

Participant Characteristics

	Surgical treatment n= 130	Non-surgical treatment n=83	P value
Sex, n (%)			0.160
Male	89 (68.46)	49 (59.04)	
Female	41 (31.54)	34 (40.96)	
Age, mean years (\pmSD)	40.93 (13.83)	42.77 (13.99)	0.347
Body mass index (kg/m², \pmSD)	25.23 (3.95)	25.79 (4.12)	0.324
Charlston Comorbidity Index, n (%)			0.646
0	121 (93.08)	76 (91.57)	
1	8 (6.15)	4 (4.82)	
2	1 (0.77)	1 (1.20)	
3	0 (0)	1 (1.20)	
4	0 (0)	1 (1.20)	
Race, n (%)			0.038
Caucasian	100 (76.92)	73 (87.95)	
Black	0 (0)	0 (0)	
Asian	26 (20.00)	7 (8.43)	
Mixed	2 (1.54)	0 (0)	
Other	2 (1.54)	3 (3.61)	
Work status, n (%)			0.055
Employed	74 (56.92)	55 (66.27)	
Self-employed	24 (18.46)	5 (6.02)	
Student	7 (5.38)	7 (8.43)	
Unemployed	8 (6.15)	7 (8.43)	
Homemaker	10 (7.69)	2 (2.41)	
Retired	7 (5.38)	7 (8.43)	

	Surgical treatment n= 130	Non-surgical treatment n=83	P value
Current smoking status, n (%)			0.317
Yes	24 (18.46)	11 (13.25)	
No	106 (81.54)	72 (86.75)	
Nationality, n (%)			<0.001
American	6 (4.62)	19 (22.89)	
Australian	2 (1.54)	14 (16.87)	
Canadian	6 (4.62)	15 (18.07)	
Dutch	12 (9.23)	13 (16.87)	
Egyptian	25 (19.23)	2 (2.41)	
Swiss	18 (11.54)	1 (1.20)	
Indian	24 (18.46)	2 (2.41)	
Romanian	33 (25.38)	11 (13.25)	
Spanish	3 (2.31)	1 (1.20)	
Greek	1 (0.77)	5 (6.02)	
Pre-injury residential status, n (%)			-
Home	130 (100%)	83 (100%)	
Fracture Type, n (%)			<.001
A3	62 (47.69)	60 (72.29)	
A4	65 (50.00)	21 (25.30)	
Inability to return to work, n (%)	13 (13.54)	9 (17.31)	0.84
Revision surgery, n (%)	6 (4.62)	N/A	-
Required surgery after non operative management, n (%)	N/A	3 (3.61)	-

One-year time horizon resource utilization and costs in units per patient by treatment group

A) Resource utilization

Resource	Surgical treatment n=130	Nonsurgical treatment n=83
Health practitioners (no. visits)		
Emergency room	0.09	0.06
Surgeon / general practitioner	0.21	0.20
Physical therapy / occupational therapy / chiropractitioner	1.34	2.37
Medications taken (no. prescriptions filled)		
NSAIDS	1.95	2.17
Opioids	0.63	1.27
Other analgesics	0.98	0.80
Antibiotics	0.06	0.07
Other		
Custom-molded or prefabricated total body contact thoraco-lumbosacral orthosis (TLSO)	0	0.43
Other brace/immobilization	0	0.57
Caregiver care (days taken off work)	2.19	14.53
Average workdays lost per patient	95.82	115.52

B) Costs (USD)

Resource	Surgical treatment n=130	Nonsurgical treatment n=83
Screening and imaging procedures*	\$413.36	\$410.73
Index surgical procedure (if applicable)	\$10,632.60	N/A
Hospital Admission and Health Care Practitioners		
Hospital stay	\$3,388.04	\$2,214.15
Emergency room	\$30.16	\$18.96
Surgeon / general practitioner	\$136.70	\$153.35
Physical therapy / occupational therapy / chiropractitioner	\$54.37	\$134.05
Medications		
NSAIDs	\$45.57	\$62.56
Opioids	\$58.34	\$131.47
Antibiotics	\$6.70	\$6.01
Other Analgesics	\$65.00	\$66.00
Other		
Bracing	\$0	\$1,680.01
Caregiver care	\$579.77	\$2950.42
Lost Productivity	\$16,937.16	\$20,858.75
Direct costs	\$15,509.25	\$5,384.05
Indirect costs	\$17,516.93	\$23,809.17
Total costs (direct and indirect)	\$33,026.18	\$29,193.22

*Estimates from the literature – not captured in study

Two-year time horizon resource utilization and costs in units per patient by treatment group

A) Resource utilization

Resource	Surgical treatment n=130	Nonsurgical treatment n=83
Health ractitioners (no. visits)		
Emergency room	0.09	0.06
Surgeon / general practitioner	0.25	0.31
Physical therapy / occupational therapy / chiropractitioner	1.68	3.68
Other Specialist	0.53	0.64
Medications taken (no. prescriptions filled)		
NSAIDS	2.39	2.66
Opioids	0.75	1.52
Other analgesics	1.08	1.01
Antibiotics	1.30	0.07
Other		
Caregiver care (days taken off work)	2.39	29.86
Average workdays lost per patient	114.78	143.12

B) Costs

Resource	Surgical treatment n=130	Nonsurgical treatment n=83
Screening and imaging procedures*	\$413.36	\$410.73
Index surgical procedure (if applicable)	\$10,632.60	N/A
Hospital Admission and Health Care Practitioners		
Hospital stay	\$3,388.04	\$2,214.15
Emergency room	\$30.16	\$18.96
Surgeon / general practitioner	\$141.14	\$167.29
Physical therapy / occupational therapy / Chiropractitioner	\$67.97	\$207.83
Medications		
NSAIDs	\$53.75	\$57.44
Opioids	\$66.77	\$149.83
Antibiotics	\$62.06	\$6.01
Other Analgesics	\$70.00	\$76.5
Other		
Bracing	\$0	\$1,680.01
Caregiver care	\$615.13	\$5718.14
Lost Productivity	\$20,288.53	\$25,842.32
Direct costs	\$15,572.96	\$5,495.73
Indirect costs	\$20,903.66	\$31,560.46
Total costs (direct and indirect)	\$36,476.62	\$37,056.19

*Estimated from the literature – not captured in study