

Additional file 2. Prevalence of primary keywords.

The prevalence of primary keywords [1] in the entire sample of septic patients presenting to the emergency department of Södersjukhuset emergency during 2013 and prevalence based on mode of arrival.

Order	Primary keyword [1]	Prevalence						P-value*
		Entire sample (N=479)		EMS patients (n=357)		non-EMS patients (n=122)		
		Number	Percent (%) and 95% CI	Number	Percent (%) and 95% CI	Number	Percent (%) and 95% CI	
1	Confirmed fever Statement fever or statement temperature >38°	271	56.6 (52.1-61.0)	198	55.5 (50.3-60.5)	73	59.8 (51.0-68.1)	0.400
2	Temporal deterioration Stated deterioration or expressions describing a temporal change	144	30.1 (26.1-34.3)	102	28.6 (24.1-33.5)	42	34.4 (26.6-43.2)	0.223
3	Loss of energy Defined as fatigue, weakness, faintness or similar expressions	113	23.6 (20.0-27.6)	91	25.5 (21.3-30.3)	22	18.0 (12.2-25.8)	0.094
4	Low blood pressure Statement systolic blood pressure ≤90 mmHg	113	23.6 (20.0-27.6)	97	27.2 (22.8-32.0)	16	13.1 (8.2-20.2)	0.002
5	Breathing difficulties Statement difficulties to breath, dyspnea, shortness of breath, shallow breathing or similar expressions	107	22.3 (18.8-26.3)	97	27.2 (22.8-32.0)	10	8.2 (4.5-14.4)	0.000
6	Shivering	96	20.0 (16.7-23.9)	59	16.5 (13.0-20.7)	37	30.3 (22.9-39.0)	0.001
7	Decreased general condition Including expressions such as poor general condition, affected general condition	94	19.6 (16.3-23.4)	84	23.5 (19.4-28.2)	10	8.2 (4.5-14.4)	0.000
8	Recent invasive procedures Including IV drug abuse, surgical and urological procedures, new IV or urinary catheters	93	19.4 (16.1-23.2)	50	14.0 (10.8-18.0)	43	35.2 (27.3-44.1)	0.000
9	Abdominal pain	92	19.2 (15.9-23.0)	59	16.5 (13.0-20.7)	33	27.0 (20.0-35.5)	0.011

10	Abnormal behaviour or level of consciousness excluding abnormal verbal response	87	18.2 (15.0-21.9)	74	20.7 (16.9-25.2)	13	10.7 (6.3-17.4)	0.004
11	Tachypnea Statement tachypnea, rapid breathing, high respiratory rate, respiratory rate >20 or similar expressions	84	17.5 (14.4-21.2)	79	22.1 (18.1-26.7)	5	4.1 (1.8-9.2)	0.000
12	Abnormal verbal response Defined as no/decreased/changed verbal response	80	16.7 (13.6-20.3)	71	19.9 (16.1-24.3)	9	7.4 (3.9-13.4)	0.000
13	Abnormal micturition Defined as haematuria without trauma, bad smelling or cloudy urine, increased frequency of urination	76	15.9 (12.9-19.4)	56	15.7 (12.3-19.8)	20	16.4 (10.9-24.0)	0.854
14	Tachycardia Statement heart rate >90/min or expressions such as rapid heart rate, rapid pulse or similar expressions	74	15.5 (12.5-19.0)	66	18.5 (14.8-22.9)	8	6.6 (3.4-12.4)	0.002
15	Reduced intake of food, fluids or oral medicines Including reduced/no appetite	73	15.2 (12.3-18.7)	55	15.4 (12.0-19.5)	18	14.8 (9.5-22.1)	0.863
16	Vomiting	71	14.8 (11.9-18.3)	54	15.1 (11.8-19.2)	17	13.9 (8.9-21.2)	0.749
17	Known ongoing or recent infection	66	13.8 (11.0-17.2)	50	14.0 (10.8-18.0)	16	13.1 (8.2-20.2)	0.805
18	Low oxygen saturation Defined as statement oxygen saturation <90%	65	13.6 (10.8-16.9)	61	17.1 (13.5-21.3)	4	3.3 (1.3-8.1)	0.000
19	Cough	57	11.9 (9.3-15.1)	41	11.5 (8.6-15.2)	16	13.1 (8.2-20.2)	0.631
20	Wounds or wound infection	55	11.5 (8.9-14.7)	42	11.8 (8.8-15.5)	13	10.7 (6.3-17.4)	0.740
21	Diarrhoea	52	10.9 (8.4-14.0)	41	11.5 (8.6-15.2)	11	9.0 (5.1-15.4)	0.449
22	Current antibiotic treatment	50	10.4 (8.0-13.5)	39	10.9 (8.1-14.6)	11	9.0 (5.1-15.4)	0.552
23	Airway secretions Including expectorations, crackles and similar expressions	48	10.0 (7.6-13.0)	43	12.0 (9.1-15.8)	5	4.1 (1.8-9.2)	0.012

24	Nausea	46	9.6 (7.3-12.6)	26	7.3 (5.0-10.5)	20	16.4 (10.9-24.0)	0.003
25	Decreased ability to stand or walk Including need to carry/lift the patient	46	9.6 (7.3-12.6)	35	9.8 (7.1-13.3)	11	9.0 (5.1-15.4)	0.799
26	Oedema/Swelling	44	9.2 (6.9-12.1)	31	8.7 (6.2-12.1)	13	10.7 (6.3-17.4)	0.515
27	Fallen	44	9.2 (6.9-12.1)	42	11.8 (8.8-15.5)	2	1.6 (0.5-5.8)	0.001
28	Substance abuse Defined as drug abuse, alcohol overconsumption and all other terms indicating substance abuse such as "lives in a home for addicts", "patient at an outdoor clinic for substance abuse"	43	9.0 (6.7-11.9)	35	9.8 (7.1-13.3)	8	6.6 (3.4-12.4)	0.279
29	Reduced urinary volumes	38	7.9 (5.8-10.7)	37	10.4 (7.6-14.0)	1	0.8 (0.1-5.0)	0.001
30	Extremity pain	35	7.3 (5.3-10.0)	21	5.9 (3.9-8.8)	14	11.5 (7.0-18.4)	0.040
31	Back pain	32	6.7 (4.8-9.3)	22	6.2 (4.1-9.2)	10	8.2 (4.5-14.4)	0.437
32	Suspected fever Defined as statement feeling hot/warm, increasing temperature or similar expressions	29	6.1 (4.2-8.6)	18	5.0 (3.2-7.8)	11	9.0 (5.1-15.4)	0.112
33	Malaise Defined as expressions such as feeling sick, feeling bad, not feeling well and similar expressions	27	5.6 (3.9-8.1)	14	3.9 (2.4-6.5)	13	10.7 (6.3-17.4)	0.005
34	Urinary tract pain	27	5.6 (3.9-8.1)	15	4.2 (2.6-6.8)	12	9.8 (5.7-16.4)	0.020
35	Compromised immune system Chemotherapy or other immunosuppressive treatment	26	5.4 (3.7-7.8)	19	5.3 (3.4-8.2)	7	5.7 (2.8-11.4)	0.861
36	Joint pain	25	5.2 (3.6-7.6)	11	3.1 (1.7-5.4)	14	11.5 (7.0-18.4)	0.000
37	Undefined pain	25	5.2 (3.6-7.6)	16	4.5 (2.8-7.2)	9	7.4 (3.9-13.4)	0.215
38	Chest pain	24	5.0 (3.4-7.4)	13	3.6 (2.1-6.1)	11	9.0 (5.1-15.4)	0.019
39	Focal neurological findings	24	5.0 (3.4-7.4)	21	5.9 (3.9-8.8)	3	2.5 (0.8-7.0)	0.135
40	Found on the floor or corresponding place	24	5.0 (3.4-7.4)	24	6.7 (4.6-9.8)	0	0.0 (0.0-3.1)	0.003
41	General pain	23	4.8 (3.2-7.1)	13	3.6 (2.1-6.1)	10	8.2 (4.5-14.4)	0.042

42	Redness (of skin)	22	4.6 (3.1-6.9)	11	3.1 (1.7-5.4)	11	9.0 (5.1-15.4)	0.007
43	High CRP Taken previous to ED arrival	22	4.6 (3.1-6.9)	13	3.6 (2.1-6.1)	9	7.4 (3.9-13.4)	0.089
44	Reduced amount of stool	21	4.4 (2.9-6.6)	21	5.9 (3.9-8.8)	0	0.0 (0.0-3.1)	0.006
45	Positive Pasternatsky's sign Costovertebral angle tenderness	19	4.0 (2.6-6.1)	9	2.5 (1.3-4.7)	10	8.2 (4.5-14.4)	0.012 (F*)
46	Headache	18	3.8 (2.4-5.9)	7	2.0 (1.0-4.0)	11	9.0 (5.1-15.4)	0.001 (F*)
47	Remained lying or sitting Statement of being remained sitting or lying in an abnormal way	18	3.8 (2.4-5.9)	15	4.2 (2.6-6.8)	3	2.5 (0.8-7.0)	0.582 (F*)
48	Gastrointestinal bleeding Including melena, hematemesis, hematochezia	18	3.8 (2.4-5.9)	16	4.5 (2.8-7.2)	2	1.6 (0.5-5.8)	0.267 (F*)
49	Non-measurable circulatory variables	18	3.8 (2.4-5.9)	17	4.8 (3.0-7.5)	1	0.8 (0.1-5.0)	0.053 (F*)
50	Hypothermia Defined as statement hypothermia or "very low temp" or statement temperature <36°	16	3.3 (2.1-5.4)	14	3.9 (2.4-6.5)	2	1.6 (0.5-5.8)	0.380 (F*)
51	Irregular pulse	16	3.3 (2.1-5.4)	16	4.5 (2.8-7.2)	0	0.0 (0.0-3.1)	0.016 (F*)
52	High blood sugar Plasma Glucose >12 mmol/L, regardless diabetes or not.	14	2.9 (1.8-4.8)	14	3.9 (2.4-6.5)	0	0.0 (0.0-3.1)	0.026 (F*)
53	Anxiety or fear	12	2.5 (1.4-4.3)	8	2.2 (1.1-4.4)	4	3.3 (1.3-8.1)	0.512 (F*)
54	Fainting-but now awake	12	2.5 (1.4-4.3)	10	2.8 (1.5-5.1)	2	1.6 (0.5-5.8)	0.739 (F*)
55	Sweaty	11	2.3 (1.3-4.1)	9	2.5 (1.3-4.7)	2	1.6 (0.5-5.8)	0.737 (F*)
56	Dysarthria Slurred speech (but non-affected level of consciousness)	11	2.3 (1.3-4.1)	9	2.5 (1.3-4.7)	2	1.6 (0.5-5.8)	0.737 (F*)
57	Dysfunction of urinary catheters Including obstruction/leakage/problematic urinary catheters including nephrostomias	10	2.1 (1.1-3.8)	8	2.2 (1.1-4.4)	2	1.6 (0.5-5.8)	1.000 (F*)
58	Weak pulse or difficulties to palpate the pulse	10	2.1 (1.1-3.8)	10	2.8 (1.5-5.1)	0	0.0 (0.0-3.1)	0.072 (F*)

59	Soiled patient Patient wetted from his/her own urine or stool	10	2.1 (1.1-3.8)	10	2.8 (1.5-5.1)	0	0.0 (0.0-3.1)	0.072 (F*)
60	Obstipation	9	1.9 (1.0-3.5)	0	0.0 (0.0-1.1)	9	7.4 (3.9-13.4)	0.000 (F*)
61	Dizziness	9	1.9 (1.0-3.5)	6	1.7 (0.8-3.6)	3	2.5 (0.8-7.0)	0.699 (F*)
62	Bloodstained patient	8	1.7 (0.9-3.3)	6	1.7 (0.8-3.6)	2	1.6 (0.5-5.8)	1.000 (F*)
63	Peripheral coldness	8	1.7 (0.9-3.3)	8	2.2 (1.1-4.4)	0	0.0 (0.0-3.1)	0.212 (F*)
64	Seizures	8	1.7 (0.9-3.3)	8	2.2 (1.1-4.4)	0	0.0 (0.0-3.1)	0.212 (F*)
65	High blood pressure Statement high blood pressure or statement blood pressure ≥160 mmHg systolic or ≥100 mmHg diastolic	7	1.5 (0.7-3.0)	4	1.1 (0.4-2.8)	3	2.5 (0.8-7.0)	0.378 (F*)
66	Paleness	7	1.5 (0.7-3.0)	7	2.0 (1.0-4.0)	0	0.0 (0.0-3.1)	0.199 (F*)
67	History of positive findings in blood culture Positive blood culture taken previous to EMS arrival-during a visit to the hospital or by other health care provider but the patient is now at home	6.	1.3 (0.6-2.7)	1	0.3 (0.1-1.6)	5	4.1 (1.8-9.2)	0.005 (F*)
68	Throat pain	5	1.0 (0.4-2.4)	3	0.8 (0.3-2.4)	2	1.6 (0.5-5.8)	0.605 (F*)
69	Mottling	5	1.0 (0.4-2.4)	5	1.4 (0.6-3.2)	0	0.0 (0.0-3.1)	0.336 (F*)
70	Cyanosis Including blue fingers/nails/lips/toes	4	0.8 (0.3-2.1)	4	1.1 (0.4-2.8)	0	0.0 (0.0-3.1)	0.576 (F*)
71	Obstructive breathing	4	0.8 (0.3-2.1)	4	1.1 (0.4-2.8)	0	0.0 (0.0-3.1)	0.576 (F*)
72	Bruises or peteckiae	4	0.8 (0.3-2.1)	4	1.1 (0.4-2.8)	0	0.0 (0.0-3.1)	0.576 (F*)
73	Rash (on skin)	3	0.6 (0.2-1.8)	0	0.0 (0.0-1.1)	3	2.5 (0.8-7.0)	0.016 (F*)
74	Dry mucous membranes (of the mouth)	3	0.6 (0.2-1.8)	3	0.8 (0.3-2.4)	0	0.0 (0.0-3.1)	0.575 (F*)
75	Wound pain	2	0.4 (0.1-1.5)	0	0.0 (0.0-1.1)	2	1.6 (0.5-5.8)	0.064 (F*)
76	Photosensitivity	2	0.4 (0.1-1.5)	0	0.0 (0.0-1.1)	2	1.6 (0.5-5.8)	0.064 (F*)
77	Blisters (on skin)	2	0.4 (0.1-1.5)	0	0.0 (0.0-1.1)	2	1.6 (0.5-5.8)	0.064 (F*)
78	Pale stool	2	0.4 (0.1-1.5)	0	0.0 (0.0-1.1)	2	1.6 (0.5-5.8)	0.064 (F*)

79	Chronically compromised breathing Such as painful conditions or neurological diseases compromising breathing	2	0.4 (0.1-1.5)	1	0.3 (0.1-1.6)	1	0.8 (0.1-5.0)	0.445 (F*)
80	Non-measurable breathing variables	2	0.4 (0.1-1.5)	2	0.6 (0.2-2.0)	0	0.0 (0.0-3.1)	1.000 (F*)
81	Icterus	2	0.4 (0.1-1.5)	2	0.6 (0.2-2.0)	0	0.0 (0.0-3.1)	1.000 (F*)
82	Decreased miscellaneous mobility Including expressions such as stiffness when trying to move arms, disability to sit or disability to squeeze the investigators hand	2	0.4 (0.1-1.5)	2	0.6 (0.2-2.0)	0	0.0 (0.0-3.1)	1.000 (F*)
83	Cardiac arrest	2	0.4 (0.1-1.5)	2	0.6 (0.2-2.0)	0	0.0 (0.0-3.1)	1.000 (F*)
84	Sensitivity to sound	1	0.2 (0.0-1.2)	0	0.0 (0.0-1.1)	1	0.8 (0.1-5.0)	0.255 (F*)
85	Change of skin turgor	1	0.2 (0.0-1.2)	1	0.3 (0.1-1.6)	0	0.0 (0.0-3.1)	1.000 (F*)
86	Exuding skin	1	0.2 (0.0-1.2)	1	0.3 (0.1-1.6)	0	0.0 (0.0-3.1)	1.000 (F*)
87	Prolonged capillary refill time	1	0.2 (0.0-1.2)	1	0.3 (0.1-1.6)	0	0.0 (0.0-3.1)	1.000 (F*)
88	Painful muscle cramp	1	0.2 (0.0-1.2)	1	0.3 (0.1-1.6)	0	0.0 (0.0-3.1)	1.000 (F*)
89	Palpitations	1	0.2 (0.0-1.2)	1	0.3 (0.1-1.6)	0	0.0 (0.0-3.1)	1.000 (F*)
90	Feeling of depression	0	0.0 (0.0-0.8)	0	0.0 (0.0-1.1)	0	0.0 (0.0-3.1)	-

EMS= Emergency Medical Services, CI=Confidence Interval, IV= Intravenous, CRP= C-Reactive Protein

*for comparison between EMS and non-EMS patients. P-values are presented without adjustment for multiple comparisons. In total 90 tests were performed. Bonferroni-adjusted significance level is $0,05/90=0,00056$. P-values indicating significant differences after adjustment for multiple comparisons by Bonferroni correction are bolded and considered significant in the current study.

F* Fischer's exact test was used for statistical analysis due to expected count being <5.

References:

1. Wallgren UM, Bohm KEM, Kurland L. Presentations of adult septic patients in the prehospital setting as recorded by emergency medical services: a mixed methods analysis. Scand J Trauma Resusc Emerg Med. 2017;25(1):23.