

Additional Online Material

Feasibility of a Cluster Randomised Trial on the Effect of Trauma Life Support Training: A Pilot Study in India

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Statistical methods for additional analyses according to the original protocol

We compared patients outcomes in all possible combinations of trial arms. In each combination we compared both differences in final values and differences in change from baseline. For the intervention arms the change from baseline was calculated as the difference between the one month period of data collection before the training was undertaken and the three month period after the training. For the control arm the data collection period was four months and the difference from baseline was calculated as the difference between the first one month and the following three months.

Within each combination of trial arms we had planned to conduct subgroup analyses of men, women, blunt multisystem trauma, penetrating trauma, shock (systolic blood pressure ≤ 90 mmHg), severe traumatic brain injury, and elderly (≥ 65 years). These subgroups were however too small to allow for meaningful analyses, and are therefore reported descriptively. We calculated both absolute and relative differences for each comparison, along with 75, 85, and 95% confidence intervals. We used an empirical bootstrap procedure with 1000 draws to estimate these confidence intervals.

Estimated intraclass correlation coefficient

We used an empty generalised linear mixed model to estimate the intraclass correlation coefficient for all cause 30-day and in-hospital mortality. The intraclass correlation coefficients was 0.022 for 30-day mortality and 0.017 for in-hospital mortality.

Results with 95% confidence intervals (CI)

Additional Online Table 1. Outcomes in all patients during the entire study period, by treatment arm (95% CI)

Outcome	ATLS, N = 44	PTC, N = 130	Standard care, N = 202
30 day mortality			
Yes	2.5 (0, 15)	7.3 (2.9, 13)	13 (7.49, 17)
No	98 (85, 100)	93 (86, 96)	87 (81, 91)
Missing	4 (1, 9)	20 (12, 29)	29 (19, 40)
24 hour mortality			
Yes			0.5 (0, 1.6)
No			99 (98, 99)
Missing	4 (1, 9)	13 (6, 20)	7 (3, 12)
In-hospital mortality			
Yes	2.3 (0, 13.39)	5.4 (2.1, 10)	11 (6.67, 15)
No	98 (86, 100)	95 (90, 98)	90 (85, 93)
Missing	1 (0, 3)		2 (0, 5)
Self-ambulatory at discharge			
Yes	97 (81, 100)	97 (91, 99)	98 (93.35, 99)
No	2.8 (0, 17.91)	3.4 (0.9, 8.11)	2.3 (0.6, 6)
Missing	8 (3, 13.73)	11 (5, 17)	26 (16, 35)
Return to work			
Yes	64 (40.57, 80)	72 (62, 80)	51 (42, 59)
No	36 (18, 57)	28 (18, 36)	49 (39, 56)
Missing	19 (11, 27)	31 (21, 42)	68 (53, 82)
Pulmonary complication			
Yes		0.9 (0, 3.5)	
No		99 (95, 100)	
Missing	11 (5, 18)	21 (13, 30)	35 (24, 46)
Septic complication			
Yes		3.7 (0.9, 8.3)	1.2 (0, 3.7)
No		96 (90, 98)	99 (94, 99)
Missing	11 (5, 18)	22 (13, 31)	34 (23, 45)
Renal failure			
Yes			
No			
Missing	10 (4, 16)	21 (13, 30)	33 (21.57, 43)
Coagulopathy			
Yes	3 (0, 16)		

Outcome	ATLS, N = 44	PTC, N = 130	Standard care, N = 202
No	97 (84, 100)		
Missing	11 (5, 18)	22 (14, 32)	33 (21.57, 43)
Need for reexploration or resurgery			
Yes		1.8 (0, 5.6)	1.9 (0, 5.16)
No		98 (93, 99)	98 (94, 99)
Missing	10 (5, 16.51)	20 (12, 28)	43 (31, 55)
Failure of conservative management			
No	94 (79, 100)	98 (92, 99)	99 (95, 99)
Yes	6.5 (0, 20)	1.9 (0, 6.09)	1.3 (0, 4.1)
Missing	13 (7, 20)	23 (14, 32)	46 (33, 58)
EQ-5D mobility at discharge			
I have no problems in walking	80 (58, 91)	88 (77, 93)	62 (54, 69)
I have some problems in walking	10 (2.8, 27.13)	7.9 (3.66, 15)	18 (11, 23)
I am confined to bed	10 (2.8, 25)	4 (1.1, 9.95)	20 (13, 26)
Missing	14 (7.11, 22)	29 (19, 39)	45 (33, 57)
EQ-5D self-care at discharge			
I have no problems with self-care	63 (42, 78.24)	83 (74, 88)	52 (43, 59)
I have some problems bathing or dressing myself	13 (3.1, 27.28)	9.9 (4.95, 16)	27 (19.37, 33)
I am unable to bathe or dress myself	23 (8.05, 39)	6.9 (3, 13)	21 (14, 27)
Missing	14 (7.11, 22)	29 (19, 39)	45 (33, 57)
EQ-5D usual activities at discharge			
I have no problems in performing my usual activities	57 (36.2, 74)	81 (72, 87)	48 (39, 54.34)
I have some problems in performing my usual activities	23 (8.3, 40)	11 (5.13, 17)	36 (29, 43)
I am unable to perform my usual activities	20 (6.75, 37)	7.9 (3.7, 14.71)	16 (9.88, 21)
Missing	14 (7.11, 22)	29 (19, 39)	45 (33, 57)
EQ-5D pain/discomfort at discharge			
I have no pain or discomfort	43 (26, 61.31)	52 (41, 60)	27 (20, 33)
I have moderate pain or discomfort	57 (36.59, 72)	44 (34, 53.16)	36 (28, 43)
I have extreme pain or discomfort		4 (1, 9.38)	36 (27.04, 43)
Missing	14 (7.11, 22)	29 (19, 39)	45 (33, 57)
EQ-5D anxiety/depression at discharge			
I am not anxious or depressed	70 (50, 85)	86 (77.13, 91)	89 (83, 93)
I am moderately anxious or depressed	30 (13, 47)	13 (6.92, 19)	9.6 (5.84, 15)
I am extremely anxious or depressed		1 (0, 4.37)	1.9 (0, 4.7)
Missing	14 (7.11, 22)	29 (19, 39)	45 (33, 57)
EQ-5D mobility at 30 day follow-up			
I have no problems in walking	77 (55.4, 89)	95 (88, 97)	74 (65, 80)
I have some problems in walking	19 (6.39, 38)	3 (0.9, 8.4)	16 (9.25, 22)

Outcome	ATLS, N = 44	PTC, N = 130	Standard care, N = 202
I am confined to bed	3.8 (0, 23.3)	2 (0, 6.18)	9.8 (5.6, 16)
Missing	18 (10, 26)	29 (19, 39)	69 (54, 83)
EQ-5D self-care at 30 day follow-up			
I have no problems with self-care	81 (58, 92.79)	94 (85.78, 97)	77 (68, 82)
I have some problems bathing or dressing myself	12 (0, 29.99)	2 (0, 7.22)	13 (7.2, 19)
I am unable to bathe or dress myself	7.7 (0, 24.36)	4 (1, 9.3)	9.8 (5.7, 16)
Missing	18 (10, 26)	29 (19, 39)	69 (54, 83)
EQ-5D usual activities at 30 day follow-up			
I have no problems in performing my usual activities	81 (60, 93)	93 (85, 96)	79 (70, 85)
I have some problems in performing my usual activities	12 (3.4, 31.69)	3 (0.9, 8.5)	14 (8.4, 20)
I am unable to perform my usual activities	7.7 (0, 24.36)	4 (1, 9.3)	7.5 (3.8, 14)
Missing	18 (10, 26)	29 (19, 39)	69 (54, 83)
EQ-5D pain/discomfort at 30 day follow-up			
I have no pain or discomfort	77 (57, 91)	82 (73, 88)	78 (69, 84)
I have moderate pain or discomfort	23 (7.7, 42)	17 (9.3, 24)	20 (13, 26)
I have extreme pain or discomfort		1 (0, 4.3)	1.5 (0, 5.1)
Missing	18 (10, 26)	29 (19, 39)	69 (54, 83)
EQ-5D anxiety/depression at 30 day follow-up			
I am not anxious or depressed	88 (65, 96)	92 (84, 95)	95 (88, 97)
I am moderately anxious or depressed	12 (3.4, 31.69)	6.9 (2.9, 14)	3.8 (1.5, 9)
I am extremely anxious or depressed		1 (0, 4.3)	0.8 (0, 4.3)
Missing	18 (10, 26)	29 (19, 39)	69 (54, 83)
Patient satisfaction			
Very satisfied	74 (57, 86.02)	85 (77, 90)	69 (60, 74)
Somewhat satisfied	21 (8.8, 34)	9.9 (5, 16)	16 (10, 20)
Somewhat dissatisfied	2.6 (0, 13)	1.7 (0, 5.15)	9 (5.1, 14)
Very dissatisfied	2.6 (0, 12.43)	3.3 (0.8, 7.71)	5.1 (2.3, 9.06)
Missing	6 (2, 11)	9 (3, 15)	25 (15, 34)
Number of hospitalizations for this injury			
Missing	13 (7, 20)	19 (11, 27)	36 (25, 47)
EQ-5D health state at discharge	60 (50, 60)	80 (79, 79)	50 (4, 50)
Missing	15 (8, 23)	35 (25, 47)	58 (44, 72)
EQ-5D health state at 30 day follow-up	88 (80, 100)	100 (99, 99)	80 (9, 90)
Missing	18 (10, 26)	32 (22, 44)	75 (59, 90)
Cost of treatment	5000 (0, 14000)	2000 (1040.14, 2499)	3000 (1000, 8000)
Missing	35 (24, 48)	39 (29, 51.46)	113 (96, 130)

Empty cells indicate that there were no observations to calculate the statistic.

Additional Online Table 2. Outcomes in all patients before training, by treatment arm (95% CI)

Outcome	ATLS, N = 16	PTC, N = 57	Standard care, N = 41
30 day mortality			
Yes		10 (2.32, 20)	2.6 (0, 14.5)
No		90 (78.57, 96)	97 (81, 100)
Missing	2 (0, 5)	8 (3, 14)	3 (0, 7)
24 hour mortality			
Yes			2.4 (0, 11.05)
No			98 (88, 100)
Missing	2 (0, 5)	5 (1, 9)	
In-hospital mortality			
Yes		7 (1.9, 16)	4.9 (0, 17)
No		93 (81.7, 97)	95 (81, 98)
Missing			
Self-ambulatory at discharge			
Yes	92 (55.29, 100)	96 (84, 98)	95 (78.8, 100)
No	8.3 (0, 42.23)	4.1 (0, 13.82)	5.1 (0, 17)
Missing	4 (1, 8)	8 (3, 13.13)	2 (0, 5)
Return to work			
Yes	83 (0, 100)	74 (58, 85)	41 (23, 58)
No	17 (0, 70.86)	26 (12, 39)	59 (37.73, 75)
Missing	10 (4, 16)	15 (8, 22)	12 (6, 19)
Pulmonary complication			
Yes		2.2 (0, 11.73)	
No		98 (88, 100)	
Missing	6 (2, 11)	11 (5, 18)	2 (0, 5)
Septic complication			
Yes		4.4 (0, 14)	2.5 (0, 16.45)
No		96 (85.26, 100)	98 (83, 100)
Missing	6 (2, 11)	12 (6, 19)	1 (0, 3)
Renal failure			
Yes			
No			
Missing	5 (1, 10)	11 (5, 18)	1 (0, 3)
Coagulopathy			
Yes			
No			
Missing	6 (2, 11)	12 (6, 19)	1 (0, 3)

Outcome	ATLS, N = 16	PTC, N = 57	Standard care, N = 41
Need for reexploration or resurgery			
Yes		2.1 (0, 11.23)	
No		98 (86, 100)	
Missing	4 (1, 8)	10 (4, 16)	1 (0, 3)
Failure of conservative management			
No		98 (85, 100)	
Yes		2.2 (0, 14.13)	
Missing	10 (4, 16)	11 (5, 17)	2 (0, 5)
EQ-5D mobility at discharge			
I have no problems in walking	67 (30.53, 89)	83 (66.74, 92)	62 (44, 75)
I have some problems in walking	8.3 (0, 36.88)	12 (2.6, 24)	18 (7.1, 31.39)
I am confined to bed	25 (0, 56)	4.9 (0, 16.18)	21 (9.3, 35)
Missing	4 (1, 8)	16 (8, 24)	2 (0, 5)
EQ-5D self-care at discharge			
I have no problems with self-care	58 (25, 87.2)	80 (64, 90)	59 (41, 73.74)
I have some problems bathing or dressing myself	17 (0, 50)	12 (2.97, 24)	15 (4.97, 27.42)
I am unable to bathe or dress myself	25 (0, 56)	7.3 (2.2, 20)	26 (13, 40)
Missing	4 (1, 8)	16 (8, 24)	2 (0, 5)
EQ-5D usual activities at discharge			
I have no problems in performing my usual activities	50 (17, 75)	76 (61, 87)	54 (38, 69)
I have some problems in performing my usual activities	25 (0, 54.17)	15 (5.7, 28)	28 (14, 42)
I am unable to perform my usual activities	25 (0, 56)	9.8 (2.7, 23)	18 (7.1, 32)
Missing	4 (1, 8)	16 (8, 24)	2 (0, 5)
EQ-5D pain/discomfort at discharge			
I have no pain or discomfort	33 (8.3, 63)	34 (20, 50)	33 (19, 48.33)
I have moderate pain or discomfort	67 (30.09, 89)	63 (44.05, 76)	41 (24, 56)
I have extreme pain or discomfort		2.4 (0, 13)	26 (14, 40.01)
Missing	4 (1, 8)	16 (8, 24)	2 (0, 5)
EQ-5D anxiety/depression at discharge			
I am not anxious or depressed	50 (17, 75)	73 (57, 85)	79 (62.02, 89)
I am moderately anxious or depressed	50 (14, 75)	24 (11, 38)	18 (6.97, 32)
I am extremely anxious or depressed		2.4 (0, 13)	2.6 (0, 14)
Missing	4 (1, 8)	16 (8, 24)	2 (0, 5)
EQ-5D mobility at 30 day follow-up			
I have no problems in walking	67 (0, 100)	91 (77.53, 97)	65 (46.25, 81)
I have some problems in walking	17 (0, 70.43)	7 (2.02, 19)	13 (3.12, 27)
I am confined to bed	17 (0, 70.86)	2.3 (0, 13.05)	23 (9.02, 39)
Missing	10 (4, 16)	14 (7, 21)	10 (4, 17)
EQ-5D self-care at 30 day follow-up			

Outcome	ATLS, N = 16	PTC, N = 57	Standard care, N = 41
I have no problems with self-care	83 (0.05, 100)	91 (79.35, 97)	71 (53, 85)
I have some problems bathing or dressing myself	17 (0, 70.43)	4.7 (0, 16)	6.5 (0, 31.44)
I am unable to bathe or dress myself		4.7 (0, 15.32)	23 (11, 40)
Missing	10 (4, 16)	14 (7, 21)	10 (4, 17)
EQ-5D usual activities at 30 day follow-up			
I have no problems in performing my usual activities		91 (79.35, 97)	71 (52.15, 85)
I have some problems in performing my usual activities		4.7 (0, 16)	19 (6.7, 35)
I am unable to perform my usual activities		4.7 (0, 15.32)	9.7 (2.46, 25.76)
Missing	10 (4, 16)	14 (7, 21)	10 (4, 17)
EQ-5D pain/discomfort at 30 day follow-up			
I have no pain or discomfort	67 (0, 100)	77 (61.95, 88)	74 (52.26, 85)
I have moderate pain or discomfort	33 (0, 75)	21 (8.6, 33)	26 (12, 44.69)
I have extreme pain or discomfort		2.3 (0, 12.93)	
Missing	10 (4, 16)	14 (7, 21)	10 (4, 17)
EQ-5D anxiety/depression at 30 day follow-up			
I am not anxious or depressed		86 (71.41, 94)	97 (81, 100)
I am moderately anxious or depressed		12 (2.9, 24.57)	3.2 (0, 18.59)
I am extremely anxious or depressed		2.3 (0, 12.93)	
Missing	10 (4, 16)	14 (7, 21)	10 (4, 17)
Patient satisfaction			
Very satisfied	64 (33.23, 87)	73 (60, 83)	67 (49, 79)
Somewhat satisfied	36 (11, 63)	16 (6.66, 27)	23 (11, 35.02)
Somewhat dissatisfied		3.9 (0, 13)	7.7 (2.2, 21)
Very dissatisfied		7.8 (2.1, 18.06)	2.6 (0, 17)
Missing	2 (0, 5)	6 (2, 11)	2 (0, 5)
Number of hospitalizations for this injury			
Missing	10 (4, 16)	8 (3, 14)	2 (0, 5)
EQ-5D health state at discharge	60 (40, 81.8)	80 (60, 80)	50 (3, 80)
Missing	5 (1, 10)	16 (8, 24)	10 (4, 17)
EQ-5D health state at 30 day follow-up	100 (55, 100)	100 (90, 100)	10 (8, 100)
Missing	10 (4, 16)	15 (8.11, 23)	14 (8, 22)
Cost of treatment	7000 (0, 14000)	2025 (600, 6000)	14000 (500, 35000)
Missing	14 (7, 22)	18 (11, 26)	23 (14.12, 33)

Empty cells indicate that there were no observations to calculate the statistic.

Additional Online Table 3. Outcomes in all patients after training, by treatment arm (95% CI)

Outcome	ATLS, N = 28	PTC, N = 73	Standard care, N = 161
30 day mortality			
Yes	3.8 (0, 20.98)	4.9 (0, 13)	16 (9.28, 21)
No	96 (78, 100)	95 (84, 98)	84 (77, 89)
Missing	2 (0, 5)	12 (6, 19)	26 (17, 36)
24 hour mortality			
Yes			
No			
Missing	2 (0, 5)	8 (3, 14)	7 (3, 12)
In-hospital mortality			
Yes	3.7 (0, 20.68)	4.1 (0, 11)	12 (6.43, 16)
No	96 (79, 100)	96 (87.42, 99)	88 (81, 91)
Missing	1 (0, 3)		2 (0, 5)
Self-ambulatory at discharge			
Yes		97 (86, 99)	99 (94, 100)
No		2.9 (0, 9.08)	1.5 (0, 5.59)
Missing	4 (1, 8)	3 (0, 7)	24 (14, 32.64)
Return to work			
Yes	58 (33, 78)	70 (55, 80)	53 (43, 61.06)
No	42 (21, 66.95)	30 (18, 42.29)	47 (36, 56)
Missing	9 (4, 15)	16 (9, 24)	56 (43, 69.34)
Pulmonary complication			
Yes			
No			
Missing	5 (1, 9)	10 (5, 17)	33 (22, 43)
Septic complication			
Yes		3.2 (0, 11)	0.8 (0, 4)
No		97 (88, 100)	99 (96, 99)
Missing	5 (1, 9)	10 (5, 17)	33 (22, 43)
Renal failure			
Yes			
No			
Missing	5 (1, 9)	10 (5, 17)	32 (21, 42)
Coagulopathy			
Yes	4.3 (0, 22.71)		
No	96 (77, 100)		
Missing	5 (1, 9)	10 (5, 17)	32 (21, 42)

Outcome	ATLS, N = 28	PTC, N = 73	Standard care, N = 161
Need for reexploration or resurgery			
Yes		1.6 (0, 9.21)	2.5 (0, 7)
No		98 (90, 100)	97 (92, 98)
Missing	6 (2, 11)	10 (5, 17)	42 (30.18, 54)
Failure of conservative management			
No	92 (71, 100)	98 (90, 100)	98 (93, 99)
Yes	8 (0, 24.44)	1.6 (0, 7.99)	1.7 (0, 5.8)
Missing	3 (0, 6)	12 (6, 19.14)	44 (32, 56)
EQ-5D mobility at discharge			
I have no problems in walking	89 (60, 100)	92 (80.1, 97)	62 (52, 70)
I have some problems in walking	11 (0, 33)	5 (1.5, 13.83)	19 (12, 27)
I am confined to bed		3.3 (0, 11)	19 (11, 26)
Missing	10 (4, 17)	13 (6, 21)	43 (30.04, 54)
EQ-5D self-care at discharge			
I have no problems with self-care	67 (34.68, 87)	85 (72, 92)	50 (40, 58)
I have some problems bathing or dressing myself	11 (0, 33.5)	8.3 (2.56, 17.71)	31 (22, 39)
I am unable to bathe or dress myself	22 (4.52, 44)	6.7 (1.76, 16)	19 (11, 25)
Missing	10 (4, 17)	13 (6, 21)	43 (30.04, 54)
EQ-5D usual activities at discharge			
I have no problems in performing my usual activities	61 (33, 82.01)	85 (72, 92)	47 (38, 56)
I have some problems in performing my usual activities	22 (5.6, 50)	8.3 (2.56, 17.71)	38 (28, 45)
I am unable to perform my usual activities	17 (0, 39.02)	6.7 (1.76, 16)	15 (8.29, 21)
Missing	10 (4, 17)	13 (6, 21)	43 (30.04, 54)
EQ-5D pain/discomfort at discharge			
I have no pain or discomfort	50 (25, 71)	65 (52, 76)	25 (16.01, 32)
I have moderate pain or discomfort	50 (22, 69)	30 (18, 41)	35 (27, 44)
I have extreme pain or discomfort		5 (1.5, 14)	40 (31, 48)
Missing	10 (4, 17)	13 (6, 21)	43 (30.04, 54)
EQ-5D anxiety/depression at discharge			
I am not anxious or depressed	83 (57, 95.75)	95 (84.84, 98)	92 (85, 96)
I am moderately anxious or depressed	17 (0, 41)	5 (0.6, 13)	6.8 (3.4, 13)
I am extremely anxious or depressed			1.7 (0, 5.3)
Missing	10 (4, 17)	13 (6, 21)	43 (30.04, 54)
EQ-5D mobility at 30 day follow-up			
I have no problems in walking	80 (53, 93.32)	98 (90, 100)	77 (67, 83.81)
I have some problems in walking	20 (5.9, 44)		17 (9.4, 24)
I am confined to bed		1.7 (0, 8.79)	5.9 (2.1, 12)
Missing	8 (3, 14)	15 (8, 23)	59 (46, 72.14)
EQ-5D self-care at 30 day follow-up			

Outcome	ATLS, N = 28	PTC, N = 73	Standard care, N = 161
I have no problems with self-care	80 (56, 94)	97 (88, 100)	79 (68.15, 85)
I have some problems bathing or dressing myself	10 (0, 31)		15 (8.23, 23)
I am unable to bathe or dress myself	10 (0, 31.74)	3.4 (0, 12)	5.9 (2.13, 12)
Missing	8 (3, 14)	15 (8, 23)	59 (46, 72.14)
EQ-5D usual activities at 30 day follow-up			
I have no problems in performing my usual activities	75 (50, 91)	95 (83.7, 98)	81 (70, 87)
I have some problems in performing my usual activities	15 (4.2, 38)	1.7 (0, 7.68)	12 (6.3, 19)
I am unable to perform my usual activities	10 (0, 31.74)	3.4 (0, 12)	6.9 (2.9, 13)
Missing	8 (3, 14)	15 (8, 23)	59 (46, 72.14)
EQ-5D pain/discomfort at 30 day follow-up			
I have no pain or discomfort	80 (56.42, 94)	86 (73, 93)	79 (69, 85)
I have moderate pain or discomfort	20 (5.3, 41.4)	14 (5.3, 23.93)	19 (11, 27)
I have extreme pain or discomfort			2 (0, 8.07)
Missing	8 (3, 14)	15 (8, 23)	59 (46, 72.14)
EQ-5D anxiety/depression at 30 day follow-up			
I am not anxious or depressed	85 (60.19, 95)	97 (88.33, 100)	95 (87, 97)
I am moderately anxious or depressed	15 (4.2, 38)	3.4 (0, 11)	3.9 (1, 9.9)
I am extremely anxious or depressed			1 (0, 4.95)
Missing	8 (3, 14)	15 (8, 23)	59 (46, 72.14)
Patient satisfaction			
Very satisfied	79 (57, 93)	94 (83, 97)	70 (61, 76)
Somewhat satisfied	13 (3.29, 32)	5.7 (1.5, 13)	14 (8.04, 19)
Somewhat dissatisfied	4.2 (0, 20.59)		9.4 (5.58, 16)
Very dissatisfied	4.2 (0, 20.74)		5.8 (2.2, 10)
Missing	4 (1, 8)	3 (0, 7)	23 (13, 31)
Number of hospitalizations for this injury			
Missing	3 (0, 6)	11 (5, 18)	34 (23.34, 46)
EQ-5D health state at discharge	65 (50, 80)	90 (80, 90)	50 (4, 50)
Missing	10 (4, 17)	19 (11, 28)	48 (35, 61)
EQ-5D health state at 30 day follow-up	83 (70, 100)		83 (10, 100)
Missing	8 (3, 14)	17 (9, 25.63)	61 (47, 74)
Cost of treatment	5000 (0, 15000)	1500 (250, 1600)	2500 (1000, 8000)
Missing	21 (12, 30)	21 (12.87, 30)	90 (74, 106)

Empty cells indicate that there were no observations to calculate the statistic.

Additional Online Table 4. Absolute change from baseline for all outcomes, comparing the period after training with the period before training, by treatment arms (95% CI)

Outcome	ATLS, N = 28	PTC, N = 73	Standard care, N = 161
30 day mortality			
Yes	3.8 (0, 20.98)	-5.1 (-16.57, 4.76)	13.4 (3, 20)
No	-4 (-22, 0)	5 (-6, 14)	-13 (-20, -3)
Missing	0 (-4.9, 3)	4 (-5, 12)	23 (14, 34)
24 hour mortality			
Yes			-2.4 (-12, 0)
No			2 (0, 7)
Missing	0 (-4.9, 3)	3 (-4, 10)	7 (3, 12)
In-hospital mortality			
Yes	3.7 (0, 20.68)	-2.9 (-12.79, 4.2)	7.1 (-4, 13.3)
No	-4 (-21, 0)	3 (-5, 11)	-7 (-14, 2)
Missing	1 (0, 3)		2 (0, 5)
Self-ambulatory at discharge			
Yes	8 (0, 37)	1 (-6, 8)	4 (-2, 14)
No	-8.3 (-44.67, 0)	-1.2 (-9.5, 4.8)	-3.6 (-14.56, 1.5)
Missing	0 (-7, 4)	-5 (-13.26, 0)	22 (12, 30)
Return to work			
Yes	-25 (-56, 21)	-4 (-24, 12)	12 (-10, 30)
No	25 (-27.41, 55)	4 (-15, 21)	-12 (-35, 7)
Missing	-1 (-11, 6)	1 (-10.1, 11)	44 (29, 58)
Pulmonary complication			
Yes		-2.2 (-12, 0)	
No		2 (0, 7)	
Missing	-1 (-9, 4)	-1 (-11, 7)	31 (19, 41)
Septic complication			
Yes		-1.2 (-10.31, 5.5)	-1.7 (-11.72, 1.6)
No		1 (-6, 8.2)	1 (-2, 7)
Missing	-1 (-9, 4)	-2 (-12, 6)	32 (21, 42)
Renal failure			
Yes			
No			
Missing	0 (-7, 5)	-1 (-11, 7)	31 (20, 41)
Coagulopathy			
Yes	4.3 (0, 22.71)		

Outcome	ATLS, N = 28	PTC, N = 73	Standard care, N = 161
No	-4 (-23, 0)		
Missing	-1 (-9, 4)	-2 (-12, 5)	31 (20, 41)
Need for reexploration or resurgery			
Yes		-0.5 (-8.44, 3.3)	2.5 (0, 7)
No		0 (-5.44, 4)	-3 (-8, -2)
Missing	2 (-5, 7)	0 (-9, 8)	41 (29, 54)
Failure of conservative management			
No	-8 (-29, 0)	0 (-6.06, 4)	-2 (-7, -1)
Yes	8 (0, 24.45)	-0.6 (-9.45, 3.2)	1.7 (0, 5.8)
Missing	-7 (-16.47, -2)	1 (-8, 10)	42 (29, 54)
EQ-5D mobility at discharge			
I have no problems in walking	22 (-12, 56)	9 (-5, 23)	0 (-17, 19.83)
I have some problems in walking	2.7 (-23.17, 20)	-7 (-19.12, 4.99)	1 (-16.13, 14)
I am confined to bed	-25 (-60.74, -7.1)	-1.6 (-11.5, 5.8)	-2 (-22, 10)
Missing	6 (-2, 12)	-3 (-14, 7)	41 (29, 53)
EQ-5D self-care at discharge			
I have no problems with self-care	9 (-31.87, 47.44)	5 (-11, 20)	-9 (-27, 8)
I have some problems bathing or dressing myself	-6 (-39.79, 15)	-3.7 (-16.9, 8.16)	16 (0, 29.13)
I am unable to bathe or dress myself	-3 (-42.58, 26.36)	-0.6 (-11.51, 10)	-7 (-25.46, 6)
Missing	6 (-2, 12)	-3 (-14, 7)	41 (29, 53)
EQ-5D usual activities at discharge			
I have no problems in performing my usual activities	11 (-30.58, 46)	9 (-9, 23.11)	-7 (-26, 11)
I have some problems in performing my usual activities	-3 (-37, 28.8)	-6.7 (-21.53, 4.5)	10 (-7.49, 26)
I am unable to perform my usual activities	-8 (-43, 21)	-3.1 (-15.5, 7.7)	-3 (-20, 8.18)
Missing	6 (-2, 12)	-3 (-14, 7)	41 (29, 53)
EQ-5D pain/discomfort at discharge			
I have no pain or discomfort	17 (-23, 51)	31 (9, 47)	-8 (-26.97, 6)
I have moderate pain or discomfort	-17 (-52, 20)	-33 (-52.63, -12)	-6 (-24, 13)
I have extreme pain or discomfort		2.6 (-4.7, 9.7)	14 (-6.34, 27)
Missing	6 (-2, 12)	-3 (-14, 7)	41 (29, 53)
EQ-5D anxiety/depression at discharge			
I am not anxious or depressed	33 (-5.81, 64)	22 (7, 37)	13 (0, 29)
I am moderately anxious or depressed	-33 (-67, 3)	-19 (-35.39, -5.8)	-11.2 (-27.48, 0.4)
I am extremely anxious or depressed		-2.4 (-17, 0)	-0.9 (-10.47, 2.5)
Missing	6 (-2, 12)	-3 (-14, 7)	41 (29, 53)
EQ-5D mobility at 30 day follow-up			
I have no problems in walking	13 (-29.15, 61)	7 (-2, 17)	12 (-9, 30)

Outcome	ATLS, N = 28	PTC, N = 73	Standard care, N = 161
I have some problems in walking	3 (-50, 29)	-7 (-19.34, -2.1)	4 (-14, 15)
I am confined to bed	-17 (-100, 0)	-0.6 (-8.96, 3.82)	-17.1 (-36.1, -3.84)
Missing	-2 (-12, 5)	1 (-10, 11)	49 (34, 63)
EQ-5D self-care at 30 day follow-up			
I have no problems with self-care	-3 (-28.6, 53)	6 (-4, 16)	8 (-11, 26)
I have some problems bathing or dressing myself	-7 (-64.7, 16.07)	-4.7 (-17.2, 0)	8.5 (-5, 18)
I am unable to bathe or dress myself	10 (0, 31.59)	-1.3 (-10.45, 5.7)	-17.1 (-35.9, -4.9)
Missing	-2 (-12, 5)	1 (-10, 11)	49 (34, 63)
EQ-5D usual activities at 30 day follow-up			
I have no problems in performing my usual activities	-25 (-50, -9)	4 (-8, 13)	10 (-8.1, 28.5)
I have some problems in performing my usual activities	15 (4.2, 38)	-3 (-14, 2.1)	-7 (-24.6, 6)
I am unable to perform my usual activities	10 (0, 31.59)	-1.3 (-10.45, 5.7)	-2.8 (-17.58, 6.4)
Missing	-2 (-12, 5)	1 (-10, 11)	49 (34, 63)
EQ-5D pain/discomfort at 30 day follow-up			
I have no pain or discomfort	13 (-30, 62)	9 (-8, 23)	5 (-10, 23)
I have moderate pain or discomfort	-13 (-65, 28)	-7 (-23.4, 8)	-7 (-27, 7)
I have extreme pain or discomfort		-2.3 (-16, 0)	2 (0, 8.07)
Missing	-2 (-12, 5)	1 (-10, 11)	49 (34, 63)
EQ-5D anxiety/depression at 30 day follow-up			
I am not anxious or depressed	-15 (-39.72, -5)	11 (0, 24)	-2 (-8, 8)
I am moderately anxious or depressed	15 (4.2, 38)	-8.6 (-22, 1.02)	0.7 (-13.46, 5.3)
I am extremely anxious or depressed		-2.3 (-16, 0)	1 (0, 4.95)
Missing	-2 (-12, 5)	1 (-10, 11)	49 (34, 63)
Patient satisfaction			
Very satisfied	15 (-15, 45)	21 (8, 32)	3 (-14, 19)
Somewhat satisfied	-23 (-54, 4)	-10.3 (-22.87, 0)	-9 (-25.8, 3)
Somewhat dissatisfied	4.2 (0, 20.59)	-3.9 (-13, 0)	1.7 (-11.7, 9.2)
Very dissatisfied	4.2 (0, 20.74)	-7.8 (-20, -2.28)	3.2 (-8, 7.6)
Missing	2 (-3, 6)	-3 (-10, 2)	21 (11, 30)
Number of hospitalizations for this injury	0 (-1, 0)		
Missing	-7 (-16.47, -2)	3 (-6, 12)	32 (21, 44)
EQ-5D health state at discharge	5 (-30, 30)	10 (-10, 10)	0 (-68.09, 55)
Missing	5 (-3.48, 11)	3 (-9, 14)	38 (22, 52)
EQ-5D health state at 30 day follow-up	-17 (-33.16, 20)		73 (-13, 92)
Missing	-2 (-12, 5)	2 (-10, 12)	47 (30, 61.57)
Cost of treatment	-2000 (-14000, 13000)	-525 (-4922.65, 1000)	-11500 (-49000, 2250)
Missing	7 (-7, 17)	3 (-10, 14)	67 (45.64, 86)

Empty cells indicate that there were no observations to calculate the statistic.

Additional Online Table 5. Relative change from baseline for all outcomes, comparing the period after training with the period before training, by treatment arms (95% CI)

Outcome	ATLS, N = 28	PTC, N = 73	Standard care, N = 161
30 day mortality			
Yes		0.49 (0, 2.31)	6.15 (2.62, 10.91)
No	0.96 (0.78, 1)	1.06 (0.95, 1.2)	0.87 (0.8, 0.97)
Missing	1 (0, 4)	1.5 (0.56, 4)	8.67 (2.89, 27.17)
24 hour mortality			
Yes			
No			1.02 (1, 1.08)
Missing	1 (0, 4)	1.6 (0.5, 6)	
In-hospital mortality			
Yes		0.59 (0, 2.89)	2.45 (0.77, 6.19)
No	0.96 (0.79, 1)	1.03 (0.95, 1.15)	0.93 (0.86, 1.03)
Missing			
Self-ambulatory at discharge			
Yes	1.09 (1, 1.59)	1.01 (0.95, 1.1)	1.04 (0.98, 1.17)
No		0.71 (0, 4)	0.29 (0, 1.52)
Missing	1 (0, 3.5)	0.38 (0, 1.57)	12 (3.73, 29)
Return to work			
Yes	0.7 (0.41, 1.42)	0.95 (0.73, 1.2)	1.29 (0.85, 2.24)
No	2.47 (1.11, 7.14)	1.15 (0.61, 2.48)	0.8 (0.55, 1.2)
Missing	0.9 (0.29, 2.25)	1.07 (0.5, 2.25)	4.67 (2.52, 9)
Pulmonary complication			
Yes			
No		1.02 (1, 1.08)	
Missing	0.83 (0.14, 2.67)	0.91 (0.36, 2.5)	16.5 (5.11, 39)
Septic complication			
Yes		0.73 (0, 3.81)	0.32 (0, 1.62)
No		1.01 (0.94, 1.1)	1.01 (0.98, 1.08)
Missing	0.83 (0.14, 2.67)	0.83 (0.33, 2)	33 (12.33, 44.32)
Renal failure			
Yes			
No			
Missing	1 (0.11, 3)	0.91 (0.36, 2.5)	32 (11.5, 42)
Coagulopathy			
Yes			
No	0.96 (0.77, 1)		

Outcome	ATLS, N = 28	PTC, N = 73	Standard care, N = 161
Missing	0.83 (0.14, 2.67)	0.83 (0.33, 2.07)	32 (11.5, 42)
Need for reexploration or resurgery			
Yes		0.76 (0, 4.47)	
No		1 (0.95, 1.04)	0.97 (0.92, 0.98)
Missing	1.5 (0.26, 6)	1 (0.36, 2.5)	42 (16.32, 55.43)
Failure of conservative management			
No	0.92 (0.71, 1)	1 (0.94, 1.04)	0.98 (0.93, 0.99)
Yes		0.73 (0, 4.65)	
Missing	0.3 (0, 1.21)	1.09 (0.47, 2.6)	22 (6.82, 51)
EQ-5D mobility at discharge			
I have no problems in walking	1.33 (0.88, 2.47)	1.11 (0.96, 1.33)	1 (0.77, 1.42)
I have some problems in walking	1.33 (0.27, 5.5)	0.42 (0, 2.49)	1.06 (0.48, 3.01)
I am confined to bed		0.67 (0, 4.06)	0.9 (0.42, 1.87)
Missing	2.5 (0.62, 8)	0.81 (0.37, 1.85)	21.5 (7.3, 50)
EQ-5D self-care at discharge			
I have no problems with self-care	1.16 (0.63, 2.62)	1.06 (0.88, 1.31)	0.85 (0.62, 1.22)
I have some problems bathing or dressing myself	0.65 (0, 3.36)	0.69 (0.14, 2.77)	2.07 (1, 6.19)
I am unable to bathe or dress myself	0.88 (0.09, 3.72)	0.92 (0.18, 4.6)	0.73 (0.37, 1.38)
Missing	2.5 (0.62, 8)	0.81 (0.37, 1.85)	21.5 (7.3, 50)
EQ-5D usual activities at discharge			
I have no problems in performing my usual activities	1.22 (0.58, 2.89)	1.12 (0.93, 1.37)	0.87 (0.63, 1.31)
I have some problems in performing my usual activities	0.88 (0.17, 3.75)	0.55 (0.11, 1.75)	1.36 (0.86, 2.72)
I am unable to perform my usual activities	0.68 (0, 3.3)	0.68 (0.12, 3.59)	0.83 (0.38, 2.01)
Missing	2.5 (0.62, 8)	0.81 (0.37, 1.85)	21.5 (7.3, 50)
EQ-5D pain/discomfort at discharge			
I have no pain or discomfort	1.52 (0.6, 4.73)	1.91 (1.2, 3.22)	0.76 (0.45, 1.36)
I have moderate pain or discomfort	0.75 (0.35, 1.49)	0.48 (0.28, 0.77)	0.85 (0.57, 1.54)
I have extreme pain or discomfort		2.08 (0.65, 6.54)	1.54 (0.87, 2.73)
Missing	2.5 (0.62, 8)	0.81 (0.37, 1.85)	21.5 (7.3, 50)
EQ-5D anxiety/depression at discharge			
I am not anxious or depressed	1.66 (0.94, 3.8)	1.3 (1.1, 1.65)	1.16 (1.01, 1.51)
I am moderately anxious or depressed	0.34 (0, 1.29)	0.21 (0, 0.75)	0.38 (0.13, 1.23)
I am extremely anxious or depressed			0.65 (0.14, 2.38)
Missing	2.5 (0.62, 8)	0.81 (0.37, 1.85)	21.5 (7.3, 50)
EQ-5D mobility at 30 day follow-up			
I have no problems in walking	1.19 (0.7, 3.16)	1.08 (0.99, 1.22)	1.18 (0.9, 1.62)
I have some problems in walking	1.18 (0.42, 4)		1.31 (0.5, 4.52)
I am confined to bed		0.74 (0, 4.24)	0.26 (0.07, 0.87)
Missing	0.8 (0.23, 2)	1.07 (0.5, 2.25)	5.9 (3.16, 12.8)

Outcome	ATLS, N = 28	PTC, N = 73	Standard care, N = 161
EQ-5D self-care at 30 day follow-up			
I have no problems with self-care	0.96 (0.71, 2.58)	1.07 (0.97, 1.21)	1.11 (0.89, 1.47)
I have some problems bathing or dressing myself	0.59 (0.12, 3.12)		2.31 (0.72, 6.54)
I am unable to bathe or dress myself		0.72 (0, 4)	0.26 (0.08, 0.77)
Missing	0.8 (0.23, 2)	1.07 (0.5, 2.25)	5.9 (3.16, 12.8)
EQ-5D usual activities at 30 day follow-up			
I have no problems in performing my usual activities	0.75 (0.5, 0.91)	1.04 (0.93, 1.18)	1.14 (0.91, 1.53)
I have some problems in performing my usual activities		0.36 (0, 3.19)	0.63 (0.28, 1.97)
I am unable to perform my usual activities		0.72 (0, 4)	0.71 (0.17, 2.61)
Missing	0.8 (0.23, 2)	1.07 (0.5, 2.25)	5.9 (3.16, 12.8)
EQ-5D pain/discomfort at 30 day follow-up			
I have no pain or discomfort	1.19 (0.71, 3.32)	1.12 (0.92, 1.37)	1.07 (0.89, 1.42)
I have moderate pain or discomfort	0.61 (0.16, 2.41)	0.67 (0.23, 1.91)	0.73 (0.34, 1.53)
I have extreme pain or discomfort			
Missing	0.8 (0.23, 2)	1.07 (0.5, 2.25)	5.9 (3.16, 12.8)
EQ-5D anxiety/depression at 30 day follow-up			
I am not anxious or depressed	0.85 (0.6, 0.95)	1.13 (1.02, 1.35)	0.98 (0.92, 1.09)
I am moderately anxious or depressed		0.28 (0, 1.71)	1.22 (0.37, 3.33)
I am extremely anxious or depressed			
Missing	0.8 (0.23, 2)	1.07 (0.5, 2.25)	5.9 (3.16, 12.8)
Patient satisfaction			
Very satisfied	1.23 (0.84, 2.13)	1.29 (1.09, 1.52)	1.04 (0.83, 1.36)
Somewhat satisfied	0.36 (0, 1.64)	0.36 (0.07, 1.12)	0.61 (0.29, 1.23)
Somewhat dissatisfied			1.22 (0.38, 3.91)
Very dissatisfied			2.23 (0.78, 4.78)
Missing	2 (0.19, 7)	0.5 (0, 2)	11.5 (3.67, 28)
Number of hospitalizations for this injury			
Missing	0.3 (0, 1.21)	1.38 (0.5, 3.64)	17 (5.33, 41)
EQ-5D health state at discharge	1.08 (0.67, 1.75)	1.12 (0.89, 1.12)	1 (0.08, 15)
Missing	2 (0.5, 6)	1.19 (0.6, 2.45)	4.8 (2.38, 11)
EQ-5D health state at 30 day follow-up	0.83 (0.67, 1.33)		8.3 (0.74, 11.14)
Missing	0.8 (0.23, 2)	1.13 (0.53, 2.27)	4.36 (2.43, 7.75)
Cost of treatment	0.71 (0.14, 5)	0.74 (0.2, 2.69)	0.18 (0.04, 4)
Missing	1.5 (0.66, 2.75)	1.17 (0.6, 2.22)	3.91 (2.37, 6.04)

Empty cells indicate that there were no observations to calculate the statistic.

Additional Online Table 6. Absolute and relative differences in outcomes after training, comparing standard care with ATLS (95% CI)

Outcome	Absolute difference	Relative difference
30 day mortality		
Yes	12.2 (-8.05, 23.3)	4.21 (1.36, 15.71)
No	-12 (-23, 6)	0.88 (0.75, 1.1)
Missing	24 (15.57, 39)	13 (5.33, 40)
24 hour mortality		
Yes		
No		
Missing	5 (0, 13)	3.5 (1.6, 14)
In-hospital mortality		
Yes	8.3 (-5.9, 18)	3.24 (0.63, 13.64)
No	-8 (-18, 5)	0.92 (0.82, 1.07)
Missing	1 (-3.52, 5)	2 (0.5, 5)
Self-ambulatory at discharge		
Yes	-1 (-9, 2)	0.99 (0.93, 1.03)
No	1.5 (-2.2, 8.92)	
Missing	20 (-23, 35)	6 (0.1, 33)
Return to work		
Yes	-5 (-30, 29)	0.91 (0.6, 1.64)
No	5 (-30, 30)	1.12 (0.44, 2.41)
Missing	47 (30, 63)	6.22 (4.55, 53)
Pulmonary complication		
Yes		
No		
Missing	28 (5, 49)	6.6 (4.33, 43)
Septic complication		
Yes	0.8 (-4.5, 8.26)	
No	-1 (-11, 2)	0.99 (0.9, 1.03)
Missing	28 (1, 50)	6.6 (4.25, 43)
Renal failure		
Yes		
No		
Missing	27 (4, 48)	6.4 (4.11, 42)
Coagulopathy		
Yes	-4.3 (-16, 0)	
No	4 (0, 16)	1.04 (1, 1.19)
Missing	27 (4, 48)	6.4 (4.11, 42)

Outcome	Absolute difference	Relative difference
Need for reexploration or resurgery		
Yes	2.5 (0, 7.8)	
No	-3 (-8, -2)	0.97 (0.92, 0.98)
Missing	36 (-3.47, 56)	7 (4.22, 48)
Failure of conservative management		
No	6 (2, 26)	1.07 (1.02, 1.36)
Yes	-6.3 (-26, -2.4)	0.21 (0, 2.28)
Missing	41 (30, 56)	14.67 (8.42, 55)
EQ-5D mobility at discharge		
I have no problems in walking	-27 (-44, 31)	0.7 (0.55, 1.52)
I have some problems in walking	8 (-18.1, 23.91)	1.73 (0.08, 12.79)
I am confined to bed	19 (1.6, 30)	
Missing	33 (-23, 50)	4.3 (2.38, 20.5)
EQ-5D self-care at discharge		
I have no problems with self-care	-17 (-46.52, 43)	0.75 (0.48, 1.93)
I have some problems bathing or dressing myself	20 (-24.9, 36.87)	2.82 (0.2, 20.26)
I am unable to bathe or dress myself	-3 (-26.15, 19.7)	0.86 (0.07, 7.29)
Missing	33 (-23, 50)	4.3 (2.38, 20.5)
EQ-5D usual activities at discharge		
I have no problems in performing my usual activities	-14 (-49, 47)	0.77 (0.45, 2.14)
I have some problems in performing my usual activities	16 (-36.56, 39.71)	1.73 (0.1, 12.04)
I am unable to perform my usual activities	-2 (-24.06, 14.32)	0.88 (0, 5.17)
Missing	33 (-23, 50)	4.3 (2.38, 20.5)
EQ-5D pain/discomfort at discharge		
I have no pain or discomfort	-25 (-52, 49)	0.5 (0.25, 3.07)
I have moderate pain or discomfort	-15 (-49, -3)	0.7 (0.26, 1.03)
I have extreme pain or discomfort	40 (29.7, 55)	
Missing	33 (-23, 50)	4.3 (2.38, 20.5)
EQ-5D anxiety/depression at discharge		
I am not anxious or depressed	9 (2, 36)	1.11 (1.03, 1.68)
I am moderately anxious or depressed	-10.2 (-39.9, -3.9)	0.4 (0, 1.24)
I am extremely anxious or depressed	1.7 (-1.5, 6.4)	
Missing	33 (-23, 50)	4.3 (2.38, 20.5)
EQ-5D mobility at 30 day follow-up		
I have no problems in walking	-3 (-28, 30)	0.96 (0.71, 1.43)
I have some problems in walking	-3 (-29, 22)	0.85 (0, 5.21)
I am confined to bed	5.9 (0.97, 15)	
Missing	51 (34, 69)	7.38 (5.4, 53)
EQ-5D self-care at 30 day follow-up		

Outcome	Absolute difference	Relative difference
I have no problems with self-care	-1 (-25, 27)	0.99 (0.74, 1.39)
I have some problems bathing or dressing myself	5 (-20, 22)	1.5 (0.83, 4.17)
I am unable to bathe or dress myself	-4.1 (-29, 1.5)	0.59 (0, 2.6)
Missing	51 (34, 69)	7.38 (5.4, 53)
EQ-5D usual activities at 30 day follow-up		
I have no problems in performing my usual activities	6 (-21, 31)	1.08 (0.79, 1.58)
I have some problems in performing my usual activities	-3 (-20.77, 16.16)	0.8 (0, 11.66)
I am unable to perform my usual activities	-3.1 (-29, 5)	0.69 (0, 3.76)
Missing	51 (34, 69)	7.38 (5.4, 53)
EQ-5D pain/discomfort at 30 day follow-up		
I have no pain or discomfort	-1 (-18, 17)	0.99 (0.8, 1.24)
I have moderate pain or discomfort	-1 (-20, 13)	0.95 (0.25, 2.7)
I have extreme pain or discomfort	2 (-1, 8.8)	
Missing	51 (34, 69)	7.38 (5.4, 53)
EQ-5D anxiety/depression at 30 day follow-up		
I am not anxious or depressed	10 (3, 36)	1.12 (1.03, 1.58)
I am moderately anxious or depressed	-11.1 (-35.8, -2.9)	0.26 (0, 1.11)
I am extremely anxious or depressed	1 (-0.9, 5.1)	
Missing	51 (34, 69)	7.38 (5.4, 53)
Patient satisfaction		
Very satisfied	-9 (-31, 30)	0.89 (0.67, 1.46)
Somewhat satisfied	1 (-15.8, 15.15)	1.08 (0.09, 6.5)
Somewhat dissatisfied	5.2 (-13, 15)	2.24 (1, 4.12)
Very dissatisfied	1.6 (-9.3, 9.53)	1.38 (0.81, 3.95)
Missing	19 (-21, 34.53)	5.75 (0.11, 31.03)
Number of hospitalizations for this injury		
Missing	31 (21, 47)	11.33 (6.8, 48)
EQ-5D health state at discharge	-15 (-84, 75.14)	0.77 (0.06, 9.82)
Missing	38 (24, 53)	4.8 (3.23, 23)
EQ-5D health state at 30 day follow-up	0 (-60, 50)	1 (0.37, 2)
Missing	53 (40, 73)	7.62 (5.5, 53)
Cost of treatment	-2500 (-33500, 250)	0.5 (0, 1.5)
Missing	69 (-68, 98)	4.29 (0.25, 9.3)

Empty cells indicate that there were no observations to calculate the statistic.

Additional Online Table 7. Absolute and relative differences in outcomes after training, comparing standard care with PTC (95% CI)

Outcome	Absolute difference	Relative difference
30 day mortality		
Yes	11.1 (-5.3, 22.33)	3.27 (0.61, 18.82)
No	-11 (-22.46, 4)	0.88 (0.78, 1.05)
Missing	14 (-24.07, 32)	2.17 (0, 12)
24 hour mortality		
Yes		
No		
Missing	-1 (-16, 4)	0.88 (0, 3.33)
In-hospital mortality		
Yes	7.9 (-3.66, 16)	2.93 (0.74, 17.86)
No	-8 (-24, 2)	0.92 (0.8, 1.03)
Missing	2 (-1, 6)	
Self-ambulatory at discharge		
Yes	2 (-1, 12)	1.02 (1, 1.14)
No	-1.4 (-12, 0.7)	
Missing	21 (-1, 45)	8 (1.25, 46)
Return to work		
Yes	-17 (-41, -4)	0.76 (0.42, 0.98)
No	17 (1, 41)	1.57 (1.05, 6.48)
Missing	40 (-36, 64)	3.5 (0.18, 12.99)
Pulmonary complication		
Yes		
No		
Missing	23 (-22, 40)	3.3 (0.12, 14.65)
Septic complication		
Yes	-2.4 (-8.7, 0)	
No	2 (0, 9)	1.02 (1, 1.1)
Missing	23 (-20, 41)	3.3 (0.13, 15)
Renal failure		
Yes		
No		
Missing	22 (-20, 39.08)	3.2 (0.13, 14.5)
Coagulopathy		
Yes	0 (-17.31, 4.2)	
No	0 (-17, 0)	1 (0.83, 1)
Missing	22 (-20, 39.08)	3.2 (0.13, 14.5)

Outcome	Absolute difference	Relative difference
Need for reexploration or resurgery		
Yes	0.9 (-5.32, 4.2)	
No	-1 (-5, 4)	0.99 (0.95, 1.04)
Missing	32 (-21.3, 51.96)	4.2 (0.17, 17.75)
Failure of conservative management		
No	0 (-22, 8)	1 (0.77, 1.09)
Yes	0.1 (-8.4, 22)	1.06 (0.26, 17)
Missing	32 (-35.17, 54)	3.67 (0, 20.5)
EQ-5D mobility at discharge		
I have no problems in walking	-30 (-50, -1.99)	0.67 (0.5, 1)
I have some problems in walking	14 (0.84, 33)	3.8 (2.06, 16.11)
I am confined to bed	15.7 (-15.7, 28)	
Missing	30 (-10, 51)	3.31 (0.35, 13.38)
EQ-5D self-care at discharge		
I have no problems with self-care	-35 (-52, -23)	0.59 (0.44, 0.73)
I have some problems bathing or dressing myself	22.7 (0, 41)	3.73 (1.21, 20.62)
I am unable to bathe or dress myself	12.3 (-5.5, 44.8)	2.84 (0.88, 20)
Missing	30 (-10, 51)	3.31 (0.35, 13.38)
EQ-5D usual activities at discharge		
I have no problems in performing my usual activities	-38 (-61, -23)	0.55 (0.35, 0.69)
I have some problems in performing my usual activities	29.7 (17, 46.5)	4.58 (2.2, 26.47)
I am unable to perform my usual activities	8.3 (-6, 33)	2.24 (0.76, 18.12)
Missing	30 (-10, 51)	3.31 (0.35, 13.38)
EQ-5D pain/discomfort at discharge		
I have no pain or discomfort	-40 (-62, -22)	0.38 (0.21, 0.57)
I have moderate pain or discomfort	5 (-16, 45)	1.17 (0.69, 4.46)
I have extreme pain or discomfort	35 (-36.75, 49)	
Missing	30 (-10, 51)	3.31 (0.35, 13.38)
EQ-5D anxiety/depression at discharge		
I am not anxious or depressed	-3 (-40, 10)	0.97 (0.59, 1.13)
I am moderately anxious or depressed	1.8 (-11.4, 39.6)	1.36 (0.43, 19.33)
I am extremely anxious or depressed	1.7 (0, 6.4)	
Missing	30 (-10, 51)	3.31 (0.35, 13.38)
EQ-5D mobility at 30 day follow-up		
I have no problems in walking	-21 (-50, -14)	0.79 (0.5, 0.86)
I have some problems in walking	17 (5, 50)	
I am confined to bed	4.2 (-3.7, 12)	
Missing	44 (-43.29, 69)	3.93 (0.16, 15.75)
EQ-5D self-care at 30 day follow-up		

Outcome	Absolute difference	Relative difference
I have no problems with self-care	-18 (-39, -10)	0.81 (0.61, 0.9)
I have some problems bathing or dressing myself	15 (7.4, 33)	
I am unable to bathe or dress myself	2.5 (-7, 25.9)	1.74 (0.58, 11.76)
Missing	44 (-43.29, 69)	3.93 (0.16, 15.75)
EQ-5D usual activities at 30 day follow-up		
I have no problems in performing my usual activities	-14 (-46, 1)	0.85 (0.52, 1.03)
I have some problems in performing my usual activities	10.3 (-1, 41.2)	7.06 (4.78, 23.89)
I am unable to perform my usual activities	3.5 (-5.6, 24.9)	2.03 (0.84, 11.76)
Missing	44 (-43.29, 69)	3.93 (0.16, 15.75)
EQ-5D pain/discomfort at 30 day follow-up		
I have no pain or discomfort	-7 (-28, 6)	0.92 (0.72, 1.09)
I have moderate pain or discomfort	5 (-10, 26.65)	1.36 (0.61, 14.5)
I have extreme pain or discomfort	2 (0, 8.8)	
Missing	44 (-43.29, 69)	3.93 (0.16, 15.75)
EQ-5D anxiety/depression at 30 day follow-up		
I am not anxious or depressed	-2 (-42, 7)	0.98 (0.57, 1.09)
I am moderately anxious or depressed	0.5 (-11, 42.2)	1.15 (0.31, 27.27)
I am extremely anxious or depressed	1 (0, 5.1)	
Missing	44 (-43.29, 69)	3.93 (0.16, 15.75)
Patient satisfaction		
Very satisfied	-24 (-39, -17)	0.74 (0.6, 0.84)
Somewhat satisfied	8.3 (-1.09, 35.6)	2.46 (1.09, 19.33)
Somewhat dissatisfied	9.4 (4, 17)	
Very dissatisfied	5.8 (0, 13)	
Missing	20 (-1, 44)	7.67 (1.25, 45)
Number of hospitalizations for this injury		
Missing	23 (-27, 42.97)	3.09 (0, 15.5)
EQ-5D health state at discharge	-40 (-89, -25)	0.56 (0.06, 0.83)
Missing	29 (-32, 53)	2.53 (0.18, 8.62)
EQ-5D health state at 30 day follow-up	-17 (-91, 5)	0.83 (0.09, 1.1)
Missing	44 (-47, 69.25)	3.59 (0.14, 14.75)
Cost of treatment	1000 (-5000, 27188.83)	1.67 (0.4, 26.67)
Missing	69 (-5, 98.46)	4.29 (0.78, 10.67)

Empty cells indicate that there were no observations to calculate the statistic.

Additional Online Table 8. Absolute and relative differences in outcomes after training, comparing ATLS with PTC (95% CI)

Outcome	Absolute difference	Relative difference
30 day mortality		
Yes	-1.1 (-22, 11.22)	0.78 (0, 4.44)
No	1 (-12, 22)	1.01 (0.88, 1.28)
Missing	-10 (-37, 9)	0.17 (0, 3.17)
24 hour mortality		
Yes		
No		
Missing	-6 (-15, -4)	0.25 (0, 0.88)
In-hospital mortality		
Yes	-0.4 (-17, 9.31)	0.9 (0, 3.94)
No	0 (-11, 15)	1 (0.89, 1.19)
Missing	1 (-2, 6)	
Self-ambulatory at discharge		
Yes	3 (0, 14)	1.03 (1, 1.16)
No	-2.9 (-14, -1.4)	
Missing	1 (-28, 25)	1.33 (0, 13)
Return to work		
Yes	-12 (-40, 7)	0.83 (0.42, 1.16)
No	12 (-9, 40)	1.4 (0.86, 4.93)
Missing	-7 (-59, 9)	0.56 (0.05, 2.11)
Pulmonary complication		
Yes		
No		
Missing	-5 (-42, 5)	0.5 (0, 2.2)
Septic complication		
Yes	-3.2 (-8.2, -0.8)	
No	3 (0, 8)	1.03 (1, 1.09)
Missing	-5 (-41, 5)	0.5 (0, 2.2)
Renal failure		
Yes		
No		
Missing	-5 (-39, 5)	0.5 (0, 2.2)
Coagulopathy		
Yes	4.3 (0, 16)	
No	-4 (-16, 0)	0.96 (0.84, 1)
Missing	-5 (-39, 5)	0.5 (0, 2.2)

Outcome	Absolute difference	Relative difference
Need for reexploration or resurgery		
Yes	-1.6 (-7.7, 0)	
No	2 (0, 8)	1.02 (1, 1.09)
Missing	-4 (-46, 5)	0.6 (0, 2.4)
Failure of conservative management		
No	-6 (-26, -1)	0.94 (0.73, 0.99)
Yes	6.4 (0.9, 26.4)	5 (2.6, 27.14)
Missing	-9 (-52, 9)	0.25 (0, 3)
EQ-5D mobility at discharge		
I have no problems in walking	-3 (-37.88, 35.16)	0.97 (0.61, 1.59)
I have some problems in walking	6 (-14, 25.04)	2.2 (0.45, 14.67)
I am confined to bed	-3.3 (-26, 3.6)	
Missing	-3 (-51, 9)	0.77 (0.11, 2.25)
EQ-5D self-care at discharge		
I have no problems with self-care	-18 (-57, 21)	0.79 (0.41, 1.49)
I have some problems bathing or dressing myself	2.7 (-30, 29.35)	1.33 (0, 8)
I am unable to bathe or dress myself	15.3 (4, 42.8)	3.28 (1.16, 20)
Missing	-3 (-51, 9)	0.77 (0.11, 2.25)
EQ-5D usual activities at discharge		
I have no problems in performing my usual activities	-24 (-63, 10.64)	0.72 (0.28, 1.39)
I have some problems in performing my usual activities	13.7 (-21.15, 56)	2.65 (0.74, 23.16)
I am unable to perform my usual activities	10.3 (-1, 50.3)	2.54 (1.09, 18.33)
Missing	-3 (-51, 9)	0.77 (0.11, 2.25)
EQ-5D pain/discomfort at discharge		
I have no pain or discomfort	-15 (-53, 33.45)	0.77 (0.3, 2.35)
I have moderate pain or discomfort	20 (3, 49)	1.67 (1.12, 4.46)
I have extreme pain or discomfort	-5 (-49, 5.8)	
Missing	-3 (-51, 9)	0.77 (0.11, 2.25)
EQ-5D anxiety/depression at discharge		
I am not anxious or depressed	-12 (-43, -4)	0.87 (0.55, 0.96)
I am moderately anxious or depressed	12 (1.7, 42.8)	3.4 (1.17, 22.31)
I am extremely anxious or depressed	0 (-6.8, 0)	
Missing	-3 (-51, 9)	0.77 (0.11, 2.25)
EQ-5D mobility at 30 day follow-up		
I have no problems in walking	-18 (-55, -4)	0.82 (0.45, 0.98)
I have some problems in walking	20 (11.9, 55)	
I am confined to bed	-1.7 (-12, 1.7)	
Missing	-7 (-65, 8)	0.53 (0.05, 2.14)
EQ-5D self-care at 30 day follow-up		

Outcome	Absolute difference	Relative difference
I have no problems with self-care	-17 (-38, -8)	0.82 (0.61, 0.94)
I have some problems bathing or dressing myself	10 (-6, 30)	
I am unable to bathe or dress myself	6.6 (2.4, 24.3)	2.94 (1.65, 13.89)
Missing	-7 (-65, 8)	0.53 (0.05, 2.14)
EQ-5D usual activities at 30 day follow-up		
I have no problems in performing my usual activities	-20 (-46, -12)	0.79 (0.53, 0.88)
I have some problems in performing my usual activities	13.3 (5, 38)	8.82 (9.31, 21.11)
I am unable to perform my usual activities	6.6 (1.8, 24)	2.94 (1.7, 13.89)
Missing	-7 (-65, 8)	0.53 (0.05, 2.14)
EQ-5D pain/discomfort at 30 day follow-up		
I have no pain or discomfort	-6 (-29, 7)	0.93 (0.69, 1.11)
I have moderate pain or discomfort	6 (-8, 28)	1.43 (0.67, 12)
I have extreme pain or discomfort	0 (-6.6, 0)	
Missing	-7 (-65, 8)	0.53 (0.05, 2.14)
EQ-5D anxiety/depression at 30 day follow-up		
I am not anxious or depressed	-12 (-34, -3)	0.88 (0.65, 0.98)
I am moderately anxious or depressed	11.6 (-0.06, 34.4)	4.41 (0.87, 23.75)
I am extremely anxious or depressed	0 (-4.8, 0)	
Missing	-7 (-65, 8)	0.53 (0.05, 2.14)
Patient satisfaction		
Very satisfied	-15 (-35, 8)	0.84 (0.65, 1.16)
Somewhat satisfied	7.3 (-2.4, 26.7)	2.28 (0.93, 12.14)
Somewhat dissatisfied	4.2 (-7.79, 15.31)	
Very dissatisfied	4.2 (-3, 17)	
Missing	1 (-27.21, 24)	1.33 (0, 13)
Number of hospitalizations for this injury		
Missing	-8 (-44, 8)	0.27 (0, 2.75)
EQ-5D health state at discharge	-25 (-85, 15)	0.72 (0.06, 1.39)
Missing	-9 (-55, 10)	0.53 (0.08, 1.92)
EQ-5D health state at 30 day follow-up	-17 (-91, 0)	0.83 (0.09, 1)
Missing	-9 (-67, 9)	0.47 (0.04, 2.25)
Cost of treatment	3500 (0, 33000)	3.33 (1, 55.56)
Missing	0 (-95.49, 70)	1 (0.11, 4.45)

Empty cells indicate that there were no observations to calculate the statistic.

Additional Online Table 9. Absolute and relative differences in changes from baseline for all outcomes, comparing standard care with ATLS (95% CI)

Outcome	Absolute difference	Relative difference
30 day mortality		
Yes	9.6 (-25.64, 31.44)	
No	-9 (-31, 26)	
Missing	23 (-9.51, 43)	
24 hour mortality		
Yes	-2.4 (-9.8, 0)	
No	2 (-3, 10)	
Missing	7 (-1, 18)	
In-hospital mortality		
Yes	3.4 (-16.6, 21.53)	
No	-3 (-22, 16)	
Missing	1 (-3.52, 5)	2 (0.5, 5)
Self-ambulatory at discharge		
Yes	-4 (-38, 4)	
No	4.7 (-3.7, 38)	
Missing	22 (-31, 39.93)	
Return to work		
Yes	37 (18, 86)	
No	-37 (-86, -19)	
Missing	45 (-39, 71)	
Pulmonary complication		
Yes	0 (-12, 0)	
No	0 (-10, 2)	
Missing	32 (-33, 51.17)	
Septic complication		
Yes	-1.7 (-12.85, 5.17)	
No	1 (-8, 10)	
Missing	33 (-36, 53.18)	
Renal failure		
Yes		
No		
Missing	31 (-34, 50.16)	
Coagulopathy		
Yes	-4.3 (-16, 0)	

Outcome	Absolute difference	Relative difference
No	4 (0, 16)	
Missing	32 (-34, 51.29)	
Need for reexploration or resurgery		
Yes	2.5 (-3.8, 10.29)	
No	-3 (-11, 1)	
Missing	39 (-43, 63.27)	20.5 (7.8, 58)
Failure of conservative management		
No	6 (0, 26)	
Yes	-6.3 (-26, -1.5)	
Missing	49 (33, 66)	
EQ-5D mobility at discharge		
I have no problems in walking	-22 (-78, -6)	
I have some problems in walking	-1.7 (-26.99, 20.5)	
I am confined to bed	23 (7.18, 63)	
Missing	35 (-51.8, 60.45)	
EQ-5D self-care at discharge		
I have no problems with self-care	-18 (-56, 6)	
I have some problems bathing or dressing myself	22 (-5, 59)	
I am unable to bathe or dress myself	-4 (-42.7, 17.31)	
Missing	35 (-51.8, 60.45)	
EQ-5D usual activities at discharge		
I have no problems in performing my usual activities	-18 (-64, 15)	
I have some problems in performing my usual activities	13 (-21.42, 46.56)	
I am unable to perform my usual activities	5 (-12.9, 45)	
Missing	35 (-51.8, 60.45)	
EQ-5D pain/discomfort at discharge		
I have no pain or discomfort	-25 (-66.11, 51)	
I have moderate pain or discomfort	11 (-43, 52.7)	
I have extreme pain or discomfort	14 (-8, 37.6)	
Missing	35 (-51.8, 60.45)	
EQ-5D anxiety/depression at discharge		
I am not anxious or depressed	-20 (-73, -4)	0.39 (-30, 1.56)
I am moderately anxious or depressed	21.8 (6, 68)	0.34 (-264, 1.29)
I am extremely anxious or depressed	-0.9 (-9.42, 5.6)	
Missing	35 (-51.8, 60.45)	
EQ-5D mobility at 30 day follow-up		
I have no problems in walking	-1 (-42, 28)	

Outcome	Absolute difference	Relative difference
I have some problems in walking	1 (-33, 27)	
I am confined to bed	-0.1 (-29.57, 36.4)	
Missing	51 (-40, 74)	
EQ-5D self-care at 30 day follow-up		
I have no problems with self-care	11 (-6, 59)	
I have some problems bathing or dressing myself	15.5 (-8.77, 58.1)	
I am unable to bathe or dress myself	-27.1 (-60.9, -19.65)	
Missing	51 (-40, 74)	
EQ-5D usual activities at 30 day follow-up		
I have no problems in performing my usual activities	35 (14, 76)	
I have some problems in performing my usual activities	-22 (-64, -9.9)	
I am unable to perform my usual activities	-12.8 (-38.4, -6.2)	
Missing	51 (-40, 74)	
EQ-5D pain/discomfort at 30 day follow-up		
I have no pain or discomfort	-8 (-74.56, 15)	
I have moderate pain or discomfort	6 (-18, 58.86)	
I have extreme pain or discomfort	2 (-6.57, 11.06)	
Missing	51 (-40, 74)	
EQ-5D anxiety/depression at 30 day follow-up		
I am not anxious or depressed	13 (-14, 45)	
I am moderately anxious or depressed	-14.3 (-39.4, 1.3)	
I am extremely anxious or depressed	1 (-5.8, 9.6)	
Missing	51 (-40, 74)	
Patient satisfaction		
Very satisfied	-12 (-45.57, 27)	
Somewhat satisfied	14 (3.16, 53.3)	0.39 (-27.05, 2.55)
Somewhat dissatisfied	-2.5 (-17.13, 10.9)	
Very dissatisfied	-1 (-21.48, 17.3)	
Missing	19 (-29, 36)	
Number of hospitalizations for this injury	0 (-1, -1)	
Missing	39 (29, 57)	
EQ-5D health state at discharge	-5 (-68.92, 60)	
Missing	33 (-38, 62.24)	
EQ-5D health state at 30 day follow-up	90 (86, 116)	
Missing	49 (-35, 77)	
Cost of treatment	-9500 (-74630.2, 10549.64)	
Missing	60 (-66, 95)	9.57 (0.05, 94)

Empty cells indicate that there were no observations to calculate the statistic.

Additional Online Table 10. Absolute and relative differences in changes from baseline for all outcomes, comparing standard care with PTC (95% CI)

Outcome	Absolute difference	Relative difference
30 day mortality		
Yes	18.5 (14.1, 44.3)	
No	-18 (-44, -14)	
Missing	19 (-14.83, 37)	
24 hour mortality		
Yes	-2.4 (-9.8, 0)	
No	2 (0, 10)	
Missing	4 (-10, 12)	
In-hospital mortality		
Yes	10 (3.8, 25.8)	
No	-10 (-26, -5)	
Missing	2 (-1, 6)	
Self-ambulatory at discharge		
Yes	3 (-10, 40.7)	
No	-2.4 (-40.06, 10.2)	
Missing	27 (15.73, 49)	
Return to work		
Yes	16 (-61, 54)	
No	-16 (-56, 57.88)	
Missing	43 (-6, 69.51)	
Pulmonary complication		
Yes	2.2 (0, 10)	
No	-2 (-10, 0)	
Missing	32 (-3, 52)	
Septic complication		
Yes	-0.5 (-7.44, 7.44)	
No	0 (-9, 5)	
Missing	34 (-2, 55)	
Renal failure		
Yes		
No		
Missing	32 (-2, 51)	
Coagulopathy		
Yes	0 (-17.31, 4.2)	

Outcome	Absolute difference	Relative difference
No	0 (-17, 0)	
Missing	33 (-2, 52)	
Need for reexploration or resurgery		
Yes	3 (-0.1, 10.7)	
No	-3 (-11, -1)	
Missing	41 (-1, 64)	
Failure of conservative management		
No	-2 (-27, 4)	
Yes	2.3 (-4.1, 27.3)	
Missing	41 (-42, 64)	
EQ-5D mobility at discharge		
I have no problems in walking	-9 (-45, 37.2)	
I have some problems in walking	8 (-10.76, 43.6)	
I am confined to bed	-0.4 (-71.7, 22)	
Missing	44 (33, 74)	
EQ-5D self-care at discharge		
I have no problems with self-care	-14 (-67.77, 24)	
I have some problems bathing or dressing myself	19.7 (-9.7, 62.13)	
I am unable to bathe or dress myself	-6.4 (-47, 21)	
Missing	44 (33, 74)	
EQ-5D usual activities at discharge		
I have no problems in performing my usual activities	-16 (-72.97, 22)	
I have some problems in performing my usual activities	16.7 (-15, 65.46)	
I am unable to perform my usual activities	0.1 (-34, 32.74)	
Missing	44 (33, 74)	
EQ-5D pain/discomfort at discharge		
I have no pain or discomfort	-39 (-78.7, -13)	
I have moderate pain or discomfort	27 (0, 61)	
I have extreme pain or discomfort	11.4 (-3.77, 36.29)	
Missing	44 (33, 74)	
EQ-5D anxiety/depression at discharge		
I am not anxious or depressed	-9 (-45.55, 37.45)	0.59 (0, 9.18)
I am moderately anxious or depressed	7.8 (-42.26, 43.34)	0.59 (0.03, 12.41)
I am extremely anxious or depressed	1.5 (-2, 13.5)	
Missing	44 (33, 74)	
EQ-5D mobility at 30 day follow-up		
I have no problems in walking	5 (-35, 49)	

Outcome	Absolute difference	Relative difference
I have some problems in walking	11 (-16, 83)	
I am confined to bed	-16.5 (-82.9, 0)	
Missing	48 (-7, 76.59)	
EQ-5D self-care at 30 day follow-up		
I have no problems with self-care	2 (-65.02, 32)	
I have some problems bathing or dressing myself	13.2 (-14.34, 87.99)	
I am unable to bathe or dress myself	-15.8 (-44.79, 21.8)	
Missing	48 (-7, 76.59)	
EQ-5D usual activities at 30 day follow-up		
I have no problems in performing my usual activities	6 (-70, 32)	
I have some problems in performing my usual activities	-4 (-21.6, 47.5)	
I am unable to perform my usual activities	-1.5 (-17, 36.26)	
Missing	48 (-7, 76.59)	
EQ-5D pain/discomfort at 30 day follow-up		
I have no pain or discomfort	-4 (-61.12, 34.64)	
I have moderate pain or discomfort	0 (-48, 45)	
I have extreme pain or discomfort	4.3 (2.1, 12.9)	
Missing	48 (-7, 76.59)	
EQ-5D anxiety/depression at 30 day follow-up		
I am not anxious or depressed	-13 (-60, 8)	
I am moderately anxious or depressed	9.3 (-11.4, 60.2)	
I am extremely anxious or depressed	3.3 (2, 12.9)	
Missing	48 (-7, 76.59)	
Patient satisfaction		
Very satisfied	-18 (-66, 6)	
Somewhat satisfied	1.3 (-41.15, 30.03)	
Somewhat dissatisfied	5.6 (-3.77, 19.4)	
Very dissatisfied	11 (4.3, 25)	
Missing	24 (15, 48)	
Number of hospitalizations for this injury	0 (-1, -1)	
Missing	29 (-33.53, 52)	
EQ-5D health state at discharge	-10 (-90, 39)	
Missing	35 (-3, 59)	
EQ-5D health state at 30 day follow-up	73 (15, 114)	
Missing	45 (-8, 73.22)	
Cost of treatment	-10975 (-81672.96, 7582.31)	

Outcome	Absolute difference	Relative difference
Missing	64 (-2, 103)	

Empty cells indicate that there were no observations to calculate the statistic.

Additional Online Table 11. Absolute and relative differences in changes from baseline for all outcomes, comparing ATLS with PTC (95% CI)

Outcome	Absolute difference	Relative difference
30 day mortality		
Yes	8.9 (-12.57, 32.12)	
No	-9 (-32.63, 12)	
Missing	-4 (-37, 7)	
24 hour mortality		
Yes	0 (-12, 0)	
No	0 (-11, 0)	
Missing	-3 (-15, 3)	
In-hospital mortality		
Yes	6.6 (-4.2, 24.9)	
No	-7 (-25, 2)	
Missing	1 (-2, 6)	
Self-ambulatory at discharge		
Yes	7 (0, 41)	
No	-7.1 (-41.1, -0.7)	
Missing	5 (-25, 33)	
Return to work		
Yes	-21 (-89, 10)	
No	21 (-12, 89)	
Missing	-2 (-66, 41)	
Pulmonary complication		
Yes	2.2 (0, 10)	
No	-2 (-10, 0)	
Missing	0 (-47, 36)	
Septic complication		
Yes	1.2 (-3.75, 13.86)	
No	-1 (-14, 3)	
Missing	1 (-44.28, 39)	
Renal failure		
Yes		
No		
Missing	1 (-41.9, 37)	
Coagulopathy		
Yes	4.3 (0, 16)	

Outcome	Absolute difference	Relative difference
No	-4 (-16, 0)	
Missing	1 (-42.61, 38)	
Need for reexploration or resurgery		
Yes	0.5 (-6.1, 5.2)	
No	0 (-5, 6)	
Missing	2 (-46, 49)	
Failure of conservative management		
No	-8 (-28, -2)	
Yes	8.6 (2.1, 28.5)	
Missing	-8 (-67, 9)	
EQ-5D mobility at discharge		
I have no problems in walking	13 (-12, 72)	
I have some problems in walking	9.7 (-7.7, 45)	
I am confined to bed	-23.4 (-57.5, -1.76)	
Missing	9 (-39, 51)	
EQ-5D self-care at discharge		
I have no problems with self-care	4 (-32.19, 58.2)	
I have some problems bathing or dressing myself	-2.3 (-50.44, 25.2)	
I am unable to bathe or dress myself	-2.4 (-38, 33)	
Missing	9 (-39, 51)	
EQ-5D usual activities at discharge		
I have no problems in performing my usual activities	2 (-36, 56.83)	
I have some problems in performing my usual activities	3.7 (-34.93, 48)	
I am unable to perform my usual activities	-4.9 (-51.52, 21)	
Missing	9 (-39, 51)	
EQ-5D pain/discomfort at discharge		
I have no pain or discomfort	-14 (-65.85, 40)	
I have moderate pain or discomfort	16 (-23, 70)	
I have extreme pain or discomfort	-2.6 (-30, 6.85)	
Missing	9 (-39, 51)	
EQ-5D anxiety/depression at discharge		
I am not anxious or depressed	11 (-15, 70)	1.5 (0.5, 35)
I am moderately anxious or depressed	-14 (-67.3, 8.2)	1.74 (0.56, 28.5)
I am extremely anxious or depressed	2.4 (0, 11.4)	
Missing	9 (-39, 51)	
EQ-5D mobility at 30 day follow-up		
I have no problems in walking	6 (-34, 57)	1.86 (0.3, 44)

Outcome	Absolute difference	Relative difference
I have some problems in walking	10 (-16, 87.6)	
I am confined to bed	-16.4 (-101.8, 2.94)	
Missing	-3 (-72, 40)	
EQ-5D self-care at 30 day follow-up		
I have no problems with self-care	-9 (-93, 16)	
I have some problems bathing or dressing myself	-2.3 (-39.42, 30.96)	
I am unable to bathe or dress myself	11.3 (-7.7, 62.3)	
Missing	-3 (-72, 40)	
EQ-5D usual activities at 30 day follow-up		
I have no problems in performing my usual activities	-29 (-66, 7)	
I have some problems in performing my usual activities	18 (-1.3, 44.9)	
I am unable to perform my usual activities	11.3 (1.1, 34.5)	
Missing	-3 (-72, 40)	
EQ-5D pain/discomfort at 30 day follow-up		
I have no pain or discomfort	4 (-39.62, 56.63)	
I have moderate pain or discomfort	-6 (-62.71, 31)	
I have extreme pain or discomfort	2.3 (0, 12)	
Missing	-3 (-72, 40)	
EQ-5D anxiety/depression at 30 day follow-up		
I am not anxious or depressed	-26 (-49, -17.47)	
I am moderately anxious or depressed	23.6 (12.2, 46)	
I am extremely anxious or depressed	2.3 (0, 11)	
Missing	-3 (-72, 40)	
Patient satisfaction		
Very satisfied	-6 (-47.26, 25)	
Somewhat satisfied	-12.7 (-57.2, 2.75)	
Somewhat dissatisfied	8.1 (0.9, 30)	
Very dissatisfied	12 (4.2, 26)	
Missing	5 (-22, 30)	
Number of hospitalizations for this injury	0 (-1, -0.5)	
Missing	-10 (-55, 11)	
EQ-5D health state at discharge	-5 (-78.91, 41.66)	
Missing	2 (-44.02, 42)	
EQ-5D health state at 30 day follow-up	-17 (-109, 20)	
Missing	-4 (-71, 18)	
Cost of treatment	-1475 (-33639.83, 29927.2)	

Outcome	Absolute difference	Relative difference
Missing	4 (-75, 76)	

Empty cells indicate that there were no observations to calculate the statistic.