

Supplement Table 1. Explanation of Red Cross Wound Score[4]

RCWS is an anatomical scoring system that was designed by the International Committee of the Red Cross (ICRC) to quickly and relatively easily give guidance on a penetrating wound's significance. RCWS is based on size, tissue involved and location. Thus, RCWS is not dependent on the type of weapons or projectile that caused the wound. The following variables are included in the assessment of a wound according to RCWS:

E	Entry wound in centimetres
X	Exit wound in centimetres
C	Cavity >2 fingers wide
F	Fracture (0 = No fracture, 1 = Simple fracture, hole or insignificant comminution and 2 = Clinically significant comminution)
V	Vital structure (0= No penetration of vital structure, N=Penetration of the dura of the brain or spinal cord, A=Peritoneum, T=Pleura and H=Major peripheral vessels extending to the brachial or popliteal or carotid arteries)

Type	Grade 1	Grade 2	Grade 3
ST Soft tissue wounds	Small simple wound E+X<10cm C0 F0 V0 1ST	Medium sized soft tissue wound E+X<10cm C1 F0 V0 2ST	Large soft tissue wound E+X $\geq$ 10cm C1 F0 V0 3ST
F Wounds with fractures	Small wound with simple fracture E+X<10cm C0 F1 V0 1F	Medium sized wound with important fracture E+X<10cm C0 F2 V0 2F	Large wound with significant fracture E+X $\geq$ 10cm C1 F2 V0 3F
V Vital wounds	Small wound threatening life E+X<10cm C0 F0 V=N OR T OR A OR H 1V	Medium sized wound threatening life E+X<10cm C1 F0 V= N OR T OR A OR H 2V	Large wound threatening life E+X $\geq$ 10cm C1 F0 V= N OR T OR A OR H 3V
VF Vital wounds with fractures	Small wound threatening limb and/or life E+X<10cm C0 F1 V= N OR T OR A OR H 1VF	Medium wound threatening limb and/or life E+X<10cm C1 F2 V= N OR T OR A OR H 2VF	Large wound threatening limb and/or life E+X $\geq$ 10cm C1 F2 V= N OR T OR A OR H 3VF

Supplement Table 2. Relationship between surgical resource consumption and vital signs, wound classification for patients treated for weapon-related injuries at ICRC's hospitals in Peshawar 2009–2012 and Goma 2012–2014

Surgical resource consumption	Univariate analysis			Logistic regression analysis			
	Complete cases Total=834		P value	Complete cases Total=834		All cases ^a Total=1555 ^b	
	Low Total=472 n (%)	High ^c Total=362 n (%)		All confounders 1=High ^c Odds ratio (95% CI)	P value	All confounders 1=High ^c Odds ratio (95% CI)	P value
Gender			1.000				
Male	418 (88.6)	320 (88.4)		1		1	
Female	54 (11.4)	42 (11.6)		1.14 (0.68-1.90)	0.626	1.14 (0.79-1.63)	0.491
Age			0.710				
15-49 years	433 (91.7)	329 (90.9)		1		1	
>49	39 (8.3)	33 (9.1)		1.23 (0.70-2.17)	0.466	1.84 (1.26-2.70)	0.002
Time since injury			0.152				
0-6 hours	15 (3.2)	21 (5.8)		1		1	
7-24 hours	203 (43.0)	159 (43.9)		0.68 (0.30-1.54)	0.352	1.03 (0.52-2.06)	0.933
>24 hours	254 (53.8)	182 (50.3)		0.66 (0.29-1.52)	0.327	0.97 (0.49-1.95)	0.938
Systolic blood pressure			0.004				
>89 mmHg	464 (98.3)	341 (94.2)		1		1	
76-89	5 (1.1)	10 (2.8)		1.16 (0.33-4.11)	0.931	1.52 (0.61-3.75)	0.362
0-75	3 (0.6)	11 (3.0)		1.65 (0.44-6.20)	0.821	1.23 (0.51-2.97)	0.640
Respiratory rate			0.446				
10-29/min	458 (97.0)	347 (95.9)		1		1	
≤9	-	-		-	-	-	
≥30	14 (3.0)	15 (4.1)		0.88 (0.37-2.09)	0.772	0.72 (0.42-1.26)	0.222
Glasgow Coma Scale			0.077				
13-15	465 (98.5)	347 (95.8)		1		1	
9-12	4 (0.9)	10 (2.8)		1.09 (0.31-3.87)	0.896	1.01 (0.19-5.37)	0.811
6-8	2 (0.4)	4 (1.1)		1.60 (0.22-11.65)	0.644	0.85 (0.20-3.59)	0.825
≤5	1 (0.2)	1 (0.3)		0.84 (0.05-15.76)	0.906	0.90 (0.37-2.18)	0.985
RCWS ^d wound grade			<0.000				
1 (simple)	266 (56.4)	83 (22.9)		1		1	
2 (medium)	185 (39.2)	178 (49.2)		2.60 (1.81-3.74)	<0.00001	2.51 (1.93-3.26)	<0.00001
3 (large)	21 (4.4)	101 (27.9)		11.60 (6.61-20.36)	<0.00001	10.76 (7.41-15.63)	<0.00001
RCWS ^d wound type			<0.000				
Soft tissue	220 (46.6)	67 (18.5)		1		1	
Fracture	164 (34.8)	180 (49.7)		2.39 (1.62-3.54)	0.00001	2.12 (1.60-2.82)	<0.00001
Threatening life	59 (12.5)	45 (12.4)		2.16 (1.27-3.67)	0.005	1.92 (1.31-2.83)	0.001
Threatening life/limb	29 (6.1)	70 (19.4)		4.67 (2.61-834)	<0.00001	3.05 (2.04-4.54)	<0.00001
Several severe injuries ^e			<0.000				
No	439 (93.0)	288 (79.6)		1		1	
Yes	33 (7.0)	74 (20.4)		2.90 (1.83-4.89)	0.00001	2.43 (1.72-3.44)	<0.00001

^aUsing imputed data for missing variables; ^b9 patients with unknown surgical resource consumption excluded; ^cDefined as ≥3 surgical procedures under anesthesia or ≥3 blood transfusions or limb amputation; ^dRed Cross Wound Score; ^eCorresponding to Abbreviated Injury Score ≥2.

Supplement Table 3. Relationship between in-hospital mortality and vital signs, wound classification for patients treated for weapon-related injuries at ICRC's hospitals in Peshawar 2009–2012 and Goma 2012–2014

In-hospital mortality	Univariate analysis			Logistic regression analysis			
	Complete cases		P value	Complete cases		All cases ^a	
	No Total=813 n (%)	Yes Total=21 n (%)		Total=834 All confounders 1=In-hospital mortality Odds ratio (95%CI)	P value	Total=1559 ^b All confounders 1=In-hospital mortality Odds ratio (95% CI)	P value
Gender			1.000				
Male	719 (88.4)	19 (90.0)		1		1	
Female	94 (11.6)	2 (10.0)		0.82 (0.17-4.04)	0.8150	1.38 (0.65-2.92)	0.395
Age			0.701				
15-49 years	743 (91.4)	19 (90.5)		1		1	
>49	70 (8.6)	2 (9.5)		1.48 (0.31-7.00)	0.6199	1.31 (0.60-2.85)	0.494
Time since injury			0.010				
0-6 hours	33 (4.1)	3 (14.3)		1		1	
7-24 hours	354 (43.5)	8 (38.1)		0.32 (0.50-1.99)	0.2220	0.37 (0.12-1.16)	0.089
>24 hours	426 (52.4)	10 (47.6)		0.41 (0.07-2.61)	0.3468	0.65 (0.21-2.00)	0.451
Systolic blood pressure			0.033				
>89 mmHg	787 (96.8)	18 (85.7)		1		1	
76-89	13 (1.6)	2 (9.5)		2.46 (0.26-23.29)	0.4331	4.63 (1.59-13.44)	0.005
0-75	13 (1.6)	1 (4.8)		1.04 (0.08-13.41)	0.9781	2.34 (0.64-8.65)	0.194
Respiratory rate			0.163				
10-29/min	786 (96.7)	19 (90.5)		1		1	
≤9	-	-		-	-	1.90 (0.95-3.80)	0.070
≥30	27 (3.3)	2 (9.5)		3.02 (0.55-16.58)	0.2025	3.00 (0.82-11.06)	0.097
Glasgow Coma Scale			0.00001				
13-15	796 (97.9)	16 (76.2)		1		1	
9-12	12 (1.5)	2 (9.5)		6.55 (1.00-43.13)	0.0841	2.42 (0.27-21.47)	0.385
6-8	5 (0.6)	1 (4.8)		5.25 (0.44-62.71)	0.1902	4.41 (0.78-24.75)	0.091
≤5	0	2 (9.5)		-	-	2.08 (0.62-6.98)	0.233
RCWS ^b wound grade			0.656				
1 (simple)	338 (41.6)	11 (52.4)		1		1	
2 (medium)	355 (43.7)	8 (38.1)		0.56 (0.17-1.78)	0.3230	1.37 (0.73-2.58)	0.323
3 (large)	120 (14.8)	2 (9.5)		0.37 (0.07-2.03)	0.2504	1.39 (0.65-2.97)	0.400
RCWS ^b wound type			0.007				
Soft tissue	283 (34.8)	4 (19.0)		1		1	
Fracture	339 (41.7)	5 (23.8)		1.48 (0.32-6.78)	0.6124	1.12 (0.42-3.00)	0.820
Threatening life	98 (12.1)	6 (28.6)		3.88 (0.88-17.02)	0.0728	10.72 (4.42-26.01)	<0.00001
Threatening life/limb	93 (11.4)	6 (28.6)		2.89 (0.49-17.12)	0.2414	8.43 (3.36-21.18)	<0.00001
Several severe injuries ^c			0.174				
No	711 (87.5)	16 (76.2)		1		1	
Yes	102 (12.5)	5 (23.8)		2.09 (0.67-6.52)	0.2040	1.41 (0.75-2.65)	0.285

^aUsing imputed data for missing variables; ^b5 patients with unknown discharge status excluded; ^bRed Cross Wound Score;

^cCorresponding to Abbreviated Injury Score ≥2.