

Table1. Baseline characteristics of the studied population admitted to the PICU.

Baseline patient characteristics	N = 451	(%)
Age		
< 1 year	268	66.1
1 – 5 years	95	21.1
> 5 years	58	12.8
Gender		
Male	250	55.4
Female	201	44.6
Residence		
Rural	269	59.7
Urban	182	40.3
Comorbidity	257	57
<u>Severity of illness scores*</u>		
PIM-2 probability	6.8	1.8-18.7
PIM-3 probability	1.7	0.8-4
PRISM IV probability	3	2-7
<u>Clinical data</u>		
Type of patient's case		
Medical	407	90.2
Surgical	44	9.8
<u>Main medical diagnosis</u>		
Sepsis, severe sepsis, septic shock	271	60.1
Diabetic ketoacidosis	28	6.2
Dysrhythmia	19	4.2
Renal disease	19	4.2
Poisoning	11	2.4
Trauma	8	1.8
Multiorgan dysfunction syndrome	217	48.1
Mechanical ventilation	156	34.6
Length of PICU stay, d*	4	2-8
<u>Outcome</u>		
Survivors	280	62.1
Non-survivors	171	37.9

PIM-2: pediatric index of mortality-2, *PIM-3*: pediatric index of mortality-3,
PRISM IV: pediatric risk of mortality IV.

*The values are presented as median and interquartile ranges.

Table 2. Comparison between survivors and non-survivors regarding baseline data.

Baseline patient characteristics	Survivors N= 280	Non-survivors N= 171	p value†
Age <1 year 1-5 years >5 years	156(55.7) 73(26.1) 51(18.2)	120(70.2) 42(24.6) 9(5.3)	<0.001
Gender Male Female	155(55.4) 125(44.6)	95(55.6) 76(44.4)	0.967
Residence Rural Urban	159(56.8) 121(43.2)	110(64.3) 61(35.7)	0.114
Comorbidity	158(56.4)	99(57.9)	0.76
<u>Severity of illness scores*</u>			
PIM-2 probability	2.8 (1.4-8.3)	20.3 (8.6-48.6)	<0.001
PIM-3 probability	1.3 (0.4-1.2)	4 (2-12.2)	<0.001
PRISM IV probability	2 (1-3)	8 (4-19)	<0.001
<u>Clinical data</u>			
Diagnosis Sepsis, severe sepsis, septic shock. Surgical operation. Diabetic ketoacidosis. Renal disease Dysrhythmias. Poisoning Trauma	125(44.6) 40(14.3) 27(9.6) 13(4.6) 19(6.8) 11(3.9) 6(2.5)	146(85.4) 4(1.8) 1(0.6) 6(3.5) 0 0 2(1.2)	<0.001
Multiorgan dysfunction syndrome	57(20.4)	160(93.6)	<0.001
Mechanical ventilation	46(16.4)	110(64.3)	<0.001
Length PICU of stay, d*	4 (2-8)	4 (1-8)	0.192

PIM-2: pediatric index of mortality-2, PIM-3: pediatric index of mortality-3,
PRISM IV: pediatric risk of mortality IV.

*The values are presented as median and interquartile ranges.

†p value was calculated using univariable logistic regression analysis. p - value ≤ 0.05 was adopted as the level of significance.

Table 3. Cutoff value and coordinates of the receiver operating characteristic curve.

	AUC	<i>p</i> - value	SE	95% CI		Cutoff	Sp	Sn	+PV	-PV	Acc.
PIM-2	0.694	<0.0001	0.059	0.579	0.810	14.2	87.5	59.6	78.0	74.5	76.9
PIM-3	0.687	<0.0001	0.061	0.568	0.807	2.3	79.6	68.4	80.5	67.2	75.4
PRISM-IV	0.740	<0.0001	0.061	0.621	0.859	4	86.8	67.3	81.3	75.7	79.4

Acc.: Accuracy, *AU-ROC*: Area under the receiver operating characteristic curve, *95% CI*: 95% confident interval, *PIM-2*: pediatric index of mortality-2, *PIM-3*: pediatric index of mortality-3, *PRISM IV*: pediatric risk of mortality IV, *+PV*: positive predictive value, *-PV*: negative predictive value, *SE*: standard error, *Sn*: Sensitivity, *Sp*: Specificity.

Table 4. Analysis of expected outcome of children using Pediatric Index of Mortality-2, Pediatric Index of Mortality-3, and Pediatric Risk of Mortality IV scores.

	Observed		Total
	Non-survivors <i>n (%)</i>	Survivors <i>n (%)</i>	
<u>Predicted by PIM-2</u>			
Non- survivors <i>n(%)</i>	77 (45)	0	77 (17.1)
Survivors <i>n(%)</i>	94(55)	280(100)	374 (82.9)
<u>Predicted by PIM-3</u>			
Non-survivors <i>n(%)</i>	36(21.1)	0	36 (8)
Survivors <i>n(%)</i>	135(78.9)	280(100)	415 (92)
<u>Predicted by PRISM IV</u>			
Non-survivors <i>n(%)</i>	38 (22.2)	0	38 (8.4)
Survivors <i>n(%)</i>	133(77.8)	280(100)	413 (91.6)
Total	171(100)	280(100)	451(100)

PIM-2: pediatric index of mortality-2, *PIM-3*: pediatric index of mortality-3,
PRISM IV: pediatric risk of mortality IV.