

Description	ICD-9-CM Code
Diagnosis codes for Cohort Selection	
Spine fracture without spinal cord injury	805.0x; 805.1x
Cervical spinal cord injury, closed	806.0x
Cervical spinal cord injury, open	806.1x
Thoracic spinal cord injury, closed	806.2x
Thoracic spinal cord injury, open	806.3x
Lumbar spinal cord injury, closed	806.4
Lumbar spinal cord injury, open	806.5
Sacral spinal cord injury, closed	806.6x
Sacral spinal cord injury, open	806.7x
Vertebral fracture with spinal cord injury NOS , closed	806.8
Vertebral fracture with spinal cord injury NOS, open	806.9
Cervical spinal cord injury NOS	952.0x
Thoracic spinal cord injury NOS	952.1x
Lumbar spinal cord injury NOS	952.x2
Sacral spinal cord injury NOS	952.x3
Cauda equina injury	952.x4

Multiple sites, spinal cord injury	952.x8
Spinal cord injury, NOS	952.x9
Procedure	
Repair of vertebral fracture	03.53
Spinal fusion	81.00-.08
Refusion of spine	81.30-.39
Number of vertebral levels fused	81.62-.64
Mechanism	
Cut	E9200, E9201, E9202, E9203, E9204, E9205, E9208, E9209, E966, E974, E986
Gunshot Wound	E9220, E9221, E9222, E9223, E9228, E9229, E9287, E9650, E9651, E9652, E9653, E9654, E970, E9794, E9850, E9851, E9852, E9853, E9854
Machine	E9190, E9191, E9192, E9193, E9194, E9195, E9196, E9197, E9198, E9199
Motor Vehicle Accident	E8100, E8101, E8102, E8103, E8104, E8105, E8108, E8109, E8110, E8111, E8112, E8113, E8114, E8115, E8118, E8119, E8120, E8121, E8122, E8123, E8124, E8125, E8128, E8129, E8130, E8131, E8132, E8133, E8134, E8135, E8138, E8139, E8140, E8141, E8142, E8143, E8144, E8145, E8148, E8149, E8150, E8151, E8152, E8153, E8154, E8155, E8158, E8159, E8160, E8161, E8162, E8163, E8164, E8165, E8168, E8169, E8170, E8171, E8172, E8173, E8174, E8175, E8178, E8179, E8180, E8181, E8182, E8183, E8184, E8185, E8188, E8189, E8190, E8191, E8192, E8193, E8194, E8195, E8198, E8199, E9685, E9885
Natural Accident	E9000, E9001, E9009, E9010, E9011, E9018, E9019, E9020, E9021, E9022, E9028, E9029, E903, E9040, E9041, E9042, E9043, E9049, E9050, E9051, E9052, E9053, E9054, E9055, E9056, E9057, E9058, E9059, E9060, E9061, E9062, E9063, E9064, E9065, E9068, E9069,

E907, E908, E9080, E9081, E9082, E9083, E9084, E9088, E9089, E909, E9090, E9091,
E9092, E9093, E9094, E9098, E9099, E9280, E9281, E9282, E9883

Pedestrian

E8003, E8013, E8023, E8033, E8043, E8053, E8063, E8073, E8206, E8216, E8226, E8236,
E8246, E8256, E8261, E8269, E8271, E8281, E8291, E8106, E8116, E8126, E8136, E8146,
E8156, E8166, E8176, E8186, E8196

Cyclist

E8002, E8012, E8022, E8032, E8042, E8052, E8062, E8072, E8207, E8217, E8227, E8237,
E8247, E8257, E8260, E8270, E8280, E8290, E8107, E8117, E8127, E8137, E8147, E8157,
E8167, E8177, E8187, E8197

Struck

E916, E9170, E9171, E9172, E9173, E9174, E9175, E9176, E9177, E9178, E9179, E9274,
E9600, E9682, E973, E975

Non-MVC Transportation Accident

E8000, E8001, E8008, E8009, E8010, E8011, E8018, E8019, E8020, E8021, E8028, E8029,
E8030, E8031, E8038, E8039, E8040, E8041, E8048, E8049, E8050, E8051, E8058, E8059,
E8060, E8061, E8068, E8069, E8070, E8071, E8078, E8079, E8200, E8201, E8202, E8203,
E8204, E8205, E8208, E8209, E8210, E8211, E8212, E8213, E8214, E8215, E8218, E8219,
E8220, E8221, E8222, E8223, E8224, E8225, E8228, E8229, E8230, E8231, E8232, E8233,
E8234, E8235, E8238, E8239, E8240, E8241, E8242, E8243, E8244, E8245, E8248, E8249,
E8250, E8251, E8252, E8253, E8254, E8255, E8258, E8259, E8262, E8263, E8264, E8268,
E8272, E8273, E8274, E8278, E8279, E8282, E8284, E8288, E8289, E8294, E8298, E8299,
E8310, E8311, E8312, E8313, E8314, E8315, E8316, E8318, E8319, E8330, E8331, E8332,
E8333, E8334, E8335, E8336, E8337, E8338, E8339, E8340, E8341, E8342, E8343, E8344,
E8345, E8346, E8347, E8348, E8349, E8350, E8351, E8352, E8353, E8354, E8355, E8356,
E8357, E8358, E8359, E8360, E8361, E8362, E8363, E8364, E8365, E8366, E8367, E8368,
E8369, E8370, E8371, E8372, E8373, E8374, E8375, E8376, E8377, E8378, E8379, E8380,
E8381, E8382, E8383, E8384, E8385, E8386, E8387, E8388, E8389, E8400, E8401, E8402,
E8403, E8404, E8405, E8406, E8407, E8408, E8409, E8410, E8411, E8412, E8413, E8414,
E8415, E8416, E8417, E8418, E8419, E8426, E8427, E8428, E8429, E8430, E8431, E8432,
E8433, E8434, E8435, E8436, E8437, E8438, E8439, E8440, E8441, E8442, E8443, E8444,
E8445, E8446, E8447, E8448, E8449, E8450, E8458, E8459, E9886

Fall

E8800, E8801, E8809, E8810, E8811, E882, E8830, E8831, E8832, E8839, E8840, E8841,
E8842, E8843, E8844, E8845, E8846, E8849, E8850, E8851, E8852, E8853, E8854, E8859,

E8860, E8869, E8880, E8881, E8888, E8889, E9681, E9870, E9871, E9872, E9879

Complications

Decubitus Ulcer 707.0x

Deep venous thrombosis 453.4x

Pneumonia 003.22, 02.03, 02.04, 02.05, 02.12, 02.21, 03.91, 07.30, 07.37, 07.38, 07.39, 08.30, 481, 482.x, 483.x, 484.8, 485, 486, 510.0, 510.9, 513.0, 997.31, 997.32

Sepsis 003.1, 020.2, 022.3, 036.2, 036.42, 038.x, 040.82, 421.x, 422.92, 449, 790.7

Wound Infection 324.1, 682.2, 996.67, 998.5x

Osteomyelitis 730.00, 730.08, 730.20, 730.28, 730.98

Wound Dehiscence 998.3x, 998.83

Urinary Tract Infection 032.84, 590.1x, 590.2, 590.3, 590.8x, 590.9, 595.0, 595.4, 595.89, 599.0

Clostridium difficile colitis 008.45

Respiratory Failure 517.3, 518.5x, 518.81, 518.82, 518.84, 799.1, V461, V4611, V4612

Renal Failure 584.6, 584.7, 585.8, 584.9, 586

Prolonged Ventilation 967.2

Central Line Infection 999.31

Intraoperative Complication 995.4, 996.47, 996.49, 996.67, 996.78, 997.0x, 998.0, 998.1x, 998.2, 998.4

Supplemental Table 1. The ICD-9-CM diagnosis and procedure codes used for this study.

Characteristics	Matched Patients Admitted on a Weekday (N=3099)		Matched Patients admitted on the Weekend (N=3099)		Absolute Standardized difference, %	
	N	%	N	%		
Age	18-25	487	15.71	468	15.10	6.43
	26-30	201	6.49	221	7.13	
	31-35	209	6.74	193	6.23	
	36-40	206	6.65	213	6.87	
	41-45	280	9.04	263	8.49	
	46-50	320	10.33	323	10.42	
	51-55	276	8.91	280	9.04	
	56-60	217	7.00	230	7.42	
	61-65	175	5.65	171	5.52	
	66-70	167	5.39	167	5.39	
	71-75	127	4.10	147	4.74	
	76-80	140	4.52	146	4.71	
	81-85	163	5.26	145	4.68	
	86-90	81	2.61	75	2.42	
>91	50	1.61	57	1.84		
Sex	Female	903	29.25	929	30.07	1.80
TMPM (deciles)	1st	320	10.33	328	10.58	6.87
	2 nd	366	11.81	342	11.04	
	3 rd	265	8.55	293	9.45	
	4 th	373	12.04	349	11.26	
	5 th	246	7.94	268	8.65	
	6 th	282	9.10	286	9.23	
	7 th	317	10.23	324	10.45	
	8 th	299	9.65	321	10.36	
	9 th	346	11.16	307	9.91	
	10 th	285	9.20	281	9.07	
Race	Caucasian	1960	63.25	1928	62.21	4.86
	African-American	429	13.84	422	13.62	
	Hispanic	382	12.33	418	13.49	
	Other	202	6.52	220	7.10	
	Missing	126	4.07	111	3.58	
Payer	Medicare	757	24.43	765	24.69	1.28
	Medicaid	503	16.23	508	16.40	
	Private Insurance	1293	41.72	1273	41.09	

	Other	546	17.62	552	17.82	
Hospital, Annual Number of SCI Admissions	<10 per year	1133	36.56	1117	36.04	2.40
	10-19 per year	765	24.69	764	24.65	
	20-29 per year	441	14.23	428	13.81	
	>30 per year	760	24.52	790	25.49	
	Patient Residence	Large Metro Area (>1 million)	2080	67.12	2057	66.4
	Small Metro Area (<1 million)	811	26.17	837	27.02	
	Micropolitan Area or Other	208	6.71	204	6.58	
Comorbidities						
	Alcohol	574	18.52	549	17.72	2.09
	Anemia, Deficiency	473	15.26	461	14.88	1.08
	Arthritis	67	2.16	75	2.42	1.73
	Anemia, Blood Loss	29	0.94	26	0.84	1.03
	Congestive Heart Failure	137	4.42	134	4.32	0.47
	Chronic Lung Disease	344	11.1	347	11.2	0.31
	Coagulopathy	148	4.78	155	5.00	1.05
	Depression	295	9.52	307	9.91	1.31
	Diabetes	426	13.75	413	13.33	1.23
	Drug use	319	10.29	289	9.33	3.26
	Hypertension	1019	32.88	1028	33.17	0.62
	Hypothyroidism	152	4.90	155	5.00	0.45
	Liver Disease	62	2.00	78	2.52	3.48
	Electrolyte Abnormality	753	24.30	759	24.49	0.45
	Metastatic	22	0.71	19	0.61	1.19

Cancer					
Neurological Disease	240	7.74	242	7.81	0.24
Obesity	144	4.65	157	5.07	1.95
Paralysis	480	15.49	472	15.23	0.72
Peripheral Vascular Disease	79	2.55	85	2.74	1.21
Psychosis	185	5.97	196	6.32	1.48
Pulmonary Circulatory Disease	63	2.03	55	1.77	1.89
Renal Failure	96	3.10	1.68	3.36	1.46
Tumor, no metastases	27	0.87	25	0.81	0.71
Valvular Heart Disease	95	3.07	99	3.19	0.74
Weight Loss	222	7.16	226	7.29	0.50

Supplemental Table 2. Comparison of Propensity Score Matched patients admitted on weekdays and weekends. All characteristics used for match are reported. All matched characteristics had a standardized difference <10%.