

Supplementary File 3. Paper-based ACT intake form (v1.0, as applied in this study)

Legend:

Paper template of the Acuity Categorization Tool (ACT) used during the study period. In practice, ACT was implemented electronically on the ED trackboard; this paper version is provided to illustrate the tool's structure and layout. The form includes both adult and pediatric intake criteria (v1.0) as applied in this study.

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	Critical	Acute	Subacute	
A	<div><div></div>Stridor, airway obstruction</div>			
	<div><div></div>Airway swelling</div>			
	<div><div></div>Threatened airway</div>			
B	<div><div></div>Severe respiratory distress</div>	<div><div></div>Dyspnea at rest</div>	<div><div></div>Dyspnea on exertion</div>	
	<div><div></div>Respiratory depression</div>			
	<div><div></div>Smoke inhalation (enclosed space)</div>			
C	<div><div></div>Major trauma (see trauma criteria)</div>			
	<div><div></div>Severe / uncontrolled bleeding</div>		<div><div></div>Compressible / controlled bleeding</div>	
		<div><div></div>Chest pain</div>		
D	<div><div></div>Severe pain</div>	<div><div></div>Moderate pain</div>	<div><div></div>Mild pain</div>	
	<div><div></div>Acute neurological deficit</div>	<div><div></div>Neurological deficit with onset 12–24h</div>		
	<div><div></div>Ongoing seizures</div>	<div><div></div>Resolved seizure</div>	<div><div></div>Post-ictal (known epilepsy)</div>	
E	<div><div></div>Thunderclap headache</div>	<div><div></div>Repeated syncope / near-syncope</div>	<div><div></div>Single syncope</div>	
	<div><div></div>Unconsciousness</div>	<div><div></div>Altered mental status</div>		
		<div><div></div>Head injury with anticoagulation</div>		
		<div><div></div>Suicidal or aggressive behavior</div>		
	<div><div></div>Suspected hypothermia</div>	<div><div></div>Distal neurovascular compromise</div>		
	<div><div></div>Suspected sepsis (NEWS2 ≥5 + infection)</div>	<div><div></div>Poisoning or hazardous exposure</div>		
	<div><div></div>NEWS ≥ 7</div>	<div><div></div>NEWS ≥ 5</div>	<div><div></div>SINGEL 3</div>	<div><div></div>≤ 4</div>

NO FINDINGS

A+B	Provider sign.				
	Time				
	≥25				3
Respiratory rate (breaths/min)	21-24				2
	18-20				
	15-17				0
	12-14				
	9-11				1
	≤8				3
A+B	SpO ₂ Scale 1				0
	≥96				1
	94-95				2
SpO ₂ Scale 2*	92-93				3
	≤91				3
(for target 88–92%, e.g. COPD, chronic hypercapnia)	≥97 on O ₂				3
	95-96 on O ₂				2
	93-94 on O ₂				1
	≥93 room air				0
	88-92				
	86-87				1
	84-85				2
	≤83				3
Room air or oxygen?	Room air				0
	O ₂ L/min				2
	Adm. måte				0
C	≥220				3
	Systolic blood pressure (mmHg)				
	201-219				
	181-200				
	161-180				0
	141-160				
	121-140				
	111-120				
	101-110				1
	91-100				2
	81-90				
	71-80				3
	61-70				
	51-60				
	≤50				
C	≥131				3
	Heart rate (beats/min)				
	121-130				2
	111-120				
	101-110				1
	91-100				
	81-90				
	71-80				0
	61-70				
	51-60				
	41-50				1
	31-40				3
	≤30				
D	Alert				0
	Confusion				
	Verbal				3
Level of consciousness (AVPU)	Pain				
	Unresponsive				
E	≥39,1°				2
	Temperature (°C)				
	38,1-39,0°				1
	37,1-38,0°				0
	36,1-37,0°				
	35,1-36,0°				1
	≤35,0°				3
← Total NEWS					

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		<div><div></div>Suicidal or aggressive</div>	
E	<div><div></div>Suspected hypothermia</div>	<div><div></div>Distal neurovascular</div>	
	<div><div></div>Suspected sepsis (PEVS ≥4 + infection)</div>	<div><div></div>Poisoning or hazardous exposure</div>	

NO FINDINGS

		Provider sign.	
		Time	
A+B	Breaths/min	≥ 30 over	
		≥ 20 over	
		≥10 over	
		Within normal	
Breathing	Age adjusted normal	≥ 5 under	
	Increased effort	None	
		Subcostal/intercostal retractions	
		Jugular retractions	
		Severe retractions	
	O ₂ requirement	>5 below normal + resp. depressant	
		≥ 8 L/ min	
		≥ 5 L/ min	
		≥1-5 L/ min	
	Support Devices	0 L/ min	
		Nebulizer > every 15 min	
		HFNC	
		CPAP/BPAP	
	Skin colour	Normal	
		Pale	
		Cyanotic	
		Cyanotic and mottled	
C	Capillary refill time	1-2 sec	
		3 sec	
		4 sec	
		≥ 5 sec	
Circulation	Heart rate	≥ 30 over	
		≥ 20 over	
		Within normal	
		≥ 5 under	
		Awake	
		Normal interaction	
		Interested in surroundings	
		Lethargic	
D	Behaviour	Reduced activity	
		Sleeping	
		Somnolent / drowsy	
		Irritable	
		Unconscious	
		Seizures	
		Reduced response to pain	
X		Persistent vomiting	
		Postoperative vomiting	

Use highest score per category

Total PEVS		
SpO ₂ %		
Blood pressure (mmHg)		
Temperature °C		
Age-appropriate pain scale		
Blood glucose mmol/L		

Reference Values – Pediatric Vital Signs

Age	Respiratory rate (breaths/min)	Resting heart rate (beats/min)	Systolic BP (mmHg)	Diastolic BP (mmHg)
0-1 months	40-55	100-160	65-95	35-55
1-13 months	35-45	100-160	75-100	45-55
13 months - 4 y	25-35	90-130	80-105	40-60
4-7 y	20-24	70-120	85-110	45-70
7-13 y	19-22	70-110	95-115	50-75
13-18 y	14-19	55-95	105-125	50-80

ACT Result / Concern override

Red Orange Yellow Green