

**The following content was supplied by the authors as supporting material and has not been copy-edited or verified by JBJS.**

**Appendix Table 1: Sensitivity analysis adjusted for baseline covariates and covariates associated with missing data at the 2-year time point.**

Outcome Measure	Non-Op (n=64)		Operative (n=64)		Difference (95% CI)	Effect Size <sup>†</sup>
	n	Value	n	Value		
Intensity of leg pain <sup>‡</sup>						
6 months	54	4.9 (0.6)	51	2.7 (0.6)	2.2 (1.2, 3.3)	0.51
12 months	54	4.9 (0.6)	51	2.4 (0.6)	2.4 (0.8, 3.3)	0.56
24 months	42	3.8 (0.7)	48	2.7 (0.6)	1.1 (0.1, 2.3)	0.26
Oswestry Disability Index <sup>¶</sup>						
6 months	54	34.3 (4.1)	51	23.9 (3.6)	10.4 (3.7, 17.1)	0.37
12 months	47	35.3 (4.1)	51	24.2 (3.6)	11.1 (4.3, 17.9)	0.42
24 months	42	25.6 (4.2)	48	22.2 (3.7)	3.4 (3.6, 10.4)	0.13
SF36 physical component score <sup>§</sup>						
6 months	54	35.5 (2.1)	51	40.8 (1.9)	-5.3 (-9.0, -1.6)	0.37
12 months	47	34.8 (2.2)	51	43.1 (1.9)	-8.3 (-12.0, -4.5)	0.59
24 months	42	38.7 (2.2)	48	43.7 (1.9)	-4.9 (-8.8, -1.1)	0.36
SF36 mental component score <sup>§</sup>						
6 months	54	41.4 (2.7)	51	47.3 (2.4)	-5.9 (-10.5, -1.3)	0.32
12 months	47	41.6 (2.7)	51	46.2 (2.4)	-5.1 (-9.8, -0.4)	0.29
24 months	42	45.8 (2.7)	48	46.3 (2.4)	-0.5 (-5.3, 4.3)	0.03
Intensity of back pain <sup>‡</sup>						
6 months	54	4.4 (0.6)	51	2.7 (0.5)	1.7 (0.8, 2.7)	0.43
12 months	47	4.6 (0.6)	51	3.0 (0.5)	1.6 (-2.6, -0.7)	0.42
24 months	42	3.6 (0.6)	48	2.7 (0.5)	0.9 (-0.1, 1.9)	0.25
Satisfied with treatment (%)						
6 months	52	76 (12)	51	95 (3)	-18 (-53, 17)	0.29

12 months	47	76 (12)	51	93 (4)	-17 (-50, 17)	0.28
24 months	41	88 (7)	48	93 (4)	-5 (-25, 16)	0.14
Employed (%)						
6 months	53	54 (12)	51	77 (9)	-22 (-62, 17)	0.29
12 months	46	52 (12)	51	75 (9)	-22 (-63, 18)	0.31
24 months	42	49 (12)	48	78 (9)	-28 (-70, 14)	0.40

Values are adjusted mean or percentage (SE). Means are derived from mixed-model repeated-measures analysis. The dependent variable was score at each pre-determined time point. Fixed effects included the baseline score, antidepressant usage, gender, neurological weakness, protruding herniation type, no medication at enrolment, treatment, and time. Time was treated as a categorical variable. CI denotes confidence interval.

‡Intensity and frequency of leg and back pain scores range from 0 to 10, with lower scores indicating less severe symptoms.

¶In the Oswestry Disability Index, the range of scores is 1 to 100, with high scores indicating worse disability and pain.

§SF-36 physical component and mental component mean summary scores are based on normative data and have a mean (SD, 50)

†The Cohen *d* is interpreted as very large (>1.3), large (0.80-1.29), medium (0.50-0.79), small (0.2-0.49), and negligible (<0.2).

**Appendix Table 2: Sensitivity Analysis for missing data using multiple imputation.**

Outcome Measure	Non-Op n=64 Value	Operative n=64 Value	Difference (95% CI)	Effect Size <sup>†</sup>
Intensity of leg pain <sup>‡</sup>				
6 months	5.1 (0.4)	3.0 (0.4)	2.2 (1.2, 3.2)	0.69
12 months	4.8 (0.4)	2.7 (0.4)	2.1 (1.1, 3.0)	1.01
24 months	4.3 (0.5)	2.9 (0.4)	1.4 (0.2, 2.6)	0.89
Oswestry Disability Index <sup>¶</sup>				
6 months	34.0 (2.3)	23.6 (2.2)	10.3 (4.1, 16.6)	0.58
12 months	34.5 (2.3)	23.9 (2.3)	10.6 (4.3, 16.9)	0.58
24 months	25.7 (2.5)	22.4 (2.4)	3.4 (3.3, 9.9)	0.17
SF36 physical component score <sup>§</sup>				
6 months	35.4 (1.3)	40.5 (1.4)	-5.1 (-8.9, -1.4)	0.48
12 months	35.1 (1.5)	42.5 (1.5)	-7.4 (-11.5, -3.3)	0.62
24 months	38.4 (1.7)	43.5 (1.4)	-5.2 (-9.6, -0.7)	0.42
SF36 mental component score <sup>§</sup>				
6 months	42.1 (1.6)	47.7 (1.6)	-5.5 (-9.9, -1.1)	0.43
12 months	42.4 (1.7)	47.1 (1.8)	-4.7 (-9.3, -0.1)	0.34
24 months	45.9 (1.9)	47.3 (2.0)	-1.4 (-6.4, 3.5)	0.10
Intensity of back pain <sup>‡</sup>				
6 months	4.9 (0.3)	3.2 (0.3)	1.7 (0.8, 2.6)	0.71
12 months	5.1 (0.4)	3.5 (0.3)	1.6 (0.7, 2.6)	0.57
24 months	4.0 (0.4)	3.1 (0.3)	0.9 (-0.1, 1.8)	0.32

Values are mean (SE). Means are derived from mixed-model repeated-measures analysis of 10 imputations. The dependent variable was score at each pre-determined time point. Fixed effects included the baseline score, treatment, and time. Time was treated as a categorical variable. CI denotes confidence interval.

<sup>‡</sup>Intensity and frequency of leg and back pain scores range from 0 to 10, with lower scores indicating less severe symptoms.

<sup>¶</sup>In the Oswestry Disability Index, the range of scores is 1 to 100, with high scores indicating worse disability and pain.

§ SF-36 physical component and mental component mean summary scores are based on normative data and have a mean (SD, 50)

† The Cohen *d* is interpreted as very large ( $>1.3$ ), large (0.80-1.29), medium (0.50-0.79), small (0.2-0.49), and negligible ( $<0.2$ ).