OxyContin®: Prescribing Patterns in Workers Compensation

NCCI's recent study "Prescription Drugs: Comparison of Drug Costs and Patterns of Use in Workers Compensation and Group Health Plans" examined the cost and use of prescription drugs in workers compensation. A key finding in the study is that painkillers represent 55% of the cost of prescriptions in workers compensation (WC). The controversial painkiller OxyContin® (see Appendix for description and background information) ranked second in terms of total paid, representing 6% of total drug costs.

This study was conducted to summarize public policy issues within the larger medical community and to offer some insights into the prescribing patterns and uses of OxyContin® in workers compensation.

Key Findings

- Permanent partial disability claims represented almost 69% of all WC claims with OxyContin® prescription(s).
- For the top 25 diagnoses involving OxyContin® prescription(s), back injuries represented over 49%.
- Clerical and professional occupations represented almost 14% of all WC claims with OxyContin® prescription(s).
- Almost all (99.84%) OxyContin® prescriptions were for 100 tablets. This quantity usually represents a 50-day supply.

Background

In recent years, there have been numerous reports regarding the diversion and abuse of OxyContin® . The Drug Enforcement Administration (DEA) reports that the growing abuse of OxyContin® is leading to an increase in burglaries, thefts, and robberies of residences and pharmacies. In 2002, approximately 1.9 million persons aged 12 or older had used OxyContin® nonmedically at least once in their lifetime, compared to estimates of 221,000 in 1999.[1]

Since it's first full year of being marketed in 1996, OxyContin® prescriptions increased from approximately 300,000 to more than 5.8 million in 2000 (an 1,833% increase). Prescriptions for all other common opioid analgesics (e.g., codeine, hydrocodone, morphine, and hydromorphone) rose 23% during this same period.[2] More than 7.2 million prescriptions for OxyContin® were dispensed in 2001, totaling $1.45 billion in retail sales and representing a 41% increase in sales from 2000 to 2001. Retail sales increased to over $1.59 billion in 2002. OxyContin® now ranks as the highest in retail sales of all brand-name controlled substances.[3]

In comparison to NCCI's findings regarding the costs of OxyContin® relative to total workers compensation drug costs, studies by other organizations have reported similar results. For example, a California Workers' Compensation Institute report showed that OxyContin® represented 9.7% (ranking #1) of California's total workers compensation pharmaceutical costs in 2001. A study published by the Research and Analysis Section

of the Oregon Department of Consumer & Business Services, based on first quarter 2000 workers compensation data, identified OxyContin® as number one in terms of total pharmacy payments, representing 10.6% of total payments.[4] The Hartford also reported that OxyContin® topped the list for total dollars spent for prescriptions in 1999, 2001, and 2002.[5, 6] Additionally, the National Association of Independent Insurers (NAII) has indicated that OxyContin® is being prescribed for pain and conditions that were clearly not contemplated. Efforts are underway by the NAII to establish guidelines on the appropriate use of the drug in the workers compensation system.[7]

Other parties are concerned that the increased attention given to the reported abuse and diversion of OxyContin will reduce its availability to patients that legitimately need the drug. Purdue Pharma, the maker of OxyContin®, contends that chronic pain is a problem that has been historically under treated in this country. OxyContin® is widely recognized as a highly effective treatment for pain. Its controlled-release mechanism allows patients to sleep through the night and to avoid sharp spikes in blood levels of the medicine that can cause side effects. The company believes the focus should be on how to address the problems of abuse and diversion of controlled prescription drugs like OxyContin® without restricting its availability to meet the needs of doctors and patients for the effective management of pain. Concern generated by the reported abuse of OxyContin® has had the result of some patients asking their doctors to switch them to less effective medication, some doctors refusing to renew their patient's prescriptions for OxyContin®, and some pharmacists no longer are willing to carry OxyContin®.[8]

The American Academy of Pain Medicine, the American Academy of Family Physicians, the American Medical Association, the American Cancer Society, and other physician groups are concerned that the diversion and abuse will make it difficult to use controlled-release oxycodone (i.e. OxyContin®) to treat patients with chronic pain.[9]

Study Results

The study utilized samples of medical bill data from workers compensation claims with OxyContin® prescription(s) in service years 1996 through 2002. The exhibits presented in this study are based on all WC claims with OxyContin® prescription(s). Various sources used for comparison data are identified in each exhibit. The last page of the study contains a glossary to aid in understanding medical terms contained in the body of this paper.

Exhibits 1 and 2 contain information on the distribution of WC claims by part of body categories. The largest difference in the distribution of workers compensation claims by body part was lower back in WC claims with OxyContin® prescriptions (34%) vs. all workers compensation claims in general (22%).

Distribution of WC Claims With OxyContin Prescription(s) by Body Part
Exhibit 1

Body Part	Percent of All WC Claims With OxyContin Prescriptions
Lower Back (incl. Lumbar & Lumbo-Sacral)	34.3%
Multiple Body Parts	9.3%
Knee	6.9%
Disc (Trunk)	3.9%
Shoulder(s)	3.8%
All Other Body Parts	41.8%

Distribution of All WC Claims in DCI States* by Body Part
Exhibit 2

Body Part	Percent of All WC Claims in DCI States*
Lower Back (incl. Lumbar & Lumbo-Sacral)	22.1%
Arm/Shoulder	18.0%
Hand/Finger(s)/Wrist(s)	13.2%
Knee	8.3%
Multiple Body Parts	8.1%
All Other Body Parts	30.3%

* Detailed Claim Characteristics (DCI) 1992–2000

Exhibits 3 and 4 display the distribution of WC claims by nature of injury for only WC claims with OxyContin® prescriptions and WC claims in general. Consistent with the large percentage of back and neck injuries (see Exhibit 5), almost 47% of all WC claims with OxyContin® prescriptions involved strains. The overall distribution of WC claims by nature of injury with OxyContin® was similar to the distribution of all workers compensation lost-time claims.

Distribution of WC Claims With OxyContin Prescriptions by Nature of Injury
Exhibit 3

Nature of Injury	Percent of All WC Claims With OxyContin® Prescriptions
Strain	46.6%
Contusion	8.6%
Fracture	7.3%
Rupture	5.3%
Sprain	4.7%
All Other	27.6%

Distribution of All WC Claims in DCI States* by Nature of Injury
Exhibit 4

Nature of Injury	All WC Claims in DCI States*
Strain/Sprain	48.6%
Contusion/Concussion	10.1%
Fracture/Crushing/Dislocation	11.8%
Rupture/Puncture/Laceration	9.1%
Inflammation/Infection	2.1%
All Other	18.3%

* Detailed Claim Characteristics (DCI) 1992–2000

For the top 25 diagnoses involving OxyContin® prescription(s), back injuries represented over 49% and neck injuries almost 22%. Mental disorders represented a surprising 3.6% of this subset [see Exhibit 9 in Appendix for list of top 25 diagnoses of workers compensation WC claims with OxyContin® prescription(s)].

Distribution of Top 25 Diagnoses for WC Claims With OxyContin® Prescriptions(s)
Exhibit 5

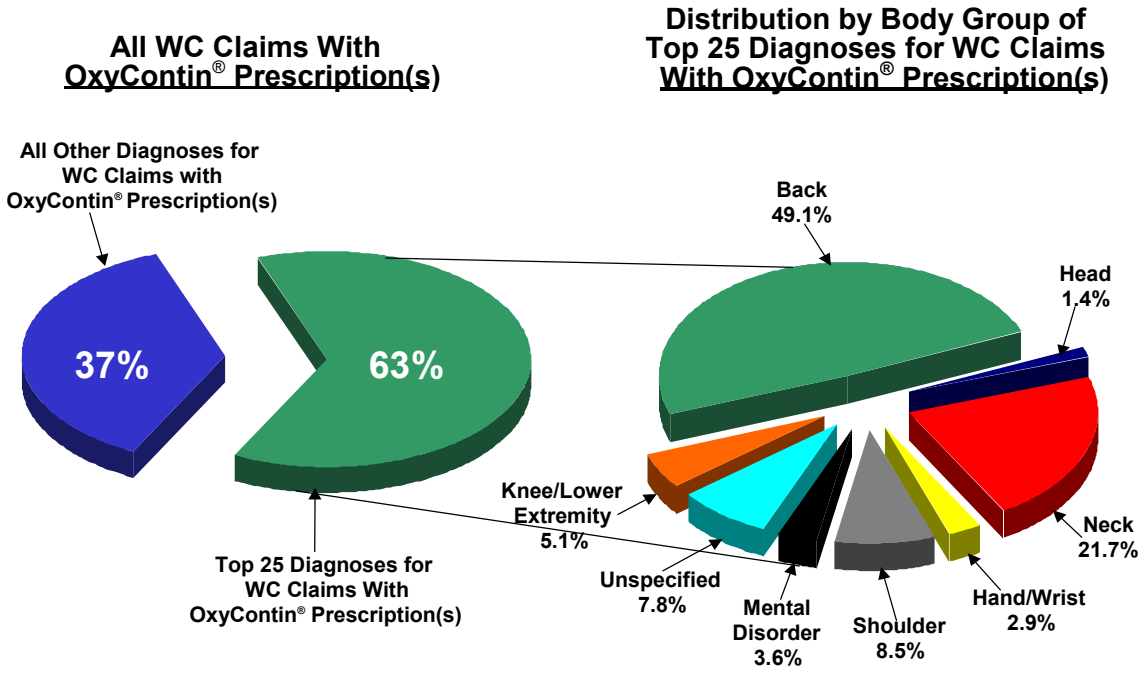


Exhibit 6 provides information on the distribution of WC claims by benefit type. The most common claim type for workers compensation claims with OxyContin® prescriptions was permanent partial disability (68.6%), compared to only 7.3% for all workers compensation lost-time claims. The most common claim type of workers compensation claims in general was medical-only WC claims (78%). However, that claim type represented only 5% of all WC claims with OxyContin® prescriptions.

Distribution of WC Claims With OxyContin Prescription(s) by Benefit/Injury Type
Exhibit 6

Claim Type	WC Claims With OxyContin® Prescriptions	All WC Claims*
Permanent Partial Disability	68.6%	7.3%
Permanent Total Disability	5.8%	0.1%
Temporary Total Disability	20.3%	14.5%
Medical Only	5.0%	78.0%
Fatal	0.2%	0.1%
Expense Only	0.1%	

* NCCI Inc. ***Annual Statistical Bulletin*** 2003 Edition (Policy Period 1999–2000)

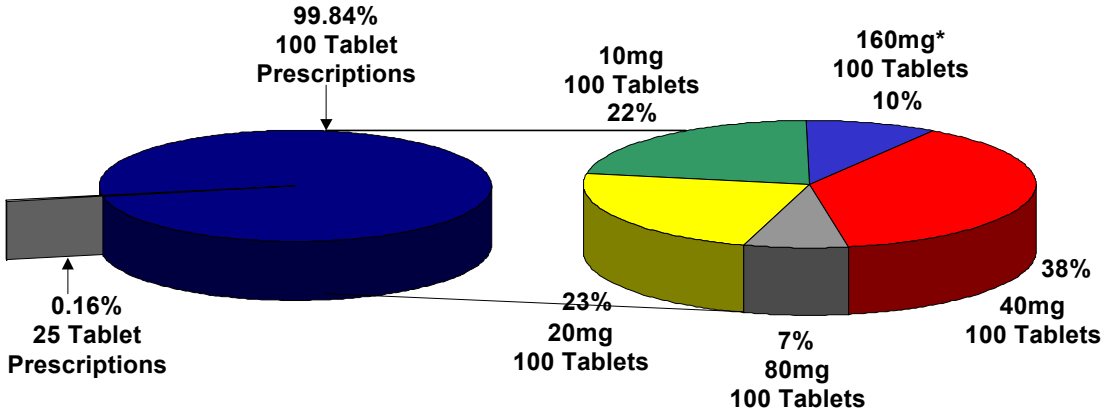
Exhibit 7 contains the distribution of WC claims involving OxyContin® classified by the occupational Industry Group. Unexpectedly, almost 14% were in the Clerical and Professional occupations.

Distribution of WC Claims With OxyContin® Prescription(s) by Industry Group Exhibit 7	
Industry Group	**Percent**
Clerical and Professional Occupations	13.94%
Commercial Enterprises*	13.60%
Erection	13.20%
Operation and Maintenance	5.66%
Cartage and Trucking	4.83%
Machine Shops, Fine Machines and Instruments	2.49%
Miscellaneous Construction	1.87%
Metal Forming	1.75%
All Other Industry Groups	42.66%

* Dealers—Food and Provisions, Ice, Fuel, Building Materials, Feed, Scrap and Junk, Secondhand Materials, Automobile Service and Accessories; Stores—Merchandise and Misc.; Livestock; Warehouse and Storage.

Exhibit 8 shows the distribution of WC claims with OxyContin® prescriptions by tablet quantities and dosages. It is noteworthy that virtually all prescriptions were for the 100-tablet quantity, which is typically a 50-day supply (each tablet is a 12-hour timed-release dosage). The most frequently prescribed dosage and quantity was 100 tablets of the 40 mg dosage (38%).

Distribution of WC OxyContin® Prescriptions
by Dosage and Number of Tablets
Exhibit 8



*First introduced in July 2000—Manufacturer Purdue Pharma voluntarily suspended distribution of the 160mg tablets in the first half of 2001.

Additional Public Policy Comments

A number of organizations have commented on public policy issues involving OxyContin® use. This section attempts to summarize some of the dialogue presented by various sources. NCCI does not endorse or disagree with the comments or positions summarized below.

Legislation:
The National Association of Independent Insurers (NAII) has announced a campaign to convince state lawmakers to tighten laws controlling the use of OxyContin®. The organization believes that the highly addictive quality of the drug has many implications for the workers compensation system, including affecting efforts to quickly return injured employees to work.

The NAII Workers' Compensation Committee plans to target a few states in 2004 (and expand the effort in later years) for action by lawmakers to mandate treatment and monitoring guidelines for OxyContin® and similar drugs. This would be the first time a new specific protocol for the use of a drug was written in the workers compensation context. The organization believes it is feasible for states to introduce some guidelines for OxyContin® in terms of severity of injury and patient history, as well as exploring the use of other drugs as preferred alternatives and only prescribing OxyContin® as a last resort. The proposed legislation will require the Industrial Commission in a particular state to set up guidelines for OxyContin® use in that state's workers compensation system.[7, 10]

The legislation being developed by the NAII has two goals:
- To impose guidelines so the drug is prescribed as a last resort
- To allow insurers to track and follow up on patients who have been prescribed OxyContin® to ensure multiple doctors are not prescribing it

Purdue Pharma has offered to work with the NAII on databases to track patients who have been prescribed the drug.[11]

Improved Education and Monitoring of Physicians and Claimants:
In response to concerns about OxyContin® abuse, states are monitoring painkiller prescriptions even more closely. Starting this year, Virginia will be tracking prescriptions for Schedule II drugs (see glossary in Appendix) electronically, with a special focus on OxyContin®. Some legislators have suggested establishing a similar monitoring program at the national level.[12]

The Hartford was able to reduce their increase in costs from OxyContin® prescriptions previously reported at 182.7% from 1999 to 2001 to zero for 2002. The cost per claim was up about 14%, but usage was down by the same 14%. A company executive believes that their efforts at precertification and education for OxyContin®, combined with the publicity regarding it's misuse, may have had a significant impact on these results.[6]

The West Virginia Workers' Compensation Division is investigating doctors suspected of over-prescribing medications, including OxyContin®. Approximately 25% of the division's prescription drug costs were for pain-relieving narcotics, including over $2.1 million in one year for 8,270 OxyContin® prescriptions. Proposed reform includes

- New software to monitor physicians, pharmacies, and claimants
- New prescription drug guidelines
- New laws allowing the Division to cut ties to physicians and cut off payments to claimants

Reformulate the Drug:
Several companies, including manufacturer Purdue Pharma, have been working to reformulate the drug to make it more difficult to abuse. Purdue Pharma is concurrently developing several abuse-resistant forms of OxyContin® by combining the opioid analgesic oxycodone with the opioid antagonists naloxone or naltrexone. The company developed this formulation to reduce intravenous abuse, and potentially intranasal abuse, of OxyContin® (oxycodone HCl-controlled release). Abusers first crush opioid medications and then take them orally, intranasally, or by injection. Crushing these new abuse-resistant products, would release an opioid antagonist into the bloodstream where it would counteract the opioid and block the euphoria sought by abusers. Patients, taking the medication as prescribed, however, would achieve the desired pain relief.[13]

Several other companies are in various stages of development of abuse-resistant forms of oxycodone controlled-release products. IMPAX Laboratories, Inc. announced that the U.S. Food and Drug Administration (FDA) has granted tentative approval to the company's Abbreviated New Drug Application (ANDA) for a generic version of OxyContin® controlled-release 80mg tablets. Final approval is contingent upon the resolution of several pending issues, including patent-infringement litigation brought by Purdue Pharma against IMPAX. In addition, IMPAX currently has ANDAs pending at the FDA for OxyContin® controlled-release tablets in 10, 20 and 40mg strengths.[14] Teva, a generic drug firm, has also received tentative approval from the FDA to market a version of OxyContin® in 80mg extended-release tablets.

Purdue holds a variety of patents on OxyContin® (oxycodone HCl), the first of which expires August 29, 2006, and the last on April 16, 2013. Purdue has sued Teva and other firms over their efforts to market different strengths of OxyContin®. While the active ingredient oxycodone is contained in a number of popular pain medications, Purdue maintains that the generics' abbreviated new drug applications for OxyContin® sustained-release tablets infringe on the company's patent.[15]

Prescription Anti-Fraud Efforts:
In an effort to reduce prescription fraud, Purdue Pharma is helping to distribute specially designed prescription pads that were developed to make it more difficult for diverters to alter and copy prescriptions.[8]

NCCI will continue to monitor issues related to the use of prescription drugs in workers compensation.

[1] National Household Survey on Drug Abuse (2001 & 2002—U.S. Dept. of Health and Human Services, Substance Abuse and Mental Health Services Administration).
[2] Drug Enforcement Administration (DEA), U.S. Department of Justice.
[3] *Consumers' Research Magazine*, July 2003 v86 i7 p17(5), "OxyContin and prescription drug abuse: miracle or problem drug?"
[4] California Workers' Compensation Institute, "Pharmaceutical Cost Management in California Workers' Compensation," November, 2002.
[5] *National Underwriter Property & Casualty-Risk & Benefits Management*, May 6, 2002, "Costly Prescriptions Jack Up WC Bills.".
[6] *Financial News*, April 7, 2003, "The Hartford's Prescription for Pharmaceutical Costs Helping to Tame Rising Costs; Study Shows Rise as Lower, But Still Significant.".
[7] *Insurance Chronicle*, October 13, 2003, "OxyContin Target of Comp Reform."
[8] Michael Friedman, COO, Purdue Pharma L.P., OxyContin: Its Use and Abuse, Hearing before the Subcommittee on Oversight and Investigations of the Committee on Energy and Commerce, U.S. House of Representatives, August 28, 2001.
[9] *Patient Care*, v36 i2 p11(6), January 30, 2002, "The oxycodone crisis: Taking a stand".
[10] *Workers' Compensation Monitor*, October 01, 2003 "Insurers seek legislative support for stronger OxyContin controls."
[11] *Workplace Substance Abuse Advisor*, September 05, 2003, "NAII seeks legislative support for greater OxyContin oversight."
[12] *Reason*, v34 i11 p 28(7), April 2003, "The agony and the Ecstasy: How the OxyContin crackdown hurts patients in pain".
[13] Press Release, June 18, 2002, "Purdue Pharma Provides Update on Development of New Abuse-Resistant Pain Medications."
[14] www.impaxlabs.com "IMPAX Receives FDA Tentative Approval for a Generic Version of OxyContin," September 5, 2003.
[15] FDA News Daily Bulletin, October 2, 2003, (http://www.genomicsnews.com/dailies/bulletin).

Appendix

OxyContin®—Background Information

OxyContin® (manufactured by Purdue Pharma L.P.) is a trade name for the narcotic oxycodone hydrochloride (HCl). It is a synthetic opioid (narcotic) and a Schedule II (see Appendix) controlled substance with an abuse liability similar to morphine.[1] Oxycodone was first developed in 1916 and has been sold in the United States for over 60 years in various strengths and forms (e.g., Percocet and Percodan; Roxicet and Roxicodone; and Endocet, OxyIR, and Tylox). When used correctly, it is highly effective for treatment of pain.

One of the properties that makes OxyContin® unique from other oxycodone medications is its controlled-release formula. It is available in 10, 20, 40, and 80mg doses and can provide patients up to 12 hours of continuous pain relief. A 160mg dose was introduced in July 2000, but distribution was suspended in 2001 in response to growing controversy over its alleged abuse. Abuse occurs when the tablets are crushed to immediately obtain the full dose of oxycodone and then ingesting, snorting, or injecting the drug. In some cases, there have been overdoses and deaths.

Other forms of oxycodone have typically been combined with a co-analgesic agent, such as aspirin or acetaminophen. In large doses these non-opioid analgesics may be toxic to the liver, stomach, and kidneys. Therefore, drugs containing either aspirin or acetaminophen are limited in their usefulness because a patient can only take up to a set amount per day to avoid aspirin or acetaminophen toxicity. Even if a patient needs more pain relief, the maximum dose of one of these combination analgesics cannot be exceeded. OxyContin® is a single entity product, and does not contain any other active ingredients that could impose limits on the amount a patient can take in a day.[2]

OxyContin® was approved by the FDA in 1995 and first sold in 1996. It is currently approved for the management of moderate to severe pain when a continuous, around-the-clock analgesic is needed for an extended period of time. The DEA recently urged the FDA Advisory Panel to rescind the drug's approval for moderate pain and allow only pain specialists to prescribe the drug for severe pain.[3] The panel voted 13 to 5 against restricting OxyContin®.[4]

[1] Purdue Pharma L.P.—OxyContin® Package Insert "Indications and Usage.

[2] Michael Friedman, COO, Purdue Pharma L.P., OxyContin: Its Use and Abuse, Hearing before the Subcommittee on Oversight and Investigations of the Committee on Energy and Commerce, U.S. House of Representatives, August 28, 2001.

[3] Dow Jones Newswires, September 10, 2003, "FDA Panel: OxyContin's Approval Shouldn't Be Limited."

[4] DEA Drug Intelligence Brief—"OxyContin: Pharmaceutical Diversion," March 2002.

Distribution of WC Claims With OxyContin® Prescriptions by Primary Diagnosis Exhibit 9			
ICD-9 Code	**Primary Diagnosis**	**Body Group**	**Percent of All WC Claims w/OxyContin®**
722.1	Displacement of Lumbar Intervertebral Disc w/o Myelopath	Back	10.1%
723.1	Cervicalgia	Neck	6.5%
724.4	Thoracic or Lumbosacral Neuritis or Radiculitis, Unspecified	Back	5.8%
722.73	Intervertebral Disc Disorder With Myelopathy, Lumbar Region	Back	4.8%
799.8	Other Ill-Defined Conditions	Unspecified	4.3%
722.52	Degeneration of Lumbar or Lumbosacral Intervertebral Disc	Back	3.8%
722	Displacement of Cervical Intervertebral Disc w/o Myelopathy	Neck	3.0%
840.4	Rotator Cuff (Capsule) Sprain	Shoulder	2.9%
724.2	Lumbago	Back	2.6%
722.71	Intervertebral Disc Disorder With Myelopathy, Cervical Region	Neck	1.9%
354	Carpal Tunnel Syndrome	Hand/Wrist	1.8%
726.1	Disorders of Bursae and Tendons in Shoulder Region, Unspecified	Shoulder	1.8%
722.2	Displacement of Intervertebral Disc, Site Unspecified w/o Myelopath	Back	1.7%
847.2	Lumbar Sprain	Back	1.7%
296.23	Major Depressive Affective Disorder, Single Episode, Severe	Mental Disorder	1.6%
836	Tear of Medial Cartilage or Meniscus of Knee, Current	Knee	1.3%
959.7	Other and Unspecified Injury to Knee, Leg, Ankle, and Foot	Lower Extremity	1.3%
722.4	Degeneration of Cervical Intervertebral Disc	Neck	1.2%
847	Neck Sprain	Neck	1.1%
854	Intracranial Injury of Other and Unspecified Nature, w/o Open Intracranial Wound	Head	0.9%
296.33	Major Depressive Affective Disorder, Recurrent Episode, Severe	Mental Disorder	0.7%
726	Adhesive Capsulitis of Shoulder	Shoulder	0.7%
780.9	Other General Symptoms	Unspecified	0.69%
717.9	Unspecified Internal Derangement of Knee	Knee	0.64%
846	Lumbosacral (Joint) (Ligament) Sprain	Back	0.61%
	All other Primary Diagnoses		36.83%

Glossary

Bursa—a bodily pouch or sac; a small serous sac between a tendon and a bone.

Cervicalgia—pain in the neck, which does not radiate outwards.

Intervertebral Disc—any of the tough elastic disks that are interposed between the centra of adjoining vertebrae and that consist of an outer fibrous ring enclosing an inner pulpy nucleus.

Lumbago—usually painful rheumatism involving muscular and fibrous tissue of the lower back region.

Lumbar—of, near, or situated in the part of the back and sides between the lowest ribs and the pelvis.

Lumbosacral—of, relating to, or being the lumbar and sacral regions or parts.

Myelopathy—any disease or disorder of the spinal cord or bone marrow.

Neuritis—an inflammatory or degenerative lesion of a nerve marked especially by pain, sensory disturbances, and impaired or lost reflexes.

Opioid—a class of drugs (e.g., heroin, codeine, methadone) that are derived from the opium poppy plant, contain opium, or are produced synthetically and have opium-like effects. Opioid drugs relieve pain, dull the senses, and induce sleep.

Radiculitis—inflammation of a nerve root.

Sacral—of, relating to, or lying near the sacrum.

Sacrum—a triangular bone made up of five, fused vertebrae and forming the posterior section of the pelvis.

Schedule II Controlled Substance—

(A) The drug or other substance has a high potential for abuse.

(B) The drug or other substance has a currently accepted medical use in treatment in the United States or a currently accepted medical use with severe restrictions.

(C) Abuse of the drug or other substances may lead to severe psychological or physical dependence.

Thoracic—of, relating to, located within, or involving the thorax.

Thorax—the part of the body between the neck and the abdomen; also, its cavity in which the heart and lungs lie.