Supplemental file

Table 1: Radicular low back pain definition. Patients were required to have at least one of these diagnoses.

ICD-10 code	Description
G54.4	Lumbosacral root disorders, not elsewhere classified
M54.16	Intervertebral disc disorders with radiculopathy, lumbar region
M54.17	Radiculopathy, lumbosacral region
M54.18	Radiculopathy, sacral and sacrococcygeal region
M54.3	Sciatica
M54.4	Lumbago with sciatica
Abbreviations: International Classification of Diseases, 10th Edition (ICD-10)	

Table 2: Additional inclusion/exclusion criteria, based on receipt of chiropractic spinal manipulative therapy

CPT code	Definition	CSMT cohort	Usual medical care cohort
98940	1-2 regions of CSMT	Included	Excluded
98941	3-4 regions of CSMT	Included	Excluded
98942	5 regions of CSMT	Included	Excluded
Abbreviations: chiropractic spinal manipulative therapy (CSMT)			

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Table 3: Exclusion criteria for all patients

Code	ICD-10 Description
Serious pathology	
C00-C96	Malignant neoplasm
G06	Intracranial and intraspinal abscess and granuloma
G83.4	Cauda equina syndrome
M46	Other inflammatory spondyloarthropathies (includes infections)
M48.4	Fatigue fracture of vertebra
M48.5	Collapsed vertebra, not elsewhere classified
Alternate conditions causing low back pain	
G35	Multiple sclerosis
G54.1	Lumbosacral plexus disorders
G95	Other and unspecified diseases of spinal cord
G99.2	Myelopathy in diseases classified elsewhere
M41	Scoliosis
M43.16	Spondylolisthesis, lumbar region
M43.17	Spondylolisthesis, lumbosacral region
M48.0	Spinal stenosis
M50.0	Cervical disc disorder with myelopathy
M51.0	Thoracic, thoracolumbar and lumbosacral intervertebral disc disorders with myelopathy
M79.7	Fibromyalgia
M96.1	Postlaminectomy syndrome, not elsewhere classified
Z98.1	Arthrodesis status
Gabapentin approved indications	
B02	Zoster (herpes zoster)
E08.4	Diabetes mellitus due to underlying condition with neurological complications
E10.4	Type 1 diabetes mellitus with neurological complications
E11.4	Type 2 diabetes mellitus with neurological complications
G25.81	Restless legs syndrome (gabapentin enacarbil indication)
G40	Epilepsy and recurrent seizures
R56	Convulsions, not elsewhere classified
Gabapentin contraindications	
G25.3	Myoclonus
G70.0	Myasthenia gravis
Prescription	
RxNorm	Gabapentin
Abbreviations: Central nervous system (CNS); Current Procedural Terminology (CPT); International Classification of Diseases, 10th Edition (ICD-10); normalized names for clinical drugs (RxNorm)	

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Table 4: Variables to be controlled for in propensity score matching

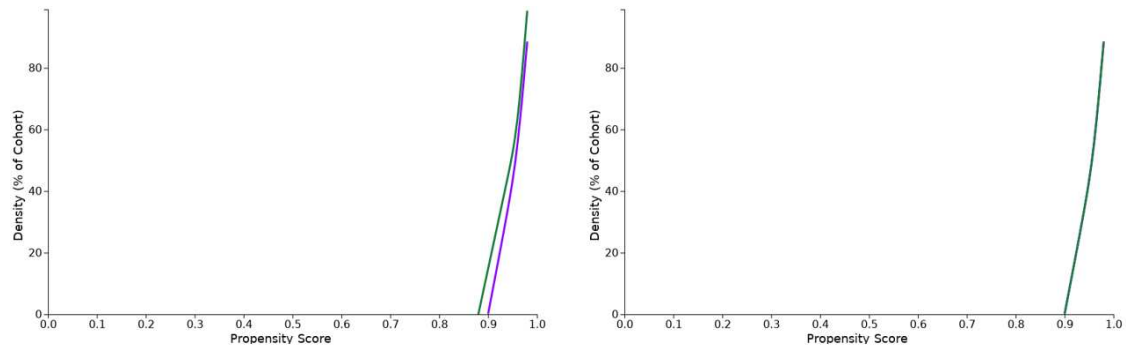| Variable/Code	Description
Demographics	Patient age, sex, race, and ethnicity
Diagnoses (ICD-10)	
E08-E13	Diabetes mellitus
F10-F19	Mental and behavioral disorders due to psychoactive substance use
F17	Nicotine dependence (includes smoking, vaping)
F30-F39	Mood [affective] disorders (includes bipolar disorder, depression)
F40-F48	Anxiety, dissociative, stress-related, somatoform and other nonpsychotic mental disorders
G43	Migraine
G47.0	Insomnia
G89.2	Chronic pain, not elsewhere classified
K58	Irritable bowel syndrome
R51	Headache
Prescription medications	
VA000 (VANDF)	Medications (any)
CN101 (VANDF)	Opioid analgesics
CN302 (VANDF)	Benzodiazepine derivative sedatives/hypnotics
CN600 (VANDF)	Antidepressants
CV300 (VANDF)	Antiarrhythmics
HS051 (VANF)	Glucocorticoids
MS200 (VANDF)	Skeletal muscle relaxants
187832 (RxNorm)	Pregabalin
38404 (RxNorm)	Topiramate
Social determinants of health (ICD-10)	
Z56	Problems related to employment and unemployment
Z59	Problems related to housing and economic circumstances
Procedures	
TriNetX custom code	Emergency department visit
TriNetX custom code	Inpatient visit
Abbreviations: Current Procedural Terminology (CPT); normalized names for clinical drugs (RxNorm); International Classification of Diseases, 10th Edition (ICD-10); Veterans Health Administration National Drug File (VANDF)	

Figure 1: Propensity scores before (A) and after (B) matching. The purple line represents the cohort receiving chiropractic spinal manipulative therapy (CSMT) while the green line represents the cohort receiving other care. In image B, the propensity score densities overlap and only a single line is visible, indicating that the cohorts are well-matched.