

Figure S1. Area under the curve (AUC) of TRISS, rSIG, RTS, and SI in predicting the mortality of patients with isolated traumatic brain injury.

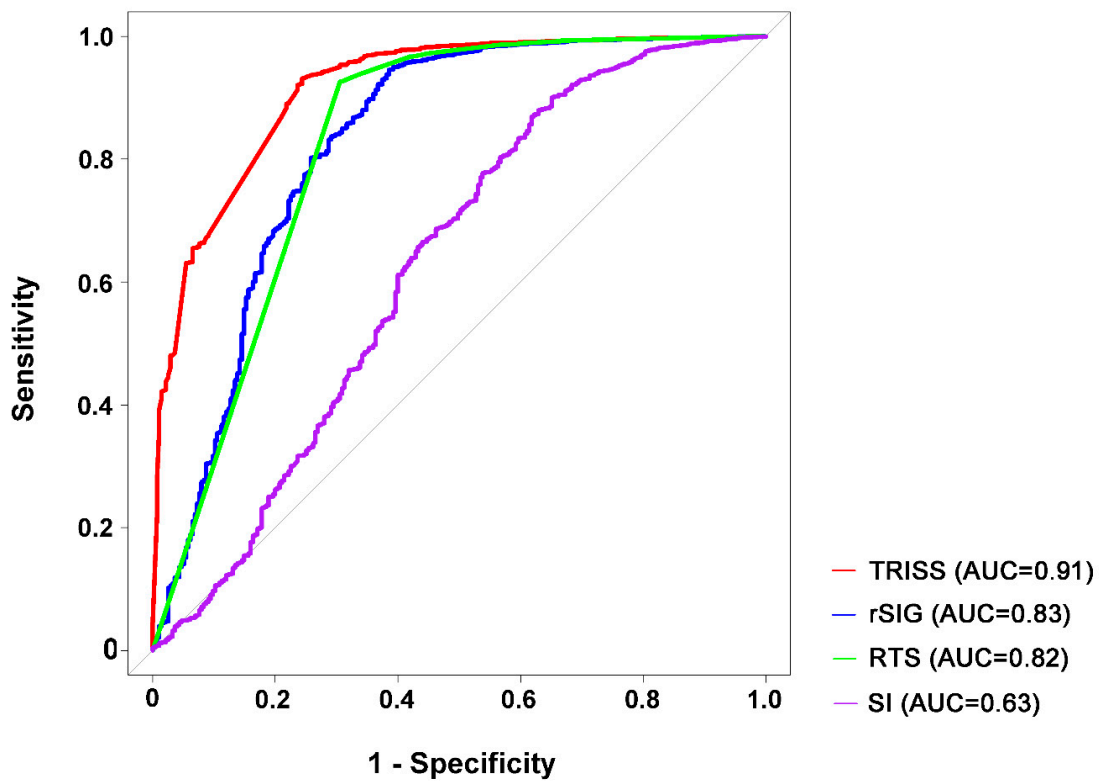


Figure S2. Area under the curve (AUC) of TRISS, rSIG, RTS, and SI in predicting the mortality of patients without traumatic brain injury.

Table S1. Characteristics variables of patients with isolated traumatic brain injury (only head AIS ≥ 3).

Variables	Total (n = 2,268)	Survival		P-value	
		No (n = 227)	Yes (n = 2,041)		
Age (years)	61 [45, 74]	68 [54, 78]	61 [45, 74]	<0.001	
ISS	16 [9, 16]	25 [16, 25]	16 [10, 16]	<0.001	
GCS	15 [11, 15]	4 [3, 9]	15 [13, 15]	<0.001	
SBP (mmHg)	154 [134, 180]	158 [134, 198]	154 [135, 180]	0.016	
HR (times/min)	84 [74, 97]	92 [75, 109]	84 [74, 96]	<0.001	
RR (times/min)	18 [18, 20]	19 [17, 20]	18 [18, 20]	0.831	
SI	0.55 [0.45, 0.66]	0.56 [0.45, 0.73]	0.54 [0.44, 0.65]	0.103	
rSI	1.83 [1.51, 2.24]	1.78 [1.37, 2.23]	1.85 [1.53, 2.26]	0.103	
rSIG	24.62 [17.75, 30.79]	8.76 [5.54, 17.96]	25.36 [19.19, 31.23]	<0.001	
RTS	7.84 [6.90, 7.84]	5.03 [4.09, 6.90]	7.84 [7.84, 7.84]	<0.001	
TRISS	0.97 [0.94, 0.99]	0.68 [0.45, 0.89]	0.97 [0.94, 0.99]	<0.001	
Sex	Female	848 (37.4%)	80 (35.2%)	768 (37.6%)	0.527
	Male	1,420 (62.6%)	147 (64.8%)	1,273 (62.47%)	
AIS (Head)	3	693 (30.6%)	15 (6.6%)	678 (33.2%)	<0.001
	4	1,253 (55.3%)	68 (30.0%)	1,185 (58.1%)	
	5	310 (13.7%)	134 (59.0%)	176 (8.6%)	
	6	12 (0.5%)	10 (4.4%)	2 (0.1%)	

AIS = abbreviated injury scale; GCS = Glasgow coma scale; ISS = injury severity score; rSI = reverse shock index; rSIG = rSI multiplied by GCS score; RTS = revised trauma score; SBP = systolic blood pressure; SI = shock index; TRISS = the trauma and injury severity score.

Table S2. Characteristics variables of patients without traumatic brain injury.

Variables	Total (n = 16482)	Survival		P-value	
		No (n = 275)	Yes (n = 16207)		
Age (years)	54 [37, 68]	61 [42, 77]	54 [37, 67]	<0.001	
ISS	9 [4, 9]	29 [17, 34]	8 [4, 9]	<0.001	
GCS	15 [15, 15]	7 [3, 15]	15 [15, 15]	<0.001	
SBP (mmHg)	146 [126, 168]	145 [107, 176]	146 [126, 168]	0.019	
HR (times/min)	85 [75, 97]	96 [78, 118]	85 [75, 96]	<0.001	
RR (times/min)	18 [18, 20]	20 [18, 21]	18 [18, 20]	<0.001	
SI	0.58 [0.48, 0.70]	0.67 [0.51, 0.93]	0.58 [0.48, 0.69]	<0.001	
rSI	1.73 [1.43, 2.09]	1.49 [1.07, 1.97]	1.74 [1.44, 2.09]	<0.001	
rSIG	25.56 [20.82, 31.00]	10.69 [5.09, 20.45]	25.67 [21.00, 31.09]	<0.001	
RTS	7.84 [7.84, 7.84]	5.97 [4.09, 7.84]	7.84 [7.84, 7.84]	<0.001	
TRISS	0.98 [0.97, 1.00]	0.72 [0.36, 0.94]	0.98 [0.97, 1.00]	<0.001	
Sex	Female	7,302 (44.3%)	97 (35.3%)	7,205 (44.5%)	0.003
	Male	9,180 (55.7%)	178 (64.7%)	9,002 (55.5%)	
AIS (Head)	0	13,407 (81.3%)	87 (31.6%)	13,320 (82.2%)	<0.001
	1	1,006 (6.1%)	12 (4.4%)	994 (6.1%)	
	2	388 (2.4%)	6 (2.2%)	382 (2.4%)	
AIS (Face)	0	13,872 (84.2%)	216 (78.6%)	13,656 (84.3%)	<0.001
	1	736 (4.8%)	5 (1.8%)	731 (4.5%)	
	2	1,829 (11.1%)	50 (18.2%)	1,779 (11.0%)	
	3	45 (0.3%)	4 (1.5%)	41 (0.3%)	
AIS (Thorax)	0	14,160 (85.9%)	154 (56.0%)	14,006 (86.4%)	<0.001
	1	337 (2.0%)	5 (1.8%)	332 (2.1%)	
	2	592 (4.0%)	14 (5.1%)	578 (3.6%)	
	3	948 (5.8%)	51 (18.6%)	897 (5.5%)	
	4	419 (2.5%)	43 (15.6%)	376 (2.3%)	
	5	25 (0.2%)	7 (2.6%)	18 (0.1%)	
	6	1 (0.01%)	1 (0.4%)	0 (0.0%)	
AIS (Abdomen)	0	15,223 (92.4%)	210 (76.4%)	15,013 (92.6%)	<0.001
	1	78 (0.5%)	1 (0.4%)	77 (0.5%)	
	2	651 (4.0%)	27 (9.8%)	624 (3.9%)	
	3	366 (2.2%)	14 (5.1%)	352 (2.2%)	
	4	129 (0.8%)	19 (6.9%)	110 (0.7%)	
	5	35 (0.2%)	4 (1.5%)	31 (0.2%)	
AIS (Extremity)	0	2,901 (17.6%)	96 (34.9%)	2,805 (17.3%)	<0.001
	1	1,034 (6.3%)	2 (0.7%)	1,032 (6.4%)	
	2	7,139 (43.3%)	89 (32.4%)	7,050 (43.5%)	
	3	5,358 (32.5%)	73 (26.6%)	5,285 (32.6%)	
	4	43 (0.3%)	12 (4.4%)	31 (0.2%)	
	5	7 (0.04%)	3 (1.1%)	4 (0.02%)	
AIS (External)	0	14,965 (90.8%)	248 (90.2%)	14,717 (90.8%)	<0.001
	1	1,407 (8.5%)	17 (6.2%)	1,390 (8.9%)	
	2	85 (0.5%)	2 (0.7%)	83 (0.5%)	
	3	12 (0.1%)	0 (0.0%)	12 (0.1%)	
	4	3 (0.02%)	0 (0.0%)	3 (0.02%)	
	5	5 (0.03%)	4 (1.5%)	1 (0.01%)	
	6	5 (0.03%)	4 (1.5%)	1 (0.01%)	

AIS = abbreviated injury scale; GCS = Glasgow coma scale; ISS = injury severity score; rSI = reverse shock index; rSIG = rSI multiplied by GCS score; RTS = revised trauma score; SBP = systolic blood pressure; SI = shock index; TRISS = the trauma and injury severity score.