

JPED-D-25-00413_ Supplementary Material

Supplemental Material 1 Table. Demographics, Trauma Profiles, and Outcomes Across Pediatric Age Groups in Trauma ICU Admissions Over a 7-Year Period

Variable	0-6 years (n=894)	6-12 years (n=407)	Over 12 years (n=194)	p-value*
Sex, n (%)				
Male	519 (58.1) ^a	263 (64.6) ^{ab}	138 (71.1) ^b	<0.01
Female	375 (41.9) ^a	144 (35.4) ^{ab}	56 (29.9) ^b	
Year of injury, n (%)				
2018	112 (12.5)	59 (14.5)	19 (9.8)	0.01
2019	150 (16.8)	45 (11.1)	20 (10.3)	
2020	124 (13.9)	54 (13.3)	19 (9.8)	
2021	135 (15.1)	63 (15.5)	22 (11.3)	
2022	111 (12.4)	54 (13.3)	36 (18.6)	
2023	117 (13.1) ^a	64 (15.7) ^{ab}	40 (20.6) ^b	
2024	132 (14.8)	59 (14.5)	34 (17.5)	
2025	13 (1.5)	9 (2.2)	4 (2.1)	
Season, n (%)				
Summer	236 (26.4)	118 (29)	47 (24.2)	0.68
Autumn	217 (24.3)	92 (22.6)	52 (26.8)	
Winter	215 (24)	92 (22.6)	52 (26.8)	
Spring	226 (25.3)	105 (25.8)	43 (22.2)	
City of origin, n (%)				
Capital	220 (24.6) ^a	102 (25.1) ^a	78 (40.2) ^b	<0.01
Metropolitan Region	389 (43.5) ^a	166 (40.8) ^{ab}	60 (30.9) ^b	
Contryside	285 (31.9)	139 (34.2)	56 (28.9)	
Time of injury, n (%)				
0-5:59 am	38 (4.3)	14 (3.4)	15 (7.7)	<0.01
6-11:59 am	165 (18.5) ^a	68 (16.7) ^{ab}	20 (10.3) ^b	
12-5:59 pm	344 (38.5) ^a	188 (46.2) ^b	97 (50) ^b	
6-11:59 pm	325 (36.4)	129 (31.7)	58 (29.9)	
Unknown	22 (2.5)	8 (2)	4 (2.1)	
Location of trauma, n (%)				
Home	672 (75.2) ^a	152 (37.3) ^b	63 (32.5) ^b	<0.01
Relative's or friend's home	48 (5.4)	23 (5.7)	5 (2.6)	
School	9 (1) ^a	16 (3.9) ^b	4 (2.1) ^{a,b}	
Public roads	132 (14.8) ^a	193 (47.4) ^b	100 (51.5) ^b	
Other	19 (2.1) ^a	20 (4.9) ^b	17 (8.8) ^b	
Unknown or not applicable	14 (1.6)	3 (0.7)	5 (2.6)	
Prehospital care, n (%)				
Yes	73 (8.2) ^a	98 (24.1) ^b	87 (44.8) ^c	<0.01
No	780 (87.2) ^a	285 (70) ^b	95 (49) ^c	
Unknown	41 (4.6)	24 (5.9)	12 (6.2)	
Pediatric Trauma Score, md (IQR)	8 (7-10)	9 (6-10)	8 (4-10)	<0.01
PIM 2 %, md (IQR)	0.8 (0.8-1.1)	0.8 (0.8-1.2)	0.9 (0.8-3.5)	<0.01
Lactate in mmol/L, md (IQR)	1.7 (1.1-2.4)	1.7 (1.1-2.6)	1.8 (1.27-2.7)	0.30
Pediatric Trauma Score <8, n (%)				
Yes	288 (32.2) ^a	132 (32.4) ^{ab}	81 (41.8) ^b	0.03
No	606 (67.8) ^a	275 (67.6) ^{ab}	113 (58.2) ^b	
GCS, md (IQR)¹	15 (14-15)	15 (14-15)	14 (11-15)	<0.01
GCS by category, n (%)²				
<=8	21 (6.5)	15 (7.7)	10 (11.9)	0.02
9-12	16 (4.9)	16 (8.2)	6 (7.1)	
13-15	252 (77.5) ^a	136 (70.1) ^{ab}	49 (58.3) ^b	
Not measurable	36 (11.1) ^a	27 (13.9) ^{ab}	19 (22.6) ^b	
Type of Trauma, n (%)				
Pedestrian struck	58 (6.5) ^a	87 (21.4) ^b	38 (19.6) ^b	<0.01
Motor Vehicle collision	58 (6.5) ^a	53 (13) ^b	31 (16) ^b	

Fall from height	207 (23.2) ^a	87 (21.4) ^{a,b}	27 (13.9) ^b	
Gunshot wound	12 (1.3) ^a	11 (2.7) ^a	14 (7.2) ^b	
Assault	8 (0.9) ^a	5 (1.2) ^{a,b}	7 (3.6) ^b	
Scald injury	327 (36.6) ^a	32 (7.9) ^b	6 (3.1) ^b	
Burn (flame)	57 (6.4) ^a	45 (11.1) ^b	20 (10.3) ^{a,b}	
Electric shock	12 (1.3)	7 (1.7)	3 (1.5)	
Bicycle fall	9 (1) ^a	28 (6.9) ^b	14 (7.2) ^b	
Bite or scratch	15 (1.7)	7 (1.7)	0 (0)	
Venomous animal injury (including spider)	11 (1.2)	4 (1)	1 (0.5)	
Exogenous poisoning	22 (2.5) ^a	0 (0) ^b	12 (6.2) ^c	
Object falling on the child	32 (3.6)	14 (3.4)	3 (1.5)	
Drowning	24 (2.7) ^a	2 (0.5) ^b	3 (1.5) ^{a,b}	
Horse kick	9 (1)	8 (2)	1 (0.5)	
Sharp force injury	3 (0.3) ^a	2 (0.5) ^{a,b}	4 (2.1) ^b	
Hanging	0 (0) ^a	0 (0) ^a	5 (2.6) ^b	
Crush injury	2 (0.2)	1 (0.2)	0 (0)	
Chemical burn	2 (0.2)	1 (0.2)	0 (0)	
Foreign body aspiration	2 (0.2)	2 (0.5)	0 (0)	
Others	18 (2)	11 (2.7)	3 (1.5)	
Unknown	6 (0.7)	0 (0)	2 (1)	
Main injury type, n (%)				
Traumatic brain injury	313 (35) ^a	179 (44) ^b	76 (39.2) ^{a,b}	<0.01
Facial trauma	19 (2.1)	15 (3.7)	8 (4.1)	
Spinal cord injury	3 (0.3)	1 (0.2)	0 (0)	
Thoracic trauma	12 (1.3) ^a	19 (4.7) ^b	9 (4.6) ^b	
Hepatic abdominal trauma	12 (1.3)	9 (2.2)	6 (3.1)	
Splenic abdominal trauma	10 (1.1) ^a	7 (1.7) ^{a,b}	10 (5.2) ^b	
Renal abdominal trauma	2 (0.2) ^a	3 (0.7) ^{a,b}	5 (2.6) ^b	
Hollow abdominal trauma	3 (0.3) ^a	11 (2.7) ^b	4 (2.1) ^b	
Pancreatic abdominal trauma	3 (0.3)	6 (1.5)	1 (0.5)	
Genitourinary trauma	1 (0.1) ^a	6 (1.5) ^b	3 (1.5) ^b	
Other abdominal trauma	1 (0.1) ^a	5 (1.2) ^b	1 (0.5) ^{a,b}	
Skin trauma or scalping	4 (0.4)	2 (0.5)	1 (0.5)	
Musculoskeletal trauma	40 (4.5) ^a	42 (10.3) ^b	13 (6.7) ^{a,b}	
Burn	396 (44.3) ^a	82 (20.1) ^b	27 (13.9) ^b	
Drowning	10 (1.1)	2 (0.5)	3 (1.5)	
Exogenous poisoning	22 (2.5) ^a	0 (0) ^b	12 (6.2) ^c	
Venomous animal injury (including spider)	11 (1.2)	5 (1.2)	1 (0.5)	
Electric shock	2 (0.2)	1 (0.2)	2 (1)	
Hypoxic-ischemic injury	15 (1.7)	3 (0.7)	6 (3.1)	
Medical (non-trauma) admission	3 (0.3) ^{a,b}	0 (0) ^b	3 (1.5) ^a	
Ocular trauma	6 (0.7)	5 (1.2)	0 (0)	
Pelvic trauma	0 (0) ^a	1 (0.2) ^{a,b}	2 (1) ^b	
Others	6 (0.7)	3 (0.7)	1 (0.5)	
Suicide attempt				
Yes	0 (0) ^a	0 (0) ^a	19 (9.8) ^b	<0.01
No	894 (100) ^a	407 (100) ^a	175 (90.2) ^b	
Suspected non-accidental trauma				
Yes	22 (2.5)	6 (1.5)	4 (2.1)	0.74
No	871 (97.4)	400 (98.3)	190 (97.9)	
Unknown	1 (0.1)	1 (0.2)	0 (0)	
Mechanical ventilation				
Yes	133 (14.9) ^a	83 (20.4) ^b	63 (32.5) ^b	<0.01
No	761 (85.1) ^a	324 (79.6) ^b	131 (67.5) ^c	
Ventilation-free days, md (IQR)³	25 (21-27)	25 (21-27)	26 (19.75-27)	0.88
Vasoactive drugs				
Yes	63 (7) ^a	48 (11.8) ^b	34 (17.5) ^b	<0.01
No	831 (93) ^a	359 (88.2) ^b	160 (82.5) ^b	
PICU length of stay in days, md (IQR)	4 (2-10)	4 (2-10)	5.50 (3-10.25)	0.21
PICU stay > 7 days, n (%)				
Yes	302 (33.8)	116 (28.5)	66 (34)	0.14
No	592 (66.2)	291 (71.5)	128 (66)	

Hospital length of stay in days, md (IQR)	7 (3-15)	6 (3-13)	7 (4-14.25)	0.31
Hospital stay > 14 days, n (%)				
Yes	228 (25.5)	95 (23.3)	48 (24.7)	0.70
No	666 (74.5)	312 (76.7)	146 (75.3)	
Complicated outcome⁴, n (%)				
Yes	71 (7.9) ^a	49 (12) ^{a,b}	37 (19.1) ^b	<0.01
No	823 (92.1) ^a	358 (88) ^{a,b}	157 (80.9) ^b	
Death, n (%)				
No	880 (98.4)	403 (99)	190 (97.9)	0.55
Yes	14 (1.6)	4 (1)	4 (2.1)	
Discharge disposition, n (%)				
Ward	389 (43.5)	186 (45.7)	76 (39.2)	<0.01
Home	442 (49.4)	185 (45.5)	86 (44.3)	
Transfer to another hospital	47 (5.3) ^a	30 (7.4) ^a	28 (14.4) ^b	
Shelter or institution	2 (0.2)	2 (0.5)	0 (0)	
Death	14 (1.6)	4 (1)	4 (2.1)	

PICU, Pediatric Intensive Care Unit; PIM2, Pediatric Index of Mortality 2; GCS, Glasgow Coma Scale; md, median; IQR, interquartile range.

^{a,b,c} Same letter indicates no significant difference between groups. Superscript letters are only displayed when differences between groups are statistically significant.

¹ Data available for 521 patients. Complicated outcome includes patients who died, required mechanical ventilation for more than 7 days, or received vasoactive drugs.

² Data available for 603 patients. Ventilator-free days = 28 – (days on MV). A value of zero was assigned to patients who died.

³ Ventilator-free days = 28 – (days on MV). A value of zero was assigned to patients who died.

⁴ Complicated outcome includes patients who died, required mechanical ventilation for more than 7 days, or received vasoactive drugs.

*Considered statistically significant if $p < 0.05$. Chi-square or Fisher's exact test was used for categorical variables, as appropriate. For non-parametric continuous variables, the Mann-Whitney U test was applied. The Bonferroni correction was applied to adjust for multiple comparisons.