	> 95 %			
Heart rate	< 60		60 - 69	70 - 120	121 - 129	130 - 149	≥ 150
Capillary refill time				1 - 2 sec	3 sec.		≥ 4 sec.
AVPU		Acute confusion		**A:** Awake and alert	**V:** Reacts to voice	**P:** Reacts to pain	**U:** Unresponsive
Temperature		Feels cold or < 36°		36°- 38°	38.1°- 39°	≥ 39.1°	
Mobility				Normal for age		Unable to move as normal	

TEWS Child 7-12 years	3	2	1	0	1	2	3
Respiratory rate	< 14		14 - 18	19 - 22	23 - 29	30 - 39	≥ 40
SpO$_2$	< 90 % with O$_2$	> 90 % with O$_2$	90 - 95 % without O$_2$	> 95 %			
Heart rate	< 60		60 - 69	70 - 110	111 - 119	120 - 139	≥ 140
Capillary refill time				1 - 2 sec	3 sec.		≥ 4 sec.
AVPU		Acute confusion		**A:** Awake and alert	**V:** Reacts to voice	**P:** Reacts to pain	**U:** Unresponsive
Temperature		Feels cold or < 36°		36°- 38°	38.1° - 39°	≥ 39.1°	
Mobility				Normal for age		Unable to move as normal	

TEWS Youth 13-14 years	3	2	1	0	1	2	3
Respiratory rate	< 9		9 - 13	14 - 19		20 - 29	≥ 30
SpO$_2$	< 90 % with O$_2$	> 90 % with O$_2$	90 - 95 % without O$_2$	> 95 %			
Heart rate	< 45		45 - 54	55 - 95	96 - 114	115 - 129	≥ 130
Capillary refill time	≤ 70	71 - 80	81 - 100	101 - 180		≥ 180	
AVPU		Acute confusion		**A:** Awake and alert	**V:** Reacts to voice	**P:** Reacts to pain	**U:** Unresponsive
Temperature		Feels cold or < 36°		36°- 38°	38.1°- 39°	≥ 39.1°	
Mobility				Normal for age		Unable to move as normal	

Figure S2. Overview of the recruitment of patients in the emergency department (ED) by number.

```
                    ┌─────────────────────────────────────┐
                    │   Referred for emergency assessment  │
                    │                1171                  │
                    └─────────────────────────────────────┘
                         │                      │
                         ▼                      ▼
                  ┌──────────────┐       ┌──────────────┐
                  │  Entering ED │       │ Bypassing ED │
                  │     958      │       │     213      │
                  └──────────────┘       └──────────────┘
                         │                         \
                         ▼                          \
                  ┌──────────────┐  ┌───────────────────────────┐  ┌────────────────────────┐
                  │ Triaged at ED│→ │ Triaged not performed in ED│→ │  Triage not performed  │
                  │     790      │  │            168             │  │          381           │
                  └──────────────┘  └───────────────────────────┘  └────────────────────────┘
                    │        │                                        │            │
                    ▼        ▼                                        ▼            ▼
          ┌──────────────┐ ┌──────────────────┐        ┌──────────────────┐ ┌──────────┐
          │Admitted from │ │Outpatients clinics│        │Outpatients clinics│ │ Admitted │
          │     ED       │ │       445         │        │       161         │ │   220    │
          │     345      │ │                   │        │                   │ │          │
          └──────────────┘ └──────────────────┘        └──────────────────┘ └──────────┘
```
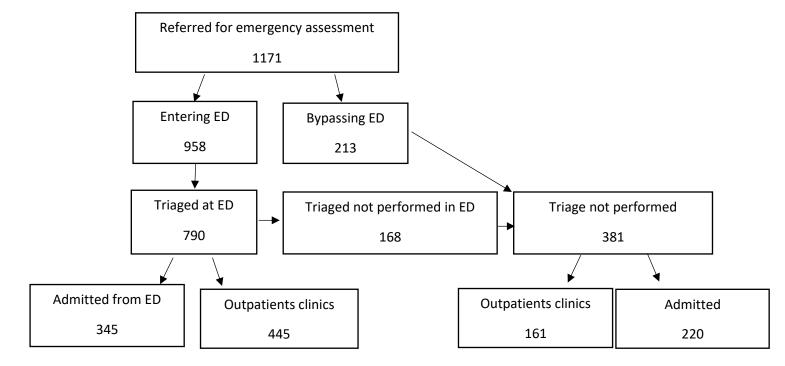
Table S1 Overview of the patients categorized into the non-urgent triage priority green and the distribution of diagnosis at discharge compared to all of the included patients.

Diagnosis	Green admitted to ward	Green discharged from ED	Green total	All patients	All admitted patients
	n (%)	n	N (%)	%	%
Upper respiratory airway diseases	7(11%)	54	61(20%)	21%	27%
Lower respiratory airway diseases	5(19%)	21	26(9%)	16%	56%
Gastrointestinal disease	16(36%)	28	44(15%)	14%	53%
Renal diseases	6(33%)	12	18(6%)	5%	50%
Other infections	19(34%)	37	56(19%)	14%	42%
Miscellaneous	26(37%)	44	70(23%)	17%	37%
Neurological disease	11(48%)	12	23(8%)	12%	54%
Cardiovascular disease	0(0%)	1	1(0.3%)	0.7%	60%
Injury	0(0)	2	2(0.7%)	0.6%	40%
Total	90(30%)	211	301(100%)	100%	44%

Table S2 Overview of the patients categorized into the urgent triage priority yellow and the distribution of diagnosis at discharge compared to all of the included patients. The internal distribution of triage early warning score (TEWS) in the yellow priority group.

Diagnosis	Yellow admitted to ward	Yellow discharged from ED	Yellow total	All patients	All admitted patients
	n (%)	n	N (%)	%	%
Upper respiratory airway diseases	21(32%)	44	65(21%)	21%	27%
Lower respiratory airway diseases	32(56%)	25	57(19%)	16%	56%
Gastrointestinal disease	30(62%)	22	52(17%)	14%	53%
Renal diseases	8(53%)	7	15(5%)	5%	50%
Other infections	11(34%)	21	32(11%)	14%	42%
Miscellaneous	14(37%)	24	38(13%)	17%	37%
Neurological disease	15(38%)	24	39(13%)	12%	54%
Cardiovascular disease	2(67%)	1	3(1%)	0.7%	60%
Injury	1(50%)	1	2(0.7%)	0.6%	40%
Total	169(44%)	169	303(100%)	100%	44%
TEWS 0-1-2	73	86	159		
TEWS 3-4	56	80	136		

Table S3 Descriptive data on triage priority and recourses used

Triage priority	Number of resources used				% use of any resource
	0	**1**	**2**	**3**	
Red	44	17	6	1	35%
Orange	85	22	3	0	23%
Yellow	281	21	1	0	7%
Green	278	22	1	0	8%
Total	696	82	11	1	12%

Table S4 Comparing the odds ratio of being hospitalized or using resources compared to priority green. The calculations are based om binary logistic regression with *hospitalization* or the need for *one or more resources* as dependent variable and triage level as categorical covariate, priority green set to reference category.

Odds ratio for hospitalization according to triage priority

Triage priority	Odds ratio (95% Confidence interval)	p-value
Red	9.9 (5.2-19.1)	<0.001
Orange	5.3 (2.8-10.2)	<0.001
Yellow	3.2 (1.5-6.4)	0.002
Green	Reference category	-
Blue	-	-

Odds ratio for resource utilization according to triage priority

Triage priority	Odds ratio (95% Confidence interval)	p-value
Red	5.2 (2.6-10.4)	<0.001
Orange	5.5 (2.7-11.1)	<0.001
Yellow	1.6 (0.8-3.3)	0.214
Green	Reference category	-
Blue	-	-

Table S5 Reliability study

Percentage of exact agreement with expert's opinion was 92%. Intraclass correlation coefficient by Cronbach's alpha of 0.993 (95 % CI 0.985-0.998, p < 0.001).

Nurse 1	Nurse 2	Nurse 3	Nurse 4	Nurse 5	Nurse 6	Nurse 7	Nurse 8	Nurse 9	Nurse 10	Nurse 11	Nurse 12	Expert .
2	2	2	2	2	2	2	2	2	2	2	2	2
1	1	1	1	1	1	1	2	1	1	1	1	1
2	2	2	2	2	2	2	2	2	2	2	2	2
3	2	3	2	3	2	2	3	2	3	3	2	2
2	2	2	2	2	2	2	2	2	2	2	2	2
2	2	2	2	2	2	2	2	2	1	2	2	2
4	4	4	4	4	4	4	4	4	4	4	4	4
2	2	2	2	2	2	2	2	2	2	2	2	2
1	1	1	1	1	1	1	2	1	2	1	1	1
3	3	3	3	3	3	3	3	3	3	3	3	3